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United Nations Institute for Disarmament Research
Geneva

Increasing Access to Information Technology for International Security

Forging Cooperation Among Research Institutes

Péricles GASPARINI ALVES
Editor

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United Nations Institute for Disarmament Research

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List of Acronyms

ACCESS	An International Affairs Information Service
ADSN	Academic Defence and Security Network
CBW	Chemical and Biological Weapons
CeMiSS	Military Center for Strategic Studies (Italy)
CERN	European Organization for Nuclear Research
CIS	Commonwealth of Independent States
CNSS	National Center for Security Studies (Bulgaria)
CRS	Congressional Research Service (US)
ECU	European Currency Unit
EDI	Electronic Data Interchange
EINIRAS	European Information Network on International Relations and Area Studies
EMPB	European MultiProtocol Backbone
ETH	Eidgenössische Technische Hochschule Zürich
EU	European Union
FDFA	Federal Department of Foreign Affairs (Switzerland)
FMD	Federal Military Department (Switzerland)
GCSP	Geneva Centre for Security Policy
HTML	Hypertext Markup Language
IFOR	(Multinational) Implementation Force (of Dayton Agreement)
IP	Internet Protocol
ISCRAN	Institute of the United States and Canada of the Russian Academy of Sciences
ISN	International Relations and Security Network
ISPs	Internet Service Providers
LAN	Local Area Network
MIT	Massachusetts Institute of Technology
NATO	North Atlantic Treaty Organization
NGO	Non-Governmental Organization
NIDS	NATO Integrated Data Service
NIS	National Informatics Strategy (Hungary)
OCR	Optical Character Recognition
OSCE	Organization for Security and Cooperation in Europe

PC	Personal Computer
PfP	Partnership for Peace
RAPIC	Russian-American Press and Information Center
SIPRI	Stockholm International Peace Research Institute
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
WAN	Wide Area Network
WEU	Western European Union
WWW	World Wide Web

Preface

At the beginning of this decade, the institutional landscape in the East changed rapidly. Today, the speed of change has slowed, and cooperation can be developed on a more stable institutional basis, for the longer term. This permits specialization and greater concentration of efforts. It also facilitates transparency and a better overview of who is doing what.

Since the early 1990s, a number of groups have been at work, and new initiatives have taken shape. Major Internet/World Wide Web programmes have been refined. The Euro-Atlantic Foundation has been established to assist in these kinds of cooperation initiatives. One of the working groups—the European Information Network on International Relations and Area Studies (EINIRAS) was founded in 1992 as a consortium of research institute libraries. UNIDIR was happy to host the 6th annual meeting of that Working Group at Geneva in 1996; also it was pleased to organize the *1996 Conference on the Institutes and the Security Dialogue*: both of which helped to achieve further concrete results in European cooperation.

At the governmental level, two European security debates are of particular interest and importance these days: the debate on the extension of Western institutions into Eastern Europe, and the discussion of how best to engage Russia in European security affairs. They are closely interrelated. Institutes and the Security Dialogue addresses similar issues, but fortunately, does not encounter the same dilemmas. Between research institutes, and between researchers and users of research, it is not a matter of drawing new lines in the security landscape, but of ensuring connectivity and cooperation all over the OSCE area. However, our work, too, is rich in political implications.

A multitude of institutions and individuals establishing homepages on the World Wide Web, using the Internet, and tapping into various kinds of databases translate into greater degrees of pluralism. Progress means that debates and decision-making processes will be better informed. Progress also means that information monopolies will diminish if not disappear, and that it will be easier to hold Governments accountable. Conditions for democratic participation will improve. Beneath the intergovernmental structures, a security community between institutes and individuals may develop.

The Internet is a Western invention extending East, raising linguistic problems and projecting cultural codes. It is one of the latest examples in a long historical flow of technologies, lifestyles, consumption patterns, economic and political models from the West to the East. On the other hand, research done in the East is now increasingly

accessible to researchers elsewhere. There is also the possibility, therefore, that criss-crossing flows of information will replace the predominantly one-way flow of the past. Ultimately, the pattern will be determined by the users, not so much by the choice of technologies. The implications are complex.

When borders open up, those who are well endowed are in the best position to exploit the new opportunities. In the economic field, this is well known: the rich tend to get richer, and the gaps between rich and poor wider. In the information sector, Eastern institutions possessing skills and hardware can now benefit much more from the communications revolution. Inevitably, the gap between those who have access and those who do not increases—and information is power. In both cases, major inequalities are growing bigger. This also comes on top of a long historical trend, that of growing inequalities, going at least 200 years back in time, to the beginning of the industrial revolution. However, the effect may be temporary. Like so many technical novelties in the past, new information technologies will also become generally available. Then, equity or inequity of access and use will depend on other factors such as education and income, and on their synergism.

Thus, while the questions are many, the answers are disparate and many of them far from obvious. One thing is clear: the communications revolution will continue, so the question is how best to utilize it for the common benefit. Modern means of information exchange allow us to tap into the enormous intellectual and technological riches and cultural diversities of the region. They provide formidable tools of research. What was subdued and divided can now be accessed and interconnected.

Researchers, civil servants, military officers and NGOs: we all need user-friendly access to information. A search on a subject, by keyword or concept, should lead us into databases containing original data and information on where to find it. I should like to emphasize that *Increasing Access to Information Technology for International Security* is the direct result of the 1996 Conference on the Security Dialogue. It is first of all a concrete, practical investment in connectivity, utility and the security debate, which covers issues such as identification of partners, information needs, connectivity issues, financial implications, and cooperation programmes.

At the end of the Geneva meeting there was a video conference featuring Ted Winkler of the Swiss Federal Military Department, the initiator of the Zurich Conference and one of the engines of the Security Dialogue, and Director Gyorgy Herczeg of the Budapest Center for Arms Control and Democratic Control. Under the chairmanship of Alvin Bernstein of the Marshall Center for Security Studies, we took some of the main points and recommendations emanating from our discussions to Dr Herczeg and his colleagues for further reflection. This was a live illustration of the fact that one no longer has to travel in order to meet. Indeed, video conferences can save a lot of time and money.

A number of institutions supported us in the preparations of this conference. I extend my thanks and appreciation to all of them, and to my capable and hard-working staff.

Sverre LODGAARD
Director, UNIDIR

Forewords

1. *Dr Theodor H. WINKLER*, Head of Policy Division, Federal Military Department, Bern, Switzerland

From 26 to 28 April 1994, some 200 academics, government officials, representatives of foundations and other experts from some 35 countries met in Zurich, Switzerland, for a conference with a somewhat clumsy title— "Institutes and the Security Dialogue". The idea, though, was simple enough: to overcome the invisible wall, still separating East and West, long after the masonry which had so long divided Europe had come crashing down.

The Cold War is over. Germany has been peacefully reunited. Both Warsaw Pact and the USSR have been dissolved. New democracies have been born in Central and Eastern Europe. Europe is growing together again.

But, 50 years of intellectual and cultural interchange are missing in the history of what was once the "East" and the "West" and what is Europe again. There are the empty library shelves, the subscriptions so long ago discontinued, the proud old men who were once the promising young scholars never permitted to get the training and the academic interaction they would have so richly deserved, the empty bank accounts of the precious—and precariously few—institutions that survived totalitarianism and are now called upon to train the leadership élite of the new democracies that are returning home to the European family. There are, above all, the urgent needs of the future: the young men and women who deserve better, the documentation and libraries to be established, the books to be written, the discussions long needed, the fruitful interaction and exchanges of views indispensable to the shaping of a stable, democratic and peaceful Europe.

In short, it was not sufficient, the Swiss Government felt, to tear down the walls of stone, sadly built on tears; in order to succeed, that exhilarating moment must be followed—and stubbornly so—by the sustained effort to bring down the invisible, and therefore even more dangerous, barriers that still divide Europe and the world.

There are many conferences dedicated to analysing the international situation; there are, we feel, not enough who focus on the simple things the academic institutions in Central and Eastern Europe need in order to make their important contribution to the transformation process.

"Institutes and the Security Dialogue" was asking some very simple questions: What needs to be done? What can those whose job it normally is to describe, i.e. the

institutes of international relations and international security policy, contribute themselves? What should Governments do in order to support them? Are foundations willing to contribute to the financial needs of such an enterprise? What are the priority needs in a sea of demands and hopes? How to establish quality standards and criteria?

It was an ambitious conference because it actually aimed at getting answers to these questions.

The Zurich conference triggered an echo, and results few would have thought possible—and which certainly none of the organizers anticipated.

Let me, as but one of many examples, outline some of the actions Switzerland has taken in the last two years:

- Switzerland has, together with 10 other nations, created in Geneva the "Geneva Centre for Security Policy". It offers—currently through five different international training courses—a chance for Europe's leadership generation of tomorrow to prepare together for that most difficult joint endeavour of strengthening stability and peace in Europe and beyond. With an annual budget of eventually around US$ 10 million per year the GCSP will be one of Europe's larger institutions.
- The North Atlantic Treaty Organisation (NATO) and the Federal Institute of Technology in Zurich jointly created the "International Relations and Security Network" (ISN). Led by Prof. Kurt Spillmann, this initiative offers on the Internet, free of charge, the best and most comprehensive open-source data bank on international security policy. Dialled today, each day more often than the Internet had subscribers back in 1994, ISN is a genuine success story.
- First the Federal Military Department (FMD), later the Federal Department of Foreign Affairs (FDFA) decided to offer PCs, e-mail modems, printers and other hardware to the new democracies in Central and Eastern Europe. The FMD is now tripling the pace—and making genuine headway. Switzerland is currently spending some Sw F 500,000 per year on such programmes.
- The obvious need for international coordination led, earlier this year, to the creation of the Euro-Atlantic Foundation, located in Brussels and reuniting the North Atlantic Assembly, the parliamentary assembly of the Western European Union (WEU), the Federal Institute of Technology in Zurich, the FMD and Belgian academia. Ably led by David Hobbs, its main job will be to coordinate hardware support programmes to Eastern Europe.
- Switzerland intends, in case of a Government decision to participate in NATO's Partnership for Peace initiative, to further strengthen those programmes and add additional ones.

Many other partners did as well or better than we did. Thus, the 1994 conference may go down in history as one of the very few academic gatherings that not only discussed, but actually changed, important matters.

It does, therefore, not come as a surprise that Switzerland was very pleased indeed by UNIDIR's most generous and important offer to hold and organize a follow-on

meeting to the Zurich meeting. It took place on 12-14 September 1996 in Geneva at the Palais des Nations. It was, by any reckoning an even more substantial success than the Zurich meeting of 1994. UNIDIR, its Director Sverre Lodgaard, conference organizer Péricles Gasparini Alves, and the entire UNIDIR staff merit the highest praise for a difficult job well done indeed.

Already now some results are obvious—and can be summarized:

- "Institutes and the Security Dialogue" will become, thanks to UNIDIR's 1996 conference, a permanent institution. Prof. Kurt Spillmann of the Federal Institute of Technology, one of Switzerland's great minds in international security policy, has convened a third meeting of the conference in Zurich in 1998. Ambassador Daniel Woker, new Director of the Geneva Centre for Security Policy, signed in for a fourth venue of the conference in Geneva in 2000. "Institutes and the Security Dialogue" has thus become an opportunity for Europe's academic minds to meet every second year in order to support the process of overcoming old dividing lines.
- The Conference has appointed, in order to prepare the 1998 conference, a "Steering Committee", composed of the organizers of the 1994 meeting (FMD and FDFA of Switzerland, UNIDIR, George C. Marshall Center, Stiftung Wissenschaft und Politik, Federal Institute of Technology)—plus the Stockholm Peace Research Institute (SIPRI) and at least two Central and Eastern European security institutes. The job of this Steering Committee will be again to broaden the agenda of the conference beyond electronic connective issues, to get the foundations interested in the conference's work, to get—and sustain—a dialogue of the directors of the institutes in East and West, and to pinpoint all other avenues likely to foster a serious chance to practically deepen cooperation across old dividing lines.
- The Euro-Atlantic Foundation has been charged by the Conference to oversee, and to coordinate, as many electronic hardware support programmes as possible. Switzerland will, as a result, increase its financial contribution to the Foundation.
- SIPRI will lead an international task group called upon to standardize electronic information provided by the academic institutions of this world. The first meeting will take place in Stockholm no later than January 1997.

There was, in short, progress—and important progress—at Geneva. Much needed to be done. Yet if this series lives on—and it seems now that it will—then there is a chance that we will ultimately succeed. To be able to say that—and with conviction—is not a bad thing for a gathering of some academics, without a penny, coming up with a very clumsy title for their joint undertaking! Let me thank, therefore, UNIDIR—and let me encourage you all to try the extravagant: to change the world we are living in instead of deploring the problems we are bedevilled with!

2. *Chris PREBENSEN*, NATO Director of Information and Press

Four years ago, NATO helped to organize the first "International Organisations and the Security Dialogue" conference in Zurich, Switzerland. Little did we know at that time that this modest undertaking would bring together such an enthusiastic group, who in their endeavour to find new ways of exchanging information, would help a large community of researchers and policy makers worldwide.

By making use of the newest forms of communication, relevant information on security issues has been made public on a scale and at a speed which was unthinkable before. The Internet, for this is what we are talking about, presented us with a new way of communicating, and along with it, gave us new insights on how we perceive information. At NATO, we started the big Internet endeavour some years ago, and we have encouraged and welcomed all other organizations and institutes to join us in the virtual information world; information exchange is not done alone.

It was especially in the light of NATO's (then) new Partnership for Peace (PfP) programme that this conference seemed useful. Information exchange was and is a central theme in the PfP project, and we are eager to support all activities which can facilitate the access to and use of information. In our opinion, it clears the path to common understanding and friendly relations.

Now that a third meeting of the "Security Dialogue" conference is forthcoming, it gives me great pleasure to see that institutes worldwide are continuing their collaboration activities. Along with the architects and organizers of the Security Dialogue Conferences, I have had, however, a specific concern: that the new information technology would not be accessible to all. If information is power, then access to information is at least as important as the information itself. Especially when addressing our Central and Eastern European friends who, at the time, lacked the infrastructure to make beneficial use of these new systems, solutions needed to be found. The importance of cooperative projects in this field cannot be underestimated.

It is now heartwarming to see that so much effort has been made during these past few years to help solve the technical and budgetary problems which can be encountered. This book gives both the lay and the experienced reader an overview of the collaborative research activities in this field, and I must warmly congratulate the initiators of and contributors to this book.

Acknowledgements

Although traditionally neutral, Switzerland has unequivocally supported cooperation efforts which involve various single European States and regional organizations: "Institutes and the Security Dialogue" is a clear example. The idea of fostering cooperation between and among research institutes in Europe, the United States and Canada must be acknowledged as a genuine step towards the building of an all-European security environment in the post-Cold War era. Thanks, first and foremost, to the Swiss Federal Military Department and the Federal Department of Foreign Affairs, we were able to move from an idea to a project, and from a blueprint to the implementation of an action-oriented agenda.

Additional thanks go to the co-sponsors of the 1994 and 1996 Conferences: the Swiss Centre for Security Studies and Conflict Research of the Federal Institute of Technology, the Stiftung Wissenschaft und Politik (Ebenhausen), the George C. Marshall European Center for Security Studies, and the Geneva Centre for Security Policy. Their contributions were multifarious in terms of human and financial resources, but equally important, in helping to consolidate the perception of the need to explore information technology as a new vehicle liable to bring institutes, researchers, Governments and non-government organizations closer together.

I should also like to thank those who played a direct and active role in helping UNIDIR organize both this Conference and the preparation of this book. My thanks go first to the Chairpersons who coordinated the Plenary and Working Group sessions professionally and eloquently (Alyson J.K. BAILES, Alvin H. BERNSTEIN, Scott BRUCKNER, Edward IVANIAN, Mary LORD, Kurt R. SPILLMANN, Thanos VEREMIS). They were kindly assisted by other participants who acted as rapporteurs and to whom I express my gratitude (Anthony ANTOINE, Mehmet ELEZI, Frédéric GRARE, Gerd HAGMEYER-GAVERUS, Alexander A. KONOVALOV, Sujiva PINNAGODA, Yves ROBINS, Chris SCHEURWEGHS and Daniel WARNER). In addition, I also want to thank several of my colleagues who represented UNIDIR at each of the sessions (Lara BERNINI, Daiana CIPOLLONE, Bérengère NAIL, Xavier PACREAU and Sujiva PINNAGODA). Their contributions were capital to the implementation of the planned agenda and the smooth unfolding of the Conference.

Last but not least, are my warm thanks to Lara BERNINI, Alessandra FABRELLO and Anita BLÉTRY. Lara BERNINI and Alessandra FABRELLO were responsible for the English editing of this manuscript and Anita BLÉTRY prepared the camera-ready version of the texts for publication. It is the combination of these efforts and talents

that made the success of this Conference and will ensure the lasting messages carried in the present book.

Geneva, July 1997
Péricles GASPARINI ALVES
Head of Political Affairs, UNIDIR

Participants of the
Geneva 1996 Conference on Institutes and the Security Dialogue
Palais des Nations, Geneva, Switzerland
13-14 September 1996

Institutes and the Security Dialogue: An Introduction

Péricles GASPARINI ALVES

In April 1994, the Swiss Federal Military Department and the Federal Department of Foreign Affairs convened a conference in Zurich entitled *Institutes and the Security Dialogue*. UNIDIR co-sponsored the Conference together with the Center for Security Studies and Conflict Research of the Swiss Federal Institute of Technology, the Stiftung Wissenschaft und Politik (Ebenhausen) and the George C. Marchall European Center for Security Studies. This Conference aimed at promoting concrete cooperation between research institutes in Europe and North America.

A decision was taken during the Zurich Conference to convene a follow-on meeting in Geneva in September 1996. This Conference was asked to review the progress achieved between April 1994 and September 1996, and was requested to consider additional concrete measures to broaden knowledge and cooperation on issues related to *Institutes and the Security Dialogue*. Of particular importance in this context was an appraisal of present and prospective demands for cooperation between and among institutes in Europe, the United States and Canada. These objectives could be achieved in many ways, notably by identifying practical options for those taking an active role in making commitments in view of new commonly defined goals.

The Geneva Conference was therefore to build on the effort undertaken in Zürich by providing an additional basis on which to bring together intellectual, human, material and financial resources to foster cooperation. First, the Conference was to provide a vision of how access to information technology could contribute to building an all-European security environment. Second, the Conference was also to be an opportunity for the participants to make *new recommendations* on how to proceed from the Geneva meeting and propose an *Agenda for Action*. Third, it was also to provide the opportunity for the publication and presentation of a preparatory report in book form which could be used as a reference material for this and similar cooperation initiatives. Extracts of both of these products were also to be placed on-line in the UNIDIR World Wide Web Homepage for access free of charge.[1]

[1] http://www.sipri.se/UNIDIR.

Against this background, UNIDIR undertook a forward-looking appraisal of how information technology could best serve *Institutes and the Security Dialogue*. A Group of Experts was constituted to examine this issue. Their contributions addressed the five main topics shown in Diagram 1 and discussed below.

I. Identification of Partners

There is a compelling need to identify potential partners within Europe, the United States and Canada, and the first three chapters of this book address this specific task. Several institutes in this area are already carrying out cooperation programmes, but the potential to join human and material resources is still great: so is the need to know who is in greater need and willing to take such steps.

However, while primary attention has been focused on potential cooperating institutes in this area, the search for partners was not limited in geographical terms. Indeed, there was a growing need to broaden cooperation beyond European boundaries. Increasingly, international security research is considered more in interregional terms rather than confined to the European continent proper. This is the essence of a proposal to create interregional links which would widen European information exchange to countries and cultures beyond its boarders. In addition, such a broad approach could generate innovative interregional exchanges and prompt new partnership initiatives.

Moreover, there was a general *a priori* assumption that all institutes working on matters related to international security and disarmament are potential partners. Hence, research institutes, military academies, and some security-related governmental institutions could be key players in cooperation efforts. While this is essentially true, one must overcome this traditional thinking and practice that limits the scope of potential partnership to the areas of disarmament and international security proper. Other institutes which may not be primarily interested in these areas, but which nevertheless address related questions, either on a permanent or *ad hoc* basis, should be considered for cooperation. Among some examples are the environmental studies and economic-oriented institutes. This seems especially important in light of the present proliferation of institutes in Eastern Europe and the ongoing restructuring of existing institutions.

There is no need to reinvent the wheel, but the development and maintenance of an exhaustive list of potential partners should take advantage of existing and planned resources. A concrete step would be to draw from the experience and data of existing cooperation programmes. In this context, for example, NATO's Internet programme, which includes both member States and Partnership for Peace countries is also a useful example. The creation of a *Who's Who* Directory of International Security Research within the framework of the *Institutes and the Security Dialogue* initiative could be a useful resource tool, especially if it were to regroup continuously updated documents containing information such as cooperation efforts and contact references for

institutions and experts. Information on regional organizations and other arrangements aiming at providing computer networks could also be useful in such a directory. This is the case, for example, of the goals of the European Working Group of Information and Documentation in International Relations and Area Studies. Much, therefore, can be done to bring together existing resources.

II. Information Needs

The needs for information technology can be seen in at least two main areas: general information and subject-specific databases. The first involves access to information on institutes and their related activities, as well as researchers and other experts. It is important to assess *which institutes* are doing *what*, *when*, and *where*. This should be maintained, on a constant and—if possible—real time basis. Additionally, general-purpose databases could also cover reference material such as documentation, bibliography, etc. . . . This type of information, for example, is being made available through the UNIDIR DATARIs database via the World Wide Web. There is a need to evaluate such efforts and to ascertain measures to improve both their contents and access.

In the same vein, efforts should also be devoted to identifying subject-specific databases aimed at meeting the different needs of one or another institute. Here the Expert Group has looked at ways in which institutions could associate themselves with a view to conceiving, developing, and maintaining databases of common interest. For example, this could be done in the nuclear field or for peace-keeping operations and other less mainstream issues. This is also true for databases providing bibliographic information, international organization documents, press releases and other sources.

Overlapping efforts with other parallel initiatives should be avoided. For example, the Expert Group has discussed problems related to the interconnection or combination of existing, and to some extent future, national and regional databases.

III. Connectivity Issues

The issue of connectivity has many facets. The Expert Group has, first and foremost, had to ascertain the status of connectivity in many countries, which is not necessarily the same from one to the other. For example, East European research institutes are not a homogeneous block, although several common problems can be identified. From the technical point of view, there is a need to improve basic equipment and supplies, as well as to provide technical expertise. From the logistical point of view, there are problems related to communication, the transfer of funds, and residual political constraints. However, this is not a problem in Eastern Europe alone. Some institutes in the West also suffer a similar fate. The Expert Group has therefore addressed these various issues with a view to making clear proposals for improvements in the region as a whole.

Equally important is the issue of connection possibilities; standardization of data is generally seen as vital in order to improve interaction. Beyond standardization is the question of simplifying existing systems, while at the same time giving these systems a qualitative jump ahead. While e-mail seems to be ***the*** information technology highway, at least for the near future, other connection systems, such as the X-25, may fit better the needs of some institutes and should therefore not be neglected. The improvement in other means of delivery—paper and diskette form—as well as traditional means of communication, such as regular mail, should also be considered.

IV. Financial Implications

An important issue was centred on financial means. Little was discussed, and less proposed, regarding financial implications during the 1994 Zurich Conference. It is interesting to note that, while there is an increase in the number of institutes today, the total number of the traditional foundations assuring training and other activities in the area of international security is actually diminishing.

This book addresses this issue, providing a better picture of the changes in the foundation community, its new interests and general policies. Such efforts may help to identify new fund-raising opportunities. Moreover, innovative cooperation schemes should be strongly considered, especially those where suppliers and recipients develop long-term programmes.

V. Cooperation Programmes

Providing concrete proposals for cooperation was one of the most demanding tasks of the Expert Group. For example, the status of research work, in terms of structures, resources and doctrines, is still quite different in East Europe than it is in the West. It is not enough to have state-of-the-art technology, equipment and access to information. It is also important to know how best to use it. The need to increase cooperation initiatives related to training is no longer contested today; the challenge is in finding ways and means to develop far-reaching and long-lasting programmes.

Moreover, there is a gap in reference material which developed, in particular, during the years after the Second World War. The challenging task is therefore to rethink fundamental values. In this connection, efforts should be made to improve all means of communication which would permit a better mutual understanding of partners' interests. For example, to develop proposals aimed at assisting in the publication, translation, and printing of eastern and western literatures in different regional languages.

Yet, cooperative ventures should not be limited to the hardware and software fields alone; cooperation programmes should also address human resources issues. Analytical aspects of national institutes should also lead to the identification of researchers' career patterns.

Diagram 1: Cooperation Issues in the Information Technology and Security Dialogue Debate
Main Areas of Cooperation
Identification of Partners
Security-related Institutions
Research Institutions
Military Academies
MoD, MFA, etc...
NGOs
Others
Other Institutions (including general purpose entities)
Libraries
Press Services
Others
Information Needs
General Information Databases
Institutions & Experts
Reference Databases
Documentation
Bibliography
Others
Subject-specific Databases
Nuclear Issues
Peace-Keeping Operations
Environmental Aspects of Security
Technology Transfer
Others
Connectivity Issues
Hardware
Computers & Printers
Modem
Line
Software
Dedicated Databases
E-mail Connections
Financial Implications
Hardware & Software
Line
Database Access
Cooperation Programmes
Equipment
List of Suppliers & Recipients
Training
Short- & Long-Term Initiatives

Part One

Identification of Partners and Definition of the Scope of Actions

Chapter 1

Assessing Partnership Initiatives: The International Relations and Security Network (ISN)

Andreas WENGER and *Stephan LIBISZEWSKI*

I. Introduction

Information technology in its many manifestations—the Internet being the most wellknown—has a growing influence on the way in which research on strategic and security issues is taking place. Global interdependence has increased, and researchers as well as professionals from government departments and armed forces are using the Internet as a tool to communicate with each other and to collect and disseminate information. Parallel to the breakdown of political barriers to cooperation between the East and the West at the end of the Cold War, technology has given the security community the chance to work together in totally new ways.

This unique opportunity was the triggering motive for the first international conference on "Institutes and the Security Dialogue", which was held in Zurich in April 1994, under the auspices of the Swiss Military and Foreign Affairs Departments and in cooperation with the Center for Security Studies and Conflict Research of the Swiss Federal Institute of Technology in Zurich, the Stiftung Wissenschaft und Politik in Ebenhausen, and the United Nations Institute for Disarmament Research (UNIDIR) in Geneva. The aim of the conference was to initiate cooperation and partnership among international organizations and research institutes in the East and the West in such practical matters as documentation, training and networking. This should serve to increase the viability of such institutions, in particular in Central and Eastern Europe, and enable them to become, and remain, independent sources of expertise in politico-military affairs within democratic societies.

As a result of this conference, a working group was formed under the coordination of the Center for Security Studies and Conflict Research and NATO's Integrated Data Service, including representatives from other institutions. Its task was to explore and initiate projects aimed at using electronic networking resources,

primarily the Internet, to improve communication, information exchange, and cooperation among research institutes active in the field of international relations and security policy, as well as between them and international organizations and governmental and non-governmental institutions. This article will provide the reader with an overview of the achievements of the working group and an assessment of the needs for and the chances of future partnership initiatives.

II. Assessing the Internet

Current partnership initiatives, aimed at using electronic networking resources to collect and disseminate security-related information, focus on the exploitation of Internet services. The Internet offers obvious advantages: it is the first worldwide, politically and economically independent computer network available. The system is cheap, fast, easy to use, and truly international. It offers almost instant access to millions of documents and files on a vast range of topics. If the security community makes full use of the Internet's potential, it will be given the opportunity to build an integrated network of electronic services and partnerships in the field of international relations and security studies.

In addition, the Internet invites interactive communication. The system's easy handling, its speed and accessibility, provoke debate as well as dialogue. It is an ideal tool for enhancing discussion, cooperation, and coordination among the diverse members of the security community. Comments on a certain paper, references to new information, announcements of conferences, comments on hotly debated issues, and queries about specific theses can easily be communicated to a worldwide group of specialists.

Many users, however, have more to say about the frustration caused by the limitations of the Net than about its advantages. We use the system by trial and error and while "surfing" through cyberspace, we find tons of information, but not much we can rely on. We quickly realize that besides the challenge of coping with the sheer amount of information, we are faced with an extraordinarily fluid medium, literally changing by the minute. Internet information is extremely perishable, and the user, travelling on the information superhighway, misses guidance regarding the quality, reliability, location, and importance of data.

Assessing the strengths and weaknesses of the Internet, the above-mentioned working group set out on its task to explore the potential of networking resources in order to improve information exchange, communication and cooperation among the members of the security community. The design of its projects aims at mastering the problems of information management, including the creation of guidelines and the formulation of minimal standards for the presentation of data. Other activities focus on the exploitation of the benefits of interactive communication. Besides such practical matters, the working group decided to make an effort to coordinate its projects with new partnership initiatives. More partners will achieve better results and

increase the chances that the available funds are not being wasted on duplication. With this strategy, the working group hopes to make the best possible use of the opportunities offered by the new information technologies.

III. Fostering Electronic Connectivity and Networking Between the East and the West: Ongoing Initiatives

Since its constitution, the working group has designed the International Relations and Security Network ISN as the principal tool for implementing its strategy. The Center for Security Studies and Conflict Research (as the primary representative of research institutions), with support from the Swiss Government, and NATO's Integrated Data Service (as the primary representative of international organizations) have, so far, coordinated this effort.

Based on the mandate received at the Zurich conference, ISN is an initiative to link academic institutions active in the fields of defence, peace and security studies, and international relations with Governments, parliaments, military bodies, international organizations, NGOs and the interested public. In order to fulfil their mission, the two coordinating institutions and other partners within the working group are planning and already implementing a series of activities on different levels.

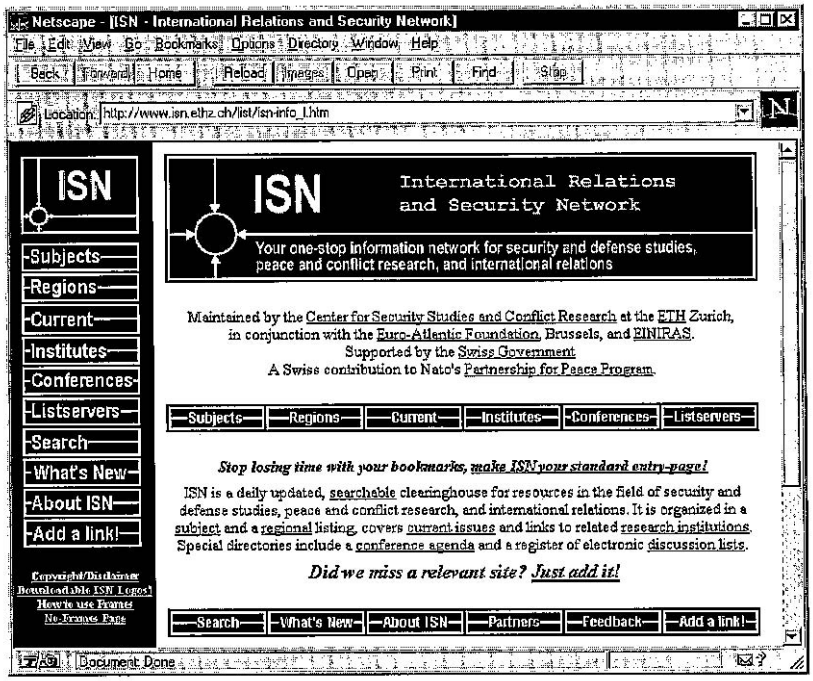
1. A Virtual Library on International Relations and Security Affairs

The main problem of today's Internet is not a dearth of information. On the contrary, information *overflow* is today's difficulty. If one uses the commercially available search engines based on full-text indexing to find specific data on the Internet, the results can be very disappointing. When searching for "OSCE", for example, the user may well be given a few documents about the "Organization for Security and Co-operation in Europe". With the same search, however, he might also end up with a lot more information on "Objective structured clinical examination". Moreover, information is presented without any order or distinction in terms of quality, reliability, importance, or other factors which are normally available to assist the user. There are—mostly on the technical side—proponents of better searching systems employing fuzzy logic and the like. According to them, automatic searches by content would be possible. Whether this vision will ever become reality remains to be seen. In the meantime, there is an urgent need for guidance within the Internet.

Providing such guidance is the idea behind the "virtual library" that the Center for Security Studies and Conflict Research is operating as one of the main services of ISN. The concept of the virtual library follows a qualitative rather than a purely technical approach. The service is run by people specialized in the field of international relations and security policy, who search electronic resources available on the Internet, follow certain quality standards, and describe the material both formally and by content. The regularly updated link collection is then organized in a

subject index, regional index, as well as an institutional and a current events listing, and it is also searchable by keywords.

The concept of the World Wide Web allows hosting such links to electronic resources—basically the address of a resource—on one server while the actual information is on another server under the jurisdiction of the actual information provider. If for example, a user searches for a UN resolution, a link to the UN Security Council will be found on the ISN virtual library under the heading "International Organizations/ United Nations". By clicking on this link, the user will be connected to the UN server containing the actual information. This provides the security community with a stable tool for quick and structured searches for electronic information, accessible from one single URL on the World Wide Web (http://www.isn.ethz.ch). The ISN virtual library is a first step towards solving the problem of information management.



After the staff was enlarged and the index heavily restructured in mid-1996, the ISN virtual library presently covers nearly 1,500 resources (both web sites and selected electronic full-text material) in the field of international relations and security policy, listed under about 80 subject and over 150 geopolitical and country headings. Provided with a new graphics and improved navigating tools, the system has greatly gained in terms of its user-friendliness and reliability.

As opposed to the initial stage when the individual indexes of the virtual library were displayed on flat HTML-pages—produced with an HTML-editor—the links to the resources are now managed in an electronic database. The individual listings by subject and regional items are then automatically generated through a special CGI application, assuring both an updated and standardized presentation of the material. The database can be updated with information from any part of the Internet by filling in a simple form. This renders the ISN an extremely flexible tool that can be expanded to include whatever data is made available by partner institutions. At the same time, the virtual library provides an electronic "phone book" for research institutes and international organizations present on the Internet and an interface for other electronic services in the field.

Given the possibility to cache information on the local hard disk or on proxy servers, there is no way of knowing exactly how many people really use the ISN virtual library. However, the project certainly has outgrown its experimental phase. Currently, the virtual library is directly accessed by external users about 15,000 times per week (hits to pages only, without counting graphics and the hits produced by the ISN team itself). Users connect to the service from over 50 countries and such diverse backgrounds as research institutes, governmental and non-governmental institutions, international organizations, the media as well as the general public. In a recent review of Internet sites by the Strategic Studies Institute (SSI) at the US Army War College, the ISN was referred to as "the single most useful site on the World Wide Web for national security analysts and researchers".[1]

On a parallel track, the Center for Security Studies and Conflict Research, on behalf of the Swiss Federal Department of Foreign Affairs, maintains the Swiss OSCE Chairmanship-in-Office 1996 Home Page (http://www.fsk.ethz.ch/osce/). This service lists resources centred around the OSCE, ranging from the organization itself and Governments of member States to research institutions concerned with issues connected to the OSCE sphere of activities. The home page was installed on the occasion of Switzerland's chairmanship of the OSCE in 1996, but funds for a longer term operation of the system have already been granted by the Swiss Government.

2. An Electronic Discussion List on Defence and Strategic Issues

A second pillar of the ISN is an electronic discussion group on defence and strategic issues, developing from the working group's effort to design a tool for interactive communication. The discussion group is maintained on the server of Leuven Technical University in Belgium and is being moderated by the Center for Security Studies and Conflict Research in Zurich (listserv-address: isn@cc1.kuleuven.ac.be).

[1] James Kievit and Steven Metz, *The Strategist and the Web. A Guide to Internet Resources*, Carlisle Barracks: Strategic Studies Institute SSI, US Army War College, 1996.
(http://carlisle-www.army.mil/usassi/ssipubs/ssirpts/internet/inetstss.htm)

So far, the list has mainly served as a means to disseminate and exchange information about new sites and services on the Internet and to announce forthcoming conferences and interesting (conventional) publications. Splitting the list into more specialized sub-lists may be a means of encouraging substantial discussion on this level of the ISN. The Center for Security Studies and Conflict Research calls upon its partner institutes to take the initiative in this field. At the same time, the Center offers assistance in technical matters such as maintaining the listserver.

3. Setting Minimal Standards for Electronic Publishing

In conjunction with the "Working Group on Information and Documentation in the Fields of International Relations and Area Studies" (EINIRAS), led by the Stiftung Wissenschaft und Politik in Ebenhausen, the Center for Security Studies and Conflict Research has coordinated a task group that studies issues regarding the reliability of the Internet.

While Hypertext Markup Language (HTML) and the World Wide Web have become *de facto* standards on the Internet, a lot of standardization work relating to the presentation of the material remains to be done. Too often documents on the Internet are not dated or not current, there is nobody to contact about their contents, and they just disappear after a while. A common way of providing information about each document on the Internet has to be found—making it possible to quote a document and find it again after a certain time.

The group is currently working on a set of criteria to be applied when publishing documents on the Internet. The goal is to provide a style sheet with minimal standards for contributors to the ISN virtual library in order to improve access by easy retrieval, to enable accurate quotation and referencing, and to ensure that documents remain accessible in the future. This will hopefully improve the reliability of the Internet for users active in the security and international relations field.

4. A WWW-Based Database of Journal Article References

Within the context of the same "Working Group on Information and Documentation in the Fields of International Relations and Area Studies", SIPRI's library division has developed a WWW-based database for bibliographic information on journal articles on the Internet (http://www.sipri.se/SFgate.html). Started as a pilot project, the service already allows searches in different indexes including a current total of about 26,000 article references in the field of international relations and area studies.

Another database allowing full-text searches in articles available on the Internet is pursued on an experimental level by SIPRI's library division. Currently, this service allows searches among *NATO Review* articles from 1991 to present.

If further developed and integrated into a broader set of electronic services, these bibliographic databases could become an important pillar within a comprehensive package of services in the field of international relations and security studies.

5. Improving Connectivity: A Task for Partnerships between the East and the West

The Internet has tremendously increased the chances for information exchange and cooperation between the East and the West, on both the academic and political levels. For many young institutions in the former socialist countries, the possibility of accessing public domain information by electronic means can also help to relieve the problem of insufficient library and documentation facilities.

But these achievements risk remaining merely theoretical if there continues to be a lack of such basic requirements as reliable connection to the network and capacity to use the new technologies. In many countries that are in transition from the former socialist system to market economies and democratic societies, a lack of funds presents a major obstacle for achieving full connection.

So far, both NATO and the Center for Security Studies and Conflict Research have been hosting on their own servers information about several partners in Central and Eastern Europe that are unable to afford the system. But this is only a temporary solution. A major task lies in assisting research institutes and governmental bodies in Eastern and Central Europe in building up their capacities to both access and provide information by electronic means.

This task includes providing equipment and expertise. In 1992, the Swiss Military Department, in coordination with external partners, started a programme to provide research institutes and governmental think tanks in Central and Eastern Europe with a tailor-made hardware and software package enabling them to link up with the Internet. In addition, it covered initial expenses for communication. Until now, twenty packages of this kind have been delivered to institutions in the countries concerned.

To continue this work, the Center for Security Studies and Conflict Research, on behalf of the Swiss Agency for Development and Cooperation, is carrying out a project to provide further institutions in Eastern Europe and Central Asia with the needed equipment, as well as with training and expertise. This programme will cover both governmental and non-governmental bodies such as foreign and defence ministries, parliaments, and independent research institutions. Their equipping with hardware and software is part of a more comprehensive task aimed at improving interaction and cooperation among these institutions as well as with partner institutions in the West. By integrating them into the ISN, the programme aspires to actively support an open and free discourse on politico-military affairs among the East and the West.

Similar projects aimed at providing assistance to institutions in Central and Eastern Europe are being carried out by the United States Department of Defense within the framework of NATO's Partnership for Peace (this programme is called "Partnership for Peace Information Management System" or PIMS, see also Chapter 2 in this volume) and by the United States Congressional Research Service (CRS), equipping many parliaments. Coordination between these cooperation programmes has already begun in order to make sure that there will be no duplication of efforts.

6. Coordinating Efforts and Raising Funds: A Task for the Newborn Euro-Atlantic Foundation

The numerous activities initiated at the Zurich conference in 1994 clearly need to be coordinated and supported by a guiding body. For this purpose, several institutions belonging to the working group born in Zurich joined the newborn Euro-Atlantic Foundation.

The Foundation is a non-profit organization, established in May 1996 under the auspices of the North Atlantic Assembly, with the following founding members: Prof. Dr Gustaaf Geeraerts (Director, Center for Peace and Security, Free University of Brussels); Mr David Hobbs (Senior Director, North Atlantic Assembly); Mr Yves Robins (Press Counsellor, Assembly of Western European Union); Prof. Dr Kurt R. Spillmann (Director, Center for Security Studies and Conflict Research, Swiss Federal Institute of Technology); and Dr T. Winkler (Head, Office of Security Policy, General Secretariat, Swiss Federal Military Department).

The overall purpose of the Foundation is to use international electronic communications to encourage the spread of information on international relations, defence and security and to promote the exchange of information and research on the above topics between Governments, international, governmental and parliamentary organizations, the academic world, and the interested public in the East and the West, seen from the perspective of democratization.

By maintaining a permanent secretariat in Brussels, the Foundation will concentrate in its initial phase on programmes aimed at enhancing communication facilities of official bodies such as Governments and parliaments, and on maintaining and further expanding the ISN. In a second phase, activities may encompass other projects such as creating documentation centres in Eastern Europe, enhancing the capabilities to publish research papers for an international public electronically, and the production and dissemination of electronic educational material on problems of democratization such as the civil control of the military, defence conversion, etc.

As a further institutionalization of the working group born at the Zurich conference, the Euro-Atlantic Foundation will play an important role in coordinating the activities and projects described above. In the future, some of the primary tasks of the Foundation will be the identification of new needs for action and the necessary fund-raising in order to carry on with its work.

IV. The Future of the ISN: Integrating Electronic Services and Partnerships in the Field of International Relations and Security Studies

After the ISN's first two years of operation, the initial problems of running an information network on the Internet have been overcome. A wealth of reliable information is already available and the virtual library style of access is widely

accepted. Born as an electronic clearing-house for resources and institutions in the field of international relations and security studies, the ISN is currently being further developed into an integrated package of electronic services and partnerships.

Within each of its subject and regional indexes, the ISN virtual library is built along a vertical structure, listing relevant sites and selected full-text material. In the future, the ISN team at the Center for Security Studies and Conflict Research envisages expanding the project horizontally, providing access to electronic resources for each specific topic filtered by type of service, i.e. relevant sites, full-text publication databases, international treaties, relevant discussion groups. For example, a user interested in matters of "Arms Control" would have the possibility of accessing and switching between all kinds of electronic services relevant to this particular issue. Information made accessible from such a common interface should comply with minimal standards in respect to quality, presentation, and reliability.

What future steps are needed to bring such a vision one step closer to reality? How can we develop and maintain efficient methods for improving electronic information and communication? How can we create an environment in which access to and communication on the Internet is regarded as a necessity rather than a luxury for the security community?

- *Identification of partners*: It is clear that such an ambitious project cannot be realized by only a few institutions. Institutes that are already active on the Internet are invited to join the ISN. The project's coordinating centres call upon all institutes researching in the fields of international relations and security studies to actively participate in the project. Partners are needed to operate specialized, for example regional, indexes as well as to moderate discussion groups on specialized topics.

- *Identification of funds*: Design and maintenance of an integrated network of electronic services in the security sphere require a lot of resources to operate the system and to achieve the necessary international cooperation and coordination. Yet funds are relatively scarce, because many potential donors are still not quite sure of the benefits of the undertaking. It will be one of the primary tasks of the Euro-Atlantic Foundation to answer such concerns by means of a well-designed information campaign, and to secure the funds needed.

- *International training cooperation*: In the long term, the success of the ISN heavily depends on whether its partners will be able to provide the necessary training and assistance on an international level. Today, there is still the danger of a division between those who have access to the Internet and those who do not. Since getting a connection to the Internet becomes easier every day and the connection fees are falling, this gap can be closed by international training cooperation. A number of States, multilateral organizations, and research institutes have already established training programmes, primarily dedicated to Central and Eastern Europe. The Geneva Centre for Security Policy, for example,

which has recently been founded by the Swiss Government to provide training for international diplomats and personnel involved in peace-keeping missions, will include seminars on the use of electronic information means in their curricula. In order to avoid duplication, mutual information, and still better, cooperation between the individual programmes are essential.

- *Integrating existing projects*: As outlined above, several initiatives have been going on to build up electronic services in the field of international relations and security policy on the Internet. However, they were not always pursued under a common strategy and, although a hyperlink between them often exists on the respective sites, they are not really integrated. The ISN virtual library, the interactive discussion group, and the bibliographic databases on international relations and area studies clearly are complementing services. Another project fitting into the same concept is the database on international treaties and diplomatic documents developed by the Mediterranean Academy of Diplomatic Studies at the University of Malta.[1] If integrated among each other, these individual projects would form a network providing all basic services for the international relations and security community. The goal should be the building of a package of electronic services operated on a decentralized basis, but according to mutually agreed standards and made accessible from a common interface. The Center for Security Studies and Conflict Research would welcome sharing the management of the ISN within the framework of the Euro-Atlantic Foundation on an equal basis with other partners.

- *Technical Cooperation*: Needless to say, partnership and cooperation among the institutions working in the field of international relations are urgently needed in technical matters such as the development and operation of advanced databases and search engines. While the virtual library of Internet sites had to follow a qualitative approach, a database of full-text research papers or international treaties might make better use of existing robots and indexing software which can automatically grasp the content of electronic data files. However, in order to achieve a certain consistency within the database and to assure the quality and reliability of the resources included, even here minimal formal standards regarding the presentation of the material and control over the input must be guaranteed. Coupled with a membership in the ISN, a possibility would be building a consortium of qualified institutions offering full-text electronic resources on the Internet. By following a mutually-agreed upon style regarding the presentation, keywording and storage of the full-text material, these resources could be automatically indexed by a World Wide Web robot surfing pre-defined domains of the Internet. They could then be made accessible from a common interface on the ISN home page. Other—technically less sophisticated—solutions

[1] http://heimedac.unige.ch/DOILM/GrDOILM.html; so far, the service is for Malta-related documents only.

include mirroring the entire material on a central server and building up an automatic index of this material there, as carried out by SIPRI with articles from the *NATO Review*, or like the concept of the current ISN virtual library, installing a keyworded database of links to full-text material. The latter could be updated on a decentralized basis by the individual institutions offering the material, but would be accessible from one interface. To avoid duplication of work, interested partners should discuss the best solution and agree on a common procedure.

V. Conclusions

In today's rapidly changing security environment, the ability to collect and disseminate information quickly and to evaluate its relevance is becoming an ever more important prerequisite for the stability of the international security system. Within a few years, presence on and access to the Web will be crucial for the security analysts' need for relevant and up-to-date information. The security community will exploit the advantages of the Internet along with other "classical" means of communication such as telephone, radio and television.

In order to ensure that well-designed tools will be at our disposal for mastering the challenges of information management, for deciding what data is relevant in order to solve problems encountered on our way towards a peaceful world, and for ensuring that—even further along—we can benefit from the advantages of interactive communication, we now have to build an integrated network of electronic services and partnerships in the field of international relations and security studies.

The 1996 "Institutes and the Security Dialogue" conference, hosted by the United Nations Institute for Disarmament Research, represents an ideal opportunity to coordinate our efforts. The partner institutions of the International Relations and Security Network on this occasion are looking forward to building new partnerships. They call for active contributions from as many members of the security community as possible, be they international organizations, governmental or non-governmental institutions, or research institutes.

In an increasingly integrated world, the Internet offers a unique chance for closer cooperation between institutions across the continents. The challenges that may be encountered in the future are primarily of an organizational and institutional nature. The co-founders of the Euro-Atlantic Foundation are confident that their initiative marks a first step in the right direction.

Chapter 2

Identifying the Needs of International Organizations: The Idea of a "Virtual" Partnership

Anthony ANTOINE and Gustaaf GEERAERTS[1]

I. Introduction

The Internet is the issue of the day. Whether you look in newspapers, books or magazines, or you watch television, the Information Superhighway is always there. Leading journals have their special Cyberspace column, and none of the daily press overlook the Internet's popularity. But Governments and international organizations also seem to have discovered the Net. Not only do they try to regulate this seemingly uncontrollable entity, they are also increasingly eager to forge their place on the Web.

In this paper, the needs of international organizations regarding the Internet will be identified, using NATO as the primary example. Furthermore, some initiatives aimed at using the Internet as a tool for enhancing partnership and cooperation will be analysed.

II. The Internet as an Actor in International Relations

The Internet gains more and more attention each day, not only from computer freaks and eager businesses, but also from actors in the sphere of international politics. The North Atlantic Treaty Organisation hosted a conference called "Internationals on the Net" in June 1995, while the Assembly of the Western European Union organized a conference "Parli@ments.on.the.net" on 2 and 3 May 1996. Soon afterwards, the latter's committee for Parliamentary and Public Relations urged its Council to "*develop and implement a communications policy directed towards the public at*

[1] The authors wish to thank David Hobbs, Paul Magis and Chris Scheurweghs for their kind cooperation.

large, taking account of (...) the development of computerised communications systems such as the Internet" and further wanted to implement a system "*in conjunction with the Assembly and NATO, making permanent use of the Internet as a communications tool, by setting up a site on the WWW, managed by the organisation.*"[2]

The academic world also devoted a work group on the Internet and International Relations in the Joint Sessions of Workshops of the European Consortium for Political Research in Oslo last April. Numerous other conferences and workshops were held elsewhere on the same topic.

The growing importance of the Internet in international relations, both in practical and academic respects, urges further in-depth research. The hype of the Internet leads us to believe that the Net is something new, unseen and uncompared. However, even a preliminary investigation leads to the conclusion that the Internet is but a communications tool, like the telephone, radio or television. Just as with radio and television, phone and fax, one can use the services on the Internet to communicate with other people. As such, the tool is new, but it does not re-invent the communication process.

What, then, makes the Internet so special? Four of its main characteristics provide the explanation:

1. ***Cost.*** The Internet is cost-efficient. Compared to the fax, the Internet has various advantages. One can, for instance, send a message to the other side of the world at the cost of a local phone call.[3] Information dissemination to a broad public on the Internet is, compared to radio or television, equally cheap. Through the Internet, one can potentially reach millions of readers at an extremely low cost.

2. ***Speed.*** Due to the fact that information is sent electronically, it can be redistributed to various recipients without difficulty. Digital information also travels fast, so that a large number of people can be reached simultaneously at a speed which is incomparable to ordinary mail, phone or even fax.

3. ***Audience.*** The number of Internet users is a third reason for the medium's importance. One would not be using the phone if its use was not widely spread. Similarly, one would not use the Internet if nobody else was using it. With millions of users, however, the Internet has become a very dynamic entity.

4. ***Practicality.*** The tools on the Internet have also become very simple and easy to use. Especially in the past few years, since the creation of the World Wide Web, Internet traffic has boomed. Though the invention of the Internet dates back to the

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[2] *The Armed Forces, European Defence and Informing the Public in WEU member countries*, report submitted on behalf of the Committee for Parliamentary and Public Relations by Mr Benvenuti, rapporteur, doc. 1523, 13 May 1996, WEU Assembly 41st ordinary session (part II).

[3] Assuming that the necessary hardware is obtained. However, when calculating the cost of Internet, one has to take into account the basic costs of the necessary hardware.

late 1960s, the Net has only become successful since the beginning of the 1990s, when the service of the World Wide Web was born. Enabling text and pictures to be transmitted simultaneously via the Net, an unprecedented achievement, the CERN-invented World Wide Web could attract the attention of businesses and the broad public. Through its system of hypertext, it also allowed "linking" of information stored in the same or different databases.

The ease of use combined with the speed through which messages can travel from one place to another stimulate interaction. That interaction is further invigorated through psychological factors: in various circumstances, one will rather send an e-mail than an ordinary letter. The e-mail on the Internet combines the advantages of phone and ordinary mail. It is as fast as the telephone, and yet it is less direct: it offers people the necessary time to think things over before sending them. The programs and tools which one can use on the Internet make interaction possible. However, it is the users' attitude towards these tools which renders it dynamic.

As an actor, the Internet does not exist. It is a functional tool in the hands of the people behind it. As media and Governments, researchers and pupils, novices and experts can be identified, the Net represents a sample of society, or better, a sample of part of society. Indeed, research has shown that people on the Internet are, in general, both wealthier and more educated than average.[4] Its use is also more widely spread in Western Europe and in the United States than in any other part of the world. Advocating that the Net is a reflection of society as a whole would thus be an exaggeration, though the cheaper hardware and "netware" are becoming, the more true this statement becomes. The Internet is, however, primarily a Western tool. It is based and lives on the assumption that information needs to be disseminated and that people want to be informed. As is discussed below, this works out extremely well in our Western society where the exchange of information (and non-information) is common, but it is debatable whether the Internet would be as successful in States where such mentality and traditions do not exist.

1. The Internet as an Anarchic Entity: An Overview

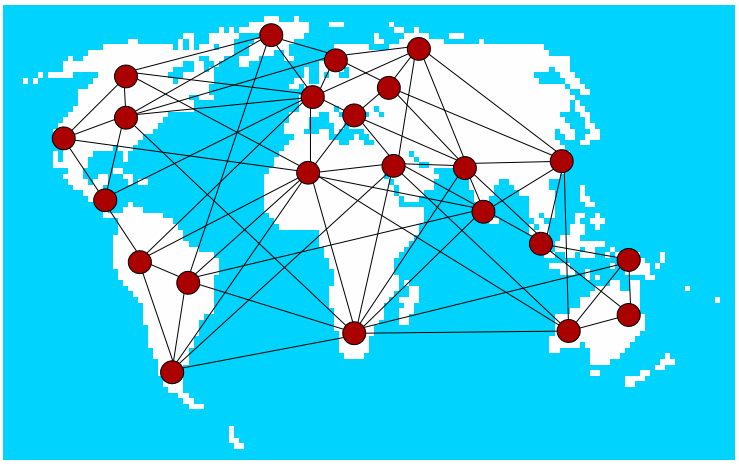
One of the Internet's key features is its decentralized design. For historical and technical reasons, the Internet is not governed by an overarching body. It consists of various smaller autonomously operated networks, but has no ruling board or hierarchical superior. As such, the Internet is a "network of networks".

The basis of Internet's anarchic structure lies within its roots. Originally designed by the United States Military as ARPANET, the network of the late 1960s needed to ensure communication under the worst of conditions, i.e. a nuclear attack. Whereas the military normally prefer centralized structures, they now opted for an alternative

[4] Kim LaSalle, *Life in Cyberspace: Internet, Public Relations and Marketing*, LaSalle Communications, USA, 1995, p. 2. (lasalle@iquest.net)

and effective way of communication through decentralization. Much the same as the street network where drivers can use alternative routes when the main road is blocked, "traffic" on the Internet can use various "routes" to reach its destination. When part of the network is down, the rest can still function, which would not be the case with a centrally governed system: disconnecting the main workstation would completely cut off the whole system.

Figure 2.1: A Schematic "Network of Networks"



This "anarchic" structure, however, is the Internet's key advantage. Not only does it ensure communication, it also makes it possible to access thousands of information databases and networks all over the world. For Governments who want to inform their public, and even more for large international organizations, the "electronic superhighway" (as the Internet is often called) is an important additional tool for information dissemination.

III. The Benefits: The Use of the Internet by International Organizations

Most Governments and international organizations have the public duty of informing citizens and third parties of their actions and decisions. They need to spend significant portions of their budgets to disseminate information. They often give news briefings, hand out special press releases or have some of their prominent figures give interviews. Thus, through the media, they reach the public. As an intermediary, the media has a pivotal amount of power over the originators of the information it is to redistribute. In States where the media is in private hands, Governments may see their

statements changed, countered or refused. The media can indeed refuse to spread statements if they have no or limited "news value", or it can—and often does—amend and/or comment on them. Conversely, in countries where the State exercises firm control over the (nationalized) media, the official statements of the Government may be the only information available.

The Internet dramatically changes this situation. No organization, media or Government has a monopoly on Internet-information-redistribution. Once on the Internet, one can read the information from any information provider, whether official, semi-official or unofficial. It is the user who chooses the informer.

Whereas the media plays a selective role in disseminating information by conventional means, on the Internet there are no gatekeepers. Information can be disseminated directly without reprocessing. It is therefore vital that the originator knows how to present information and how to make it accessible to his audience. In addition, he can structure his communications in a way which permits him to receive reactions and to engage in a two-way information exchange. This is particularly beneficial for international organizations which need to overcome the problem of being one or more stages removed from direct contact with their audiences. To them, the Internet becomes an ideal tool for reaching the public in a direct way, as they seldom have the opportunity to do this using classical media. Governments find themselves in a similar position. The Clinton Administration, for example, has taken up the effort of exploiting the Internet in what it refers to as a far-reaching "democracy program", and has been accused of bypassing the conventional media in the process.[5]

A direct presence on the Internet, however, requires a re-evaluation of the information functions of international organizations and Governments. Due to the direct contact, their public relations and media services need to reorientate, sometimes even expand, or at least have their common practices amended.

Most international organizations have realized the Internet's advantages and started disseminating their information electronically. Among others, the United Nations, the Organization for Security and Co-operation in Europe, the North Atlantic Treaty Organisation, the World Bank and the International Monetary Fund, already have extensive Web or gopher sites. Further interest has been shown by the Assembly of the Western European Union, the North Atlantic Assembly and the Assembly of the OSCE to expand their (still small) Internet presence.

Note, however, that not all international organizations can be treated alike. Some only have to inform particular States whereas others also need to inform the broad public. Their press and information offices will thus differ, as will the presentation of their documents.

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[5] Richard L. Berke, "Hey, Prez.": Computers offer new line to Clinton, *New York Times* (New York), 5 April 1993, pp. A1 and A9; and Diane Bradley and Jane Frederick, The Clinton Electronic Communications Project: An Experiment in Electronic Democracy, *Internet Research*, Vol. 4, No. 1 (Spring 1994), pp. 66-67.

IV. A Working Example: NATO on the NET

The North Atlantic Treaty Organisation started its Internet adventure some four to five years ago. Within the crisis management cell of the NATO Executive Secretariat, efforts were made to experiment with the—then virtually unknown—Internet services. It was at that time that the NATO Integrated Data Service (NIDS) came into being. Initially launched as an experiment, NIDS quickly developed into a vital information exchange project.

With the changing world in which NATO found itself after the demise of the Soviet Union, the Alliance had to find an effective way to spread its message of peace and stability to both its allies and its emerging partner countries. Conversely, the newly independent States of Central and Eastern Europe wanted to obtain more information about the alliance and its Partnership for Peace programme and needed a simple tool to obtain it. The choice of the Internet as the medium was obvious.

At present, NATO disseminates information through the Internet in three ways:

1. It sends information by e-mail to interested parties which subscribe to one of NATO's e-mail distribution lists.[6] At present, more than 3,500 addresses are reached, of which 30 are redistributors of information.[7] Actually, it is close to impossible to know the exact number of people who are reached by NATO's e-mail dispatcher, just because of the redistributors. Each of them can have another thousand subscribers, or ten thousand subscribers, or only fifty who, in turn, can re-distribute the mail to others. This means of Internet communication is by far the simplest, but has the disadvantage of being "too complete". Not all news is interesting to the parties receiving it, and it becomes cumbersome to search for an old piece of information when you do not save it on your own hard disk upon receipt. The biggest advantage, however, is that it is current: one receives the latest information from the Organization on the spot. Whereas fax-machines need numbers dialled one after another, the e-mail dispatcher can distribute a message to numerous subscribers simultaneously. The 3,500 subscribers of NATO's e-mail distribution list receive NATO's latest news within minutes.

2. NATO maintains a gopher-site.[8] This menu-driven system allows people to guide themselves through the information, taking only those things they really want. The gopher, however, is an older system which allows the dissemination of textual information in ASCII code only. Special characters (i.e. accents or Cyrillic

[6] NATO's e-mail distribution list is managed by the Katholieke Universiteit Leuven. It is free of charge, and one can subscribe by sending an e-mail stating SUB NATODATA <first name> <last name> (no subject) to listserv@cc1.kuleuven.ac.be. Journalists requiring only NATO Press Releases and Ministerial Communiqués can send a similar message stating SUB NATOPRES.

[7] This data was acquired through the NIDS office.

[8] The gopher site URL is gopher.nato.int.

letters) are not transmittable through this system. In addition, search tools on the gopher are very cumbersome and hardly effective. NATO will, however, continue to support the gopher, as this means of information processing can be read by less powerful computers using low-speed modems and bad connection lines. This is the case in some countries with transition economies which NATO wants to reach.

3. The NIDS maintains a Web-site.[9] The Web-site was specifically designed to enhance communications with Central and Eastern Europe and to facilitate the dissemination of information on the United Nations Implementation Force (IFOR) operation in Yugoslavia. For the latter purpose, the Internet could assume its role as quick and effective information disseminator circumventing the traditional media. Lessons were drawn from the media dependence in Operation Desert Storm, where specifically CNN dominated the information theatre.

Figure 2.2: NATO's Homepage

Since its first appearance on 2 January 1996, NATO Web-site access has grown tremendously. At present, it receives over 89,000 hits every 24 hours.[10]

[9] The www URL is http://www.nato.int/.

[10] These figures were obtained through NIDS and include all hits (files and graphics).

With the design of NATO's World Wide Web site, three target groups were envisaged and treated as equally important:

(1) Government officials from Partner countries;
(2) Researchers worldwide;
(3) The media.

NATO's Web-site is thus designed to meet the requirements of these groups. It is designed so that researchers can easily find specific documents while journalists can access a quick reference of updates of the latest news and specific press items.

Interactive search tools would further enhance NATO's Web-site capabilities and allow easier access to information. However, information on NATO-related topics is not a NATO monopoly. The security and defence documents which the Alliance brings on-line cannot be taken out of a broader international context. This is why cooperation with other international organizations and with specific research institutes worldwide on the topic of information management and dissemination is of extreme importance.

Before setting up its World Wide Web site, these information management problems had to be addressed first. Creating the basic on-line information structure was one of the NIDS prior operations. A feasibility study preceded the creation of the Web-site, which needed to be both flexible and dependable. The lasting information on the World Wide Web needed to be stored at a specific Internet-address. Changing this address too often would put a burden on the reliability of NATO's Web, so that the Alliance needed to set up a durable structure beforehand.

The advantages NATO has out of its Internet presence are many. First of all, it allows a cost-effective and fast communication with some 3,000 people worldwide on a daily basis. Furthermore, the Alliance can update its information at a minimal cost. The *NATO Handbook*, for instance, needs constant updating, something which cannot be done with the printed version. The printed book is only rarely amended, whereas its electronic counterpart can be changed every minute. The *NATO Review*, to state another example, holds articles referring to communiqués and other NATO texts. Whereas not all of the latter are printed, they can be easily referred to on-line. Though the Alliance has not yet fully taken advantage of the Internet medium, it has used it for the past few months as an effective additional tool for mass dissemination.

1. Partnership for Peace in Cyberspace

The Partnership for Peace (PFP) is a major initiative which was introduced by NATO at the January 1994 Brussels Summit. According to NATO official publications, the Partnership is working to expand and intensify political and military cooperation throughout Europe, increase stability, diminish threats to peace, and build

stronger relationships by promoting the spirit of practical cooperation and commitment to democratic principles that underpins the Alliance.[11]

Concrete objectives of the Partnership include:

- Facilitating transparency in national defence planning and budgeting processes;
- Ensuring democratic control of defence forces;
- Maintaining the capability and readiness to contribute, subject to constitutional considerations, to operations under the authority of the UN and/or the responsibility of the OSCE;
- Developing cooperative military relations with NATO, for the purpose of joint planning, training and exercises in order to strengthen the ability of PFP participants to undertake missions in the fields of peace-keeping, search and rescue, humanitarian operations, and others as may subsequently be agreed;
- Developing, over the longer term, forces that are better able to operate with those of the members of the North Atlantic Alliance.

The key element in all the above is communications. Cooperation starts with the exchange of information. Without mutual communication, no better understanding of one's views is possible. Partnership for Peace then becomes a far wider process, having more to do with socio-economic cooperation than with mere joint military exercises.

One example specifically comes to mind, i.e. that of civil-military relations. In the former Warsaw Pact countries, virtually no civilian expertise in military affairs was developed.[12] There were no civil servants, journalists, politicians or academics who knew either the technical or the managerial issues of defence affairs. In addition, their armies and officer corps lacked the staff to develop an independent defence or national security doctrine.[13] This was due to the old Soviet system, where the Central European countries were to fit Soviet defence requirements, and not to pursue their own national interests.

This lack of qualified personnel, both military and civilian, forms one of the main problems to be addressed by NATO under the Partnership for Peace programme. Intensive courses to train personnel are highly appreciated by the countries' Governments,[14] but due to financial restrictions or other priorities, training sessions are not intensive, and they lack follow-up and feedback.

It is specifically here where the Internet becomes useful. Provided they have the necessary equipment, civil servants in MoD or MFA, or military staff personnel in

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[11] Excerpt from NATO Fact Sheet No. 9, *Partnership for Peace*, 16 March 1996, at http://www.nato.int/docu/facts/fs9.htm.

[12] Christopher Donnelly, in Donnelly/CND (93) 113 [final], 1 July 1994, unpublished NATO paper, p. 12.

[13] *Ibid.*, p. 14.

[14] For example, the Minister of Defence of the Polish Republic, Longin Pastusiak, welcomed the efforts of the Marshall Centre regarding such training at the NAA spring session in Budapest, May 1995.

Central European countries can be given follow-up data or vital feedback information using the computer as a means of communication. In a further stage, the Internet can even become a medium for giving courses, though it is debatable whether Internet-mediated courses alone are sufficient as training instruments, and whether it is NATO's role to organize them. As an additional tool, however, the Internet can play an important role in simplifying course documentation, interactive training, and in general, two-way exchange of information.

The presentation of information will contribute to the expertise of civilians within MoD and MFA; as the reliability of democratic control over armed forces is dependent on civilian expertise in both security and defence matters,[15]

> Timely dissemination of information could be an important factor in confidence-building and in the overall success [of the programme]. Whenever possible, appropriate measures for getting timely and objective information to the local population should be an integral part [of any operation].[16]

Note, however, that not all Central European countries have easy Internet access. Though its use is rapidly growing, the connection cannot yet be compared to that of its West European counterparts. Financial and technical assistance in this is needed.

As stated above, enhancing cooperation with Central and Eastern Europe is one of the reasons why the NATO Integrated Data Service was created. At the time, it appeared that a lot of the future Partner Countries, through their academic network, already had Internet access. Very quickly, a network of research institutes (the Academic Defence and Security Network, ADSN) was established, facilitating access to information and research documents of countries on either side of the former wall. Lacking, however, were “official” documents. Hence the efforts of NATO to link Governments and parliaments of the nearby “East” to the Internet. As the Alliance is a regional organization in the security field, emphasis was laid on exchanging information on security and defence related issues. NATO’s Gopher server was used extensively by a number of country Governments wishing to disseminate official communiqués and research papers. A number of Partner Countries disseminate some of their public information electronically through NIDS (see Table 2.1).

In the framework of Partnership for Peace, NIDS tried to obtain information from Partner Countries which did not reach the Alliance by other means. Conversely, it issued information to institutes in “the East” who up until then had a hard time waiting for documents to arrive by more conventional means.

The Internet also allowed other people to access NATO’s public information, and with this extensive use, the Organisation has tried to initiate interaction and dialogue on a broader scale. Though this is far from achieved, discussions and feedback are

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[15] Col. Kurt Schiebold, NATO unclassified and unpublished paper, CTRL-AF.10, 30 March 1995, p. 2.

[16] Dusan Rovensky, Czech Republic, at the 5th meeting of the United Nations Committee on Information, session of 8 May 1995.

growing. The feedback which arrives at NATO electronically is growing, and more than 50 e-mails have to be replied to daily.[17] Further investigation on who is responsive to dialogue initiatives has to be done although we can intuitively suppose that feedback will more often come from those countries where the habit of debating already exists (i.e. Western countries) than from those where this is not the case.

Table 2.1: Countries Disseminating Information through NIDS

Country	President	Parliament	MFA	MOD
Czech Republic		X	X	
Estonia	X	X	X	X
Finland			X	
Hungary			X	
Latvia			X	
Lithuania			X	
Romania			X	
Slovakia			X	
Ukraine		(X) (parl.advisers)		
Uzbekistan			X	

V. The Research Dimension

The official information, disseminated by Governments and international organizations, is a resource for researchers. However, the "information overload" on the Internet lays heavy demands on the user, who has to differentiate and sift data and has to be critical at all times. The researcher will be specifically interested in adequate search tools and navigation in his quest for relevant documents. He will furthermore be interested in a reliable source.

The International Relations and Security Network (ISN), which is maintained by ETH, functions as a clearing-house in this respect. As outlined in the previous article, the ISN is extensively used by the academic world. The ISN, which originated from the academic network initiated by NIDS and the Swiss Federal Military Department and was further supported by the 1994 Zurich Conference, fulfils the role of information manager in the above-stated fields. It has been legally constituted by the Euro-Atlantic Foundation, an issue we will further discuss below.

[17] This data was obtained through NIDS.

As more Governments and international organizations become "Internet-available", collaboration in this area seems a reasonable objective. Especially in the field of structuring and presenting information, cooperation is strongly recommended. It will be in the interest of the researcher, whether independent or related to a Government/international organization, that the documents which can be retrieved electronically are consistent throughout the "virtual" governmental and international world. This question of information management is not a recent one. However, the Internet makes the need for an answer more apparent and more urgent than before. Because of the sheer volume of information which can be retrieved "at our fingertips", structuring and presentation are vital.

VI. Security and Defence on the NET: The Euro-Atlantic Foundation and its Initiatives[18]

The Euro-Atlantic Foundation is a non-profit organization founded under the auspices of the North Atlantic Assembly. Its overall purpose is to encourage the dissemination and use of information on international relations, defence and security, and to promote the exchange of information and research on these topics between parliaments, Governments, international organizations, and the academic community.

The Foundation has two initial goals. The first is to expand the International Relations and Security Network (ISN) already established by the Swiss Federal Institute of Technology in conjunction with NATO's Integrated Data Service. To that end, it will provide equipment and training to institutes in nations with transition economies. This equipment will be used to provide mirror sites for the ISN and for the Foundation's server which is used by NATO's Integrated Data Service. It will also be used to facilitate the addition of information on defence and security matters as it relates to the recipient nation. In this way, all users of the International Relations and Security Network will benefit from more comprehensive source material and increased accessibility to this material.

The second goal will be to assist parliaments in nations with transition economies to exploit the communications and research resources available on the Internet. In these nations, Internet access by parliaments frequently poses particular problems. The Foundation will provide material assistance and staff training to overcome these problems and facilitate Internet use.

More specifically, the Foundation will provide assistance to the sections of parliamentary international relations departments which deal with delegations to international parliamentary organizations such as the North Atlantic Assembly, the Assembly of the Western European Union, the Council of Europe, and the OSCE Assembly. Support will be provided to ensure that the administrative and research

[18] The author wishes to thank David Hobbs, Chairman of the Euro-Atlantic Foundation, for his large contribution to this chapter.

branches of these departments have effective access to Internet resources. If sufficient resources are available, the Foundation will provide similar assistance to policy institutions, think tanks etc. which inform or initiate pluralistic debate in nations with transition economies.

The Foundation will also establish a small secretariat based at the headquarters of the North Atlantic Assembly. This will coordinate the Foundation's work and will ensure that information provided by interparliamentary organizations, national parliaments and bodies participating in the International Relations and Security Network is posted on the Internet in a coherent manner. It will also develop search and retrieval tools to ensure efficiency and ease of use.

> The purpose of the Foundation is as follows:
>
> - to disseminate and encourage the spread of information on International Relations, Defence and Security;
> - to structure and disseminate this information by any means of electronic communication systems, through developing and maintaining the **International Relations and Security Net (ISN)**;
> - to promote the exchange of information and research on the above related topics between the media, Governments, international, governmental and parliamentary organisations, the academic world, and any other entity;
> - to foster the development of educational and communications tools relating to democratisation processes and their link to security, defence and international relations;
> - to participate in, organise and sponsor educational programs, conferences and consultations which bring together East and West specialists in social, economic, political, military or environmental fields;
> - to coordinate all efforts in the field of its above stated goals;
> - to establish a research component to support its activities;
> - to encourage, organise, coordinate, engage or participate in every activity to realise those purposes.
>
> This purpose can be realised everywhere in the world.[19]

The Euro-Atlantic Foundation has been registered as a non-profit organization (ASBL) in Brussels, Belgium. Its server is being operated and maintained by staff at NATO as part of NATO's contribution to the Foundation. This server is currently used by NATO, the North Atlantic Assembly, the Assembly of the Western European Union, the OSCE Parliamentary Assembly and various Partner Country parliaments.

The North Atlantic Assembly has agreed to host a small secretariat for the Foundation and the Swiss Federal Military Department has agreed to provide initial manpower and funding for the secretariat. The Board of Governors is investigating opportunities for cooperation and coordination with a variety of national schemes intended to improve Internet access in nations with transition economies.

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[19] Article 2 of the Statutes, published in the Annexes of the *Belgian Monitor*, No. 17101 of 25 July 1996.

Using the Internet as its main tool for communication, the Euro-Atlantic Foundation wants to act as a clearing-house for information on defence, security and international relations issues. Hosting a database containing the information from various international actors, the Foundation aims at stimulating research on these topics. Through its expertise, it will be a body which can be used by these organizations to consult for their electronic communications questions.

Through its promise of hardware contributions, it can furthermore become a bridge between Governments—especially those in Central and Eastern Europe—international organizations and the broad public and enhance the communications process between these actors. As an independent body, the Foundation can furthermore initiate debate on various politico-academic topics, and could even start distant learning packages. Whether the Foundation will be able to assume all these functions will largely depend on its funding and on the willingness of its partners to cooperate.

VII. Conclusions and Recommendations

> The problem . . . is that people must sit and keep their eyes glued on a screen; the average American family hasn't time for it. (The *New York Times* on television, back in 1939.)[20]

The misconceptions people have about new technology is an age-old problem. The success of the Internet will largely depend on the attitude of people towards this new medium. However, given its advantages, it already is a communication tool of growing importance. Its characteristics especially favour large information disseminators, such as Governments and international organizations, but it also charms the individual user. Though it will never fully replace other communication instruments, its importance cannot be denied.

That the Internet brings benefits to international organizations and other players in the international relations sphere is clear. Every entity which needs to communicate with a broad or distant audience can gain from the fast and cost-effective tools on the Internet. These tools also allow two-way communications, which can lead to feedback and dialogue. Note that, though the Internet contains the potential, interaction is only obtained through the willingness of its users.

The *new* communications tool also brings forward *old* problems of information management. A clear information structure and an understandable information presentation are the basis of Internet dissemination. These do not come overnight, and the management of an electronic information site which can be consulted from all over the world is not an easy task. The efforts by NATO in this respect are illustrative.

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[20] Quoted in Eric Solem, "The Internet and the Future of Security: The Globalisation of Space, Time and Image", research paper presented at the European Consortium for Political Research Joint Session of Workshops, Oslo, Norway, 29 March-3 April 1996.

An additional problem is that of uniformity. Documents on international relations are stored all over the world and are diverse by nature. The various bodies which disseminate official documents (Governments, parliaments, international organizations) have an interest in cooperating to put their archived information on-line. The newborn Euro-Atlantic Foundation could play a role in this. Linking initially parliaments and inter-parliamentary organizations to the Internet, the resulting information increase could be processed through the International Relations and Security Network, making the latter the official reference site *par excellence*.

In the framework of Partnership for Peace, numerous efforts have been taken to initiate more dialogue and cooperation. As a communication tool, the Internet has played a vast role in this. However, a true "cyber-partnership" will only be obtained if all partners are able and willing to cooperate. This starts with involving all partners in the project and with connecting all involved to the Internet. It also implies the willingness to share information. Yet the preparedness of exchanging documents is not always that obvious on either side of the former Curtain. These next years will determine the dialogue and cooperation-stimulation capabilities of the Internet. The international information superhighway promises to be very exciting!

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Chapter 3

Increasing Interregional Exchanges and Partnerships

Seyfi TASHAN

After the dissolution of the two-bloc security system and the subsequent advances in communications technology, intra-bloc security dialogue structures have become richer in content, wider in space, and more varied with regard to the nature of threats and/or risks perceived. As a result the concept of security seems to be changing. The defence component of security has begun to shrink in favour of the urgency of tackling social and economic issues feeding such security problems as inter-ethnic conflict, subversion, terrorism, environmental hazards, etc.

In this paper, the issues relating to interregional exchanges and partnerships in which the Turkish Foreign Policy Institute is involved or plans to become involved will be examined (see Figure 3.1). In the end, suggestions will be made as to how interregional cooperation could be developed to enhance security.

Turkey is a member of different regional organizations and groupings that extend to three continents. NATO is the most important security organization in which Turkey is a member (and has been for well over half-a-century, see Map 3.1). Turkey is one of the founders of the OSCE. Turkey has become an associate member of the WEU. The country also has an Association and a Customs Union with the EU aiming at full accession. Turkey together with the other countries on the Black Sea—as well as the countries of the Southern Caucasus region and some Balkan countries—has formed the Black Sea Economic Cooperation Zone (see Map 3.1), which also tackles some security issues. Again another economic cooperation organization is ECO (see Map 3.1) which covers an area extending from Turkey to the border of China. The Mediterranean Forum (see Map 3.1) and the EU's new Mediterranean policy also find Turkey to be an important partner for development, peace, and security throughout the region. Middle East peace processes and working groups on water and regional arms control and confidence-building measures recognize Turkey as an important collaborator for the Middle East region. There is a continuous flow of information between these organizations and the Turkish Government, and some of the

information filters to think-tanks in Turkey. There is a direct outlet from NATO, the OSCE, and the WEU for national think-tanks.

Turkey—with its two communications satellites and extended radio-link systems—provides easy communications means for a large region. New projects are under way for further development of telecommunications especially in the Black Sea region (Table 3.1). Most of the Central Asian telephone services now have outlets from over Turkey.

The Turkish Foreign Policy Institute (set up in 1974 as an international relations study centre) has devoted great attention to international security issues and has established working relations with similar institutes all over the world. The types of relations vary from publication exchanges to regular bilateral and multilateral conferences and seminars. Figure 3.1 shows the institutions with which FPI has maintained relations and the types of joint activities the Institute is involved in.

The Internet has become a significant means of information exchange and debate among the international relations centres (for Internet-use in Turkey see Table 3.2). In many instances, this medium is used to replace fax or telex correspondence. Yet there are encouraging new initiatives to help the creation of new interregional partnerships. In this respect, NATO should be commended for acting as a regular electronic messenger for different international security organizations. The ISN (formerly DEFSEC-NET) has been a good meeting point for different national security research centres.

Among the other interesting sources that could be mentioned, the Turkish Foreign Policy Institute is trying to encourage the dissemination of various articles that reach us through electronic means or printed periodicals by means of a bulletin announcing such titles available for any e-mail subscriber. The Bar Ilan University in Israel is cooperating with many members of the Turkish Foreign Institute to publish a *Middle East Review* that will also deal with security issues and will be distributed electronically. Similar activities have been initiated by several European centres as well.

However, all these activities must be considered unplanned efforts seeking to promote exchanges. If there is to be greater understanding of security issues and greater availability of information and ideas, then regional electronic information centres, databases, and interregional links that would allow links to individual centres need to be developed. A proposal for the location of such centres is shown in Map 3.2.

These regional centres would provide an index of research centres together with their specific fields of interest and activities and contact information. If they have home pages, the address should be indicated. All research centres must be encouraged to have an e-mail address, and regional centres must provide access to international organizations concerned with the issues of their region. The linkages among regional centres must be continuous, and each region's home page must include information about other regional centres such as the countries included in each region and their home page addresses. Each regional centre should also have the task of announcing major regional activities such as international conferences, new publications, etc. Publication of a regional newsletter giving major events in the region may also be

advisable. Another task of the regional centres may be to distribute to research centres in the region by e-mail or fax important press releases and documents from international security sources.

The establishment and maintenance of such regional centres will require financing partly from international security institutions and partly from local sources. The expenses will vary depending on local working conditions and prices.

To conclude, in this information age conflicts should not be allowed to defeat peace because of a lack of knowledge and understanding of each other on national, regional, and international levels.

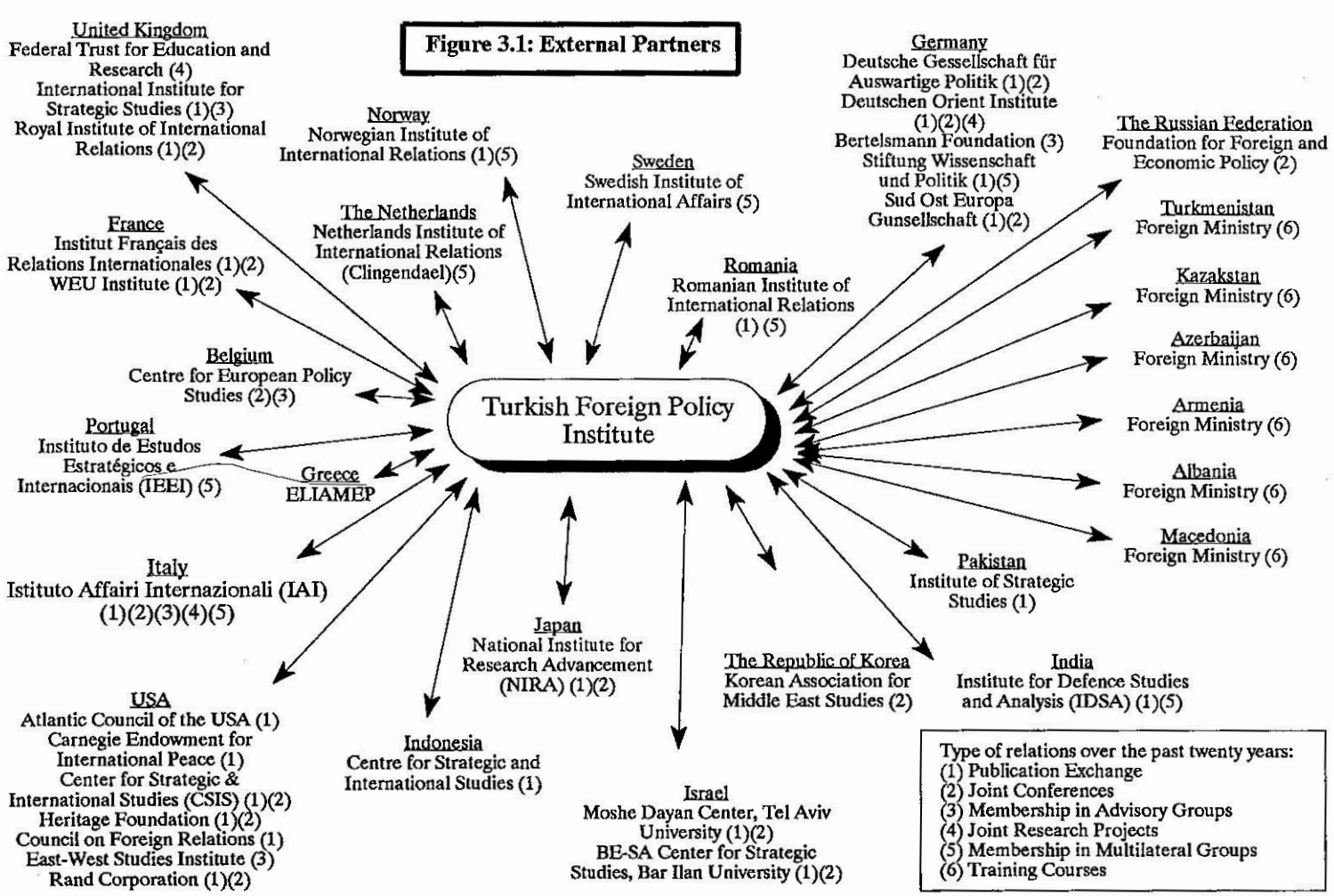
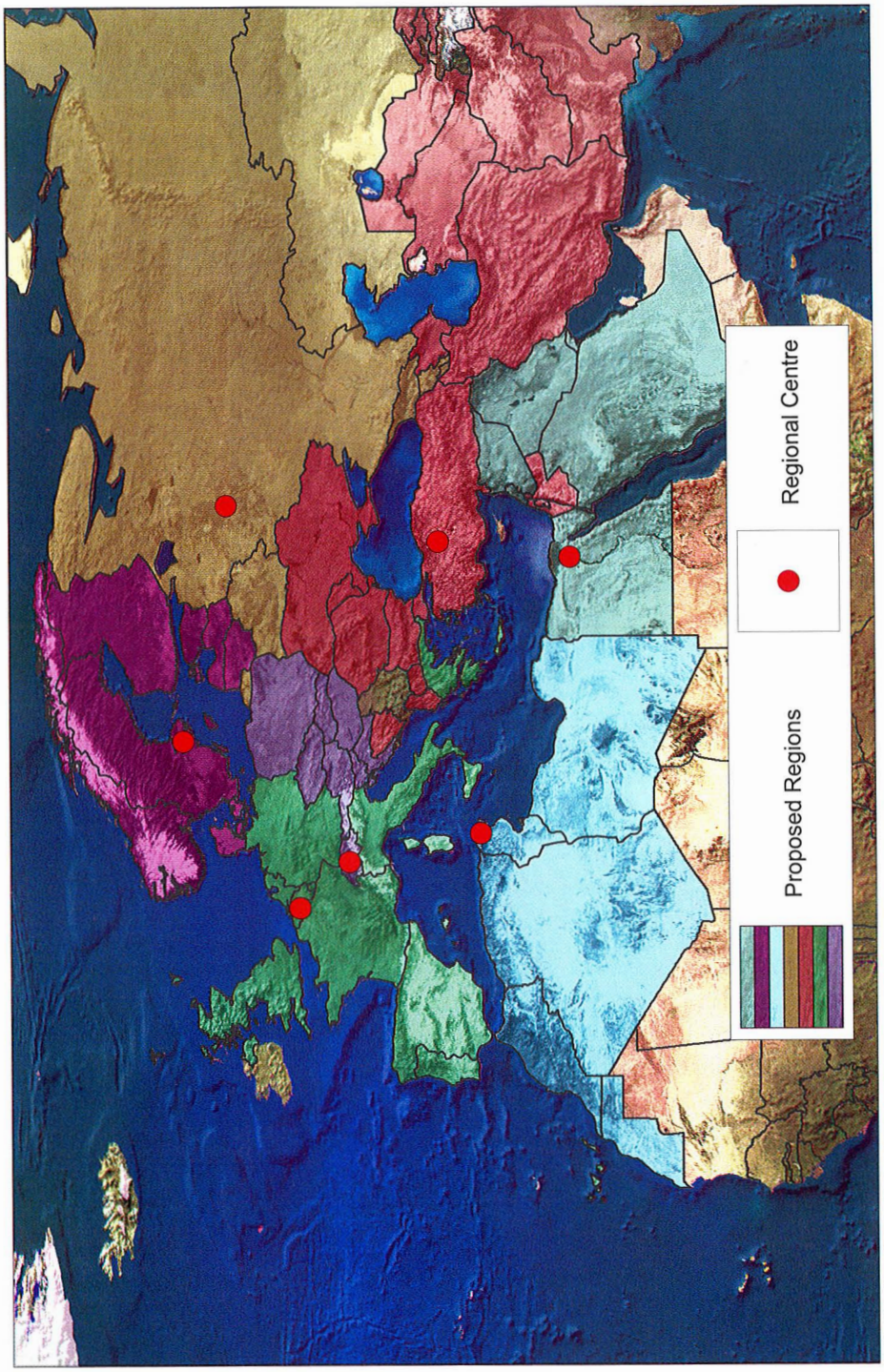


Figure 3.1: External Partners
Turkish Foreign Policy Institute
United Kingdom
Federal Trust for Education and Research (4)
International Institute for Strategic Studies (1)(3)
Royal Institute of International Relations (1)(2)
Norway
Norwegian Institute of International Relations (1)(5)
Sweden
Swedish Institute of International Affairs (5)
Germany
Deutsche Gessellschaft für Auswartige Politik (1)(2)
Deutschen Orient Institute (1)(2)(4)
Bertelsmann Foundation (3)
Stiftung Wissenschaft und Politik (1)(5)
Sud Ost Europa Gunsellschaft (1)(2)
The Russian Federation
Foundation for Foreign and Economic Policy (2)
France
Institut Français des Relations Internationales (1)(2)
WEU Institute (1)(2)
The Netherlands
Netherlands Institute of International Relations (Clingendael)(5)
Romania
Romanian Institute of International Relations (1) (5)
Turkmenistan
Foreign Ministry (6)
Kazakstan
Foreign Ministry (6)
Azerbaijan
Foreign Ministry (6)
Armenia
Foreign Ministry (6)
Albania
Foreign Ministry (6)
Macedonia
Foreign Ministry (6)
Belgium
Centre for European Policy Studies (2)(3)
Portugal
Instituto de Estudos Estratégicos e Internacionais (IEEI) (5)
Greece
ELIAMEP
Italy
Istituto Affairi Internazionali (IAI)
(1)(2)(3)(4)(5)
Pakistan
Institute of Strategic Studies (1)
Japan
National Institute for Research Advancement (NIRA) (1)(2)
The Republic of Korea
Korean Association for Middle East Studies (2)
India
Institute for Defence Studies and Analysis (IDSA) (1)(5)
USA
Atlantic Council of the USA (1)
Carnegie Endowment for International Peace (1)
Center for Strategic & International Studies (CSIS) (1)(2)
Heritage Foundation (1)(2)
Council on Foreign Relations (1)
East-West Studies Institute (3)
Rand Corporation (1)(2)
Indonesia
Centre for Strategic and International Studies (1)
Israel
Moshe Dayan Center, Tel Aviv University (1)(2)
BE-SA Center for Strategic Studies, Bar Ilan University (1)(2)
Type of relations over the past twenty years:
(1) Publication Exchange
(2) Joint Conferences
(3) Membership in Advisory Groups
(4) Joint Research Projects
(5) Membership in Multilateral Groups
(6) Training Courses

Map 3.1: Select Regional Institutions



Map 3.2: Proposed Regions and Regional Centres

Table 3.1: Telecommunications Projects in the BSEC Region

Project System/ Name	Participating States	Capacity/ Bit Rate	Status	RFS Date (Ready for service)
TBL (Trans-Balkan Link)	Albania Bulgaria FYROM Italy Turkey	622 Mb/s	DGM held in June 1994. Each party constructs the segment within its territory	January 1996
DOKAP	Azerbaijan Georgia Turkey	140 Mb/s	Financing is about to be solved	First half of 1996
KAFOS	Bulgaria Moldova Romania Turkey	2x622 Mb/s	Contract signed on 15 February 1995. Cable route survey in progress	15 July 1996
BSFOCS	Bulgaria Cyprus Georgia Greece Russia Ukraine	2x622 Mb/s	Editing of specification	September 1997
ITUR	Italy Russia Turkey Ukraine	2x565 Mb/s	Cable laying started in Summer 1995	August 1996
ADRIA-1	Albania Croatia Greece	622 Mb/s	Tender launched, contract signed in October 1995	17 June 1996
TAE	Afghanistan Armenia Austria Azerbaijan Belarus China Georgia Germany Hungary Iran Kazakstan Kyrgyzstan Pakistan Poland Romania Tajikistan Turkey Ukraine Uzbekistan	565 Mb/s or partly 622 Mb/s	Each Party constructs segments within its territory	1997

Table 3.2: The Internet in Turkey

6 Gateways from Turkey		
Bilkent University	➽ USA	256K (+ 128K for video conference)
METU	➽ USA	128K
Koç University	➽ USA	128K
Istanbul University	➽ USA	64K
Bogazici University	➽ USA	64K
Ege University	➽ Bonn	64K

Types of Internet Usage	**Number**
E-mail owners[1]	80,000
Computer connections to Internet[2]	More then 10,000
Hosts	More then 9,900
Web sites, gophers, FTPs, phone books, etc.	More then 800
Listservers[3]	More then 200
Governmental and commercial Web sites[4]	200
	Over 400 for rent.

[1] They are mostly from Universities
[2] Which have an IP number
[3] Interested in almost every subject
[4] Except personal homepages

Part Two

Identification of Information Needs

Chapter 4

Information Needs and Information Processing in the Field of International Security

Gerd HAGMEYER-GAVERUS[*]

I. Introduction

Research on a specific subject requires time-consuming material searches—for data, documents, journal articles, information acquired through interviews, and so on. Efficient research therefore needs not only support infrastructure in the form of libraries or similar institutions, but also a network of "contacts". Information exchange is a major factor in the research process. Contact networks are usually built up through the efforts of the individual researcher, but increasingly, effort is being put into institutionalizing informal networks by establishing cooperation agreements between institutes and by building cooperation structures.[1] Institutional cooperation is not new, but the developments in information technology give it a new dimension. The world of information technology allows for efficient work-sharing set-ups, where money can be saved and information access improved.

The information revolution has in fact provided us with an overflow of information, available through different media. Getting the full text of a recent document, like the Dayton Peace Agreement for example, could in the "old days" take days or even weeks, depending on the user's location. Today's access time is limited to hours after release. Most importantly, it no longer matters whether the user is located in Washington, DC or a small provincial town in Central Asia, as long as there is an Internet connection.

Traditional methods of information retrieval and collection have been changed, for better or for worse. Information is rapidly accessible, but there is too much of it and in many cases it is too general. Most users therefore struggle with the problem of

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[1] One example is the European Working Group on Information and Documentation in the Fields of International Relations and Area Studies, a cooperative effort of European libraries in the field not only to achieve an exchange of information, but also to bring about work-sharing.

how to find important information and how to avoid spending hours looking for it. The International Relations and Security community therefore needs a home from where short paths lead to places of specific interest. This home must be set up through a joint effort and take into account the needs of the community. This chapter tries to identify information needs and suggests an organizing structure for information production, storage and retrieval. Although Internet technology and Internet applications have rapidly changed since this chapter was written in early 1996, its general framework and proposal are still valid. However, some of the statistics are outdated and new standards and applications have arisen since then which should be incorporated into the future implementation of the proposed Information Network on International Relations Research.

II. What Information Needs Are There?

Information needs are spread through the whole field of International Relations and Security. In general we can identify the need for bibliographic information, including article references, full-text articles, newspaper clippings, books, research reports, grey-area literature, speeches, reports, texts of laws, official government reports, data and facts, institutional information including a list of who is researching what and where, as well as conference information. We also need access to collected media information such as news releases. Some institutions, like OMRI, already provide us with valuable information—in this case for free. Other sources are commercial. The list is incomplete and gives only an indication of the sort of information we need.

The development of the Internet created a whole set of new opportunities to access such information; the research community has quickly realized this and started to use the Internet. A small survey at SIPRI (March 1996) among researchers and librarians (N=25) showed the following use of the Internet:

Internet function	Usage
E-mail	55%
WWW	36%
Gopher	5%
FTP	4%
Total	100%

The World Wide Web is mainly used for:

Searching and downloading documents	88%
Searching and downloading references	60%
Searching and downloading data	64%

Another way to collect valuable information is to subscribe to some of the many e-mail conferences or list servers.[2] In our survey 56 per cent of the respondents have on average subscribed to three e-mail conferences or list servers.

1. How Much Time Do We Spend on the Internet?

The survey shows that an average of 7.5 hours a week are spent retrieving documents from the Internet. The standard deviation is 8.9 because of different use of the Internet by research-related staff. Some of them do not use the Internet for information retrieval at all or use it very little. Others use it intensively. It's partly a matter of not being used to this new tool. Asked what information needs there are, most of the respondents refer, of course, to their own area of research.

An average of 4 hours (standard deviation 8.2) are spent inputting data in the form of Internet documents, data and references. Again, only a few people are able to create Internet (so-called HTML) documents, so the distribution is that some spend much more time on inputting data to the Internet while others do not do this at all.

2. How Do We Find the Information We Need?

The Supply Side

The most common method is the use of so-called search engines, which are huge databases of Internet links. Some of them keep billions of entries—like the AltaVista search engine.[3] They allow for keyword searches, sometimes even for concept searches (as with Excite[4]).

How do search engines operate? These large databases collect information with programs, so-called spiders, that search through the Internet and index every published HTML document. Sometimes the whole text of an HTML document is indexed, sometimes only the headers or titles. The indexing result is then stored in the database, where it is made searchable.

Using some of the many search engines on the Internet one sees how difficult it is to find documents, papers or data on a specific keyword or subject.[5]

A search by the following keywords gave these results (28 May 1996):

[2] A list server is an electronic distribution system. A user subscribes to a list server and gets e-mail messages of all the information sent out by the list server organization. This may be news in the form of newspaper articles or radio transmission transcripts or any other pertinent information on a subject.

[3] http://www.altavista.com

[4] http://www.excite.com

[5] For an evaluation of Internet search tools see: Steve Mitchell, "General Internet Resource Finding Tools. Review and List of Those Used to Build Infomine", 1996 (http://lib-www.ucr.edu/pubs/navigato.html).

Keyword	Search engine/database[6]			
	AltaVista	**Yahoo**[7]	**Lycos**[8]	**Magellan**[9]
Peace-keeping	958	1	80	53,492
International security	4,168	79	22	28
International relations	15,417	107	96	53,120
Bosnia	45,299	92	14,818	5,093
Dayton Agreement	404	2	90	45,039

This example shows what kind of "info-stress" one is exposed to since it may take hours to find a certain document. The search results are not manageable. Too much irrelevant information is included in this search result, because any Internet document with that keyword is part of the result, regardless of whether it is an official government document or the published private opinion of a farmer in Texas.

Once we find the relevant site, we often need to page through the site, browsing through several layers of information until we get what we are looking for. This browsing on the one hand takes time and on the other burdens the Internet, making traffic slower.

Since we do not want to search for this information again, we keep a bookmark of the location, ending up with a whole library of bookmarks which we try to organize in one way or the other. With respect to articles, we already have some valuable databases (SIPRI[10], UnCover[11], World Affairs Online[12]), but are still dependent on getting hard copies because no on-line full-text article database exists.

3. What Information Is Looked For and By Whom?

The Demand Side

The demand for electronic information increases every day. On the supply side, the providers of information on the Internet publish whatever they believe is interesting, adding more and more to the already existing jungle of information. We can make an assessment of the demands by analysing our access statistics. Access

[6] Only those search engines were chosen where a search count was presented. Since there were for most cases no comments on how the count was performed, whether it was each keyword separately or combinations of keywords, the results may not be comparable.

[7] http://home.netscape.com/home/internet-search.html

[8] http://www.lycos.com

[9] http://searcher.mckinley.com

[10] http://www.sipri.se/SFgate.html

[11] http://www.wellesley.edu/Library/uncover.html

[12] Partly available on the Internet through: http://www.sipri.se/SFgate.html

statistics give us an impression of what the Internet community is looking for at our site, what we should expand on, and how we should reorganize our information to make access to our most "popular" information easier. The information which the Internet community "voted" for at the SIPRI site and who this community is are shown in the section below on SIPRI Internet-access statistics.

4. The SIPRI Example

Analysing the statistics we get from our World Wide Web (WWW) or gopher servers, we obtain a relatively complete picture of which groups are interested in the information we offer. In addition, we know who contacts us by the traditional means of communication: fax, telephones, letters, etc. So we know who our clientele is, and we know it is not a homogeneous group. In the case of SIPRI it is the wider research community, politicians (political decision makers), the military establishment, industry, the media, students, as well as the general public. This means that the questions we get are either of a very specific or very general nature. I would categorize them in two groups: the informed client and the "uninformed client".

Our Internet server has been running for just over a year now and keeps a log of all connections made to SIPRI. By analysing these logs we are able to present preliminary statistics of who our clientele is and which of our published information is most often accessed.

We publish on the Internet: for example, project descriptions, general information about SIPRI, publications, library acquisitions lists, a bibliographic database, an arms trade database, data (e.g. graphs) on world military expenditure by country, arms exporters and importers. In addition to information from SIPRI publications, some projects offer specific information, such as a unique collection of arms trade regulation documents and a wide range of documents in the field of CBW, including the full text of the Chemical Weapons Convention. In total we have published about 500 HTML documents and several databases.

It is difficult to analyse the statistics of a server. First, the amount of data is enormous—from several hundred thousands to millions of entries. Each entry is a so-called request. A request is one piece of data sent to the remote computer (a visitor). A piece of data in that respect is each element of an Internet page: text, pictures, sounds and even programs. A single page on the screen can have many such bits. Here is an example of one entry of the file which is used for the statistics:

```
gatekeeper.un.org - - [12/May/1996:23:35:58 +0200] GET
 /projects/Milex/Introduction.html HTTP/1.0 304 0
```

Interpretation of the information accessed is easy, but in several respects it is difficult to identify the requester of the information, the visitor. First, we need an estimate of how many requests are made on average for one Internet page, and second, we need an assumption for how much time is spent by a one-time visitor and how to define a regular visitor.

A one-time visitor probably looks at fewer than ten pages and then leaves the site. This is a conservative assumption. Anyone looking at more pages has probably looked at this page twice or more or has come back to look at other pages, too. Some people use bookmarks and regularly look up just one page.

Another problem is the address of the visitor, which is a string of information consisting of computer address information (so-called domains information). An example is "dial45.snoopy.physics.berkley.edu", a visitor address where the first part, "dial45", indicates the dial-in address of a user. This address is dynamic and changes for the same user every time he/she logs in. If the same user also has a personal account with a service provider like COMPUSERVE and he/she visits SIPRI from a computer at home via this service provider, we have no way of identifying this as the same person.

a. ***Who Is interested in this information?***

Since it was set up, the SIPRI server has had a total of 521,440 outside accesses, which translates to over 100 individual visitors a day. Our electronic visitors come from 68 countries, mainly the United States (40%), Sweden (17%), United Kingdom (5%), Germany (5%) and Japan (2%). Corrected by the total number of Internet connections in the countries—i.e. if all countries had the same number of Internet hosts—visitors from the United Kingdom, Bolivia, Bahrain, Uruguay, Sweden and Nicaragua are over-represented, as are the developing countries and East European States.

It is impossible to derive an occupation or professional affiliation profile from computer addresses, but the so-called domain part of the address shows a rough categorization by sector. Thus, 40% are from the educational sector, 25% from the commercial sector, 7% from the government sector, 3% from organizations (United Nations and others), 2% from the military sector and 23% from other sectors. Although not entirely representative, our electronic feedback poll[13] shows that 22% of our visitors are professors, 19% researchers or research assistants, 28% students, 8% teachers, and 22% other professions.

b. ***How often is the information looked up?***

Compiling a statistic on how often a user has accessed our site, is not easy. An Internet address consists of so called domain and subdomain parts and it is not unusual that subdomain parts change. Dynamic address usage makes it difficult to identify the user each time, because his address changes. In the end it is not possible to make an exact measurement. But under the assumption that addresses which are identifiable as dynamic and which belong to the same subdomain are addresses of always the same user, we get the following statistics:

[13] Our Internet site has an electronic feedback form for visitors to express their opinions and suggestions about the site. The URL is: http://www.sipri.se/feedback.html

Accesses	10	20	30	40	50	60	70	80	90	100	150	200
Percentage (80% probability)	68	50	42	36	30	27	25	22	20	19	13	10
Percentage (Minimum)	55	34	24	18	15	12	11	9	8	7	4	3

The first row gives the percentage of accesses with a probability of 80%. The second row gives a percentage of minimum accesses.

Between 55 and 68 per cent have revisited SIPRI, probably many more. Thirty accesses or more, by the same user, are probably by a regular visitor who looks up a few pages once in a while. Between 24 and 42 per cent of SIPRI's visitors fall into this category. My poll shows that regular visitors look up a site once a month. Those making over 50 accesses are considered "intensive visitors": these account for 15 to 30 per cent of our visitors. Those making over 100 visits are "highly intensive visitors": these account for 7 to 19 per cent of SIPRI's visitors.

c. ***What is the most interesting?***

Since the log information also includes information on what visitors are interested in, we have a rating of the "popularity" of the information we publish. A summary shows that project information which includes not only project descriptions but also documents, data and papers gets 46 per cent of the total attention; 28 per cent is interest in our publications list and our press releases (mainly for the *SIPRI Yearbook*). Thirteen per cent showed interest in our article database and other library information. SIPRI organizational information attracted 3 per cent of our visitors. Of the projects in which most interest is shown, the CBW project leads with 32 per cent, followed by the arms trade project, 26 per cent, and the technology and military expenditure projects, 7 per cent each. There is a clear relationship between the amount of information each project offers on the Internet and the amount of interest shown in these projects.

The database on articles in the field of International Relations and Security compiled by our library staff and the World Affairs Online group is a new effort and is gaining popularity. Published since February 1996, we have recorded an average of 1,700 searches a month. At the moment there are 100 searches daily.

From the frequency of use of our search engine for all our Web pages we also conclude that users are interested in finding specific information; rather than generally interested in browsing through to see what we offer.

III. Scenario for Organizing Internet Information for Our Research

Researchers, librarians and students in the field of international relations and security wrestle with the problem of quickly finding and accessing information for

their needs on the Internet. Unmanageable personal libraries of Internet links, lack of knowledge of updated information, the traffic jams on the Net and the ever-tedious search for relevant information are the bottlenecks. It's time to put the Internet child on its feet by organizing information production, processing, exchange and retrieval.

1. The Need for Subject-Relevant Database Systems

Subject-relevant database systems are a major part of an efficient retrieval system in our research field. Database systems facilitate not only fast retrieval of information but also dynamic processing and presentation of information. In database systems existing data can be processed through combination and exclusion, through sorting and counting and then presenting the data as text, tables or graphs. Thus the database system has qualitative advantages over plain text or document retrieval systems. Our field of research has many applications for such database systems, where the subjects could be:

Facts and data:

- military expenditure figures by countries, economic data, arms trade, military manpower, military holdings data etc.;
- data on weapons of mass destruction;
  (Ideally, a database where a military country profile could be received would be most helpful.)
- computer models.

Bibliographic information:

- article references, articles (full-text), newspaper clippings, declarations, books, research reports, government reports, grey literature.

Institutional information:

- research institutes, general information;
- research projects;
- conference information.

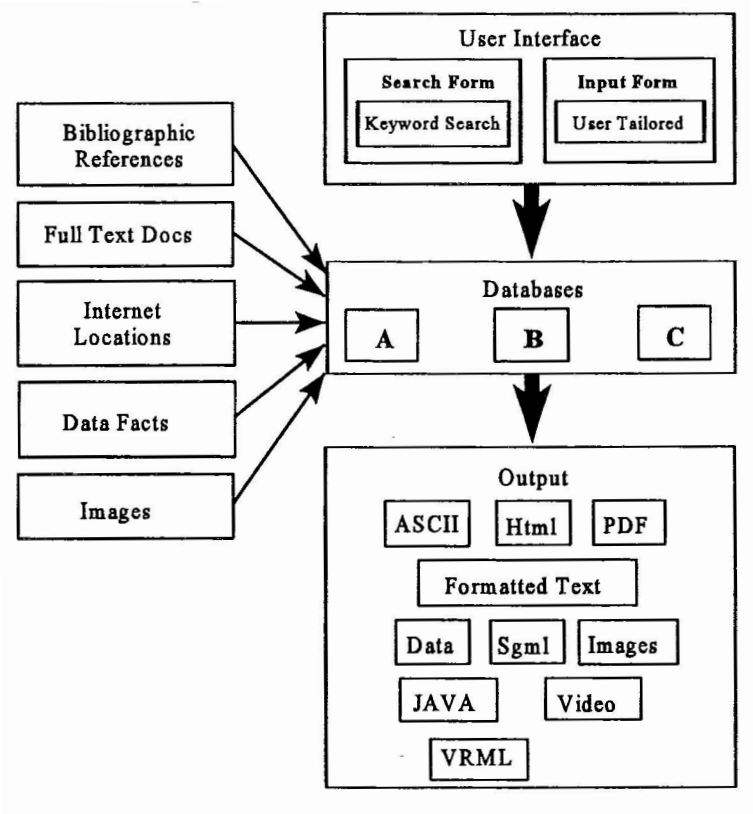
Information on individuals:

- lists of experts.

The other category of systems are those which do not keep the original information, as in these cases, but the Internet location, the links to the original information data, documents, maps, sounds—whatever can be put in digital form, such as information produced and published by international organizations, Governments, the media. These databases not only keep the location of specific documents at the site

of the organizations and save time-consuming searches at these sites, but also keep data on the kind, category and "value" of the information as well as on last updates. Intelligent information collecting tools—as described below—are used to obtain the entries to this database system.

While some efforts to create these database systems may be unilateral, efforts should also be multilateral in order to achieve a high value and efficiency and to save resources. One example of a cooperative information collection and dissemination effort on the Internet is a common database on journal articles.[14] Today, most institutes compile their own databases on journal articles. Library staff spend a lot of time collecting and indexing this information and then feeding it into a computer system. In many institutes the same information is processed, "wasting" resources which could otherwise be used for additional tasks if institutes divided up subject areas or journal titles and fed into a common database. Ideally such a database would have links to the full text of the articles,[15] which are stored in another database or exist at different locations throughout the Internet.



[14] In Germany, institutes cooperate to feed into an existing common database, the World Affairs On-line. In the framework of the European Working Group on Information and Documentation in the Fields of International Relations and Area Studies, parts of this database are, together with SIPRI's article database, made available on the Internet: http://www.sipri.se/SFgate.html.

[15] Legal problems concerning copyright laws must be solved in this framework.

Such databases should be the collective project of institutions and organizations in the field and could be in many different locations. The conference on "Institutes and the Security Dialogue", held in Zurich in April 1994, laid the foundation for such a collective institutional effort. One of its goals, to be of assistance and support to the new institutes evolving in the East, could be at least partly achieved through such an effort.

The advantage of the Internet is not only the on-line use of these kinds of databases but also their on-line feed. In a work-sharing effort, these databases can through specific user-tailored input forms be updated by selected institutions, organizations, and individuals. The input is secured through identification and password access and is organized through a list of input criteria. Reliability is the most important criterion for such a collection. However, published information, in whatever form, must meet a certain standard. It is not quantity but quality which must be the goal of such a project.

2. A New Way to Retrieve Information

A researcher in the field needs user-friendly access to the information necessary for his work. He should not have to deal with the technology of the system, only the result is important. A search on a subject—by keyword or concept—should provide him with all the necessary information. Today's search on one of the global search engines often produces, as we have seen, thousands of "hits" which are cumbersome to look through, because the indexing procedures of the engines are crude and produce keyword lists which are extraneous. It is still necessary to "surf" the Net to find all the information needed. One needs to jump from one location to another, often getting lost on the way, even forgetting where one started. Since our institutes are looking for the same or at least similar information, we would collectively save time if there were a place on the Net where we could pose our search questions and get usable answers—one link instead of many links; one search instead of many; a retrieval machine which is focused on the subjects of our research field and does intelligent silent or background searches and produces an HTML result page with the links or sends an e-mail including the links; a retrieval machine which searches in several databases for references, full-text articles and documents, video clips from news groups (for example CNN), the spoken word from sound archives, pictures, maps—in other words, all the elements of our multimedia world. How does it work?

1) A user-friendly interface allows for input of keywords (with Boolean operators), citations, or whole sentences, and includes a glossary where several concept entries can be chosen, or a combination of all of the above. The better the search is defined for the user, the better the search result. Various input pages can be designed for that purpose.

2) The input information is processed by a program locally or sent off to be processed remotely. The request is split up and sent off to different databases to collect answers to the requests.

3) The databases process the requests and send additional requests to other databases with a flag to send back the results of the requests either as HTML or as e-mail, including links to HTMLs or full-text ASCII, attachments of documents, spreadsheets, sounds or video clips.

The basic element of such a system is the databases, as described above—databases which keep original information and data on locations of original information. These links must be either added manually to the database or collected automatically by using an intelligent system which filters and sorts relevant information. The most promising technology for this task is the so-called intelligent agent.[16] Intelligent agents are one of the fastest growing applications today. They are "intelligent" software pieces designed to perform certain tasks on the computer or on a network like the Internet. These programs allow for an Internet search not only in static documents but also in databases or other application files. Intelligent agents "travel" through the Internet and make, according to a set of rules, "independent judgements" on the value of the information found on the Internet and return relevant information back to the user. They can be used for background searches or monitoring processes. Such background searches would feed the databases to keep information up to date at all times. They could also be invoked directly by a submitted search form. Another, more focused approach to feed into the databases is to index—on a regular basis—a predefined set of Internet servers.

Let us assume that all the servers in our research field are part of this effort, then all the documents of these servers are indexed and the indexed documents are collected in a database. The search engine connected to this database would produce only relevant results. A program called Harvest[17] is now available to organize such a search routine. Each site connected to the Harvest system indexes the information on its server and leaves it to the site to decide what information shall be included in the index. This means that irrelevant information such as published telephone lists, announcements etc. can be excluded from that index database. Specific databases on conferences or telephone lists can be created additionally.

Automated indexing would also replace the function of today's list servers. While list servers provide a load of information on a subject area, most of the information is irrelevant. We still need to sort out irrelevant information and keep the rest. Automatic

[16] France Télécom has launched project Pyramide, which tests some of these agents mainly to book travel and to monitor stock exchanges; others use these agents to assist Internet shopping. However, their usability is still limited. For examples see the following URLs: http://home.mcom.com/comprod/mirror/client_download.htmle or http://genmag.com. For a general discussion see also: Ram Kumar, "Internet Information Resource Discovery Tools: Current Status and Future Trends", Fujitsu Australia Software Technology Pty. Ltd., Australia (http://www.cs.umbc.edu/~cikm/iia/submiited/viewing/kumar2a.html); Keith Clark, "APRIL: A Language for Building Intelligent Distributed Information Retrieval Systems", Imperial College (http://www.cs.umbc.edu/~cikm/iia/submiited/viewing/clark.html); and Mark Nissen, "Intelligent Agents: A Technology and Business Application Analysis" (http://haas.berkeley.edu/~heimann/agents/).

[17] http://harvest.cs.colorado.edu/

monitoring would free us from this extra work, and would regularly check the predefined Internet space for relevant information. However, no one has the resources to get all this information together in one place, in one large database, which is why a cooperative effort is needed. The Internet gives us the opportunity to put cooperation on a totally new level.

3. Result Presentation

Today the Internet allows several formats for full-text presentation. One standard is HTML,[18] another is PDF,[19] and both can be used. However, the simplest approach would be to present the articles as graphic images. The advantage is that any non-Latin character can be presented and these documents can be produced by a simple scan without a time-consuming OCR (Optical Character Recognition) process. The output can have several forms which are partly the choice of the user. They can be either pure text, standard Internet formats such as HTML, PDF or the like, or they can be standard word-processing formats such as Microsoft Word or WordPerfect documents or images and sounds in Internet format.

Information will be directly displayed on the user's screen or can be downloaded to be presented with the respective applications. The exchange of information in different languages, including those with different character sets like Cyrillic, Arabic, Chinese and Japanese, is possible as standard Internet image files.

New Internet tools allow for dynamic presentation of information. One of the latest is the Java script—a computer platform-independent script language which allows programs to be sent over the Net and executed on any computer. Java and other new technologies like Shortwave allow for specific presentations of data. Java makes it possible to present data in a dynamic way—as spreadsheets, modifiable graphs, or animations. Datasets on international relations and security such as the international arms trade, military expenditure, size of arms forces and military holdings can thus be presented not only as static Internet pages but also in dynamic, more pedagogical form. Shortwave allows for multimedia presentations of subjects—e.g. presentations of United Nations peace-keeping operations including video clips, pictures and animations, which are targeted mainly for the general public and the media. It also provides a unique possibility to present the institutes and their research results in a more "popular" way.

4. The Infrastructure

Creating an organizing structure for information exchange is the main task in our information collection and dissemination effort. Those with access to information in the form of printed documents, data, bibliographic references, etc. should be

[18] HTML (Hypertext Mark-up Language) is a page description language for Internet documents.

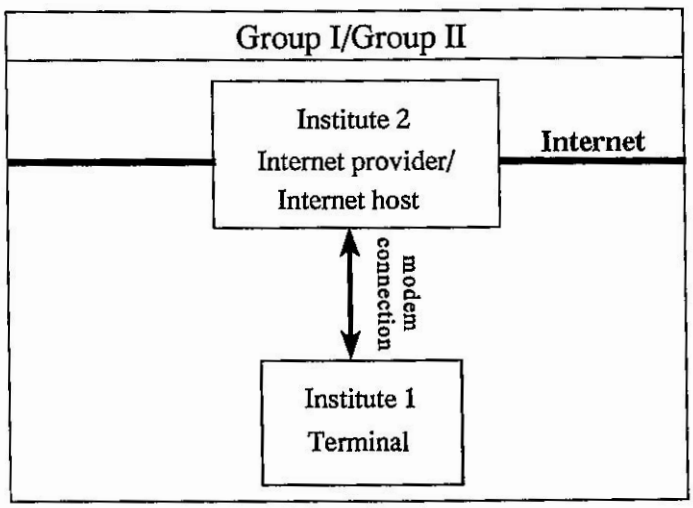
[19] PDF (Portable Document Format) allows for the exchange of documents produced by any word processing or layout program, keeping the original format.

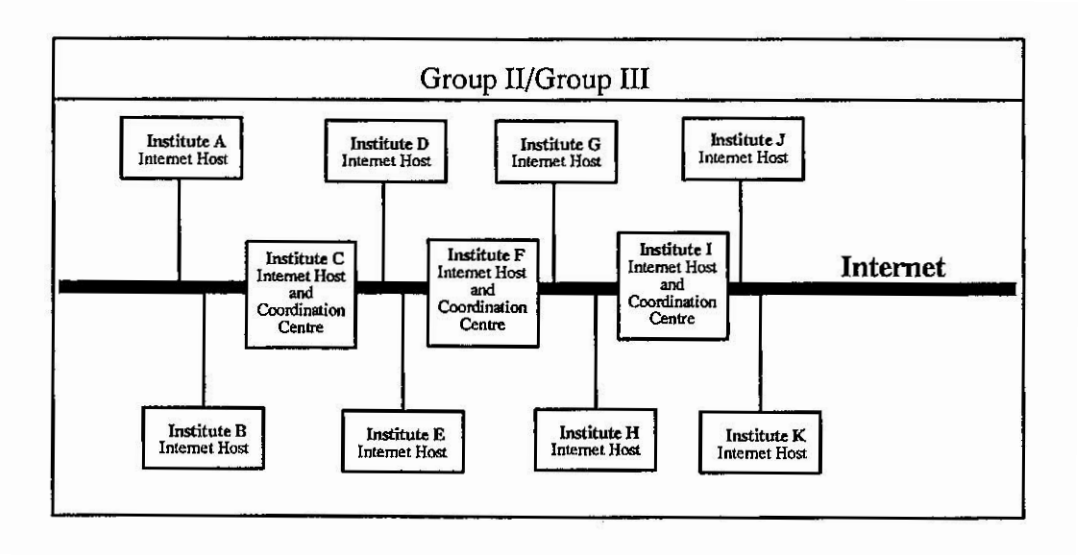
encouraged to share this information with the rest of the community. Agreements need to be made on work-sharing in order to avoid duplication of effort, most obviously in the case of bibliographic information collection. A structure is needed for collecting, producing and processing information and to filter and redirect specific information to specific groups and users.

First we need to build a support structure for all those institutes which do not have the advanced technology for information processing (referred to as Group I institutes). General access to the Internet is inexpensive today: what is needed is a simple terminal-type computer, a browser and other communication software, a modem and a telephone connection to any Internet provider: this guarantees access to the full power of the Internet. New institutes, independent researchers and the like, with very limited financial resources, could afford this set-up or could be sponsored through a special programme. For the cooperation effort, they need additional scanning equipment in order to convert printed information into an electronically usable format.

To establish electronic conferences, common databases and so forth it is necessary to set up a series of Internet servers. Since the Internet is indiscriminate with regard to location, these servers could be located at any institute or in any country. The only criterion is sufficient capacity for signal traffic, i.e. enough bandwidth in the communication lines and enough speed and storage capacity on the server machine.

The institutes with more sophisticated computer infrastructure would be such Internet servers, also called Internet hosts (Group II institutes), and should serve as support centres by publishing the information of Group I on the Internet and serving as mirror sites for other hosts. The form of publication can be in any standard Internet format or as an entry in a database system. The Group I institutes either log on to these computers by modem and input information via input forms direct and on-line into the respective databases or document locations or supply the information through e-mail or by electronic file transfers.





Group III institutes run servers which meet the high-level requirements for on-line communication, sufficient communication bandwidth and computing capacity for heavy traffic, and which also have a specific set of software. Group III institutes serve as coordination centres and are the main target for users searching information.

A coordination centre with an Internet server would be in charge of maintaining databases, and the cooperating institutes together with the coordination centre would feed and update the databases. The detailed set-up and the division of work have to be negotiated.

The amount and coverage of the information included in such a set-up are almost unlimited. It is only a question of resources. As a research tool, however, it would be of enormous value. Any topic or subject could be part of such a set-up, but for greatest efficiency it should be established by means of cooperative efforts and implemented as shown in the figure above.

The coordination centres keep an update of all information kept in the network by regularly indexing the information stored in Group II servers. They serve as mirror sites for other network hosts in order to keep access times low. They also provide the necessary service for searches and for the use of intelligent agents. They regularly produce statistics on use and make regular evaluations of the system and suggestions for improvements and for what additional information is needed (statistics on searches by keywords and their “hits” show where information is lacking to satisfy requests).

Regular meetings of representatives of the institutes would discuss and decide the further development of such a network: additional information needed, work-sharing arrangements to be changed or established, etc.

Good management is important for a network to succeed. This would include setting goals according to user needs, developing a structure where all participants are actively involved, ensuring efficient implementation, and regular evaluation of the project/system/network.

5. Quality Before Quantity

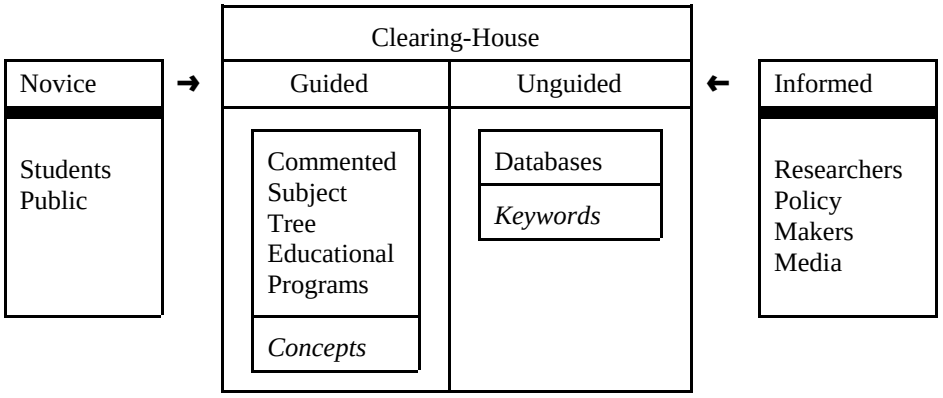
Let us say that I would like to know in a search the quality of the documents I have been presented with. So far, a keyword search provides me only with the information on how many times the word or words I searched are represented in the document. No indication is given of how significant this document or its author is in the political debate. There is no discrimination between an article on American foreign policy written by Bill Clinton and one written by Michael Jackson. A sorting mechanism referring to a database on relevant authors (e.g. politicians in office or eminent scholars) could be one solution, but the decision regarding what type of author is significant is an important one, as is the value assigned to documents. Again, there are many alternatives: different databases can be accessed, average values of judgements can be used, etc.

What is to be included in the databases and Internet document collections must be evaluated. The research community must determine criteria and perhaps establish an editorial board on electronic publishing. Electronically published papers should go through the same vetting procedure as other published papers, but since electronic publishing is not subject to the same cost restrictions as traditional publishing, other papers could still be made available for interested readers, but should be marked somehow. A grading system could be established, for example.

IV. Other Demands on Information Retrieval

Most experts in the field need short paths which lead to locations of specific interest. This short path is guaranteed by database systems, although the layman may get lost in information he cannot use or even may not be able to judge its relevance. This is why a second and parallel gateway is needed. A clearing-house is needed to filter and redirect specific information to specific groups and users—a supportive effort to guide users quickly through the information. The clearing-house should help the uninformed user in a specific way and the informed user in another way. The less informed user needs a different approach to his or her question. He needs to be guided through the subject, he needs comments, he needs to be educated. The International Relations and Security Network (ISN) homepage[20] at the Center for Security Studies of the ETH Zurich is a first step in this direction. On the other hand the informed user often does not need guidance. He wants direct access to information. He knows exactly what he is looking for. This is why two approaches are proposed to this clearing-house function: one is for the uninformed user, the novice; the other for the user looking for specific information by searching in keyword-indexed databases.

[20] http://www.isn.ethz.ch/



1. What Is the Advantage of Such A Set-Up and Why Would We Like to Join?

Efficiency may be increased through coordination efforts in the areas of both the retrieval of information and the production of information. Emphasis must, however, be put on the production of information, because qualitatively high-level information can only be produced and offered by the institutions dealing with the subject in question.

This is not an effort to organize the Internet—an impossible task—but an effort to organize ourselves. Our work has at least two limiting factors: time and money—and with both we have to be economical. Information retrieval costs time and sometimes also money, and information production costs time and money—at least in the form of additional human resources. Work-sharing cuts on spending, while an organized information structure in our field gives us more time. Each of us has to stop and recall how much time we spend to find the precise information we need for our research in order to properly judge how valuable such a system would be. A rough cost-benefit analysis at SIPRI shows that the net benefits of such a system would translate into savings of about US$ 90,000 a year if retrieval and production time is cut by 50 per cent, which I would regard as a minimum value. This means that I would find my information twice as fast and the library staff would have to feed only half the number of references into the database.

Whatever sophisticated search tool is available, the result is dependent on what information is available. One can only find those subjects that have been put there. This is where the efforts of institutes come in. We have to provide the information which is specific and make it available to others. Two scenarios are envisaged. We either (*a*) make it available to the general public, meaning everyone, or (*b*) make it available only to members of a network. The latter implies that we grant limited access to information we put on the Internet. The goal should be to make it generally available, but there are valid reasons for at least partially limiting access to certain groups only.

2. What About the Costs?

For the most part, the technical infrastructure already exists. Some of the coordination centres may need hardware and software upgrades, which could be organized through sponsorships from the still-blooming computer industry. The human resources that may be needed—especially for extra projects to scan documents—could be taken either from free capacities made available through work-sharing or by seeking funding for specific information-processing projects. There are many important documents in our field which are still not electronically available.

In the future such efforts may even be self-funding. Once the problem of electronic money security and administration is solved, small user fees could be charged to non-members of the cooperation structure. If administrating and collecting such fees can be automated and the break-even point is very low, which means it is profitable to charge very low and affordable fees, and if use of such a system is sufficiently high, then it may become a self-runner. Thus only the initial costs have to be funded.

V. Conclusions

Mutually beneficial cooperation between researchers in the East and the developing world and those in the West should be promoted, primarily with a view to the new opportunities opened up by developments in communications technology. It is crucial that we learn to reap the advantages offered by these developments, that we are aware of the pitfalls, and that we adopt a generous, open approach to sharing information. The benefits are indeed mutual: there are distinct advantages to be gained from an exchange between the industrialized and the less industrialized world through institutional cooperation.

Use of existing technology and the Internet is a major task for the future. The daily business of international relations and security can draw great advantages. Making a common effort in efficient dissemination of information will not only provide users—whether they are researchers, politicians or media people—with their required working material, but also create bridges between institutions and countries, and can even serve as a kind of development aid. The outline presented here and the description of existing examples will hopefully lead to further development of such efforts. It is not to be seen as a final design, but as a first step towards a workable approach. Databases are now known to us, we know how to work with them. We are familiar with the Internet, too, but interfaces must be created which allow us to be much more efficient—not only interfaces to handle our computers better but also interfaces which help us to process “relevant” information.

For the creation of an Information Network on International Relations Research together with SIPRI, experience can be drawn both from the work of the ISNet group and the European libraries’ cooperation efforts. The technology exists and is available at moderate costs. What is needed is initiative and a cooperative approach.

Chapter 5

Virtual History: A New Approach to Conflict Prevention and Complex Politico-Military Mediation Processes

Albrecht A. C. VON MÜLLER

I. The Concept of Virtual History

Assessing the outcomes of wars and civil wars, one very often finds the following phenomenon: all main players regret having embarked on the path of violence.

The reason for this is what could be called a "war perception asymmetry". Two facts play a major role in it: the first is a very trivial but important one. Only those who survive a conflict can report on it, thus drastically distorting the societal image. The second factor is that human beings, for good reasons, often enjoy a kind of "surplus optimism" that allows them to live in better hopes and with better expectations than a fully realistic assessment of future prospects would permit.

These optimistically distorted expectations in general greatly help us to survive and to confront the future. In cases of war and civil war, however, this mechanism becomes a major drawback.

The purpose of this paper is to outline an approach that might be able to compensate for the two factors described above. It draws on the most advanced complexity management and decision support technology available today, utilizing them for a different end.

Instead of just optimizing the complexity management and decision-making of one side in a confrontational setting, the idea of "virtual history" calls for bringing the opponents to a joint endeavour to analyse potential sequences of events. By drawing on the methodologies mentioned, it becomes possible to go through complex sequences of events, analysing the dynamics and necessities generated.

The purpose of this endeavour is (*a*) to give a clearer picture of the probability of disappointing outcomes or even disasters, seen from one's own point of view, and (*b*) to create an understanding of the logic of the negative sum games that characterize most violent confrontations.

A simple but very convincing example of the logic of such a negative sum game is the dollar auction:

> One dollar is auctioned, the rule being that not only the highest offer has to be paid but also the second highest. For obvious reasons, one arrives quickly at offers of 90 cents.
>
> Then comes the interesting part: at this stage the player, who had made the penultimate offer of 80 cents, would take a loss of 80 cents (because he would not get the dollar). Therefore it is reasonable for him to offer one dollar. Now the situation has turned around. The other player would now lose 90 cents, or by offering $1.10, he could minimize his loss.
>
> As the same logic again applies for the other player, he will offer $1.20. In hundreds of empirical tests, dollars were auctioned for prices between two and four dollars. This is the time it takes until the players understand that they are caught in the trap of a negative sum game.
>
> Each step is reasonable as a local optimization. Taken together, however, the moves of both sides add up to a downward spiral for both players.

The logical structure of the trap is the discrepancy between local and global optimization—and this is exactly the same logic that applies to many arms races, conflict escalations, etc.

Once the players have understood the logic of a negative sum game, it becomes very difficult to make them go through it again. This means that a kind of "conceptual immunity" against this sort of behavioural trap can be developed—and that is exactly what "virtual history" is about.

II. The Implementation

As to the implementation of the "virtual history" concept one has to make a distinction between the methodological and the politico-human aspects. Methodology-wise the task is relatively simple.

In assessing possible outcomes in a complex situation, probability trees can present possible developments, their respective probabilities, their branching points and the temporal and logical relations between them. Branching points of specific importance can then be modelled in more detail, getting into the respective multi-criteria evaluations and complicating factors such as incomplete knowledge, exogenous influences, etc.

For all these tasks, we have developed, over the last couple of years, the "think tools" that structure, support, and visualize the respective processes. The modular architecture of these tools hereby enables us to represent the structure of the decision-making process and the factors that play a role in it (see below).

As for the politico-human dimension, the concept of "virtual history" offers a broad spectrum of possibilities. If the opponents are not prepared to interact with each other directly it is possible for a third party or a mediator to analyse potential sequences of events and demonstrate the outcome to the relevant decision-making

bodies or persons of at least one of the opposing sides. Obviously it is better to talk to both sides and even better to have them participate actively in the "virtual history" process.

Again there is a less confrontational form of doing this by making the two sides interact through a third party or mediator. By achieving this limited interaction, the process gains in terms of plasticity and persuasiveness.

The best approach is clearly to make both sides interact in a sequential setting with the mediator providing a kind of "shuttle service" between them or still better interacting directly in an appropriately structured conference or workshop format.

In summary, one can say that the "virtual history" approach will do nothing against bad intentions or hard-headed commitments to violence. It helps however to avoid optimistic distortions and misconceptions about possible sequences of events.

Assuming that at least half of politico-historical mishaps and disasters are caused by such misperceptions, the "virtual history" approach will be a valuable new instrument for crisis management, conflict prevention, and mediation.

III. The Need for Advanced Complexity Management

The development of complex systems is generally characterized by the alternation of plateau and transition phases. This is also true for the dynamics of history and the development of civilization.

At present, we are in the midst of a transition phase. This phase, however, differs greatly from previous ones:

- The global industrialization and information society has created increasingly complex organizational patterns in technology, economics, politics, and society.
- The reason for this development is the modular structure of modern science and technology which leads to an auto-acceleration of techno-economic innovation.
- It remains to be seen how its fragile and highly complex aggregates will resist the turbulence and frictions of a transition phase of historical proportions.
- More than ever it will be required in the future to perceive, understand, and shape the structure and dynamics of evolutionary processes.

Our cognitive abilities are poorly equipped to deal with these challenges. Even the interdependence of several factors only is difficult for us to evaluate, let alone the dynamics of complex transformation processes.

This is understood when analysing the environment in which the human race developed. In evolution, it was important to recognize certain shapes and patterns in an uncertain vicinity (is there a tiger behind this bush, or not?). Hence, our visual perception is highly developed.

The guiding and shaping of complex systems was, up to now, not required because human actions *vis-à-vis* nature were insignificant. Only due to our scientific-

technological development has there been a rapid increase in our scope of action. Because these changes were rapid—within the last 200 years—the period was much too short for an adaptation of our cognitive capabilities.

It is the evolutionary success of the human race that it can compensate for its natural deficiencies by resorting to tools. We are therefore confronted with two new fascinating tasks:

- We have to embark on a second civilization challenge. We have to learn to manage and shape the dynamics of the first civilization process, i.e. we have to "domesticate" the unprecedented complexities and dynamics set free by the first civilization process. Unless we are successful in this second civilization process, the first one will roll over the needs and aspirations of mankind not much less brutally and ruthlessly than nature was with us before we started the first civilization process.
- This defines a new field of research and work. We have to develop tools that support our ability to understand, manage and shape complex structures and dynamics far beyond our natural capabilities—and this is exactly what Think Tools are all about.

IV. The Think Tools Approach

Founded on basic research within the Max Planck Society, we started seven years ago to translate the most important methods and approaches of *complexity management* into user-friendly *think tools* for planners and decision makers, mediators, negotiators and arbitrators. A *modular set of tools* resulted, which can be used individually or combined with each other and which supports all thinking functions when perceiving and shaping complex issues.

The tools are segmented into three functional groups:

- **Information Management**
  The task here is to provide tools for the instant retrieval, condensation and transparent representation of complex, heterogeneous information.

- **Analysis and Simulation**
  The task here is to provide a broad spectrum of methods and approaches to analyse, evaluate, and simulate complex structures and dynamics.

- **Strategy Development**
  The task here is to enable the development, testing and optimization of strategies.

A common denominator of many tools is that they function as a "macroscope". Just as the microscope enables us to observe phenomena far below the limits of our

innate optical perspective faculty, the macroscope enables us to observe and visualize phenomena that are far too expanded in time, space or complexity to be observed directly.

As to the methodologies required for dealing with complex structures and dynamics, traditional models and simulation are of very limited applicability. A crucial deficiency of those traditional methodologies is that they do not allow for an adequate representation of structural change. In addition they also have great difficulties in dealing with qualitative insights—which are critical for the most relevant issues in politics and industry.

For this reason great emphasis in the development of Think Tools has been placed on new approaches that enable us to utilize, process, and aggregate qualitative information and to represent and understand processes of structural change.

Seen from a philosophical point of view, "Virtual History" (i.e. the virtualization of historical development) might be an interesting next step in the overall evolution. Given the instrumental power that mankind has acquired, we can no longer afford to learn by trial and error. Some "errors", like a nuclear war or other mishaps of historical dimension, might prove to be fatal. For this reason, we have to start learning by "virtual mistakes", i.e. we have to scan possible paths of development and identify undesirable outcomes before we embark on them. We have to learn from virtual mistakes in order to avoid real catastrophes.

Chapter 6

Some Reflections on a European Information Network on International Relations and Area Studies

Dietrich SEYDEL

I. Introduction

When the "European Working Group on Information and Documentation in International Relations and Area Studies" (now named "European Information Network on International Relations and Area Studies"—EINIRAS), a consortium of the research libraries of institutes on international relations and area studies in Europe, was founded in 1992, the discussions were dominated by the question of how to design a common bibliographical and factual data bank system, how to allow integrated access to databases of the network and to local databases and how to arrive at the degree of standardization of documentational tools necessary for a common database production.

At that time the World Wide Web did not yet exist. When the WWW began its rapid expansion, traditional means of information reference and information services were said to be outdated. The services they offered could easily be overtaken by tools which regularly explore and analyse global data collections. The information offered by each of the libraries or even by existing networks was so limited that they could never compete with that virtual global information reference system that was believed to be self-creating and self-maintaining.

These discussion viewpoints were widely dominated by the experience of representatives from the academic field. For the first time junior researchers were able to have access from their desks to information resources worldwide: to the Harvard Library catalogue and many others. Their conditions as information users differed largely from those of other user groups, e. g. in public institutions and business, where time needed to search for information is scarce and where the quality of the information available within a short amount of time is a major requirement: information which is not available in time is useless. These users need a work-flow

integrated information access, preferably simultaneous access to internal and external sources. But also research institutions more and more will have to take into account time and costs of their staff members for information gathering.

The "information workers" in specialized libraries and documentation centres know that they will have to expect considerably modified working conditions in the near future. More and more information will be available only in electronic form—public distributors have already begun to substitute their paper distribution with an offer in electronic form on their own WWW servers. Libraries will need their own electronic storage means when multiple access to external sources will prove to be too expensive. The amount of information that has to be considered for reference will grow. One of the traditional functions of libraries, namely, the selection of relevant information, will gain an even more important role. Coincidentally, the requirements in content-related expertise of "information workers" in research libraries will increase. Content reference and content based support for information access can largely be improved by combinations of new tools, such as hyper links and electronic full text, with traditional data bank tools, such as standardized bibliographical description, content reference with classifications and/or thesauri and index-sequential search. This is a new content-related challenge for "information workers".

II. The Experience of EINIRAS

A new strategic debate is necessary on how to organize the future European Information Network on International Relations and Area Studies (EINIRAS) to accommodate these new developments. It is obvious that the answer will not be the substitution of the old tools by the new ones, but the combination of both tools in a favourable way and the discussion of their use. These new opportunities—a combination of information reference systems with improved content-related access to "full text"—will require, in our field, an enlargement of the cooperation among research libraries for integrated action and extended information markets. Both can be realized in Europe under specific conditions: multilinguality is one of them.

Different tools for content-related information access that may form "the system" of the European Information Network on International Relations and Area Studies will be presented. Some models for a combination of the different tools for different information purposes will illustrate how the different components could be used together.

1. Components of an EINIRAS Information System

A European Information System on International Relations and Area Studies will have to combine its own information reference tools (A, B, C) and its own full text

archives (E1) with external information sources and access support (D and E). It will consist of the following components:

A. EINIRAS Multilingual Terminology Database
B. EINIRAS Reference Databases and Specialized facts Databases
C. EINIRAS Content-related Interfaces to "Full Text" Information
E. EINIRAS Electronic "Full Text" Archives of its own.

Within this framework EINIRAS will support:

D. the use of other access aids available in the Web and
E. in most of the cases, will refer to external "full text" archives.

Information in databases can be searched by different means for a different degree of precision:

1. By using terms or signs from the information set itself in the language in which it is written;
2. If a part of the information has been categorized, the precision can be improved: you may search with terms from the title, the author's name or the publisher;
3. Higher precision can be achieved by using added information: classifiers, thesaurus descriptors, abstract terms and elements of a formal bibliographical description.

Computers are able to support the search on each of the three levels particularly by establishing inverted files and avoiding a purely sequential search process. The need for using content-related search aids in the form of thesauri and other controlled search terms increases in a multilingual information environment.

Table 6.1: Components of a European Information Network on International Relations and Area Studies

A

EINIRAS Multilingual Terminology Database
For the precise formulation of search questions in the EINIRAS Databases For secured access to interfaces to full text/image resources
Standardized multilingual subject terms Standardized writing of proper names with multilingual references Terminological hierarchical structure Institutional hierarchical structures Historical structures Database structure suitable for multi/monolingual use of the terminology for search-formulation, display of information, upbuilding of the database

B

EINIRAS Bibliographical Reference Database	**EINIRAS Facts Database**
Selection of all types of information relevant to professional users Evaluation of relevant information by differentiated indexing using the terminology database Comprehensive abstractings	Facts directly searchable with standardized terminology: - to make facts directly available via a single descriptor - to make facts searchable with standardized descriptors - to give basic facts linked to the domain represented by a proper name - to give access to facts in text archives by using descriptors and access interfaces
Standardized index-terms for content-related search Bibliographical description of all types of text searchable with standardized descriptors Abstracts of referred information, evaluating the information content Differentiated field structure according to requirements related to information products Sophisticated search tools in languages according to user references Links to full text interfaces for full text access	Basic data on: - institutions (national and international) - conferences/organized events - international agreements - political or geographical areas (world regions, countries, provinces) represented by a proper name Description of field activity by standardized terminology Reference of hierarchical structures Reference of historical structures Links to interface supporting access to external information on the factual domain represented by a proper name

C

Interfaces for Access to "Full Text" (I)	**Interfaces for Access to "Full Text" (II)**	**Interfaces for Access to "Full Text" (III)**
Using text structuring information from a referred document in the EINIRAS database in order to give users direct access to smaller parts of the information offered (chapters or subchapters)	Offering users interconnections from documents or parts of referred documents in the EINIRAS database to non-referred documents.	Offering users—via a subject term or a proper name in the terminology database—access to a set of texts on the respective issue in different sources.
Tables of contents from referred documents with links to the "full text" for each item of the table.	References: - to cited documents - to the previous or the follow-up document - from mentioned facts to their basic information	Content tables or systematics related to specific factual issues are to be used in order to offer under each entry a greater set of information sources with comparable information content.

D

Content-Related Search Aids Available on the Web
Search engines Multilingual search aids External bibliographical databases External facts databases

E

Full Text Information on EINIRAS Web-Servers		**Full Text Information on External Web-Servers**
Storage of relevant and often used text		Use of text sources outside EINIRAS
Keyword search in full text		Keyword search in full text

2. EINIRAS Multilingual Terminology Database

The European Information Network on International Relations and Area Studies will therefore establish a Terminology Database of its own as a content-related access aid to texts and factual information. This Terminology Database has to fulfil several requirements:

1. It has to offer a differentiated, but limited set of subject terms as well as names of geographical units, of international and national institutions and their bodies, of organized and unorganized events, international agreements, etc. in a controlled language.
2. There has to be one primary language for the terminology database. Apart from that language the linguistic equivalences in the main European languages have to be offered for primary subject terms and at least all official language versions of geographical areas and proper names.
3. It has to offer structural help for the use of this terminology: systematic and hierarchical displays of the terms, politico-geographical structures for the geographical terms, external and internal hierarchical structures of institutions, and—where possible—a historical sequence such as predecessor and successor institutions and their bodies, former and later agreements, etc.
4. The file structure and display functions of the data bank software have to ensure that users may work with terminology in the system's primary language as well as in their own language without being disturbed by the presence of other languages; the documentalists, too, should be able to work with the terminology database in their own language.

The Bibliographical Reference Database and the Facts Database are to be searched exclusively with descriptors of the EINIRAS Terminology Database. But, in addition to these EINIRAS databases, the Terminology Database also offers access to information sources via the EINIRAS Interfaces.

3. EINIRAS Bibliographical Reference Database

A consortium of European research libraries will be able to cooperatively establish a sophisticated bibliographical research tool. An EINIRAS Bibliographical Reference Database will have some major advantages:

1. It will refer to that part of the textual information offered worldwide which is considered relevant to EINIRAS users. It excludes a larger part of the information of minor relevance, offered in the Web by publishing houses and other sources.
2. It will offer relevant textual information of all types and worldwide origin in one database: the annual update has been assessed at 50,000 references. Information in all European languages will be particularly emphasized.
3. Basic bibliographic information will be supplemented with abstracts and indexes.

4. It offers access to the information in a standardized terminology; the systematic and hierarchical structures support the precision of their use.
5. Users in most of the European countries can formulate their search in this database in their own language, although the texts referred to are written in different languages. If they are able to read the information they are looking for, active search in another language is not required.
6. Content-referring tools—classification for the broad assignment to a subject/regional field, indexing with descriptors for the specific content reference, and abstracts—help to arrive at highly relevant search results; also useful for generalizing or theoretical issues.
7. The use of proper names—names of institutions or their bodies, events, conferences, agreements, etc.—as index terms in addition to subject terms would largely improve the usability of this database.
8. A sophisticated software system has to be installed in order to facilitate the selection of relevant references, the display according to user needs and the transfer of the data to other media.

4. EINIRAS Facts Database

The EINIRAS Facts Database will offer information on institutions, organized and unorganized events, geographical units—countries, regions—international agreements, databases and text archives. The information stored will be taken from different sources, mostly from newspapers and handbooks. Since handbooks can be made available electronically, the facts database has the main function of offering structural data and up-to-date information that is not available in other sources or not in a form which allows its systematic use.

The Terminology Database and the Facts Database are narrowly linked. A part of the information in the Terminology Database—hierarchical structures, reference to historical relations—is considered as search supporting tools and as factual data.

The Facts Database should be used first of all for direct information, but also for the collection of information for electronic and printed publication. Thus, it is an important support tool for work-flow integrated information. EINIRAS could offer traditional handbook publishers or their editors the production of their handbooks in cooperation with EINIRAS and the publication directly from the Facts Database. The integration of this kind of general information into the EINIRAS database will enlarge the potential of user groups.

The standardized writing of proper names makes it possible for information to be linked more systematically:

- A record on the negotiations of an agreement (an organized event) to the agreement concluded;
- The groups in the European Parliament to the political parties of their members;
- Predecessor and successor institutions, such as the different arms control committees in Geneva.

The Facts Database will offer the possibility of systematic searches: when describing the referred facts with descriptors from the EINIRAS terminology, the user gets a chance to search systematically for these facts, for example:

- All international agreements that regulate pollution of waters;
- All agreements in force between Mexico and Latin American countries;
- All political parties in Russia since 1991;
- Research institutes that work on international political problems of the outer space;
- All land-locked countries of the world;
- National elections in the European Union countries of the last ten years;
- Meetings of the European Council which handled environmental issues.

In all of these cases it would not—in principle—be difficult to compile the information requested at a certain moment, but it takes time and sometimes more time than is available. This type of information system saves time.

5. Content-Related Interfaces to "Full Text" Sources

An information system on international relations and area studies should not only offer its own information reference, but it should also provide access aids to user-suitable sizes of information from its own and external "full text" information sources. For that purpose content-related interfaces in the form of hypertext and hyperlinks will be used.

These content-related interfaces can be designed for the following purposes:

Interface Type I would use the tables of contents or other content structuring elements from the texts referred to in order to offer users not only bibliographical references to texts of larger size and its URL, but also as a tool to get easier access to the information of those parts of the text he/she is interested in. The importance of this tool depends, to a certain extent, on the differentiation in the Bibliographical Database. A reference to single books or of larger reports chapter by chapter in the bibliographical database would offer the differentiation of texts referred to already on that level. For all references that remain more general, a link to a content page and from there to the respective parts of the full text will certainly be appreciated by users.

Interface Type II would go beyond this more technical reference: it would try to refer the embedding of a text into its content environment and intellectual genesis by establishing links:

- To cited text;
- From text or book reviews to the reviewed text;
- From mentioned facts to the related record in the database or a respective text source.

Back references can be established likewise:

- To citations of the text;
- To book reviews.

It remains to be discussed to what extent the technical possibilities of establishing these references should be used. The practice will largely depend on user requirements: professional users need other links from newcomers. Rules comparable to indexing rules will be necessary for the application of this reference tool. From the technical point of view there should be no difference whether the full text to which the links will be monitored is available on the users' own electronic archives or on external ones, provided the text has been formatted according to the respective standards.

Interface Type III links the Terminology Database via the Facts Database to smaller parts of texts in handbooks and encyclopaedias that contain factual information. It serves as an extension of the facts database to the much larger amount of textual information in these media. The interfaces consist of a set of content tables specific to a certain type of information and to the amount of data to be used. A large amount of basic information on countries, institutions, organized and unorganized events, and international agreements, is compiled in handbooks. No factual information system has been able to offer this information, machine-readable in a systematic way. When this information is available electronically in the future, users need support to make this information available for work-flow integrated desk-top information access.

One example: basic information on countries is now available in a greater number of handbooks. In order to allow access to small pieces of comparable information in these handbooks, systematic tables that integrate the contents would be necessary. These systematic tables would form one larger handbook that would partly integrate, partly cumulate, partly double the distributed information. For each country such a table could be used by proceeding from the geographical descriptor in the Terminology Database to the record in the Facts Database and from there to a corresponding interface textpage. Behind each item of this content page there are reference marks which are specific for a single country and link respective texts in the handbooks. The user can take his/her pick.

Such content tables and the links to the single fact item have to be created for each of the subdomains of information: for organizations (international organizations, national governmental organizations, political parties and political associations, and other organizations), for events (political conferences, academic conferences, elections and referenda), for international agreements, and weapons etc.

Interface III can also serve to make a smaller amount of text references available to users via a broad subject classification or a systematic table combined with an area classification. This tool is particularly useful for offering recent information to users. It could also be used to allow a user community to alert new texts to the information specialists for detailed information reference.

Table 6.2: Example of a Subject Tree/Systematics for a Single Country

(Each x represents an address to the respective part of the handbook article on a single country)

	HB1	HB2	HB3	HB4	HB5	HB6
Geography	x	x	x	x		
Terrain	x	x	x			
Climate	x	x	x			
Coastline		x				
Borders		x				
Land use	x	x				
. . .						
History						
before 1914	x					
1914-1945	x					
1945-1990	x	x				
1990-		x	x	x		
Political System	x	x	x	x		
Geopolitical structure		x	x	x		x
Constitution	x		x	x		
System description				x		
Political parties			x	x		x
Political organizations			x	x		x
. . .						
Statistics		x	x		x	
Area/population		x	x		x	
Agriculture		x	x			
Labour		x	x		x	
Industry		x	x		x	
Social welfare	x	x			x	
Finance	x	x			x	
. . .						
Government		x				
Cabinet in office	x	x	x	x		
Former cabinets		x	x	x		
Local/regional government		x	x	x	x	
. . .						
Foreign Policy						x
Basic texts	x					x
Recent documents						x
Member of international organizations						x
International disputes						x
Military capabilities		x	x			x
. . .						

6. Nine Out of x Methods for Information

In the following table nine different methods for information access (1-9) are described, each using another combination of tools (A-E) offered:

A. EINIRAS Terminology Database				4	5	6	7	8	
B. EINIRAS Databases									
Bibliographical references				4	5				
Facts						6	7	8	9
C. EINIRAS Interfaces									
Interface I					5				
Interface II					5				
Interface III			3				7	8	
D. Content reference tools on the Web		2					7		
E. Full text archives	1	2	3	4	5	6	7	8	9

The following methods (1-5) demonstrate the access to text information:

1. The user knows the address of the server or of the information unit itself which he/she requests; he/she has direct access to the information source. He/she may select relevant parts of the text of this unit by using keywords as a search tool; a procedure which is particularly useful with long texts and controlled wording, for example the Maastricht treaty.

2. The user needs content-related search help that is made available on the Web:

   - Search engines: today cumulated keyword-indexes from the text sources are mostly located on separate servers;
   - Databases with library reference information;
   - Commercial databases;
   - Content pages on external servers.

   The text sources required can be accessed via the URL-links.

3. For daily information on recently noticed text references the user may address an EINIRAS interface that consists of a subject tree or classification combined with an area tree. This tool is more suitable for smaller amounts of referred information.

4. The user relies on the EINIRAS Terminology Database and Reference Database, where he/she finds a well-structured, controlled terminology to formulate his/her search question. The search question is transmitted to a bibliographical database which offers references to selected and professionally evaluated information. The

content-referral is differentiated in order to cover all relevant aspects in the single text. The bibliographical references retrieved contain the address of the text on the Web, URL, for access to the full text. In a longer text, keywords from this text can be used for selected access.

5. From the reference database to the full text, the user can be given access to the relevant parts of the text by means of EINIRAS Interface I—content pages that offer a direct link to the text covered by the content page item. When reading these selected texts he/she may use Interface II which offers him/her links to other texts related to the one referred to. The access to factual information is partly similar, and partly different: if the user knows what kind of information he/she is looking for and where this required information is to be found, he/she can proceed according to method 1. In case, however, he/she does not know where the information is located, he/she may use content-related tools in the Internet (method 2) or choose the EINIRAS Information System (methods 6-9).

6. The user relies on EINIRAS services: he/she uses the Terminology Database to find a descriptor that represents the fact he/she is interested in: the name of an institution, the name of an agreement or of a country. The information required is stored in a database record that is directly linked to the descriptor.

7. If it is not possible to get access to the information required by using only one descriptor, the user may describe his/her fact-related search question by several descriptors, for example, "political parties and France". He/she gets—in the writing of the Terminology Database—the names of all political parties which still exist or once existed in France. Detailed information is linked to each of the proper name descriptors. This may be sufficient for his/her purpose.

8. As it is probable that more factual information is available on text sources outside the EINIRAS Facts Database, the user may continue his/her search through methods 6 or 7 by using EINIRAS Interface III. Interface III offers him/her a content table that is tailored to the type of descriptor which represents his/her fact-theme. This specific content table is aggregated from explicit or implicit content-structures of external fact-information tools, mostly handbooks. Via this content table he/she finds access to those sections of articles in various handbooks that cover his/her search question, for example all parts in articles of handbooks that treat the internal institutional structure of the "Parti socialiste (France)" or of several political parties.

9. The EINIRAS Facts Database will offer information on relevant external information resources, databases, electronic library catalogues and other search tools. The content of the information sources can be indexed and described in detail with the EINIRAS Terminology in the EINIRAS Facts Database. Hyperlinks will allow immediate access to the information source.

III. Conclusions: Extending the Network

The establishment of a specialized information system of the quality described requires narrow links to large user groups from the beginning. Their content-related and work-process-related information needs to be basic for the system's development. Large user organizations will in the future need a work-flow integrated information access from internal and external sources. This requires long-term and reliable cooperation. Foreign ministries and international organizations have to be sure that the services will be available in time and according to agreed standards. The tools for information access to their in-house sources and the EINIRAS sources must be harmonized in order to reduce the time necessary to gather the information required.

In-house services could be integrated into the EINIRAS system particularly when they process the same type of information. Libraries of foreign ministries should be invited to think about participation in the European Information Network on International Relations and Area Studies. Duplication of reference and in methodological work could be avoided. Services could be improved: text information is used inside ministries and in embassies abroad. Standardized information services for the ministry and for the overseas posts of a single country could be done by the ministry's internal offices by using the information sources of its own library and of the other EINIRAS sources. The translation services of foreign ministries and international organizations have to work with the large amount of names of organizations and their bodies in each of the official languages and in the official translations used in the different countries: an enormous amount of work that could be done together by the ministries and the research institutes via the EINIRAS Terminology Database.

Foreign ministries, international organizations and the institutes belonging to the European Information Network on International Relations and Area Studies have to think about electronic text archives of their own. This project is too expensive for each of the foreign ministries and for the group of institutes to duplicate. A common electronic archive organization would be the appropriate cooperative solution for this new task.

The maintenance of the European cultural and intellectual diversity and identities should be one of the main goals of a common European foreign policy. They are particularly endangered in the field of information and media. The foreign ministries in the member countries of the European Union have a good chance to contribute to that objective of a secured institutional realm by following the initiative of the EINIRAS member institutes towards the establishment of a European Information Network on International Relations and Area Studies.

Part Three

Bridging the *Connectivity Gap*

Chapter 7

Appraising the Status of East/West Connectivity Problems

Zsolt PATAKI

I. Introduction

Immediately after the political and economic changes in the former Soviet bloc, the most important problem for the ex-socialist countries was how to be integrated into the Euro-Atlantic structures. Central and Eastern European countries introduced this *integration* into their foreign policy priorities as a main political task. After six years of hard "experimentation", the problem still remains the same: before joining the European Union and/or NATO, these countries should close the existing gap between East and West in the use of information technology and multimedia facilities. These countries are not yet at the same level of technological development. In this paper, we try to present some recommendations and conclusions on how to close this gap.

II. Information Society

The post-industrial period's radical changes are affecting economies and societies throughout the world. With the globalization of information technology, access to and use of information and knowledge are now social and economic resources for society. The changes that have taken place affect the "information world", which is based upon the free production, circulation, access and use of information and knowledge. These changes have been promoted by the fast growth of fields such as computer science, telecommunications, entertainment electronics and multimedia (the production value of these industries is 750 billion ECU per year, which is 15 per cent of the average gross domestic product in Europe, with a rate of increase of 10 per cent per year). The result: immense changes will occur, even in Eastern Europe.

The new phenomena of the information society present a challenge, and the reaction given to them—or lack of it—may fundamentally determine the *adaptation of Eastern countries* in the new processes that are taking place. On the other hand, this

challenge provides several possibilities for the promotion of the elimination of the backwardness of Central European countries, and effective participation on a new basis in the international socio-economic division of labour.

The important effect of the integration of technologies is that more and more people, with no geographical or political restrictions, but often limited by the expense of telecommunications, have access to the worldwide networks (through office, home, or mobile personal computers), which have access to an extremely high volume of information (encyclopaedias, books, films, commercial data), and to various means of communication (e-mail, multimedia teleconferencing, etc.).

The emergence of the information society also represents a great chance for Eastern countries to join the developed world, but only if they are able to handle the related processes in time and by taking the appropriate steps. Also, it is important that the main objective of these countries should not only be to strengthen the information and telecommunications industry but also to show how to use the results for modernization and joining the developed world.

From the traditional point of view, infrastructure and services create *non-tradable goods.* Parallel with the strengthening of the information economy, information and related services have become tradable, and the infrastructural means of creating and transmitting information play an important role in foreign trade. The growth of the information economy is becoming more and more significant, and a *driving force of international integration* of any economy has become its capacity to support technology and product development. Consequently, the changes also present themselves in the creation of workplaces and jobs (through export producing).

Economics has already gained universal dimensions and become *global*, as the telecommunication networks cannot be stopped at national borders. It is cheap and economical to operate networks of universal dimensions by virtue of built-in computerized control systems. The telecommunications market is gradually becoming international. Globalization of this market also allows international optimization of economic activity (production, trade, services). Thereby direct production costs of goods can be decreased, while a significant proportion of the excess profit has to be assigned to the creation and operation of the necessary infrastructural and informatics systems. On the other hand, such systems may also serve other (cultural, educational, public health, environment protection, etc.) demands.

III. International Connectivity

In the context of the information society, to be connected the population of a country needs to be computer literate, to have certain computer skills, and to speak and write foreign languages. By 1990 the Internet had reached Europe, bringing with

it a new realm of possibilities. Today all five continents are connected to the Internet: the Internet now means the computer network.[1]

Thus, every Eastern country should be aware that any major delay either in decision-making or execution during the development of the information society will inevitably lead to losses, because in the remaining years of the nineties the world information system is being shaped, in which a *gap separates the most advanced countries and those that are lagging behind.*

Privatization and restructuring of the telecommunications and computer systems are being carried out in Central Europe. If these countries are able to respond to those challenges in time they can create an attractive environment for the economic activities of the region through a modern telecommunication and information infrastructure, and through the related organization, application and service technologies. And this will inevitably result in modernization and integration.

IV. The Present Situation of East/West Connectivity

During the last few years, computer engineering (of both hard and software) has undergone rapid development (e.g. the performance/price ratio of computing tools has increased one millionfold). At the same time, interconnectivity has rapidly increased: fewer and fewer computers operate in isolation. This means that proper systems engineering solutions allow each personal computer (PC) to establish a connection via local or telecommunication lines and to use programs and data available on a node of a network.

Computer networks induced a *global conductivity*, since the international computer networks make it possible for everyone to have access to a huge and continually growing mass of information, to establish a bi- or multilateral communication (via e-mail, multimedia, teleconferencing, etc.), or to increase the mass of information by personal contributions—without any geographical or political restriction.

Until the 1990s, the Eastern European PCs were interconnected mainly by analogue telephone line networks. The analogue system (for audio-frequency signals) was not efficient for an intensive communication (digital signals). But the

[1] To give an example in Central Eastern Europe, Hungary has very good computer management teams, working at the big Budapest universities (Budapest Technical University and Budapest University of Economic Sciences). The Hungarian home page on the Internet was realized by a team working at the Technical University. Since 1989, Hungarians have had the opportunity to improve and develop the international connections of the domestic networks. Under these conditions, the first connections were established with EUnet and later EARN, HEPnet, IBM Academic Initiative, and finally the Internet (in fact Ebone and EuropaNET). Domestic users are connected to the international networks through the Budapest-based HBONE server. At the beginning of the 1990s, all international traffic was run through two lines of 64 Kbps each. Later, with the financial support of the EU PHARE programme, a special server was installed in the centre of MATÁV (Hungarian Telecommunication Company), a European MultiProtocol Backbone (EMPB) server.

development of telecommunications technology, namely the digitization of telecommunications, broadband data transmission, mobile telephones, the use of optical cables, etc. means a significant step towards the information society. Thus, there was a need to digitize the conventional telephone networks. But, despite the improved technology, the transmission rate of these signals has only reached 28 Kbits per second (Kbps). However, the new integrated digital networks (ISDN) are able to digitize sound and colour pictures as well. This method has considerably increased the rate of transmission: a simple ISDN channel operates well at 64 Kbps, using standard copper cables. Using these, audio and video data may also be transmitted via the available networks.

Until this moment, the scale of conventional *Internet services* (mailing, file transmission, network news, remote check-in) has spread: new applications have appeared. The information retrieval programs, gopher, WWW mean a new quality for the users. A new, very effective tool for business-purpose information transmission has also been developed: the *electronic data interchange* (EDI) means automatic transmission of structured data of standard content and form from computer to computer, or from application to application—without human intervention. It does not depend on the application and the hardware environment, data transmission mode and national language of the user. Use of EDI significantly reduces expenditure at the micro-economy level, business administration becomes more efficient and exact; the production cycle is shortened; stock-management is improved. At the same time, video and multimedia services are already filling a central role in the information society.

The information society cannot be created without an *advanced computer industry*. As the state of the national economy, market and society are main factors in computer engineering and telecommunications. The information industry in Central and Eastern Europe has good enough human resources, and these countries have good capabilities in the fields of computer engineering and telecommunications. As an example, it is worth mentioning that Hungary is well provided with top-rate software engineers. Table 7.1 shows the types of computers being used in Hungary.

In the European Union the workstations and multi-user systems represent a greater part of the total number of computers, their average capacity is also higher than in Hungary.

Table 7.1: Number of Working Computers in Hungary at the End of 1993

Category	Operating stock	Rate (%)
Personal computers	402,970	98.9
Workstations	1,839	0.4
Multi-user systems	2,731	0.7
Total	407,540	100

Source: *IDC Handbook 1994*

1. Interconnectivity in Central and Eastern Europe

New tools are now appearing which interconnect computer engineering and telecommunications. The first *multimedia computers* are also available in the Eastern part of Europe. These computers are able simultaneously to receive television programmes, to show movies, to play music CDs, to perform conventional computer jobs, to operate on a computer network and to provide audio and video telephone services. Today, the future integrated TV (video, phone and computer) becomes a reality. Before such equipment becomes widespread, an important technical problem has to be solved: infrastructure permitting two-way communication has to be supplied to households at a reasonable price. In the developed countries, investments that connect households to the global networks by fibre-optic systems are also in progress.

Digital data storage and transmission are making possible the integration of computer engineering and telecommunications, creating a new medium that permits two-way communication.

The *Internet* ensures easy access to large quantities of information. World Wide Web browsers enable the user to access and process interesting and valuable information.

E-mail can now be sent to almost every country of the world; the total number of e-mail users is estimated to be 50-60 million people worldwide.

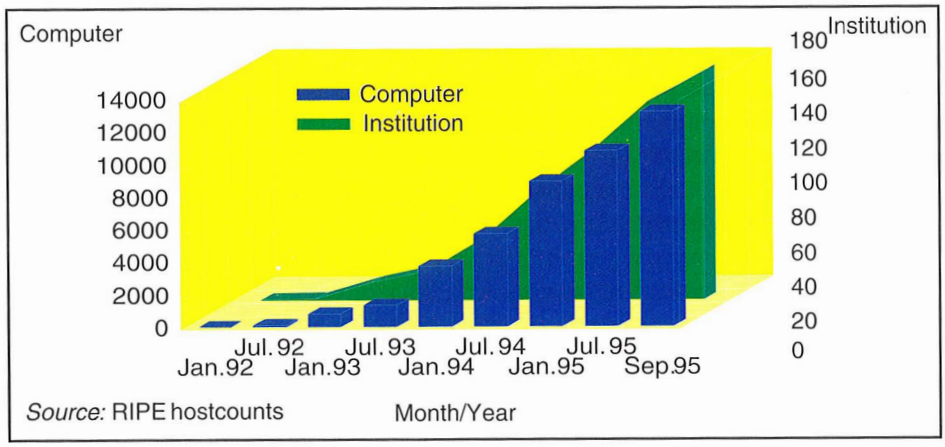
In Europe, the Internet looks back upon a six-year past. Europe is several years behind the USA, where there are T3 backbone networks (operating at 45 Mbit/s) that have been working for several years. In contrast, in Europe there is as yet no E3 all-European backbone network (34 Mbit/s) despite concentrated efforts. The database industry shows dynamic growth worldwide and the demands and conditions for database services exist in Central and Eastern Europe as well.

The recent contraction of the Eastern European States' economies has somehow decreased competitiveness of industry, but the countries' integration into the European Union requires that they be able to make information available to those playing a major role in economic life. Many production units lack the financial basis for establishing the necessary human and technical conditions for information gathering and distribution on an international scale, while for others the possibilities are given only for use of databases in certain fields.

2. Regional Comparison

In Hungary, the domestic network has resulted mainly from the operation of the National Informatics Strategy (NIS) during the past 10 years. Similar programmes have been developed in neighbouring countries as well. Ever since 1986, the introduction of computer networks and the applications building upon them has been in progress in Hungary, within the scope of the NIS programme. The following figure summarizes the trend in the number of computers connected to the domestic Internet:

Graph 7.1: Registered Computers in Hungary



The most recent estimates suggest that in Hungary, the domestic network community consists of about 50,000 people. NIS achievements have also considerably contributed to Hungary's rather good place among the countries of similar category from the viewpoint of the Internet. For the sake of comparison the number of registered Internet computers of some European countries is given in Table 7.2.

Table 7.2: Registered Internet Computers of some European Countries

	Total	**Per 1000 capita**
Czech Republic	19,275	1.87
Poland	18,938	0.49
Hungary	12,541	1.22
Ireland	10,305	2.86
Portugal	9,751	1.00
Iceland	7,828	29.65
Greece	6,740	0.65
Turkey	4,892	0.08
Slovenia	3,895	1.95
Estonia	3,070	2.05
Slovakia	2,574	0.48
Ukraine	1,829	0.04
Romania	1,179	0.05

Source: *National Informatics Strategy*, Budapest 1996

V. Connectivity Problems

In the Central and Eastern European countries, several technical and financial obstacles exist concerning the introduction of new technologies (networks, multimedia, Internet, etc.). These are, apart from costs, quality and a lack of leased-line services of national telecommunication companies. In the interest of each Eastern European country, several action programmes are needed to be realized in order to give an "Eastern European" response to the challenges of the information society. This general modernization programme should contain the following objectives:

- Promotion of a competitive economic system able to participate in international cooperation;
- Development of the telecommunications infrastructure and services;
- Establishment of information services for the population;
- Development of domestic computer manufacturing tools and services;
- Making popular the new opportunities provided by networks;
- Formation of an appropriate legal environment;
- Establishment of an internationally integrated national informatics strategy;
- Harmonization and achievement of EU conformity.

Information Technology as a Means of Broadening Democracy

Today's world of personal computers which are interconnected with each other and the huge data banks linking all points of the world suggest a new approach. Present development of information technology gives a chance for decentralization, because in a democracy, participation means not only voting, but opportunity for more responsible common decisions. The information revolution fundamentally transforms the exercise of civic rights, too. Whoever can access the necessary information with ease starts with a significant advantage. Familiarity with information technology also makes it easier for the subject to provide information, and so he/she exerts an influence on the nature of the information "area" in which public debates take place.

The revolution of information technology has transformed the education methods: in the educational process the commitment to memory is of decreasing importance, and methods of seeking information are gaining ground. Students may search for data and programs from electronic databases. Instead of passive learning, active learning comes to the fore. The teacher can no longer be aware (and it is not necessary for them to be aware) of all that the students know and are learning. With the development of multimedia, instructional tools readable from CD-ROM are appearing in addition to school textbooks. Audiovisual learning is diminishing the amount of learning by reading. Virtual, interactive visual aids are becoming available.

Significant effects on the growth of effectiveness of scientific research can also be detected, since, as a result of the possibilities provided by the worldwide networks, scientific research is becoming a matter of interactive team work and is becoming

geographically unlimited. E-mail has already become scientists' most important means of communication. Data, texts, multimedia materials accessible through the Internet are increasing rapidly; the world's biggest libraries are making more and more and bigger and bigger portions of their catalogues accessible through the Internet, so creating a "virtual library".

The necessary condition for science in Eastern European societies to remain viable and to survive is to grasp these possibilities in time, to gather information without restraint in the multimedia world of electronic data/documents, and to take full advantage of the opportunities provided by the virtual library. For closing this gap, it is necessary to fix the main objectives and to give a list of practical steps, a sort of list of tasks to be done in the next few years:

1. The need for the development of the information society appears first of all *in economic relations*, where far more direct relationships can be established among the participants of economic life in the global market place: i.e. a fundamental structural transformation of company and inter-company relations is to be expected. It is absolutely necessary to build up the electronic commercial and logistics services, and the forwarding of business transaction documents should be promoted and supported (computerized administration of marketing, business contracts, transactions and payments).

A great deal of statistical information and data originates from activities of public administration which can be used by the economic agents to enhance competitiveness and export capabilities. Those who are involved in economic life should have access to such public information. Computerization would help people to arrange applications for permits from the authorities, would facilitate the management of settlements; and would act as an incentive to the entrepreneurial sphere in becoming involved in the solution of local tasks, etc. Thus, the "information revolution" may become a *driving force of economic growth* because of its effects on production and services. This may happen partly through added value produced directly by the information sector, but it will preferably be in an indirect way: by increasing the effectiveness of the economy as a whole. The chances of this taking place are much greater than the continuous growth expected from the boom and international integration of the traditional economic branches. Or the other way round: international integration, creation/maintenance of growth and competitiveness of the traditional branches require support from the *information economy*—the whole system of telecommunications, electronic bank services, multimedia services, etc.

Economic organizations are being greatly transformed and are becoming more effective, because the new computer-based communication technologies (e-mail, address lists, electronic bulletin boards, discussion groups and conferences) cause a change of character in offices and very many other organizations. The new technologies may bridge temporal and geographical distances standing in the way of information exchange, but may break through hierarchic and bureaucratic difficulties, too, in so far as they facilitate vertical and horizontal information flow within a given organization. The new technologies may cause procedural—decision-

making—mechanisms usual within the institutions to be modified, and the usual norms to be transformed. Furthermore, the differences in information-gathering ability, and thereby business opportunities, between large and small enterprises are fewer in the electronic environment.

2. In the field of *electronic public administration*, the computer networks should be available for commercial enterprises to communicate with public administration (mailing and data communication).

After taking into account the Government's security requirements, steps should be taken to create a uniform and closed network in order to reduce telecommunications expenses and to create the appropriate operating conditions. The resulting network capable of transferring data, voice, pictures, or text will serve as a means of linking all the Government organizations (ministries and subordinate institutions) and connecting them to the international networks.

3. In the field of *education* and *health care*: multimedia PCs, connected to the global network, should be available to every user of educational institutions or public libraries. This should contain health data, prevention, therapies and social insurance details.

4. In *private life*, multimedia materials of various information sources (libraries, museums, databases, printed matter, etc.) through the computer networks may play a role in education and entertainment. In addition the use of the various (commercial, financial, etc.) services also allows a convenient and wide choice which may considerably improve the quality of life.

In the information society, consumers should gain free or inexpensive access to global information. This means a fast and high quality Internet connection and a signal quality suitable for modem-based communication. So far as the consumer is concerned it means accessibility of medium (9.6 Kbps) and high-rate (14.4-28.8 Kbps) good quality and inexpensive modems. Alternative transmission paths with bandwidths meeting the demands have to be provided for the Internet. The construction of an Internet backbone network has to be urged and supported. At the same time, Internet connections of the governmental, research and educational private networks have to be urged and supported as well.

Social inequalities between Eastern and Western countries may damage the information society. The ability to operate the information technology may be one of the main factors resulting in differences or inequalities among the nations and within the individual countries. On the other hand, the use of the appropriate strategy could moderate or change the hierarchy in favour of some countries. Without the ability to operate the information technologies, disadvantages will inevitably be caused both for economic subject and individual. As employees they may be shifted to the margin of the labour market, or in the case of entrepreneurs they may well find themselves in a disadvantageous position in the business sphere.

Polarization may easily emerge in the international society, with a wide and deep gap separating the "information-poor" from the "information-rich". As the Eastern European information culture is rather underdeveloped, there is a real danger that the information-poor will stay in a "master-slave" type relation with the information-rich societies. Information polarization between nations is not desirable because the lack of wide-ranging knowledge decreases efficiency.

There is an other negative aspect: modern mass communication possibilities are capable of *widening the gap* between the "haves" and the "have-nots". The new media may push people as well as countries, which are excluded from the information society, to the margins. New owners may create virtual places for their own business purposes, whilst the new property-free may look around and consume, but they cannot produce information. The latter may not have voting rights, in contrast to the active participants who make laws and achieve success. The basis of distinction is visibility, which depends on technology, software and content. The appropriate virtual presence is only the question of a World Wide Web station. This is also true for the information technologies: the operating and controlling politico-economic environment, rather than the technologies themselves, is responsible for either success or failure.

VI. How to Bridge the Existing Gap

1. The World's Response to the Challenge

Concerning the new challenges of the information society, several strategic studies and programmes have been conducted in many countries. The most advanced countries have set themselves definite aims in their strategy. The United States has defined economic growth as the basic objective, dealing with increased efficiency, international competitiveness of American products, and with the improvement of the standard of living. The Japanese approach prefers the concept of the intellectually creative society. Without any doubt, these aims can serve as examples to the Central and Eastern European countries. Also, the strategy of the European Union, accentuating the economic competitiveness and improvement of the employment situation, was emphasized in the Bangemann report (May 1994), entitled "Europe and the Global Information Society". Its main message is to accept the USA/Japan challenge and prefer market-based solutions in establishing the information society. For this purpose, it states the need for:

- Deregulation, putting a stop to monopolies and drastically decreasing tariffs above all in the telecommunications field;
- Regulation of legal protection of intellectual property is an important task, with particular regard to new challenges of globalization and multimedia;
- Development of network services (EURO-ISDN, European Broadband Infrastructure).

As a result of the February 1995 summit of the seven most developed industrial countries (G7), eight fundamental principles of cooperation in developing the information society were defined:

1. Stimulation of fair competition;
2. Encouragement of investments by the private sector;
3. Formation of a jointly acceptable regulation sphere;
4. Provision for free access to the networks;
5. Provision for the uniform regulation of and access to the networks;
6. Promotion of equal opportunity;
7. Promotion of diversity of data-content, including cultural and language dissimilarities;
8. Recognition of necessity for worldwide cooperation, with special regard to the less developed countries.

From an Eastern European perspective, this last point can be interpreted as a concrete recommendation for closing the gap between the Eastern and Western countries. By the means of these very important principles, a Global Information Infrastructure is striven for. Its main features are related to the stimulation of connectivity and cooperation, development of the worldwide market of network services and applications, data security and intellectual property, provision for legal protection of personal rights, cooperation in R & D and in the development of new applications and tracking of social and communal effects of the information society.

The G7 countries also decided to launch pilot projects to establish elements of the information society. The purpose of these are to:

- Promote the objectives of an international consensus being established on common principles;
- Prepare the field for effective cooperation;
- Provide a possibility for information exchange;
- Present opportunities to the public that are otherwise hidden in the information society;
- Identify obstacles to practical realization;
- Assist in establishing the market for new products and services.

2. Necessity for a Strategy

Because of the present status of the Eastern European countries, in order to close the gap existing between the Eastern and Western societies, it is necessary to define a very clear, coherent modernization programme, taking into account the challenges of the information society. This requires the elaboration of an appropriate strategy, because the introduction of the most modern computer and telecommunications tools and the related operational methods are of basic importance for the transition of Eastern European industry. In certain areas of computer engineering and

telecommunications, these countries have good capabilities, enabling them to participate effectively in the international division of labour. The decreasing significance of "geographical" factors offers a *special chance and a challenge* to the individual and to the economic organizations of small countries because it is now possible to be involved successfully in international socio-economic life (production, research and development, culture, etc.) without having to be physically present in the leading countries.

Human capital should also be taken into account in the definition of the strategy. However, the circle of objectives should be widened with special aims related to the fastest and most effective realization of social modernization. This means that the objectives of the information society should also imply the development of human capital.

Since these countries are still in transition, the national strategies should be especially sensitive to the *global aspects of transition*. The new stake of the "information society" is—through the intensification of the international competitiveness of the national telecommunications industries—to gain advantages and to close the gap between East and West. During this competition, the efficiency of the informatics industries with the achieved technology level is only one of the determining factors. Therefore, reproduction of any cultural disadvantages, and the remaining regional backwardness can be severely harmful to any social programme.

Private entrepreneurs should form the basic elements of the information society but the State should have, mainly at the beginning, a supervisory role. It is important to separate the tasks of the State and the private sector. The building of the information society, i.e. establishing the infrastructure, technology and services, is basically the task of the business sphere. By making laws and regulations, by outlining the framework, by giving positive examples, and—perhaps most importantly—by providing the educational system, the State plays a decisive role in this process. It should be emphasized again and again that the key elements of this era are communication and the inexpensive microchip. As the most effective price-decreasing factor is competition, the State can ensure that affordable products will be available during the formation of the information society by preventing monopolies, by removing controls, and by allowing the most open competition.

Despite the dangers and difficulties it can be stated that **adaptation to the information society** means a great chance for Eastern countries to close the gap, and the related strategic decisions have to be made consciously by the participants concerned (the State, social organizations, private enterprises). This should be supported by appropriate national strategies. The information services should be available for the widest possible range of users. Access to the services of the information society for everybody concerned is of fundamental importance for Eastern European countries' present and future. This assumes:

- Good infrastructure conditions: a nationwide physical infrastructure for network access;

- Service conditions: services available for the users, e.g. access to international networks, domestic information services, tools for office work;
- Conditions of consciousness: information and propagation to stimulate demands, education and training, consultation possibilities; and
- Financial conditions: formation of a price structure to create a solvent demand, thereby ensuring a profitable return for the suppliers.

The role of the State in Eastern Europe in building up the information society should also be emphasized. The States using telecommunications in their modernization process cannot avoid assuring special tasks in order to modernize the educational system. The improvement of the mass information culture is needed for the competitiveness of further generations. Therefore, the State must be at the same time:

- *Good applier and user*. This is the most important role of the State, because in this way it can drastically improve its own operation (efficiency and effectiveness); it can catalyse the informatics process (purchases, outsourcing, etc.) by creating a big and stable market; a considerable portion of applications is represented by public services, which strengthens the economy.
- *Lawmaker, controller, supervisor, executive*. The State removes the obstacles to achieving an information society, and restricts its negative features. It is also important to support and control open-market competition, and the related tariff policy—which are necessary for the inexpensive and public telecommunications services. It is the task of the State to monitor the authorities; to coordinate cooperation with the European Union; to build up and operate the basic national databases; to control copyrighting, data circulation and use, and the necessary standards; to ensure law harmonization in relation to informatics and to protect the rights of the individual under the new, changing conditions.
- *Information supplier*. The State owns data of exclusive importance. For their use the State should make available the data by forming a proper informatics applications environment. This process has been strengthened, but it is still in the initial phase.
- *Sponsor*. The State should support research and development, should start pilot projects, should promote informatics in education, culture and science.

Presumably the social gap will increase between the rich and the poor, and the difference in possessing information commodities will be of greater and greater importance. Market-governed prices, limiting consumption and access, will cause very great damage to society if correction is not initiated in time. Where the information is considered to be one of the goods, the process of informatization is self-controlled, self-promoted and profit-oriented. At the same time, one of the greatest dangers is the *polarization of societies*, whose prevention requires a State strategy (coherent education, culture, R & D projects, etc.).

In view of a coherent national strategy, there is a special need **to improve the interconnectivity between the East and West**. Concerning international relations,

it is necessary to improve links with the international information networks. As a practical recommendation, we state that data communication lines of higher performance and bandwidth should be established between Eastern and Western European countries. It is also strongly recommended that the Eastern countries take part in building a high-speed (34-155 MBs) professional European IP backbone. In the meantime bilateral relations with various special purpose international (mostly European) computer networks should be established (e.g. European Nervous System, administration, public health, research networks, etc.).

Scientists should play a greater role in the international research projects related to the information society. The possibilities of participation in the international—mostly European Union—research projects should be more extensively propagated (e.g. through special centres to be established). In addition, it is also recommended that a *health information system* be set up by connecting hospitals, doctors' offices and pharmacies, and to establish access nodes for the population. Such networks would make it easier to rapidly and reliably forward diagnostic and/or treatment information to the institutions concerned and to the individual.

A *nationwide environment system* should be built up to improve environmental protection. Its basis would be a nationwide data collection network, which would be able to continuously measure and store the environmental parameters (temperature, rainfall, air pollution, etc.) from relatively densely placed points. The measurement data and results should, of course, be available to the public, too.

Concerning the present status of national education, there is a real chance to improve it by means of new technologies. New methods should be introduced in the education system, such as computer-aided teaching, use of multimedia and the Internet, and should be made general—for all the people taking part in the educational sphere. International cooperation is also very important: in the field of education, the PHARE and IBRD projects are the best working ones; the organizers and participants of these projects are fully aware that the communication culture should be improved.

3. Some Objectives and Tasks

From the point of view of the individual or of society as a whole, the changes may be beneficial or disadvantageous. The benefits are not too difficult to achieve; so far as the disadvantages are concerned, these can be reduced if the objectives as well as the methods and tasks have been clearly specified. Thus, the strategic objectives may be to:

- Improve economic competitiveness and increase Eastern countries' export capabilities by means of cheap and available computer and telecommunications services;
- Promote efficiency in the administration by introducing new technologies;
- Increase the efficiency of criminal investigation and personal safety;
- Create new practices regarding autonomy and freedom of information in order to strengthen democracy;

- Adjust the educational system to the new computer requirements and methods;
- Improve public health;
- Strengthen the integrating role of culture in a world of new genres;
- Introduce new lifestyles of social and economic importance;
- Establish the formal and informal conditions for joining the European Union.

VII. The Hungarian Example

Several countries have already created their own strategy for the next 5-15 years. In the spring of 1995, as a result of a long mediation process, the Steering Committee for Hungary's National Informatics Strategy (NIS) was set up. This committee desires a drastic change of society and economy by means of the information society. This means that the social and economic processes affecting technology should be thoroughly examined and that the objectives and tasks be clearly defined. This should be done in such a way that public opinion and, especially, educated non-professional people are able to understand what is being done. These efforts are reflected by the character of the ministries and professional bodies represented on the Steering Committee, and by the fact that well-known experts have been asked to work on the three subcommittees (social sciences, informatics and telecommunications).

Now, it is worth mentioning the main aspects of the effects of the information society in Hungary and the history of the development of the Hungarian telecommunications infrastructure.

1. Actual Domestic Developments

Between 1990 and 1993, during the intensive increase in the supply of phones, the main strategic goal of the telecommunications development was to build up a modern national network infrastructure with a view to establishing developments for the immediate future. Investments of an amount approaching three quarters of the receipts have been realized. The result was that a high capacity digital backbone network interconnecting 54 regional exchanges of the country has been established, which largely works on monomodal 10-50-fibre optical cables (on a 2,700 km long route) and with a digital microwave system. In Budapest a similarly high capacity digital network has been built up. In 1994, Hungary headed the list in Central Eastern Europe for the greatest proportion of digitization of the telecommunications infrastructure.

Since 1994 quantitative development and full automation of the phone service have received the greatest priority in telecommunications development in addition to the introduction of the most important business communication services. The suppliers of GSM mobile phones appeared in 1994. In 1995 the paging providers of the ERMES system in accordance with the European standard, first intelligent network services, integrated digital (ISDN) services, as well as managed leased network services,

started. In 1996, the introduction and continuation of the new data communication and intelligent services, and installation of the synchronous digital (SDH) equipment for the national backbone network were started. It is planned that by the end of 1997 the telephone network will have become fully automated and a balance will have been reached between demand and supply.

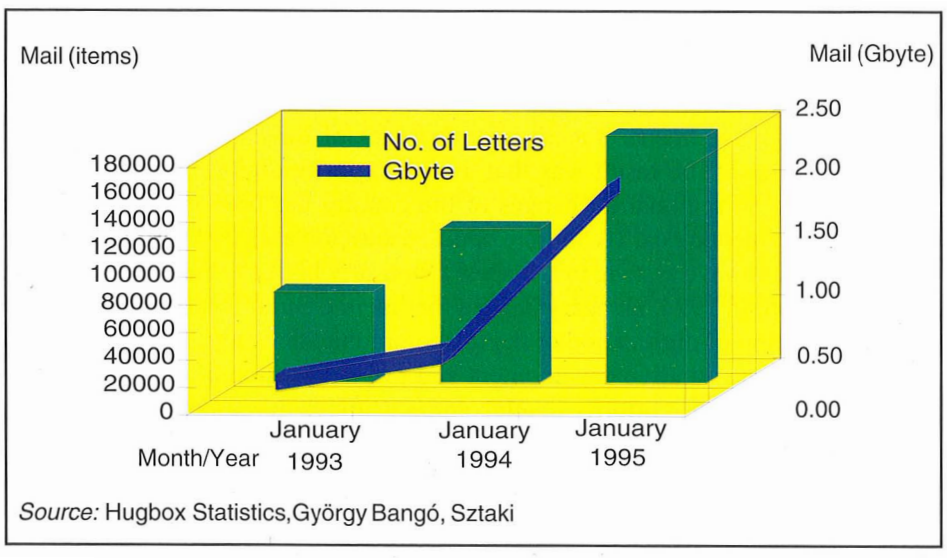
Concerning the domestic *electronic mailing* facilities, this was initiated in 1988. Today the Hungarian language ELLA electronic mailing system operates with more than 7,000 active correspondents, and about 5,000 items of mail per day. Development of the domestic Internet has broadened the circle of those using the mailing. Universities, research institutes and libraries use electronic mailing as a common working tool.

The domestic *Internet* was established as a result of the HBONE project. HBONE successfully integrates all the basic network technologies from the local networks. Operation of the backbone network is an extremely important task since it ensures the daily work of about 50,000 users.

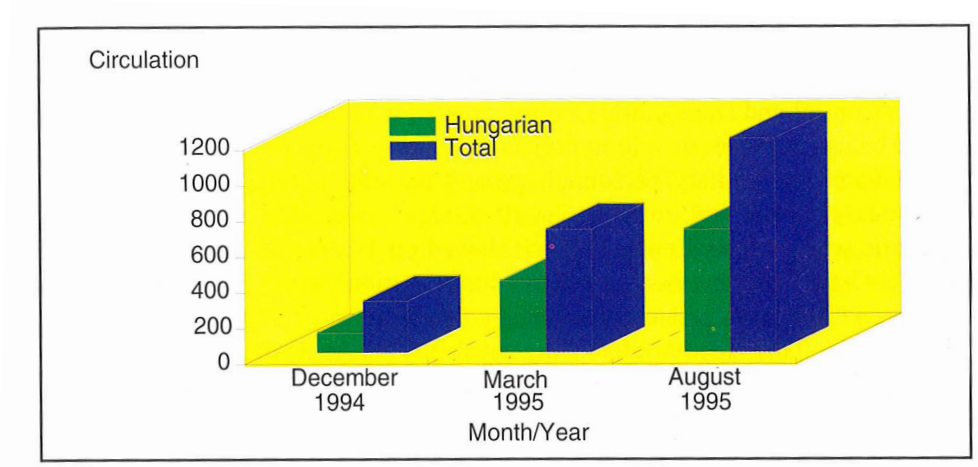
The number of Hungarian language mailing lists is approaching one hundred. Electronic versions of newspapers are also accessible. Domestic features of the network news are under way. At present about 30 domestic features can be found in addition to about 10,000 foreign ones.

At least 300 WWW and gopher services are now in operation in Hungary (see Graphs 7.2 and 7.3). Ninety-eight per cent of these have been established in institutions linked with the NIS programme, which also supported the creation of the Hungarian Electronic Library (responsible for the network publication of some of the classics of Hungarian literature).

Graph 7.2: NIS Mail Gateway Circulation



Graph 7.3: Hungarian Homepage Daily Circulation



Almost half of the browsers are curious foreigners, whose impressions acquired about Hungary are greatly influenced by the attractive and informative homepages.

A small part of the more than 150 Hungarian *databases* are privately owned. The most used database manager software is ISIS and most databases operate only on PCs. Hungarian databases contain mainly (80 per cent) bibliographic information. The number of *on-line databases* is relatively high, the number of hosts is also increasing, currently 8-10 are operating in Hungary.

2. Multimedia in Hungary

Multimedia tools are continuously spreading in Hungary. Today, domestic computers integrate a CD ROM, a good-quality monitor and an audio-card. Hungarian CD ROM publications have achieved good results, and all the international CD-based information can also be purchased, and the drop in prices of CD readers has reached Hungary as well. Pupils and students now grow up in the virtual and real world of CD sound, video and information systems. The NIS is promoting the preparation and distribution of Hungarian language multimedia information (statistical data, public information, Hungarian culture, etc.).

In order to increase the efficiency of education, the new facilities of computer-aided education should be involved in the educational process. The first education institution to use these facilities in Hungary was the Military Language Training Centre, which was established to teach specialized military language and to disseminate the latest achievements in disarmament studies and civil control. As the process of language learning and civil control is based on communication, this centre represents an informational and communicatory isle in the Hungarian military, provided with a fibre-optic backbone Local Area Network (LAN) consisting of four educational LANs and one administrative LAN. This LAN is attached to a Wide Area Network (WAN) via the Internet on a dedicated line and on the ISDN connected by

a Primary Rate Interface (a homepage is available on Internet). Further efforts will be taken to increase the database in relation to computer-aided language learning and information about civil-military relations.

Another institution using new technologies in education is the Budapest Center for Arms Control and Democratic Control, created with the aim of concentrating the available human resources on a joint project to develop a competent civil service, and train civilians and military personnel, experts on arms control and guarantors of harmonious civil-military relations, with a view to establishing a more open, democratic society. This Center was established on 1 September 1995. Its training courses are based on the most sophisticated information technology available. From the outset an ISDN-based video-conferencing capability was set up to serve the needs of the institute. This video-conferencing capability serves as the technical basis for what will amount to a "virtual academy", an international network aimed at coordinating the enormous potential of the participants, and so it can work as an educational instrument, too. Instead of bringing expensive lecturers from abroad into a classroom located in Budapest, video-conferencing equipment is used, and the costs are significantly reduced, not to speak of the well-constructed, interactive technology lessons, which allow for tailoring lessons to the individual's learning style, etc.

The students may use computer-aided multimedia learning methods, supported by a wide range of available international databases, through the most commonly used computer networks. Modern technology enables the Center to organize international conferences for the widest possible range of participants: from military personnel, to State and Government officers, to members of parliament, to technical experts in different areas.

3. Possibilities and Perspectives

The influence of the information society has reached Central and Eastern Europe. This influence represents a new challenge but also helps in achieving several aims and in solving some of the difficult problems connected with the transition phase of these countries.Competitiveness and exporting capabilities must be improved through inexpensive and attainable computer and telecommunications services. By applying new technologies, the efficiency of the public administration can also be increased. These are fundamental requirements in order to be integrated in the structure of the European Union, and in general for joining the developed world.

* * *

Summary

The obstacles faced by Eastern countries entering the information superhighway are more economic, legal and regulatory, than technical. For the Eastern European countries there exists the chance to bridge the connectivity gap by adopting the appropriate national telecommunications strategy. Several main objectives have to be defined in the shortest possible time, in order to adapt to the information society. This

goal requires cooperation among the responsible operators of national telecommunications infrastructures, private entrepreneurs and heads of State regulatory organs.

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Chapter 8

Assessing the Need to Improve Basic East-West Computer Equipment and Supplies

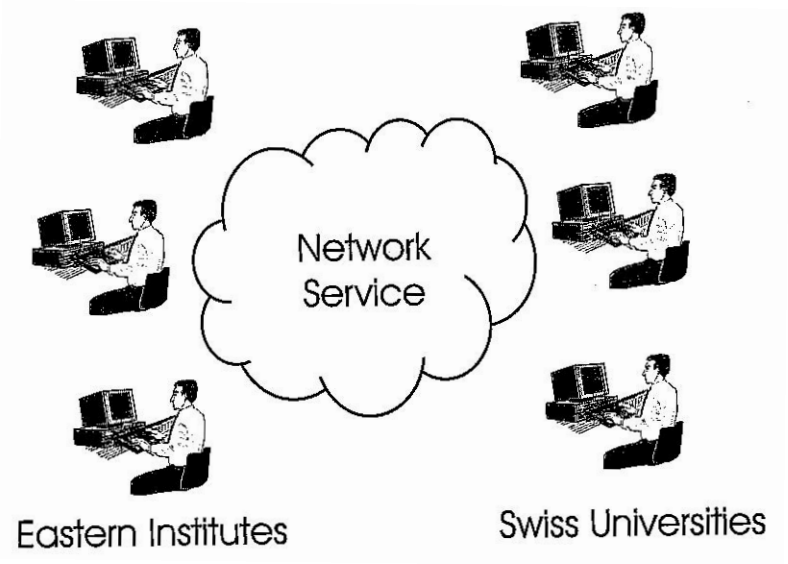
Christoph REICHERT

I. Introduction

The Swiss Federal Military Department has undertaken an investigation of the exchange of information between national universities and scientific institutes in Eastern European States in the field of peace-keeping. The goal of the research is to facilitate this exchange in order to enhance mutual understanding and to bring disparate points of view closer through a sharing of knowledge, information, and data on new discoveries.

One of the questions that arose in connection with this project concerned the use of information technology to support the exchange of information. In particular, workstation technology and communication components were examined.

Figure 8.1: Network Concept



Several criteria were selected for the evaluation of an optimal workstation configuration for the chosen institutes. It was decided that the workstations should support daily business operations, should conform to an international standard, and should be both easy to maintain and easy to use. The evaluation of a number of possible solutions resulted in the choice of the following hardware and software components:

- IBM-compatible PC with colour screen and US-keyboard
- DOS/Windows operating system
- Microsoft Works integrated office application with text processing, spreadsheet, and database capabilities
- Printer
- Modem

In the specified configuration the system supports internal as well as external tasks.

In addition to supporting all necessary administrative tasks, the system is also required to ensure an efficient exchange of information between the different parties involved. The network service chosen as the communication platform after consultation with the competent NATO officials was the EU/Internet. This network makes it possible to transmit messages, transfer documents, gain access to the entire range of Internet services, and in future, even to make phone calls, all at a reasonable price.

II. Prevailing Circumstances

1. Economic and Political

The restructuring of the formerly communist Eastern European States from planned economies into economies with a capitalist orientation is in full progress. That this process involves not only a straightforward upward trend but also gives rise to many political discussions and controversies over the advantages and disadvantages of such a change is only natural. During the period of transition, the confrontation between the different interests may also lead to political instability. This makes it even more important to support the Western industrial powers during the process of transformation, in particular with a view to early recognition, of and action against, any tendencies that might lead to military confrontations.

As far as the European national economies are concerned, these have experienced an atmosphere of crisis for some time. The battles against unemployment and for safeguarding business site advantages are being waged with a variety of different formulas. One prevailing constant is the fact that national debt and costs have to be reduced everywhere.

The requirement of resources on the one hand and the reduction of the money available on the other clearly result in a conflict of purposes. To solve this conflict,

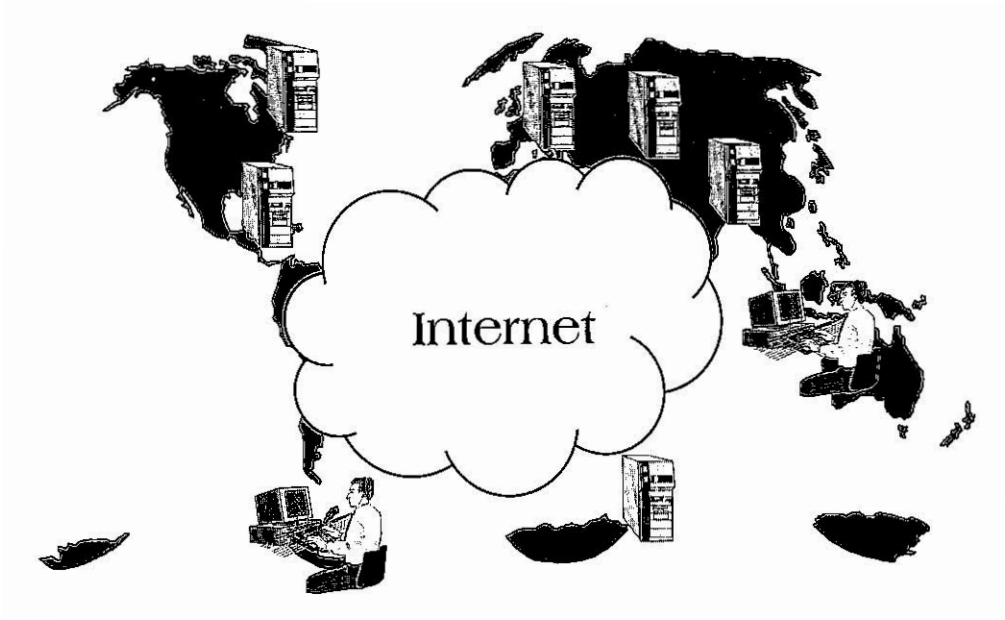
better global coordination of activities across State borders and between organizations as well as a concentration of the resources available on the most promising projects are required.

2. Technical

Over the last few years, innovations in the field of computer technology have led to a massive diversification of communication and information dissemination possibilities. The range of products and services offered in the field of communications has widened considerably. At the same time, the performance/price ratio doubles about every 18 months. Massive price reductions have been caused by the liberalization of markets.

In addition to the PC revolution, the rapid growth of the Internet must be specifically mentioned. Considering the crucial role of communication within the context of the exchange of information between East and West, it seems appropriate to take a closer look at the Internet phenomenon.

Figure 8.2: Interconnection of Computers



The Internet is in effect an interconnection of computers capable of communicating with each other through standardized protocols and programs. It has its origin in the United States Army, where the exchange of data between the computers of different manufacturers was managed in this way. The following figures give an idea of the rate of expansion of the Internet system.

- In March 1996, 9.5 million computers were connected to the Internet. This amounts to a growth rate of 95 per cent over the previous 12 months.
- In January 1996, the number of Internet users was estimated at more than 80 million and an increase of more than 150 million is anticipated for the next two years.

The Internet gives the user the possibility to send and receive electronic mail, have access to the entire range of World Wide Web sites, participate in discussion groups, transfer files, use gopher (full text search), and have access to different applications. All these functions, programs, and applications are available to the user at local charges since he or she will only have to pay for the connection to the nearest Internet node. However, even though the potential of the Internet is huge, there is a lack of access security which should not be concealed. As a result of this critical aspect, many enterprises are currently establishing their own Internets, so-called Intranets.

3. Present Status of the Project

The project organized by the Swiss Federal Military Department included the installation of a total of 25 workstations in various Eastern European States over the last five years. The recipients were also provided with the information necessary to gain access to the Internet. During the 1994 *Institutes and Security Dialogue* conference, the installation of a workstation and the advantages of Internet access were presented and explained.

The programme was concluded last year when the components were delivered. Regrettably, no follow-up action has been initiated so far, despite low costs.

4. Further Procedures

The process of globalization and the resulting networking of the international community are steadily progressing. Communication and the exchange of information are becoming increasingly important for the safeguarding of peaceful development. However, the financial resources of the Western States, made available for the support of such development projects, are going to stagnate and may even be reduced. As a result, the existing resources must be used in an optimal manner and new means of financing have to be found. The following measures have been proposed as a possible solution and as a means of achieving the set aims:

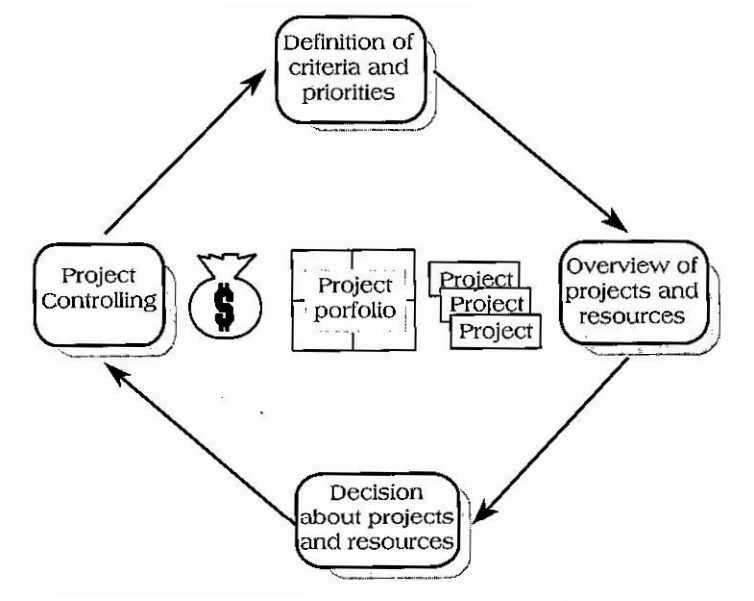
- International project coordination and controlling
- Creation of an Intranet and acting as service provider
- “Peace sponsoring”

A task force could be formed within an international organization such as the United Nations, whose function would be to coordinate and monitor the project portfolio in order to ensure that the resources available are used in an optimal manner.

The capital for similar projects realized in the different States involved could be pooled and expenses for project monitoring concentrated.

The advantages of an international project-controlling system are that available resources can be allocated more specifically according to pre-defined priorities, more capital can be allocated to top priority projects, and duplication can be avoided.

Diagram 8.1: Task Force Concept



5. Concentration of the Costs for the Control of Progress and Success

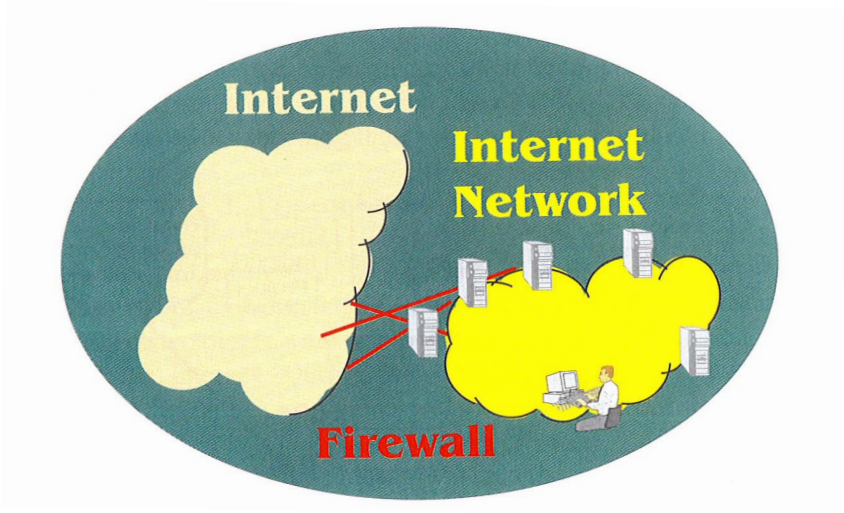
Important success factors include a broadly-based decision process where priorities are determined, and a smooth flow of information on the development and progress of the projects. Portfolio management could be one possible method of approach for ensuring success. More details could be compiled during the conference by the responsible task group.

6. Establishment of an Intranet and Acting as Service Provider

The amount of information required by institutions is on the increase, but the time has to be reduced between the creation of information and its being made available. The number of providers of information and of interdisciplinary projects is constantly rising. To secure an efficient and economical—but nevertheless safe—flow of information, it would be helpful to establish one's own network or Intranet, based on the existing infrastructures. For long-term financing, its use might be offered to public as well as private organizations.

The advantages of the establishment of an Intranet and acting as service provider can be summed up as follows. On the technical side, stronger safeguarding measures could be employed in such a set-up, while on the financial end, funds could be accumulated by offering the services of the internal network to third parties. Moreover, such a system would foster mutual cooperation among the organizations and institutes involved.

Figure 8.3: Internet Concept



7. "Peace Sponsoring"

A supply of new capital could be achieved through sponsoring. For this purpose, interested business enterprises would have to be given the opportunity to use this kind of investment in a marketing-supporting manner within the context of the promotion of their image. As today's business enterprises no longer rank themselves by product marketing alone, but also by image promotion, appropriate marketing and promotion should automatically create the corresponding potential. More practical details in this regard need to be compiled.

III. Summary

The process of integration between East and West has to progress further in economic as well as in political terms. Resources for the support of additional measures will become increasingly sparse. As a result, it will become more and more important to use the resources available in an optimal manner. It is also absolutely indispensable to find and implement new means of financing.

Chapter 9

Connectivity Issues: Political and Financial Constraints

Edward IVANIAN

I. Introduction

In the quantitative measure of computers per household, Russia may have exceeded quite a few countries in the world, but the real computer revolution in Russia has not yet occurred and will take some time to materialize. This is an extremely positive position compared to the "Stone Age" of the 1980s. Although the Russian growth rate of ownership of and/or access to a personal computer, without which there is no access to the Global Information Society, is staggering, economic, political, and cultural barriers still have to be negotiated.

Beginning in the 1980s, the then Soviet Union advanced claims that Russia had caught up with the rest of the developed world in the race to "complete computerization of society". Looking back today, one is forced to conclude that these wishful claims had very little to do with the actual situation in this nation even as late as the early 1990s.

In fact, with regard to the level of computer technology and the quantity of personal computers, the situation was quite desperate. Foreign-made computers were scarce and too expensive for virtually all private households, academic institutions, and even most members of Soviet officialdom. Soviet-made computers were mostly of inferior quality and did not meet even the unpretentious national standard requirements of those times, much less those of the developed world.

Many Western experts predicted that it would take 50 to 100 years for Russia to catch up with the rest of the already computerized world. There seemed to be every ground for an assertion that if at the beginning of the 1990s developed nations of the world were, figuratively speaking, in the Middle Ages of computerization, Russia was still at the doorstep of the Stone Age. The enormous gap looked definitely "unbridgeable".

1. The Beginnings of Rapid Recovery

Actual computerization of Russia began after 1992 with the first steps of the then Soviet society towards a market economy and the arrival of the first notions of democratization. As it happens in any society, a certain segment of the population, more businesslike and entrepreneurial than the majority of their compatriots, took advantage of the situation. The first mind-staggering fortunes in the nation were made by a few so-called "new Russians" who started selling to the computer-hungry society second-hand and mostly obsolete personal computers. These were imported from all over the world, but mainly from the United States and Asian Pacific-rim countries. According to recently released official figures from the early part of this decade, Russian and foreign-based computer dealers were netting hundreds of millions of dollars monthly from the Russian domestic market. Practically overnight, investments in the sale of computers returned a bonanza of 100 per cent profit.

However deplorable it may sound for those who still hope to explore the computer market in Russia, the easy money of the early 1990s is a thing of the past for Russian and foreign computer vendors. But at the same time, despite visible quantitative progress, no one can claim that computers have reached the "man in the street".

2. Where We Are Today

While the rate of growth of individual personal computer ownership has reached staggering levels, there exist serious impediments to the growth of the number of subscribers to on-line services. Computer illiteracy among almost all segments of the Russian population is still the norm—even though it is widely recognized that the future progress of the market economy is unthinkable without computers and computer-literate workers, preferably those with university degrees.

Although it is true that telecommuters have arrived on the Russian scene, it is not to the extent that would impress a foreigner. It is not yet commonplace "to go to work" without leaving home, to order take-home foods, or to pay taxes on-line. There is no doubt that during the last three years, computerization of Russian society reached a noticeably higher level. And, although it is still lagging behind the United States or Japan, there are distinct signs that in the past ten years Russia has significantly closed the computerization gap. In perspective, this is astonishing since the change has been from a barely-equipped society to one which is not so far from rivalling most computerized nations in Europe.

Computers are now embedded in the Russian culture. Changes are already noticeable in every sector of the society. There is every reason to say that the much heralded openness of Russia is due to a considerable extent to computers. As recently reported in the Russian press, even some Russian wine-makers are including the Internet address of their Web-server home page on product labels. Once connected to their home page, one can find exhaustive and detailed information about the types of wine they produce.

3. Social Impact

In the past few years Russians have mastered computer technology to such an extent that they have successfully penetrated the world market of computer games and have even earned the dubious honour of having nurtured the world's most efficient and resourceful hackers. Perhaps it borders on the anecdotal, but one cannot think of a more eloquent illustration of the changing times in Russia than the results of a relatively recent public opinion poll conducted by a Moscow polling company among local high school students. According to this poll, some of those bright teenagers responding to the question, "What do you want to be after you finish school?" answered, "A hacker". What an astonishing change from ten to fifteen years ago when the most natural response would have been, "an astronaut," or just a few years ago, "a banker" or "a businessman". It is for good reason that the Russian Ministry of the Interior (i.e. police authorities) recently set up a new department to respond to the thriving domestic and international "computer criminality" by Russian citizens.

It has been recognized that the ability to use the Internet, and the information it offers, is closely related to level of education and, more significantly, to age. While the general level of education is presumably very high in Russia and the Internet is much more widely known and used among Russian youth than among the older generation, there is still an additional and not too easily surmountable problem: language. It is taken for granted that, while most are gradually mastering how to use the Internet (navigation of the net), many of the users still cannot fully utilize the information offered by the services on the network because of an insufficient knowledge of English.

4. On the Brink of the Revolution

With regard to network infrastructure, it is definitely true that high speed fibre-optic lines of communication have been laid down in Moscow and other Russian cities and that the number of Russians getting themselves introduced to cyberspace is increasing daily. This situation is mitigated by the generally deplorable quality of telephone access (via modem) to Internet service providers.

The total number of personal computers in State, corporate and private ownership in Russia is presently still at least 7 to 8 times lower than in the United States. According to the latest available figures, between 40 and 50 per cent of American households own at least one personal computer (in Europe the corresponding figure was about 20 per cent), and millions of people all over the world use the Internet every day for research, business, e-mail correspondence, and entertainment. Compare this to Moscow (the most technologically advanced and electronically sophisticated city of the nation) where under 10 per cent of all households own or have access to a personal computer. It should go without saying that a much smaller share of the population owns or has access to personal computers in other large metropolitan areas of Russia. As to the periphery and rural areas of Russia, ownership of or access to personal computers is almost non-existent. In fact,

nine tenths of the nation still have no idea of how to work with a computer, to say nothing of using it for e-mail or for accessing the Internet.

II. Financial Constraints

1. The Problems of Internet Accessibility

Some 60 million people in 160 countries are believed to be using the Internet today, but Russians constitute only a fraction of a per cent of that number. What are the reasons for such an unenviable state of affairs in the nation boasting of its technological progress, thriving business opportunities, and an abundance of bright minds?

The Good News—Internet Service Provider Growth. Since the beginning of 1996, one can come across numerous claims in the foreign press to the effect that there is both bad and good news about Internet use in Russia: the bad news being limited access to the Internet in Russia (due to relative scarcity of computers, high costs of providing services, and poor telephone infrastructure), while the good news was reflected in an assertion that the situation was improving rapidly with existing Internet service providers (ISPs) expanding and new providers being created at a fairly rapid pace. In fact, the most recently published statistics list over 35 Russian cities which can provide real Internet Protocol (IP) node connections to the Internet. These assertions were substantiated, among other things, by impressive statistics according to which the number of on-line subscribers in Russia was increasing by around 5 per cent per month, although this assertion is perhaps overly optimistic.

According to a poll conducted by the London-based *Economist* magazine in July 1995, the number of the Internet servers in the territory of Eastern Europe and the former Soviet Union increased by 132 per cent during the preceding year (it is claimed that there are more than 275 Internet providers in the CIS).[1] Today, an impressive number of high-speed, fibre-optic lines of communication have been laid down in several large Russian cities, including Moscow and Saint Petersburg. The number of Russians getting themselves introduced to cyberspace is increasing daily.

Users in Moscow, Saint Petersburg and some other major Russian cities in the western part of the country have a certain choice of Internet service providers. Further to the East, in the Ural region and western Siberia, the number of ISPs is noticeably more limited: they are available in only a handful of cities which include Omsk, Ekaterinburg, Novosibirsk, and a few others. In the eastern part of the country, ISPs are concentrated mainly in Khabarovsk and Vladivostok. So, it is quite natural and understandable that computer companies in Russia's provinces are faring noticeably better overall than their Moscow or Saint Petersburg counterparts, and it is the former who are, as a rule, dictating their terms. Consequently, it is Russia's provinces that are

[1] *The Economist*, 1 July 1995.

having the most problems today so far as servicing, data-gathering, and processing as well as training personnel are concerned. However, one can anticipate much quicker growth of the number of computers and computer-literate public in Russia in the coming few years as foreign computer vendors from the United States, Japan, and other countries run out of new users to sell to. In this respect, Russia still represents a vast and attractive market for them.

The Bad News—Illiteracy, Telephone Service, Economics, and Regulatory Service: although available statistics show that half a million or so computers were sold in Russia in 1995, the Internet remains out of reach of, or never heard of, by the vast majority of the Russian population even in large cities. The situation worsens considerably as one goes from metropolitan to rural areas of the nation where access to on-line services remains all but impossible, except by costly and often unreliable long-distance telephone lines.

Specific technological peculiarities of the Russian telephone systems make on-line connections difficult for foreign and, in particular, American users when high-speed modems are used. Although systems in major Russian cities have been and are being upgraded to a certain extent, the inferior quality of the lines may result occasionally in loss of data. Besides, there are certain problems of minor importance related to the need for some sort of adaptor for the standard American and European connectors to make the physical connection as Russian telephone and electric jacks are different from the ones used elsewhere in Europe or the Americas.

An article by Vladimir Mitin published in April 1996 in the Russian weekly *PC Week/Russian Edition* quoted certain statistics which would give the reader an idea about the situation of the Internet in Russia today. The article asserted, for instance, that AT&T in the United States proposed telephone access to the Internet through a modem (up to 28,800 KBs) for $29.95 a month. However, the same amount of money, the author noted, would buy in Russia only one day's access to the web. Naturally, if a Russian provider had suggested a similar pricing structure, the number of Internet users would have increased tenfold in a couple of days. The author ventures to explain why Russian Internet providers (whose business according to the latest available figures went up five times during the past year) charge ten times more than their American counterparts. The simplest response, in his opinion, could be that a regular overseas telephone call from Moscow to the United States would cost about $7 a minute, while a telephone call from the United States to Moscow would cost less then 50 cents per minute.[2]

The curiosity of those who would like to hear a more plausible explanation will hardly be satisfied by observations relating to poor telephone infrastructure in Russia, high rents, prohibitive costs of providing services, monopoly of the Russian Ministry of Communications, etc. It should be added that the Ministry has not said its last word yet—starting in 1998 a new system of payments for using intra-city telephone lines will be introduced, making the life of the Russian Internet users ever more

[2] *PC Weekly/Russian Edition*, 23 April 1996, p. 44.

complicated. Besides, while referring to the negative role played by the Ministry one cannot overlook its most recent requirement to register all fax and answering machines as well as all modems. This requirement presently applies only to Moscow, and it has been issued under the pretext of the need to put the domestic use of communication lines in order. But one can safely predict that this requirement will be eventually extended to include the rest of the nation. As to possible consequences of this requirement, no one can guarantee that registration will not be used by federal agencies for other, less plausible causes.

Characteristically, Russian Internet providers never advertise their services—as if they feel embarrassed by the prices they charge and do not want the world community to know or, perhaps, they are afraid that any promotional activity of theirs would cause such an influx of prospective customers that their limited resources of equipment would not stand the pressure of increased users' traffic. An apprehension is often voiced that unless the situation with the communication lines changes for the better, the demonstration of the possibilities of the Internet to the widest public could be compared to lavishly and luxuriously decorated window shops at which people in the street glare with a mixture of silent admiration and awe as they cannot afford to buy the displayed products.

It is true, as noted by the World Telecommunication Development report released in 1996, that "to date, access to communications facilities has been largely dictated by the wealth of a country, an organization or an individual family". Ninety-seven per cent of Internet users are based in high-income countries, which account for a mere 15 per cent of the world's population. There are some European countries where users pay almost four times the price for access that United States users pay, but they can afford it. Russia is not among them because Internet services are presently inaccessible to its population because of the costs involved. It is financial restraint, first and foremost, that stands in the way of a much larger segment of the Russian population's access to Internet services, and generally speaking, to any electronic communications and information structures. Although poor-quality phone lines and metered Internet access are still the norm in Russia, networking companies assure everybody that their efforts are aimed at making the Net more accessible and affordable for a wider public. It is noted that some companies have put together packages of software and service that seem to follow the "Internet in a Box" model.[3]

Under the circumstances, Russian Internet users are inventing ways to cope with the problem of high costs by encouraging cooperation between two or three organizations and several individuals to cover one joint Internet bill. Of course, in such cases they have to forgo confidentiality of messages. Others count on receiving grants from different foreign, in most cases American, foundations.

It is too early to claim that there is a normal information technology market in Russia. The prevailing consumers of the product are large banks which can afford it. Political quarters have partially discovered already—and some are still

[3] See Glassnews. New Media for a New World, 1995. A Three-Day Cybercircus, p. 3.

discovering—the benefits of the product, and in most cases, they can afford it too. This observation concerns mainly the staff of the major political parties and factions, but not necessarily the majority of individual politicians who are still either ignorant or suspicious of electronic communications, believing them to be the "long arm of the CIA".

Among the major national Russian ISPs—the number of which is growing steadily—the following can be mentioned: RELCOM (the first and the most widespread infrastructure established in 1990 which has numerous systems in over 100 cities in Russia and other former republics of the USSR), SOVAM TELEPORT (est. in 1990), FREEnet (est. in 1991), GLASNET (est. in 1991), ELVIS+ (est. in 1991), RELARN (est. in 1992), GEONET, and others. A number of local providers have been established during the past few years in Saint Petersburg, Volgograd, and some other large Russian cities.

Major users of the Internet in Russia are research institutes, educational establishments, and mass media. Small businesses are still either too weak and lacking in funds or are too unaware of the vast horizons to become regular consumers of the information. (An observation is due here—there are in Moscow and, generally, in Russia more sellers then buyers of the information. The explanation of this situation is again very simple—scarcity of funds). The e-mail connectivity is noticeably greater than the overall Internet access. The estimates of the Internet users in Moscow would be closer to about five per cent of all the e-mail users while this share would be much smaller in other large cities of Russia and almost negligible in the Russian provinces.

2. Examples of Successful Technology Application

In May 1992, the Russian-American Press and Information Center (RAPIC) was founded by the Institute of the United States and Canada of the Russian Academy of Sciences (ISCRAN) and New York University's Center for War, Peace and the News Media. This was achieved because both organizations realized that the newly-opened society in Russia and especially its liberated mass media and academic community needed free and unrestricted access to global sources of information. By mid-1996, regional centres were opened in Saint Petersburg, Nizhny Novgorod, Novosibirsk, Ekaterinburg and Rostov/Don.

RAPIC provides access to an unparalleled wealth of information through, among other sources, unique computer centre facilities. It subscribes to a number of on-line, CD-ROM, and diskette-based databases and wire services, including LEXIS/NEXIS, Internet, Russica-Izvestia, Facts-on-File News Digest, Federal News Service Kremlin Package, Monterey Institute of International Studies Database, Books in Print CD-ROM, etc.

RAPIC has also started an ambitious programme to bring new technology to bear in order to help Russia's media make the most of the wide range of information resources available. In this context, RAPIC has established a World Wide Web site especially for use by Russian journalists, to provide them with user-friendly access to Internet resources. In addition, two years ago ISCRAN and RAPIC initiated an annual

conference series to introduce Russian mass media to the latest innovations in on-line technology.

Special courses and seminars on the technologies of the Internet have been set up at RAPIC for the students and professors of Moscow University, Moscow-based media, and political structures, including federal executive and legislative bodies.

The second annual "New Media for a New World" conference was held in Moscow last October. Its opening was welcomed by the Russian authorities, and Mr Ivan Laptev, Chairman of the Russian Federation's Committee for the Press, stated that the development and maintenance of a common information space required finding solutions to scores of economic, political and technological problems.[4]

A second superb example of the successful application of on-line technology is the Russian Club. This programme was initiated in Moscow in 1996 to permit users of the Internet from all over the world to receive information on Russian culture, including Russian literature, movies, mass media, etc. Digests of the most popular Russian literary journals have already been compiled. Also, the new Golden Age literary almanac and poetic magazine *Arion* were introduced to Internet users. A Russian computer library became a reality. (One can easily imagine entrances to public libraries covered with cobwebs as users stay home to surf the World Wide Web or any future similar system of disseminating information). However, as linguistic algorithms of the Internet are adapted to English language users, the Russian Club information is expected to be translated. Supporting programs give only superficial and low-quality translations. They give the main idea of the Russian text which can be downloaded and given to professional translators.

There are certain problems involved in the realization of this project: Russia is presently lacking sufficient bandwidth for relaying the information abroad. Physically the Russian Club is able to use only two servers—one in Moscow and one in the USA. In addition, server efficiency is rather low. Because of technological limitations, linguistic programs cannot always be transferred to an American server. A mechanism of copyright protection as well as control over access to appropriate information needs to be resolved.

The Russian Club is still in its infancy and the data banks are being compiled with the help of a limited number of enthusiasts. There are plans to construct a new floor of the Club—an "observer's desk" where one will be able to find information about literary prizes, critical essays as well as bibliographical information. Today one can find at the Club information which is otherwise unavailable to the customers of the Moscow city libraries.

A third initiative comes from the Soros Foundation.. In 1994, American investor-philanthropist George Soros decided to create a strong and efficient Internet infrastructure in the former Communist States of Eastern Europe and the former Soviet Republics. This infrastructure includes a trained, computer user community. His organization believes that these measures will lead to the establishment of an open

[4] *Ibid.*

society. This Internet project provides connectivity primarily between the above-mentioned countries with a focus on creating as many users within as many segments of the population as possible. The Soros organization's primary targets are public, non-governmental communities. This includes universities, research institutes, secondary schools, medical institutions, independent media, unaffiliated individuals, libraries, and museums.

In Russia, the Soros Foundation granted US$ 10 million a year to build the so-called South Ring Network which will unite about 50 Moscow research institutes in the framework of the telecommunications programme of the International Science Foundation.

A project is under way mainly in certain parts of downtown Moscow to connect a number of high-school establishments, cultural, educational and research organizations, medical facilities and mass media in the city, to the Internet through networks connecting different parts of this educational-cultural-academic-mass media community to an all-Moscow structure of the Internet network. The project was to be realized in 15 months starting in the second half of 1995 and beginning of 1996. Before the system becomes operational and during its initial operation, the network will work on a non-commercial basis serving exclusively the interests of the non-affiliated community.

3. Political Constraints

It has been noted that following the December 1995 parliamentary elections in Russia which, as is well known, gave actual control over the lower house of the Federal Assembly to the Communists and their political allies, the computer market in Russia became noticeably smaller. The situation became even grimmer in May 1996 when executives and owners of numerous private companies and enterprises, fearing inevitable restructuring of the economy after possible Communist victory in the Presidential elections of June 1996, began taking their money to the West.

However, the danger of the restoration of the Communist regime in Russia did not frighten leading Western companies functioning in Russia and other CIS nations. The IBM Corporation, for instance, still hopes that by the end of the year 2000 its turnover in these countries will reach one billion dollars, irrespective of who will be in power in these countries. The rate of growth of the Compaq Company in the Russian market exceeds European figures by a factor of three.

4. Template Overlays from the Past

Russians of the Second World War generation may recall with no nostalgic feelings the days when all radio receiver set owners in the Union of Soviet Socialist Republics were obliged to register them—even those home-made contraptions capable of receiving foreign broadcasts only in the middle of the night, and even then, only in good weather. At the advent of the Second World War (i.e. in June 1941), all radio receivers were confiscated in accordance with a special Government decree, lest their

owners dare to tune into the broadcasts of foreign radio stations, be they of a foe (Germany or Italy) or of a friend (United States or Great Britain). No one was permitted to interfere in the way the course of the war was presented to the Soviet public.

One can easily presume that any totalitarian regime would readily and willingly provide itself with all means of access to Internet capabilities (for public opinion polling, browsing through foreign or national legislative acts and official documents, for political propaganda and explaining its pre- or post-election programmes to the electorate, for correspondence with political partners and allies, perhaps for tracking criminals and, of course, dissidents, etc.), while denying similar right of access to its subjects. The memory of the Russian democratic freedom fighters of 1991 is still fresh in the minds of all those who witnessed how a constant flow of information was made available to the rest of the world via computer links with Finland, while all regular means of communication —radio, telephone, television and absolute majority of newspapers and magazines—were silenced and the national TV audience had to watch endless sequences of Tchaikovsky's "Swan Lake" ballet on their screens.

5. Immediate Future

Politics do influence the Internet through the financial policy of a nation as individual nations still subsidize a considerable segment of the Internet. Progressive politicians realize and appreciate the fact that the Internet contributes to the integration of their nation into a world community and to the modernization of scientific research and the educational process and its efficiency. But the opposite is true too, and this brings into the picture those conservative, backward political forces which are not interested in the free press and free flow of information among nations and continents.

These recollections of the totalitarian regime's reaction to the notion of a free flow of information came to the author's mind when he read a Russian general's observation which was quoted recently in the national press and sounded extremely dangerous to any democratically minded person. The Russian military, obviously belonging to the passing generation, said that the "development of electronic networks can be regarded as interference in a country's internal affairs". These words imply that if Russia decided to close itself off to the so-called external influences, computer links could become this decision's first victim.

However, irrespective of who is in power in Russia—Communists or Democrats—the author can venture a prediction that certain Government limitations on the use of electronic means of communication and information are inevitable anyway. Like it or not, as *Newsweek* magazine has observed, the Internet will be regulated. The only question is how and whose laws and community standards should and will be applied.[5]

[5] *Newsweek*, 22 April 1996, p. 45.

6. Suppression of Free Press

The role played by computer-literate democratic political forces and freedom fighters in the Russian political struggles of 1991 and 1993 is well known in the nation, and one might pose a natural question: who was going to prevent the Communists from acting likewise or even worse had they won the June 1996 presidential elections? Of course, they would have done everything in their power to completely block their opponents' and critics' access to the Internet.

Anyone trying to fight the advent of the Cyber Age is doomed to failure regardless of the scope of their efforts or initial successes in their desperate efforts to curb the advance of the new electronic era. And although authorities at all levels in Russia have become less likely to interfere directly or too obviously in the media, there are still levers by which the media can be controlled effectively enough.

Of course, the jamming of foreign radio waves practised by Communists for several decades will not do any more. It is not too difficult to bypass the national censorship and restrictions by dialling up a computer in some neighbouring country and getting any information one seeks. National restrictions may stop some people, but these prohibitive measures are insufficient to stop those who are obsessed with the idea of getting some information at any cost. Consequently, new trials of dissidents, of violators of national laws are imminent and actually inevitable. Even if the "Communists with a human face" had ceased to be ideological opponents of the process of informatization, the Russian computer market would still not have reactivated for quite some time had the Communists won the presidential elections in June 1996.

7. Every Nation Is Trying to Regulate the Internet

Some time ago, *USA Today* ran a quotation from Michael Dertouzos, head of MIT's Laboratory for Computer Sciences. "Nations are beginning to be afraid of the Internet," he said, "Governments are worried that they cannot control what will flow through their national boundaries."[6] Admittedly, this kind of fear is common not only in the so-called closed societies, but also in those who boast of their long history of democracy and freedom of information. One can guess that it would not be too difficult or impossible for any official agency anywhere to declare that the Internet should be banned or its activities curtailed because they were hindering public order. And strangely enough, one cannot altogether exclude the possibility that certain communities in some countries would welcome such a declaration and harsh restrictive measures because the public image in these countries casts Internet service providers as a haven for pornographers, terrorists and hackers.

Whenever positive features of the Internet are cited, its ability to penetrate all national boundaries is invariably mentioned. But a question should be posed: are there

[6] *USA Today*, 14 February 1996.

many national Governments ready and willing to subject their population to so-called foreign influences, which are beyond their control? One might say that the notion of self-preservation is as valid for individuals as it is for nations. And the conviction that no individual and no nation should be permitted to do anything that might become detrimental to the physical survival or interests of another person or nation will inevitably prevail at least in the observable future.

It is a well-known fact that the Iraqi Government tightened controls over communications links with Jordan following moves allegedly made against the Iraqi Government, namely the ill-fated defection of some members of the Saddam Hussein family to Jordan. There are certain signs that China (where, according to the end of 1995 survey reports more than 50 per cent of families in large cities buy computers for their children's education) is also trying not to lose control over information in order to be able to keep certain bits of it out of its boundaries while, at the same time, trying to find ways to reap the economic benefits of the Internet. It became known that in 1996 Chinese authorities decreed that the nation's Internet users (about 50,000, according to the latest estimates) must channel electronic communications through a series of "ports" or "filters" monitored by the Chinese Ministry of Post and Telecommunication and other Government agencies.

8. New World, New Laws

Governments all over the world are trying to understand the new medium and to regulate it. Some want to limit people's access to the Net, seeing it as a threat to their national or cultural security. (Would their reaction be that different from Canada's, whose Royal Mounted Police recently faced the dramatic task of discharging a bomb assembled by a schoolboy who followed instructions he had found on the Internet?).

Some people suggest that intellectual property protection will be assured by the Internet because the network connection will make it much easier to check whether this or that piece of property is permitted to be used or has been paid for (provided of course one really needs this information to make a good use of the property). Publishers, for one, are complaining about copyright infringements, insisting on tougher restrictions.

9. International Cyberspace Law

Federico Mayor, director of UNESCO, recently called for an international summit that would draw up globally acceptable "laws" for cyberspace. The Soros Foundation in New York is promoting a similar initiative among international non-governmental organizations. Legal authorities and civil-rights groups worldwide have begun dealing with an issue unique to the Internet: questions of jurisdiction and extradition, for instance, where records of information (some of it deemed illegal in one place or another) pass simultaneously through different territorial administrations.

So, it is not altogether impossible that one day the world will find at its disposal an international treaty governing conduct in cyberspace—an International Law of the

Net—perhaps not unlike the International Law of the Seas or the International Law of Space. Neither of the latter were easy to achieve (and the author can testify to this having been a press officer of the United Nations at the UN Office at Geneva in the second half of the 1960s to the beginning of the 1970s). Nor will it be easy to achieve an international law governing the Net. Cyberspace is as rooted in the geopolitical framework and as tasty a morsel to nations of the world as is Outer Space and the Ocean. Besides, more and more people worldwide will come to the realization that the Internet is the cornerstone of the future Global Information Society and that Governments better concede to the imminence of its arrival instead of erecting all kinds of obstacles in its way.

There is every reason to expect that in the not-so-distant future even the present Russian authorities will be preparing for the introduction of specific laws governing the spread of certain kinds of information inside the nation, including pornography, propaganda of war, of racial hatred and ethnic hostilities and other socially inflammatory rhetoric, and possibly on-line gambling. (Presently, the notion of on-line media does not exist in the Russian law books and, consequently, has never been in legal usage here although on-line criminal activities in Russia have long ceased to be irregular). The establishment of relatively strict Government control over the free flow of certain kinds of information, especially of information originating in the West, is to the author's mind virtually inevitable.

These notions and ideas may find an attentive ear in Russian legislators, 99 per cent of whom have never used Internet services in their life, but who have heard rumours of the power and reach it generates for those who are ready to disregard the so-called public interest.

Nikolai Gogol, the great Russian writer and playwright of the nineteenth century, sadly observed that fools and bad roads were Russia's eternal problems. We still have plenty of both, and although the proportion of fools in the overall population does not seem to grow, the proportion of bad roads (inferior communication lines included) may. Russia needs a national information programme. But those who understand this need and who are capable of realizing the prospects that lie ahead have no power, while those who have power are unable to understand what those "eggheads" are talking about.

Germany, the United States, and now France have already enforced or are moving to enforce their on-line anti-pornography laws. The Communications Decency Act of 1996 was enacted by the United States Congress after it was discovered that megabyte upon megabyte of pornographic pictures and erotic texts were accessible on the global computer network. The Act stipulates that any "indecent" communication over computer networks with persons younger than 18 years should be regarded as a crime. It banned this kind of indecent material from the Internet. As a result, a number of US organizations, including the American Civil Liberties Union, the National Writers Union, the AIDS Information Center, and some eighteen other US organizations and groups filed suit, arguing that the Act violated the First Amendment and was too loosely formulated.

A Russian federal agency controlling federal information lines (FAPSI—a Russian abbreviation) is already monitoring the Internet to discover information leaks of a confidential nature. Other Russian federal agencies are carefully studying other countries' experience in dealing with the problems brought about by the steady onslaught of the Cyber Age. We know, of course, that the United States intends to impose new legal limits on computer communications, ostensibly to head off pornographers and terrorists. While welcoming certain restrictions on violators, one cannot help wondering whether these restrictions will not be construed by some people as an instrument for harnessing the press.

It is not altogether impossible to foresee the position of the so-called Russian patriots vehemently opposing the dominance of English in electronic means of communication and information. There are no grounds for expecting them to react differently than the French who already recognize a serious danger to French culture and language in the face of the English language and who view the Internet as the beginning of the end for the French nation. It is not difficult to predict that in a year or two a similar war cry from the Russian patriots might be heard: "Get Russian on the Internet".

Should we be able to utilize the Internet in Russian or should we adapt ourselves completely to international norms by using English? And who is going to take over the Internet infrastructure—the Government or should it be left completely in the hands of the private, commercial sector?

III. Summary

Russia has made significant progress in the last six years towards recovery from the "Stone Age of Computerization" of the 1980s. The physical infrastructure gains in availability of personal computers and backbone fibre-optic links in major population centres is offset to a great degree by poor quality telephone lines. The growth of Internet service providers is constrained by economic and linguistic barriers. Russia is on the brink of the revolution of the Global Information Society as is evidenced by the successes of RAPIC, the Russian Club, and the Soros Internet Project. If we slip back into totalitarianism and its attendant censorship, Russian cyberspace will be stillborn.

There is a global need to establish an International Law of the Net. Those in political power in Russia have little personal understanding of the Internet, and as in most countries, have no established legal framework to guide them. The Internet is the harbinger of globalization and as such poses a threat to national security, social and cultural interests. If Governments react by erecting barriers instead of conceding its imminent arrival, they may find themselves in the backwaters of economic progress. The linguistic barrier posed by the English of the Internet and its impact upon culture must be addressed at the outset of any governmental policy formulation. Creative ways of overcoming this barrier must be delegated to the Internet technologists as an immediate priority.

Part Four

The Quest for Financial Resources

Chapter 10

American and European Foundations: A Stock-Taking[1]

Mary LORD

The dramatic changes of recent years have had great impact on the grant-making organizations, and on the community of non-governmental organizations and academic centres in international affairs which they support. Peace and security grant making is in flux. We are in a period of diminished public and private funding for traditional peace and security areas. There are few new funders in the field, and those sources are focusing on the strengthening of democracy and civil society in the former Soviet Union, Central and Eastern Europe or South Africa. The strategy adopted by the foundation varies with its mission and approach.

In a time of diminishing resources, private foundations are deluged with requests from the organizations and institutes which arose in the 1970s and 1980s. Most private foundations have heavy existing commitments to grantees with whom they have an established relationship. Competition is very keen, and fewer than one in ten proposals will be accepted. It is increasingly difficult for new organizations in the established industrial democracies to secure private funding for international security and peace issues.

Grant makers tend to collaborate and look for funding partners. Grant makers are also seeking international funding partners. Grant makers encourage grantees to work collaboratively and to have international partnerships. Grant seekers should also recognize that foundation programme officers need help from the concerned community of organizations if foundation boards are to be persuaded to free up new monies for peace and security funding.

To weather this difficult time of transition, institutions need to be creative, collaborative and focus on unresolved post-Cold War problems such as proliferation and conflict resolution and management.

[1] This article has been adapted from Mary E. Lord, "Trends in International Affairs Giving", in *Foundations in International Affairs: Search for Security*, edited by Mary E. Lord and Bruce Seymore II, Washington: ACCESS, 1996.

I. Introduction

Funders responded to the challenges of the post-Cold War world, the outbreak of regional conflicts, the changing international economic situation, and concerns about the global environment in varied ways. Their responses reflect their political and economic viewpoints, their resources, and their particular mission and strategy. For example, some funders like the Citibank Corporate Contributions and Civic Responsibility programme or the General Electric Fund encourage scholarship and education about international trade and its impact on society. Other funders, like the Rockefeller Foundations, focus on the needs of the poor in developing countries and how to balance the concerns of environment and development. Funders may emphasize the importance of good academic scholarship, as does the Smith Richardson Foundation and the Andrew Mellon Foundation, or seek to support and encourage local grass-roots organizations in developing countries, as does the Ford Foundation and Novib.

Traditionally, peace and security issues are the domain of Governments, which dwarf other funding sources in international security. Military and foreign policy establishments financed by public funds are the largest single source of funding. Universities and their students finance education, training and research in international relations topics. Religious bodies, trade associations, and civic organizations, through their memberships and donations, are also major sources of funding.

Private foundation funding in international security and peace issues is typically directed to support research or policy development which is different than or critical of Government policy and therefore unlikely to attract public funds. Funding is also directed toward new or innovative lines of research or inquiry which show promise in solving problems the foundation is concerned about, and "seed money" for new endeavours which have the promise of becoming more self-supporting once well-begun. Private foundations seek to work on the cutting edge where their more limited funds (as compared to Governments) can have an impact. Within the international security and peace community a relatively small number of large foundations dominate the field.

II. Funding for Peace and Security: Cycles of "Boom" and "Bust"

In the settling of the American frontier, instant communities, known as "boomtowns" sprung up seemingly overnight in the wilderness around a gold discovery or oil strike. Just as suddenly, if the vein played out, the new town could go "bust" and all but disappear. A new town, in another location, would take its place. These same cycles of "boom" and "bust" characterize the periods of growth and collapse of the non-profit community in peace and security issues.

In the 1980s, a variety of factors fuelled by the arms competition between the superpowers produced an unprecedented growth of interest and support for

international security and peace. Governments spent large sums on military establishments and the university-based research institutes and policy think tanks that worked with them. Publics concerned about the nuclear arms race organized and attracted individual donations and support. Foundations and wealthy individuals provided the seed money to support many new NGOs. Of the 171 US foundations making grants in peace and security in 1988, more than half had entered the field since 1980. Of the NGOs and academic centres working on peace, security and international relations in 1992, about half were formed in the 1980s, and 70 per cent were formed since 1970. Most of these new NGOs had fewer than five professional staff.

In the 1990s, as the Cold War came to an end, funding for international peace and security from all sources began to dry up. Governments cut military establishments, foreign policy agencies, and the funds for university-based research that supported them. Economic restructuring and recession reduced both corporate giving programmes and gifts from wealthy individuals. Universities, at least in the US, also experienced economic pressures from reduced public investment in education and pressured faculty to find outside funding sources for research. Individual donors, convinced that the threat of war (either from Soviet aggression or from an unbridled arms race) had ended, shifted their giving to environmental, human rights, humanitarian concerns or other causes. Private foundations with small giving programmes in international affairs shifted back to domestic concerns. This has placed tremendous pressure on the remaining major funders who have a longer term commitment to international peace and security funding. There have been few new sources of funding for international affairs in the 1990s. Very few foundations began giving programmes in the 1990s. Of these, most were directed to Central and Eastern Europe, the former Soviet Union, or South Africa. None that I know of was focused on peace and security issues, unless one includes the development of democracy and civil society in that category. Few new NGOs have formed in the international affairs field in the 1990s in the US and Europe, although NGOs of various types are growing in the emerging democracies.

As traditional international security shrinks, new "boomtowns" are emerging in conflict management and prevention, and in development of civil society in the new democracies. Both funders and NGOs are migrating from the shrinking traditional security arena to these new fields.

III. Characteristics and Trends in Current Peace and Security Grant Makers

International affairs remains a small field within philanthropy, and the grant makers active in the field constitute a very small percentage of all grant makers. The Foundation Center reports that for the last decade, the field of international affairs has continued to claim only about 3-4 per cent of all US private foundation funding. International security and peace concerns would constitute about half of that, or 1-2

per cent of all US private foundation grant making. It is my impression that outside the US, international affairs also claims a small number of private grant makers. Throughout the world, most private giving is directed at local or national concerns or particular charities of interest to the donors. International affairs, international human rights, international development, the international environment, and global population concerns have traditionally been the province of Governments, and a relatively small group of private funders have active programmes on these issues.

Among US grant makers, most of the money for international affairs comes from a few very large foundations or government agencies. While there are some small family foundations which have a standing commitment to international affairs, development, human rights or related topics, US funding in international affairs is dominated by the giving priorities of a few large funders. The largest funder was the Soros family of foundations, which collectively accounts for over US$ 183,000,000 in grants and Soros foundation operations in 1993. The largest single private grant in international affairs was from the Lincy Foundation which gave US$ 15,100,000 to Armenian relief.

Other major US funders of international affairs, development, international human rights, international environment, and related issues are: the Ford Foundation, the Rockefeller Foundation, the WK Kellogg Foundation, the John D. and Catherine T. MacArthur Foundation, the Andrew Mellon Foundation, the Carnegie Corporation of New York, the Pew Charitable Trusts, the Charles Stewart Mott Foundation, and the William and Flora Hewlett Foundation. These foundations are also among the largest US private foundations, and most have more than one grant making programme on international affairs. For example, the Rockefeller Foundation has programmes on science-based development and on international security. The John D. and Catherine T. MacArthur Foundation has programmes on peace and international cooperation, population, and the global environment. The Carnegie Corporation of New York has programmes preventing global conflict and on human development in the Third World. The degree to which these programmes collaborate and coordinate their work varies from foundation to foundation.

Among non-US funders, the grant makers we identified seem to be primarily quasi-governmental, corporate, or religiously based. Many of the Japanese foundations are corporately based. European funders are more apt to be quasi-governmental, corporate, or religiously based. Limited financial information is available on non-US funders, but in addition to the Soros family of foundations, significant non-US funders include: the Council of Europe, the Japan Foundation, the Foundation of France, Caritas, Novib, the Joseph Rowntree Charitable Trust, the Aga Khan Foundation, and others. There appears to be proportionally fewer private grant makers outside the US involved in international grant making activities. Most of the grant makers ACCESS located for our directory are located in the United States (189). Of those outside the US, international affairs grant makers tend to be located in Japan (17), Canada (16), the United Kingdom (15), and other countries of Western Europe (36). There are relatively few grant makers in international affairs in Latin America, Africa, or Asia, other than Japan. The absence of significant indigenous grant makers reflects the

poverty of some of these countries, the absence of a tradition of private philanthropy, and a culture and tax laws which do not encourage private philanthropy in this form.

Movement in and out of the field. Among US funders, almost all of the foundations that were doing international affairs grant making in 1988 were still involved in international affairs in 1994, although the topics, regions of interest and strategies may have changed. There has been movement in and out of the field. Of 17 US foundations that had programmes of over US$ 1,000,000 in 1988, 14 still make grants at that level in 1994, and only 3 foundations have left the field. The Pew Charitable Trusts and the Rockefeller Brothers Fund have since indicated they were reassessing some international programmes. At the same time, there were several funders who increased their giving programmes. These include the Charles Stewart Mott Foundation, the Soros family of foundations, and the Moriah Fund, which has a programme supporting peace in the Middle East.

Of the funders who are small (under US$ 250,000) but gave a significant percentage of their funds to peace and security in 1988, many were still giving a high percentage to international affairs in 1994. Foundations which made only a few international affairs grants in 1988, and lacked a real international affairs programme were more apt to leave the international affairs field than those which had made a substantial investment in international issues over a period of many years. These funders tend to respond opportunistically to current issues, and may be less likely to make grants during a period of uncertainty. Some of these smaller or mid-size grant makers, like the George Gund Foundation in Cleveland Ohio, may still give to local international affairs activities.

Topics of Interest to International Affairs Grant Makers. For the purposes of our new directory, ACCESS did not conduct a grant by grant analysis of the field as was done in 1988. Nonetheless, it is possible to identify from the annual reports and other materials which subjects were of particular interest to the particular foundation.

The topics of greatest concern to grant makers in the ACCESS 1996 directory were, in order of priority:

Topic	Total	US	Non-US
International Economic Issues (including International Development)	120	55	65
International Environment	99	57	42
International Development	83	31	52
International Human Rights	82	46	33
Third World Issues	33	4	29
Arms Control & Disarmament	33	25	8
International Security (General)	19	13	6
Population	18	16	2
International Conflict Resolution	16	11	5
Development of Democracy	10	7	3

More foundations made grants related to international economics than any other single topic. International environment was second, and was sometimes linked with international development or other economic issues by funders. International development, human rights, and third world issues were third and fourth respectively. Arms control, disarmament and peace attracted fewer funders, although the more detailed coding of these areas by ACCESS may disaggregate and underestimate the level of interest in these topics as compared with development and human rights.

The Foundation Center similarly noted that in 1993 international development attracted 31 per cent of the US international affairs grant making; peace, security and international relations were second with 24 per cent; and international human rights was third. For US foundations, the Foundation Center noted that the relative percentage on these issues was stable over the decade. The Foundation Center groups population programmes and international environmental topics separately from international affairs, for statistical purposes, but their analysis noted that these broad fields also remained steady. (See "Introduction" to the Grants Index, 1996.)

There are differences of topical interest between US and non-US grant makers. US grant makers are relatively more interested in arms control and disarmament, conflict resolution, and population than are their non-US colleagues. Non-US grant makers are comparatively more interested in third world issues, international development, and international economic issues. US and non-US grant makers share concerns about international human rights and the global environment.

Regions of Interest to International Affairs Grant Makers. Limited information was available on the regions of interest to the funders in this directory. Materials produced by the grant makers tend to reflect an emphasis on topical concerns rather than on regions, although the funder may tend to focus on a particular part of the world. Of those foundations that indicated a particular regional interest, outside of their host country, the
regions and countries of greatest interest were:

Region/Country	Total	US	Non-US
Africa (including the Middle East)	42	24	18
Asia & Pacific	41	22	19
Central & Eastern Europe	19	11	8
Latin America	17	14	3
Former Soviet Union/Russia	14	11	3
North Africa/Middle East	14	10	4
Southern Africa	14	10	4

The region of greatest interest to grant makers in the directory was Africa and the Middle East. Asia and the Pacific was second, and the newly emerging nations of Central and Eastern Europe third. Several American and European foundations have established offices in these nations. Funders have been interested in post-apartheid

South Africa. Israel and the Middle East have attracted funding. For example, the Moriah Fund has spearheaded an effort to encourage American grant makers to invest in supporting a Middle East peace process. There were some differences in regions/countries of interest
between US and non-US funders. US grant makers were disproportionately represented in grant making for Latin America, Israel and the Middle East. Non-US grant makers were relatively more interested in Africa, Asia, and the Pacific region.

IV. Issues Facing Grant Seekers and Grant Makers in Peace and Security

There seems to be less money from fewer sources for traditional arms control and international security issues, and the movement away from arms and security issues seems to be increasing. Most of the money for international security issues continues to come from a few large funders. Fewer of the small and medium size funders continue to have arms and security-related grants. In 1988, 55 US funders made grants on arms control or disarmament issues. In 1994, we noted only 33 grant makers worldwide with active programmes on arms control. It was noteworthy, for example, that we were unable to code any foundations for the topic of weapons systems. Thus, grant seekers have few alternatives if they are turned down by the large foundations.

At the same time, there seems to be greater interest in conflict resolution or prevention, international human rights, and democracy-building. Grant making in these areas seems to be increasing and attracting new funders. For example, the Carnegie Corporation of New York and the Winston Foundation for World Peace are redirecting security funding to greater emphasis on conflict prevention and conflict resolution.

What topics should be included in security issues? There is significant reassessment by US foundations active in international affairs about their peace, security and international relations grant making. Foundation annual reports and guidelines reflect an ongoing redefinition of the field. They convey a sense that existing foundation programme structures and guidelines do not quite fit the new realities of the post-Cold War period. Foundations have responded in different ways.

Some have phased out peace and security programmes as such, but may continue to make grants under other programme names. For example, the Unitarian Universalist Veatch Programme at Shelter Rock funds some nuclear weapons clean-up and military conversion grants under its environmental programme. Other foundations have kept the programme structure of peace or security, but changed the programme priorities within it. For example, the General Service Foundation has an international peace programme but the grant activity within it is almost exclusively directed at human rights and democracy-building in Central America. In some cases, a foundation may begin international grant making through a programme that is usually US-based. For example, the John S. and James L. Knight Foundation is using its journalism

programme to make grants to strengthen an independent press in Central and Eastern Europe.

Several large funders are completely reassessing their international programmes. The Andrew W. Mellon Foundation has phased out area studies and is ending a programme of business education in Eastern Europe. It is beginning an exploratory programme on the causes and context of contemporary international problems. The Mellon Foundation is also investing heavily in the electronic dissemination of scholarly materials and improving the technology of libraries. The Christopher Reynolds Foundation is phasing out its 25-year-old Indochina programme and reassessing its programme. The Rockefeller Brothers Fund, which had been a principal source of funding on nonproliferation, has discontinued its international security programme and is reassessing its grant making, while continuing the Fund's interest in the environment and in development issues in East Asia. The Pew Charitable Trusts are phasing out most international grant making and reinvesting in the development of a civil society in the United States.

How should grant makers balance the needs of existing grantees in the industrial democracies versus the transitional needs of emerging NGO sectors in Central and Eastern Europe and the former Soviet Union? Should grant makers and grant seekers view problems nationally or globally? There is a blurring of national and international programmes, as some foundations define problems globally. This is especially true of human rights, civil society, sustainable development, and environmental grant making. For example, the John D. and Catherine T. MacArthur Foundation has a foundation-wide initiative in human rights that includes both international and US human rights issues. The WK Kellogg Foundation defines all of its programme areas globally, and mixes US and international grants on leadership development and sustainable development within each area. The Lynda and Harry Bradley Foundation is funding the development of citizenship, whether projects are focusing on the US or abroad. It is my impression that there is not the same kind of cross-fertilization of US and international experience on peace, security and conflict that there is among US foundations working on sustainable development and human rights. For example, we did not see a foundation with a grant making programme on gun control in the United States funding projects on the international arms trade under the same programme. Similarly, we did not see a foundation working on prejudice reduction in the United States, which worked on ethnic conflict abroad under the same programme, except for multi-cultural funding in arts and humanities programmes. I do not now whether this is also true of non-US foundations working on international peace and security issues.

More US foundations are making international affairs grants in-country to foreign recipients. The MacArthur Foundation has opened an office in Moscow, and the Charles Stewart Mott Foundation has offices in Prague and Johannesburg. It appears that most of the new US grant money in international affairs is being spent outside the United States, with the result that there is less money for US-based groups.

Can collaboration by grant makers and grant seekers help increase funding in the field? There are some examples of foundations pooling resources in order to develop a more substantial international giving programme, and enable small foundations to

become international grant makers. For example, the Environmental Partnership for Central Europe involves 15 foundations and is administered by the German Marshall Fund of the United States. In our directory we also include organizations such as Oxfam, the International Youth Foundation, and the Aga Khan Foundation which operate worldwide, raising funds from various sources and making grants to indigenous programmes throughout the world. In a sense, some of these foundations are a type of international grant making franchise operation, which we had not seen in operation previously. Typically, they focus on social service and development issues.

Many grant makers like to collaborate and work in partnership with others. Some also see encouraging networking among grantees as part of their task. In this regard, some funders show a strong interest in the Internet and the ability of electronic communications to enable grantees to work together more effectively.

How should grant makers balance the needs of research, policy development, professional education, and public education with the international security and peace field? Foundations within the broad field of international affairs pursue a variety of strategies to effect their missions. Some, like the John M. Olin Foundation, emphasize the importance of sound scholarly research as a base for improved understanding of international issues. The Rockefeller Foundation has structured its programme around the application of science to problems of sustainable development. Some, like the Pew Charitable Trusts, focus on policy analysis and research by respected think tanks which can influence policy-makers.

There seems to be less emphasis on public education in the industrialized democracies like the United States than was true in 1998. Foundations are now funding research and analysis aimed at US policy-makers, and not funding US public education on international relations topics. At the same time, international grant making to develop democracy abroad emphasizes the importance of developing and strengthening an indigenous grass-roots non-governmental network as part of the civil society.

V. Conclusions and Recommendations

It seems likely that most of the major private foundations which have long-term commitments and active grant-making programmes will continue to make international affairs grants. But it is also likely that international affairs generally will remain a very small part of all grant making. International security and peace is a shrinking field within international affairs. Investment in conflict resolution and management and investment in civil society is increasing at the expense of traditional arms control and security funding. The level of commitment by Governments and by corporations is also shrinking. Private foundations are not large enough to counteract this trend.

It seems likely that the trend toward international (in-country) grant making will continue, and perhaps increase. In the absence of new funding sources for international activities, this would make competition for international affairs grant making by US-based groups more intense.

It is quite possible that there will be a decrease in total funds available for international activities. US Government spending is being cut dramatically for international affairs and development activities. The 10 largest US funders which make up the bulk of the private funding in the field are likely to continue but seem unlikely to dramatically increase their giving to make up the difference in reduced public expenditures. In addition, we saw no evidence of new or experimental grant making by
additional private funders in peace and security.

The period of reassessment, uncertainty and flux in foundation priorities and strategies is likely to continue. There will be a continuing reassessment of guidelines and strategies as funders try to respond to the changing and uncertain international situation. Given the increase in the number of potential grantees as non-governmental organizations grow throughout the world, competition for grants is likely to become even more intense. We should therefore expect instability within the community of grant seekers. It may be that larger, more established organizations with more sophisticated fund-raising skills will be best able to weather the difficult funding climate ahead.

Grant seekers have a stake in increasing the funding levels for international security and peace. That will require vision, creativity, a willingness to collaborate, and a willingness to help “sell” the importance of peace and security grant making to the funding community.

Chapter 11

Assessing International Grant Making by US Foundations: A Benchmark Study on Recent Trends

Loren RENZ[1]

I. Introduction

A new international affairs and peace and security environment has been developing since the end of the Cold War and the fall of the Berlin Wall, with implications in many spheres of influence: grant making is no exception. Some private US foundations long active in the international arena have reexamined the role they have played in supporting international security and related issues as well as the kind of support they have provided—from research, to conference support, to funding academic programmes. As the field itself has been transformed by sweeping geopolitical changes and new kinds of threats to peace and security, many have redefined the focus of their efforts altogether, intensifying their attention on the impact on environmental threats and the need for socio-economic and political development within fledgling democracies. In several cases, funders are undergoing an assessment of their programmes; in a few cases, active donors have withdrawn from the international affairs arena.

After a period of rapid change, there is a need to evaluate these new trends and developments in international and global grant making, to better understand the climate and direction for private funding in the mid-1990s. One such study is currently underway in the United States. Although not limited to a review of peace and security issues, the study can be expected to provide a useful perspective on changes affecting programmes on European and regional security.

The Foundation Center, a national clearing-house of information on foundation and corporate philanthropy, recently launched a benchmark study on international and foreign giving as practiced by US funders. The Center's research staff has designed

[1] Loren Renz, Vice President for Research, The Foundation Center, http://as.fdncenter.org.

and started the implementation of the study, guided by a small advisory group and with the collaboration of the Council on Foundations, a membership organization of grant makers. The core of the research project consists of a comparative analysis of recent (1990 and 1994) grant making trends—by field of interest, geographic area, type of support, type of recipient and population group; and descriptive profiles of the leading international funders. Quantitative and descriptive research on funding trends will be enhanced by a qualitative discussion of funding practices and through contributed articles discussing changing issues and directions in the field. The report will be published as part of the Center's benchmark studies series and will be disseminated by the Center and the Council. This chapter outlines the purpose and design of the study, the role of the advisors in framing the research and steps for implementation. It concludes with brief recommendations on how this study could benefit organizations involved in dialogue on peace and security issues.

II. The Need to Reassess International Grant Making

The purpose of this study is to foster better understanding among funders, nonprofit organizations, and the international community of the dimensions and patterns of international grant making practised by US funders.[2] Between 1983 and 1993, the share of US foundations giving to foreign-based organizations and to US organizations to conduct international activities increased by more than half. In 1993, nearly 11 per cent of grant dollars was spent on international activities, compared to only 7 per cent a decade earlier.[3] This growth suggests a dynamic area whose directions need to be understood. For example, is the funding concentrated in any particular programmatic area or region of the world? Are funding patterns shifting as the geopolitical order changes and new democracies emerge? Has national participation in global action broadened around issues that transcend borders, such as the environment and immigration? What kinds of results are grant makers seeking in their international work? Those concerned with international grant making need to understand their own foundation’s portfolio within the context of international grant making overall, as well as within the context of domestic grant making. Deeper understanding of the trends and patterns of international grant making can also encourage collaboration and the identification of opportunities and unmet needs.

Working with existing Foundation Center grants data, this benchmark study is establishing baseline data, measuring growth in funding, and comparing changes in funding trends in the years 1990 and 1994 (the last year for which complete information was available when the project began). Thereafter, the study will be updated in three or four-year increments, e.g., the next time using 1997 data.

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[2] International grant making includes funding outside the US and also funding in the US focused on international activities and issues.

[3] Foundation Center data published in 1995.

There are three key facets to the study's concept: (1) to work with the data currently available in the Center's grants database; (2) to adopt the Center's benchmark study model used in analysing major fields of philanthropy, tailoring it to the needs of international grant makers; and (3) to develop a framework for defining and analysing international grant making that incorporates national standards embodied in the Center's grants classification system but that also reflects common understanding of the field by grant makers involved in international work.

III. Tracking International Grants

Since the 1970s, the Foundation Center has collected and published summary information on foreign and international grants as part of its grants indexing system. It was not until 1989, however, after adopting a new coding system based on the "National Taxonomy of Exempt Entities" (Table 11.1) that the Center began tracking grants for "International Affairs/Peace and Security" as a distinct major funding category (Table 11.2), and tracking international grants across all subject areas using country codes (Table 11.3). This coding system has been posted at the Center's website, www.fdncenter.org.

Table 11.1: Summary of the 26 National Taxonomy of Exempt Entities (NTEE) Major Field Areas

A—Arts, culture, humanities activities
- arts & culture (multipurpose activities)
- media & communications
- visual arts
- museums
- performing arts
- humanities
- historical societies & related historical activities

B—Educational institutions & related activities
- elementary & secondary education (preschool through Grade 12)
- vocational/technical schools
- higher education
- graduate/professional schools
- adult/continuing education
- libraries/archives
- student services & organizations

C—Environmental quality, protection
- pollution abatement & control
- natural resources conservation & protection
- botanic/horticulture activities
- environmental beautification & open spaces
- environmental education & outdoor survival

D—Animal-related activities
- animal protection & welfare
- humane societies
- wildlife preservation & protection
- veterinary services
- zoos & aquariums
- specialty animals & other services

E—Health—general & rehabilitative
- hospitals
- health treatment, primarily outpatient
- reproductive health care
- rehabilitative medical services
- health support services
- emergency medical services
- public health & wellness education

Table 11.1: (*continued*)

- health care financing/insurance programs
- nursing homes/nursing care

F—Mental health, crisis intervention
- addiction prevention & treatment
- mental health treatment & services
- crisis intervention
- psychiatric/mental health—primary care
- halfway houses (mental health)/ transitional care
- counselling/bereavement services
- specific mental health disorders

G—Disease/disorder/medical disciplines (multipurpose)
- birth defects & genetic diseases
- cancer
- diseases of specific organs
- nerve, muscle & bone diseases
- allergy-related diseases
- specific named diseases
- medical disciplines/specialties

H—Medical research
- identical hierarchy to diseases/disorders/medical disciplines in major field "G"
- example: G30 represents American Cancer Society; H30 represents cancer research

I—Public protection: crime/courts/legal services
- police & law enforcement agencies
- correctional facilities & prisoner services
- crime prevention
- rehabilitation of offenders
- administration of justice/courts
- protection against/prevention of neglect, abuse, exploitation
- legal services

J—Employment/jobs
- vocational guidance & training, such as on-the-job programs
- employment procurement assistance
- vocational rehabilitation
- employment assistance for the handicapped
- labor unions/organizations
- labor management relations

K—Food, nutrition, agriculture
- agricultural services aimed at food procurement
- food service/free food distribution
- nutrition promotion
- farmland preservation

L—Housing/shelter
- housing development/construction
- housing search assistance
- low-cost temporary shelters such as youth hostels
- homeless, temporary shelter for
- housing owners/renters organizations
- housing support services

M—Public safety/disaster preparedness & relief
- disaster prevention, such as flood control
- disaster relief (US domestic)
- safety education
- civil defence & preparedness programs

N—Recreation, leisure, sports, athletics
- camps
- physical fitness & community recreation
- sports training
- recreation/pleasure or social clubs
- amateur sports
- Olympics & Special Olympics

O—Youth development
- youth centers, such as boys clubs
- scouting
- big brothers/sisters
- agricultural development, such as 4-H
- business development, Junior Achievement
- citizenship programs
- religious leadership development

Table 11.1: (*concluded*)

P—Human service—other/multipurpose
- multipurpose service organizations
- children & youth services
- family services
- personal social services
- emergency assistance (food, clothing)
- residential/custodial care
- centers promoting independence of specific groups, such as senior or women's centers

Q—International
- exchange programs
- international development
- international relief services (foreign disaster relief)
- peace & security (international conflict resolution)
- foreign policy research & analyses
- international human rights

R—Civil rights/civil liberties
- equal opportunity & access
- voter education/registration
- civil liberties

S—Community improvement/development
- community/neighbourhood development
- community coalitions
- economic development, both urban and rural
- business services
- community service clubs such as Junior League

T—Philanthropy & voluntarism
- philanthropy associations/societies
- private grant making foundations
- public foundations (e.g., women's funds) and community foundations
- voluntarism promotion
- community funds and federated giving

U—Science
- scientific research & promotion
- physical/earth sciences
- engineering/technology
- biological sciences

V—Social sciences
- social sciences research/studies
- interdisciplinary studies, such as black studies, women's studies, urban studies, etc.

W—Public affairs/society benefit
- public policy research, general
- government & public administration
- transportation systems
- leadership development
- public utilities
- consumer rights/education

X—Religion/spiritual development
- Christian churches, missionary societies and related religious bodies
- Jewish synagogues
- other specific religions

Y—Mutual membership benefit organizations
- insurance providers & services (other than health)
- pension/retirement funds
- fraternal beneficiary societies
- cemeteries & burial services

Z99—Unknown, unclassifiable

Table 11.2: International Affairs/Peace and Security Coding System

Q is for INTERNATIONAL AFFAIRS

Q INTERNATIONAL/FOREIGN AFFAIRS
IMMIGRANT RIGHTS—use R21
INTERNATIONAL HUMAN RIGHTS—use Q70
INTERNATIONAL STUDIES—use V35
FOREIGN LANGUAGE SCHOOLS/SERVICES—use A74

Q20 PROMOTION OF INTERNATIONAL UNDERSTANDING

Q21 INTERNATIONAL CULTURAL EXCHANGE

Q22 INTERNATIONAL STUDENT EXCHANGE & AID

Q23 INTERNATIONAL EXCHANGES—NEC

Q30 INTERNATIONAL DEVELOPMENT/RELIEF SERVICES: Use for multipurpose development & relief programs that include both agricultural and economic development, food distribution, medical services, and social services (e.g., Africare, Committee for International Development, etc.)

Q31 INTERNATIONAL AGRICULTURAL DEVELOPMENT

Q32 INTERNATIONAL ECONOMIC DEVELOPMENT: Includes defence conversion.

Q33 INTERNATIONAL RELIEF

Q40 INTERNATIONAL PEACE & SECURITY

Q41 ARMS CONTROL/PEACE ORGANIZATIONS

Q42 UNITED NATIONS ASSOCIATION

Q43 NATIONAL SECURITY, DOMESTIC: Includes military/defence issues.
MILITARY/VETERANS' ORGANIZATIONS—use W30

Q44 INTERNATIONAL CONFLICT RESOLUTION

Q50 FOREIGN POLICY RESEARCH & ANALYSIS

Q51 INTERNATIONAL ECONOMICS & TRADE POLICY

Q70 INTERNATIONAL HUMAN RIGHTS

Q71 INTERNATIONAL MIGRATION/REFUGEE ISSUES

Q99 INTERNATIONAL AFFAIRS—NEC: Includes security/defence issues within a foreign country (e.g., Friends of Israel Defence Fund).

R is for RIGHTS/CIVIL RIGHTS

R CIVIL RIGHTS, SOCIAL ACTION, ADVOCACY
FOR EQUAL OPPORTUNITY OR ACCESS IN A SPECIFIC MAJOR FIELD AREA—use specific major field area and common code I3 (e.g., for educational equity—use B13; for housing rights—use L13).
LEGAL SERVICES—use I80
INTERNATIONAL HUMAN RIGHTS—use Q70

R01 ADVOCACY GROUPS, MULTI-AREA

R13 EQUAL OPPORTUNITY & ACCESS, MULTI-AREA: Includes groups that work to protect the civil rights of and/or to gain social, political, and economic equality for all citizens who may suffer discrimination on the basis of age, race, religion, physical or mental disability, ethnic heritage, sex, or sexual orientation.
COMMUNITY COALITIONS—use S21

R20 CIVIL RIGHTS/ADVOCACY FOR SPECIFIC GROUPS

R21 IMMIGRANTS RIGHTS

R22 MINORITY RIGHTS

R23 DISABLED PERSONS RIGHTS

R24 WOMEN'S RIGHTS

R25 SENIORS' RIGHTS

R26 LESBIAN/GAY RIGHTS

R30 INTERGROUP/RACE RELATIONS: Services that promote understanding between different racial/ethnic groups or to eliminate tensions and violence based on racial/ethnic differences.

R40 VOTER EDUCATION/REGISTRATION
Clean election issues—use W23

R60 CIVIL LIBERTIES ADVOCACY: Groups that work to preserve or protect individual civil liberties for all citizens, rather than focusing on particular minority, ethnic, or other population groups.

R61 REPRODUCTIVE RIGHTS

R62 RIGHT TO LIFE

R63 CENSORSHIP/FREEDOM OF SPEECH & PRESS ISSUES

R64 FREEDOM OF INFORMATION

R65 FREEDOM OF RELIGION

R66 RIGHT TO PRIVACY/PRIVACY ISSUES

R67 RIGHT TO DIE/EUTHANASIA ISSUES

R68 DUE PROCESS

R69 DEATH PENALTY ISSUES

R99 CIVIL RIGHTS—NEC

Table 11.3: Tracking International Grants Across All Subject Areas Using Country Codes

The country code is a three-digit code used to designate the location of international grant activities. The Center uses these codes in three specific circumstances: 1) an award to a US domestic recipient for international activities (e.g., a grant to Yale University to research economic development patterns in Mexico); 2) an award to a US domestic recipient whose focus is always global or international (e.g., a general support award to Africare); and 3) a grant to a foreign recipient for an activity in yet another foreign country or region (e.g., a grant to the Paris, France, office of UNESCO for public health programs in India).

Awards made to agencies or programs in US territories and possessions (e.g., Puerto Rico, Guam, and American Samoa) are considered domestic grants.

SPECIAL COUNTRY CODES			**EUROPE**		
A10	CANADA		E01	EUROPE	
N10	ANTARCTICA			E02	Andorra
N20	ARCTIC REGION			E03	Austria
U10	AUSTRALIA			E04	Belgium
U20	NEW ZEALAND			E05	France
G10	GLOBAL PROGRAMS			E06	Greece
G20	DEVELOPING COUNTRIES			E07	Netherlands
				E08	Ireland
CARIBBEAN				E09	Italy
C01	CARIBBEAN		E10	UNITED KINGDOM	
	C20	Bahamas		E11	England
	C30	Bermuda		E12	Scotland
	C40	Cuba		E13	Wales
	C50	Dominican Republic		E14	Northern Ireland
	C60	Haiti			
	C70	Jamaica	E15	LUXEMBOURG	
	C80	Antigua & Barbuda	E16	PORTUGAL	
	C81	Aruba	E17	SPAIN	
	C82	Barbados	E18	SWITZERLAND	
	C83	Bonaire	E19	GERMANY	
	C84	Curacao			
	C85	Dominica	E20	SCANDINAVIA	
	C86	Grenada		E21	Denmark
	C87	Guadeloupe		E22	Finland
	C88	Martinique		E23	Iceland
	C89	Netherlands Antilles		E24	Norway
	C90	Saint Kitts-Nevis		E25	Sweden
	C91	Saint Lucia		E29	Greenland
	C92	Saint Vincent & the Grenadines			
	C93	Trinidad & Tobago	E31	MALTA	
	C94	Turks & Caicos Islands	E23	MONACO	
	C99	Leeward Islands	E33	LIECHTENSTEIN	

Table 11.3: (*continued*)

E40	EASTERN EUROPE
E41	Albania
E42	Bulgaria
E43	Czech Republic
E44	Slovakia
E45	Hungary
E46	Poland
E47	Romania
E50	SOVIET UNION (FORMER)
E51	Armenia
E52	Azerbaijan
E53	Belarus
E54	Estonia
E55	Georgia (Republic of)
E56	Kazakstan
E57	Kyrgyzstan
E58	Latvia
E59	Lithuania
E60	Moldovia
E61	Russia
E62	Tajikistan
E63	Turkmenistan
E64	Ukraine
E65	Uzbekistan
E70	YUGOSLAVIA (FORMER)
E71	Bosnia-Herzegovina
E72	Croatia
E73	Macedonia
E74	Serbia
E75	Slovenia
AFRICA	
F01	AFRICA
F02	SUB-SAHARAN AFRICA
F10	NORTHEAST AFRICA
F11	Djibouti
F12	Chad
F13	Egypt
F14	Ethiopia
F15	Libya
F16	Sudan
F20	WESTERN AFRICA
F21	Algeria
F22	Benin
F23	Cape Verde
F24	Gambia
F25	Ghana
F26	Guinea
F27	Guinea-Bissau
F28	Ivory Coast
F29	Liberia
F30	Mali
F31	Mauritania
F32	Morocco
F33	Niger
F34	Nigeria
F35	Senegal
F36	Sierra Leone
F37	Togo
F38	Tunisia
F39	Burkina Faso
F40	CENTRAL AFRICA
F41	Angola
F42	Burundi
F43	Cameroon
F44	Central African Republic
F45	Congo
F46	Equatorial Guinea
F47	Gabon
F48	Kenya
F49	Malawi
F50	Rwanda
F51	Somalia
F52	Tanzania
F53	Uganda
F54	Zaire
F55	Zambia
F60	SOUTHERN AFRICA
F61	Botswana
F62	Comoros
F63	Lesotho
F64	Madagascar
F65	Mauritius
F66	Mozambique
F67	Seychelles
F68	South Africa
F69	Swaziland
F70	Zimbabwe
F71	Namibia
F72	Venda

Table 11.3: (*continued*)

LATIN AMERICA	
L01	LATIN AMERICA
L05	MEXICO
L10	CENTRAL AMERICA
L11	Belize
L12	Costa Rica
L13	El Salvador
L14	Guatemala
L15	Honduras
L16	Nicaragua
L17	Panama
L20	SOUTH AMERICA
L21	Argentina
L22	Bolivia
L23	Brazil
L24	Colombia
L25	Chile
L26	Ecuador
L27	French Guiana
L28	Guyana
L29	Paraguay
L30	Peru
L31	Suriname
L32	Uruguay
L33	Venezuela
OCEANIA	
O01	OCEANIA
O20	Caroline Islands
O21	Fiji
O22	Gilbert Islands
O24	Kiribati
O25	Marianas
O26	Marshall Islands
O27	Nauru
O28	New Caledonia
O29	Samoa
O30	Solomon Islands
O31	Tahiti
O32	Tonga
O33	Tuvalu
O34	Vanuatu
O35	Western Samoa
O36	Micronesia

ASIA	
S01	ASIA
S10	MIDDLE EAST
S11	Bahrain
S12	Cyprus
S13	Iran
S14	Iraq
S15	Israel
S16	Jordan
S17	Kuwait
S18	Lebanon
S19	Oman
S20	People’s Dem. Rep. of Yemen
S21	Qatar
S22	Saudi Arabia
S23	Syria
S24	Turkey
S25	United Arab Emirates
S26	Yemen Arab Republic
S27	West Bank/Gaza
S30	INDIAN SUBCONTINENT AND AFGHANISTAN
S31	Afghanistan
S32	Bangladesh
S33	Bhutan
S34	India
S35	Maldives
S36	Nepal
S37	Pakistan
S38	Sri Lanka (Ceylon)
S40	SOUTHEAST ASIA
S41	Brunei
S42	Burma (Myanmar)
S43	Cambodia
S44	Indonesia
S45	Laos
S46	Malaysia
S47	Papua New Guinea
S48	Philippines
S49	Singapore
S50	Thailand
S51	Vietnam

Table 11.3: (*concluded*)

S60 CHINA AND MONGOLIA S61 China S62 Taiwan S63 Mongolia S70 KOREA S71 South Korea	S72 North Korea S80 JAPAN S90 HONG KONG

Since 1989, international grants have been tracked three ways:

1. Grants for "International Affairs," whether made domestically or outside the US, are coded "Q". This broad category includes subcategories for grants to organizations/programmes that focus on promoting international understanding and friendly relations among nations, preserving international peace and protecting national security interests, providing development and relief services to foreign countries, including international agriculture and development, as well as fostering international human rights activities;

2. Grants made to US organizations for an international purpose—whether in "International Affairs" or in another field, e.g., health, education, or the arts—are assigned a country code to designate the country (or region or continent) where the benefits will be realized;

3. Grants awarded outside of the US are tracked according to the country location of the recipient organizations.

IV. Sampling Information

The Foundation Center obtains grants data from foundation grant lists, annual reports, and from IRS 990 PF forms. For 1992/93, the *Grants Index* database included 68,000 grants of US$ 10,000 or more reported by a sample of 1,020 private, corporate, and community foundations (including approximately 800 of the 1,000 largest foundations ranked by total giving). These foundations, while less than 3 per cent of the total number of all US foundations, were responsible for more than half of total grant dollars awarded in 1993 (US$ 5.6 billion out of US$ 11.1 billion). For more information about the sampling base, including scope and limitations, see Table 11.4.

Of the more than 1,000 funders included in the grants database sample, roughly 40 per cent reported making at least one foreign or international grant in 1992/93. Overall, the share of giving for international purposes totalled 11 per cent of all giving by sampled foundations, or US$ 611.4 million. Of the total, 6.4 per cent was awarded

to organizations in the US to conduct international activities, while 4.5 per cent was spent directly outside the US. Programmatically, the category of "International Affairs/Peace and Security" accounted for nearly 4 per cent of all funding, or about a third of funding for international purposes.

Table 11.4: Sampling Base of Grants Awarded in 1993

SAMPLING BASE

The sampling base for the *Foundation Grants Index 1996* includes 72,774 grants of 510,000 or more awarded by 1,029 leading foundations and reported to the Foundation Center between May and June 1994. Grants were award in 1994 or late 1993. The sample includes about 800 of the 1,000 largest foundations, ranked by total grant dollars, and 229 other private and community foundations of varying sizes. The composition of the set of largest grantmakers varies slightly from year to year, based on the availability of grants information. The information returns of a few of the top 800 grantmakers were unavailable due to delays in the processing and microfilming of returns by the IRS. Additionally, a few of the largest funders were omitted because they could not meet the Center's deadline for supplying information, or because the grants list attached to Form 990-PF was either illegible or incomplete.

The sample is heavily weighted toward these large foundations. Table 1 compares distribution by asset categories of the 1,029 *Grants Index* foundations and the 9,977 foundations covered in the 1995 editions of *The Foundation Directory* and *The Foundation Directory Part 2* with assets of at least $1 million or giving of more than $100,000. *Directory* foundations in the smaller asset categories (below $10 million) account for 80 per cent of the number of foundations and 25 per cent of total giving. In the *Grants Index*, this group of small foundations comprises only 23 per cent of the number of foundations and 8 per cent of total grant dollars reported.

Sources of Information

Of the 1,029 foundations included in this volume, many report their grants directly to the Foundation Center through grant reporting forms, newsletters, annual reports, or grants lists (Table 2). Those foundations using the Center's grant reporting form (Form 400) generally provide the most complete and current data on the location, scope, duration, purpose, and beneficiaries of the grant project. Information provided in annual reports and other foundation publications, while not as specific, tends to also be very complete. For the remaining foundations—the non-voluntary reporters—grants are researched from the information returns all foundations must file with the Internal Revenue Service (Form 990-PF). Grant descriptions taken from these returns tend to be brief, often with little information beyond the name of the recipient organization and the dollar value of the grant. Although the Center's staff attempt to research the purposes of these recipient organizations using reference sources, it may be impossible to pinpoint the field of activities of a number of grant recipients. Beyond that, information on type of support and beneficiaries is frequently lacking.

Scope and Limitations of the Grants Index

The *Grants Index* includes the grants of a diverse set of independent, corporate, and community foundations (for definitions, see Figure A). The grants of several operating foundations that maintain substantial grantmaking programs, such as the J. Paul Getty Trust, are also included. Still, the *Grants Index* is not intended to provide a comprehensive record of all private and community foundation grantmaking activities. Excluded from the sample are:

- grants less than $10,000;
- grants made directly to individuals;
- expenditures for foundation-administered projects; and

Table 11.4: (*concluded*)

• grants awarded by a private or community foundation to another foundation (excluded to avoid double counting of grant dollars). Except for community foundation grants, the *Grants Index* does not include grants awarded by public charities and other nonprofits not classified as private foundations by the IRS. Similarly, the *Grants Index* covers the giving of a number of company-sponsored foundations, but it does not include grants awarded through corporate giving programs. One final note: the grant amount shown in the *Grants Index* is based primarily on the total amount authorized, whether it is paid during a single year or in several installments over a period of years. If the full amount authorized is not available, the amount paid during the year is shown.	**Interpreting Trends** About 90 per cent of grant dollars reported in this volume were awarded by foundations that also appeared in the previous volume, insuring a high degree of stability in the findings across years. Nonetheless, beyond actual increases in foundation grantmaking, changes in funding trends may result from a change in the number of foundations included in the sample, inconsistences in reporting by participating foundations, the inclusion of a number of large single awards, and multiple-year authorizations. Due to these variations, the analysis of funding trends is based primarily on the *per centage* allocations of the total grant dollars and number of grants reported, as opposed to changes in specific dollar amounts or in number of grants. Especially large grants will be noted whenever their inclusion might influence the analysis of trends.

V. Framing the Study

International grant making covers a broad spectrum of subjects and disciplines represented in the Center's taxonomy—from the environment, to health, arts and culture, international affairs, religion. Thus, the major conceptual challenge is to develop an understanding of the principal themes and issues in the field—with a special focus on international affairs and peace and security—and the interrelatedness of various subfields or disciplines. This will provide both a context and an organizing principle for discussing the field and analysing and presenting grants data. It will also provide a means for grant makers to determine where they fit within the whole picture presented, and where opportunities exist for future grant making.

To provide this framework, we need to identify those issues that are important to international grant makers and that define our field; and we need to articulate questions and interests of our audiences about international grant making, determining which can be addressed through grants analysis in this study and which will require future research, e.g., through survey analysis.

The importance of this activity goes beyond this study since it is likely to influence future studies of international philanthropy in other countries in which grants information has been systematically collected and organized in a database.

Framing this study requires the assistance of a small but dedicated group of advisors who, working with the project staff, help to define issues and themes,

articulate questions about the international field of interest to grant makers and other audiences, and refine the study design to ensure that it meets the needs of users.

VI. Designing the Study

Measuring quantitative data to establish giving trends lies at the core of the design of a benchmark study, although interpretation goes beyond statistical analysis and involves a discussion of funders' programmes and priorities and other factors and issues affecting the field. As presently conceived, the study includes two major parts. Part 1 will examine measurable funding trends, including the following:

- Dimensions of international giving in 1990 and 1994;
- Overview of international funders, including breakdown by foundation type, foundation size, and funder location;
- Distribution of grants by grant size category;
- Breakdown of international grant making into funds spent outside the US vs. funds distributed to domestic organizations;
- Distribution of giving by recipient location and, to the extent possible, by country or region of intended activity;
- Breakdown of giving by major programmatic field, e.g., International Affairs, Health, Education, and by subcategory, etc.;
- Breakdown of giving by type of recipient organizations;
- Breakdown of giving by type of support, e.g., general, capital, programme, etc.; and
- Breakdown of giving by beneficiary group, e.g., children, women, etc.

Part 2 will present profiles of significant contributors, including those in the sample, newly active large funders, and notable corporate giving programmes not included in the foundation grants sample. Profiles will describe current interests and priorities, size of funding, per cent of annual budget, limitations, future plans, etc. Write-ups will be drawn from annual reports, newsletters, programme guidelines, interviews, a literature review, etc.

The study, which is conducted by the Foundation Center's research staff with assistance from the Council on Foundations' International Programs staff and guided by an advisory committee, includes the following steps:

1. Develop an overview of the international funding field—review existing literature dealing with international philanthropy to see how issues are defined and discussed; follow up with discussions with selected funders;

2. Refine the study design—working with models from the Center's other benchmark studies. There is a need to identify key elements and levels of trends

analysis (such as those listed above under "Study Design") to present in the baseline study and track in subsequent study years. Using the structure of the taxonomy, appropriate levels of analysis will be decided when presenting subfields of major funding areas.

The study includes:

- Definition of International Funding and Statement of Issues;
- Dimensions of International Funding;
- Trends Among Leading Grant Makers;
- Patterns of Funding by Subject, Type of Support, Recipient Type, and Population Group;
- Funding Trends by Country and Region;
- Profiles of Selected Grant Makers including programmatic information;
- A discussion of qualitative issues in international philanthropy, including policies, practices and directions in funding;
- Commissioned articles covering areas outside the parameters of the study data, e.g., flows of philanthropic dollars coming into the US, corporate philanthropy/social responsibility abroad, or trends in Europe.

3. Using the Foundation Center's foundation and grants database, produce analytic data and create tables and graphs required for analysis, prepare profiles on key grant makers and submit to funders for their approval, commission outside authored articles; and

4. Analyse data, write study reports, secure and edit commissioned articles, prepare manuscript for publication, publish and disseminate study.

VII. Participation of Advisors and Timeline

The advisory group includes grant makers, researchers, and experts in international funding. The advisory group serves to critique the design; to help define issues and themes in international grant making as a framework for presenting historical trends; to identify questions related to research on international grant making; to offer advice as the project develops; and to assist in interpreting the results of the analysis. Advisors shall meet twice: early in the project and after the first draft of the study has been prepared.

Data gathering and data analysis design began in late 1995. The project was formally launched by the Council and the Center in April 1996. The first meeting of the advisory group was held in June 1996. A follow up meeting of advisors was held in April 1997, at which preliminary results of the Study were discussed for the first

time. Work on the study is nearing completion. The published study will be released in the fall of 1997.

VIII. Conclusions and Recommendations

- The benchmark study will greatly expand information on international philanthropy produced by the Foundation Center and the Council on Foundations for various audiences. For grant-seeking organizations, the study will complement the *National Guide to Funding of Foreign and International Programs*, published by the Foundation Center. The report will provide a summary review of trends and practices in international grant making, while the *Guide* is intended to assist organizations in identifying those individual donors whose stated interests match their own programmatic activities.

- The study will introduce international organizations, international donors and researchers to a range of information resources produced by the Foundation Center and made available through its publications, its online database of grants (accessible through DIALOG Information Services), and most recently through its World Wide Web site (www.fdncenter.org).

- Highlights of the study's findings and principal data tables will be made available free of charge at the Foundation Center's World Wide Web site. Information about ordering the published report will also be disseminated electronically. Organizations that wish to be added to the Center's mailing list to be notified about the release of the study should contact the Center by mail, fax, or e-mail.

- Research organizations are invited to share their comments about any aspect of the study design and to offer suggestions about ways in which the study might be effectively utilized within the research community.

- The Foundation Center and the Council on Foundations will seek to identify dissemination networks in the international community. Once the report is available, we invite this network to review and evaluate the findings of the data analysis, along with other information provided in the report, and to contact us about the usefulness of the study and about the model developed for presenting an analysis of international grant making. Your comments will contribute to an evaluation of the research project to be conducted in anticipation of the updating of the study data at the end of the decade.

Annex

Bibliography of Funding for International and Foreign Programs

This selected bibliography is compiled from the Foundation Center's bibliographic database. Many of the items are available for free reference use in the Center's New York City, Washington, D.C., Cleveland, San Francisco, and Atlanta libraries and in many of its cooperating libraries throughout the United States. For further references on such topics as fund-raising and proposal development, see *The Literature of the Nonprofit Sector: A Bibliography with Abstracts*. Vols. 1-7. New York: The Foundation Center, 1989-1995.

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Chapter 12

European Fund-Raising: Innovative Cooperation Schemes

Xavier PACREAU

I. Introduction

Cooperation between institutes, firms or financial groups on a European level is rather distinct from cooperation as practised in the United States. In fact, support given by businesses to institutes, research centres and even universities is far more common in the US than in Europe. The structure of the funding of security institutes is quite different; indeed, the financing of institutes by foundations is less important in Europe because European foundations are fewer in number and tend to have more specialized interests. Nevertheless, some big foundations do exist in Europe, such as the Volkswagen Foundation, the Bertelsmann Foundation, and the Foundation of France. At the same time, the system of public or institutional assistantship is perhaps more developed in Europe. Nevertheless, support schemes from European big businesses do exist, even though economic agents might prefer to pass their message through cultural, sporting, or charity events. After all, these issues are more media-oriented than are security and defence questions. This chapter is dedicated to analysing the types of cooperation functioning in Europe. It is no secret that the crisis in which the European economy finds itself is not without effect on the amount of aid given by businesses to institutes. Estimates calculate the loss of contributions by economic agents who subsidize security institutes at 25%. One can also observe that from a general point of view public relations departments or general directory boards have become more watchful about the nature of such undertakings. In fact, the constraints of our difficult times lead them to often reorientate their policies and redefine priorities.

The totality of these elements will be studied along three axes of reflection. First, the influence of the international situation and economic parameters on cooperation will be outlined. Second, the elements which explain the particular European situation in this field will be considered, before distinguishing which areas of activity (of particular importance at the turn of our century) are capable of creating links of cooperation.

II. The Influence of International Geostrategic Mutations on the Projects of European Institutes

The profound changes in the international context since the fall of the Berlin Wall have deeply modified the policies of communication of the big industrial groups as well as the nature of the issues treated in the area of security-related research. The end of the Cold War and the East-West confrontation, the shifting of centers of conflict, and of their form as well as their content, influence the nature of research projects of institutes concerned most undeniably by European security issues. The present period is centred more around questions concerning peace, peace-keeping, preventive diplomacy, conflict prevention and disarmament—as well as questions concerning global arms control, illegal arms dealing and proliferation.

This new situation has brought about changes in communication strategies of certain industrial groups such as Volkswagen (through the Volkswagen Foundation) which since the beginning of the 1990s has decided to withdraw support from projects connected to security (this decision took effect in 1995 because research projects tend to run over several years). Other European multinationals have reoriented their communication priorities around areas of more immediate concern, such as environmental protection (Rhône Poulenc, Total, etc.). Having said this, it is interesting to note that one of the last programmes subsidized in terms of security by the Volkswagen Foundation concerned nuclear disarmament (a project of the Frankfurt Peace Research Institute supported with a DM 490,000 contribution by the Foundation).

But the principal element which remains of primary importance, regardless of the changes in the international situation, is the nature of the exchange which is taking place between the financial partners and the support-seeking institutes. There is a strong connection between public image, the promotion of ideas, and financial support. The project presented by the support-seeking institute must correspond to the public relations policy maintained by the firm; in other words, the image which it wishes to communicate about itself and the ideas it wants to promote. The support seeker must therefore always take into consideration the feedback in the long run that a project will provide to the potential financial partner. In this case, feedback can also be measured in economic terms. A business cooperation which is going to support research often hopes that the ideas promoted by the institute will mobilize the press, public opinion, the scientific community and the world of politics. The result will provide the firm with an element that would enable it to gain credit and public funding.

III. The Relevance of Economic Criteria in Regard to the Region or the Countries Studied

One of the main parameters in the decision regarding financial support for projects or, generally speaking, an institute is the economic interest a region represents

for big financial and industrial groups. For instance, a security-oriented axis of research on South-East Asia certainly is a good way to obtain financial support from important aeronautical, civil engineering or high technology enterprises (in this way, analysis by institutes can be more specific and more detailed than those given by the national diplomatic services). Indeed, for the big European firms (Alsthom, Volvo, Bouygues, etc.) which seek to develop their business in this region, the economic potential that such a region represents will lead them to regularly support such initiatives among European institutes. One must take into account promotion of peace and security in these regions, as stability is essential for economic activity. This explains the increased interest of European firms in analysis of such issues.

We have chosen South-East Asia as an example but we could have taken countries in Central Europe. In fact these States are already becoming the privileged economic partners of the European Union and some of them will even be able to join in the near future. This situation enhanced the implementation of several European enterprises in the area, which now holds real economic potential. The debate that took place concerning the participation of these countries in political and economical entities like the European Union or in military entities like NATO or WEU, cannot but motivate these firms to promote research in this field; indeed, such research will undeniably have repercussions on an economic level. The Eastern European countries entering the European Union will raise the Union's trading volume and cut down on the cost of doing business. Also, the integration of these countries into an entity such as the WEU would favour European arms producers. The particular interest of these firms or European groups (such as Daimler-Benz, Thomson, and Fiat, etc.) concerning Central and Eastern Europe is increased by the fact that American firms have already conquered important shares of this market. America's active participation in the peace-keeping process and the economic transition process in this region plays a major role in this private sector expansion.

It is obvious that these firms are eager to support projects related to peace and security in this European region. For the institutes concerned by security issues to receive financial support from grant makers, they have to take into account the latter's development policy. A good prospective analysis of security issues in a State or region represents a sure economic interest. Indeed, such analysis allows the events that could predict financial and economic consequences. For instance, the anticipation of conflict possibilities in a country allows the prevention and elimination of negative effects. Knowledge of the security situation enables economic actors to take preventive decisions. Thus, in a country like the former Yugoslavia, it is possible to intervene as soon as possible. One can easily be aware of the interest that the reconstruction of such a country represents for European financial groups and civil engineering firms! In this way, these groups have a particular interest in financially supporting research done by institutes. Institutes concerned with security issues in the region can provide European firms with information which could more or less affect their commercial strategy.

Other examples could be given concerning themes related to peace and security in the Middle East, in other Asian countries or in Russian Federation.

The examples given above do not mean that research on the third world must be abandoned. Firms that have moved part of their production to third world countries might also be interested in supporting research concerning the third world, in order to promote a development assistance image. Likewise European institutions concerned with development assistance can also regularly support such research.

IV. The Influence of European Integration on the Finance of European Research Institutes Engaged in Security Studies

In order to grasp the reasons that will eventually guide multinationals and European institutions in their support of research undertaken by European security institutes, it is essential to analyse the characteristics of European integration. The important changes which the European Union is presently undergoing have, without a doubt, a profound effect on financial decisions taken by economic agents.

The Maastricht Treaty signed in 1992 has triggered a process of deep transformation within the ex-EEC, by creating a European Union between the members, comprising a political entity, with all its implications, in the field of security and defence. The Intergovernmental Conference of the 15 Member States, opened on 24 March 1996 in Turin, is scheduled to reexamine during one year certain dispositions of the Maastricht Treaty which are largely conditional to European political construction, and treating, amongst other issues, defence and security matters. For this reason institutions such as the European Commission are financing certain projects to promote the idea of a united Europe and to draw European citizens closer together. Every year the Commission determines certain subjects on which it wishes to campaign (in 1996 the subjects chosen referred to the Intergovernmental Conference) and supports major contributions corresponding with this topic.

One may note that the Common Foreign and Security Policy of the Union, which is supposed to lead to the implementation of a Common Defence (Article J.4 of the Maastricht Treaty), is already a reality today and will continue to exert increasing influence on research done by European institutes concerned with problems of security. This seems even more evident when considering the future extension of the Union to Eastern Europe. The manner of this extension is a key question for European institutes as far as peace-keeping, security, conflict prevention and disarmament are concerned, and it is very likely to raise the support of certain European industrialists and financiers, for the reasons evoked in the two preceding chapters. Two other areas of concern of these institutes are linked to the relations of the Union with the countries of the Mediterranean and the ex-Republics of the Soviet Union. An organization such as NATO is very likely to support certain selected projects on European security. At the same time this institution is concerned with the development of relations with the countries of Eastern Europe and the former Soviet Union. In this way, this institution encourages cooperation between Eastern and Western institutes.

The second element likely to play an important role in the financing of projects is found in the original feature of Franco-German relations in the European Union. In fact, the Franco-German relationship has offered the occasion for the development of special political and economic ties between these two countries since the end of the Second World War. France and Germany are often the vanguard of European construction, the creation of the "Euro-Corps" being an eloquent example. European integration is at the heart of their concept of the Union's future. This special feature has been the source of a dynamic current developed between France and Germany in the economic field. The business sector engaged in this current is inclined to support projects treating, entirely or partially, Franco-German relations, even if their prime concern is security. In this case, the Franco-German and European aspect will probably weigh more heavily on the partner's decision than the actual research subject (security and defence). It is indispensable to consider Franco-German questions in the European context, as Europe represents the ground on which Franco-German relations prosper most. In this way, firms less concerned with security and defence issues will support projects with a Franco-German or European focus (such as Franco-German Bank, Lufthansa, Air France, Henkel, and Crédit Lyonnais). The recent boost that Franco-British relations have undergone could lead to similar results.

The third feature of the current European situation is found in the restructuring of the European arms industry, which is partly the consequence of the European defence project already mentioned above. These firms represent an important source of support for institutes oriented towards security and defence questions in their research projects. Although firms such as Aerospatial, Fiat, Dassault or Thomson are still prone to give support to certain research projects, the mergers and restructuring measures to which they are subject at present limit their capacity to commit themselves fully. Nevertheless, these firms remain interested in supporting projects on the future of the European arms industry, the subject concerning them directly. They quite frequently participate directly in conferences and reflection groups, or contribute to reports commissioned by institutes. State-of-the-art industries (high-tech enterprises) escape economic crises better than other producers and might therefore be more prepared to financially support institutes concerned with security and defence questions. This leads to the last aspect of our study: the field of research arising from the methods by which peace and disarmament are implemented.

V. The Financing of New Areas of Research Arising from Peace, Security and Disarmament Issues

The significance of certain research topics is an essential factor in the financing of projects of European security institutes. It is obvious that research focused on a current, yet unexploited subject, has a greater chance of receiving support from a financial partner than a traditional subject that has already been treated on several occasions. We can take as an example the question of certain dual technologies, i.e.

research leading to military as well as civil applications. These technologies are of double interest because they represent one possible solution for the economic crisis which the armaments sector in Europe is experiencing at present. Telecommunications and space observation are a good example. Such state-of-the-art technology is already an important factor and will continue to play an ever greater role in European and international security. For example, satellite observation touches on questions of disarmament because it is a non-negligible factor in methods of verification. Satellite technology also plays an increasingly important role in peace-keeping and conflict prevention. These fields of research will increase in interest for European research institutes, as they not only concern the storage and handling of information but also the time limits necessary for the treatment of information. Today, the efficiency of decision in matters of security is subject to the quality of information and the rapidity of its transmission, and the organization of one's means of communication. As a matter of fact, the reduction of military budgets in Western Europe has not affected spatial research at all. One should also note that one of the more important activities of the WEU is the development of space observation with the Helios programmes and the base at Torejon in Spain. The general will to assist the emergence of what is already called a "spatial military Europe" can only benefit research institutes working in this area.

Research on international networks of information exchange (such as Internet) and their applications in matters of security represents an important factor for societies concerned by technology, which enhances the development of this sector, and the firms using these means of communication, as well as the research institutes. Here again, Europe is in a peculiar situation as it lags behind in a field that has been largely dominated by its American pioneers. At the end of this century and for the beginning of a new century, research concerning the transnational networks must address major questions in terms of security (the control of information, the encoding, the absence of a real frontier . . .).

One can also see a parallel between the problem we have discussed and that connected with technology transfers. With technological mastery becoming one of the prime sources of power for nations, it is no surprise to observe the tightening of protection measures around certain research and certain sectors of state-of-the-art industry, notably in computing and electronics. The questions concerning protection of research and of state-of-the-art technology are thus directly linked to security issues.

Finally, the revival of interest in the preservation of our planet generates new axes of research for institutes in the domain of security and disarmament. One can in fact take into account all the consequences posed by nuclear disarmament in terms of environmental protection. Equally, all the questions closely connected to the protection of natural resources such as water or energy have become very important. Certain natural resources are of such value to nations that they are often considered part of their vital interests; they can even be at the origin of important inter-State conflicts. The study of problems linking the security of nations in more general terms with the environment can raise support from firms that have designed their image

around the protection of the environment. Sponsorship in this domain is favourable to the firms because of the general attraction exerted by ecology on public opinion.

VI. Conclusions

Concluding this analysis of the European situation in matters of financial partnerships between security institutes and businesses, financial groups or institutions, one can see the importance of the economic feedback that the chosen research topics provide. On the other hand, one notes that the relationship between security problems and questions linked to information, communication, or environmental protection is already and will continue to be an ever-increasing concern for many societies in the years to come. Finally, it should be emphasized that the research of security institutes must from now on be multifaceted in order to be efficient. This sort of research can no longer be limited to a single type of business or institution which has incorporated questions linked to security and peace in its image. Research in this field will lead more and more to other domains (economic development, environmental protection, etc.) Thus institutes concerned by questions relative to security must favour "combined" research; opening research in matters of security to these other domains not only presents a chance to approach new economic partners, but equally to better realise that security, economics, and the environment are increasingly interdependent topics. One example can be cited in the search for funding for the publication of an Atlas of the Middle East Peace Process by UNIDIR (UNIDIR has contacted institutions as varied as the World Bank, the Arab League and the National Geographic Society). This evolution can only raise interest in the support of research projects in these domains.

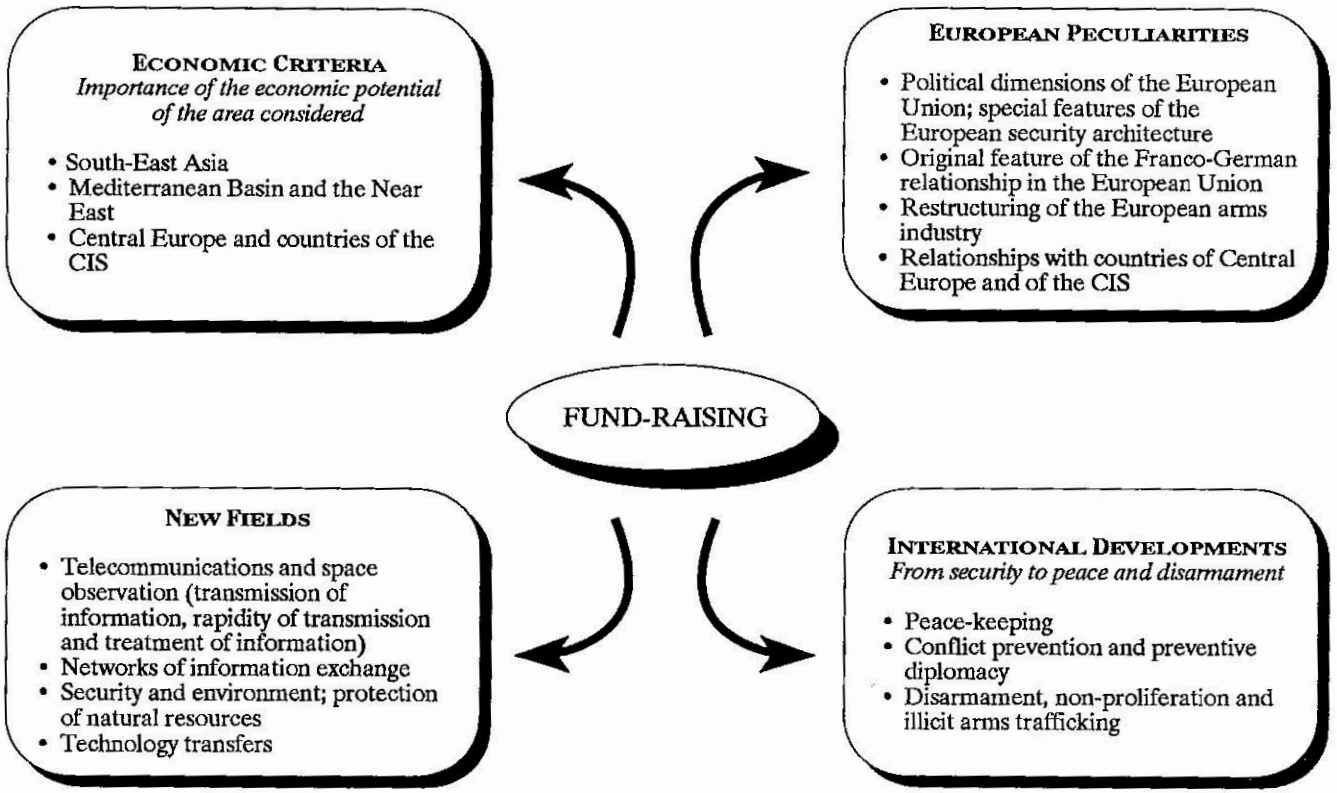
This conclusion leads us to formulate several propositions destined to improve the fund-raising capabilities of institutes concerned with security questions. These propositions are meant to improve the dialogue between these institutes, without which a coordination of research efforts and finance would not be feasible. They also seek to prevent redundancy of efforts and approaches on a European scale in matters of fund-raising. But it is imperative that such initiatives be coordinated with those that can be developed on an international scale.

Recommendations

- An entity should be created which would organize a European network concerning fund-raising for security institutes. Cooperation in this area should be promoted by this entity.
- The publication of a European index of foundations, firms and organizations likely to support projects conducted by security institutes should be one of the major tasks of this entity.

- The means available for putting this index on-line and regularly updating it should be evaluated.
- Joint fund-raising between institutes should be encouraged by this entity.
- The means for coordinating the activity of these kinds of entities in North America should also be evaluated.

Table 12.1: Summary Table
(Various parameters to be taken into account in fund-raising)*



* This Table does not present an exhaustive list of all parameters to be considered in fund-raising activities of research institutes engaged in the study of security affairs. It only intends to show the ones that seemed particularly important on the European level to the author.

Part Five

Conceiving Strategies for Cooperation

Chapter 13

Assisting the Development and Consolidation of Democratic Security

Francis ROSENSTIEL

I. Introduction

Established in 1949, the Council of Europe was the first European political organization created in the postwar period in order to unite the peoples of Europe around the values of pluralist democracy, human rights, and the rule of law, disregard of which had brought about an unprecedented disaster in Europe. These three fundamental principles, which are embodied in the statute of the Organization and form the criteria for membership, are as relevant and important today as they were almost 50 years ago, following the dramatic changes which have occurred in Europe in the last six years.

Since 1989, the Council of Europe has played an essential role in bringing the countries of Central and Eastern Europe back into the family of European nations. From the very beginning, the Council of Europe's aim has been to bring together all the European democracies: the Cold War was a major obstacle to do so. It was logical, therefore, for the Council of Europe to take on the responsibility of welcoming the countries of Central and Eastern Europe into its midst and fostering their democratic transformation. This was the only European political body the new countries could join and the only forum in which they could cooperate on an equal footing, within a global democratic consensus.

In order to meet this challenge, the Council of Europe Parliamentary Assembly created as early as 1989 a special guest status for the countries of Central and Eastern Europe seeking to rejoin Europe in general and the Council in particular. While their parliamentary delegations could participate as observers in the work of the Parliamentary Assembly, the countries of Central and Eastern Europe were also closely associated with the Council's activities in the field of human rights, rule of law, and political pluralism. Moreover, countries with special guest status were the direct beneficiaries of the newly created cooperation programmes designed to prepare them for full admission to the Council.

In the early 1990s, the whole of post-communist Europe, including the former European republics of the Soviet Union, held special guest status within the Council of Europe, with the exception of Serbia-Montenegro, because of its responsibility in the war. Today, practically all the countries of Central and Eastern Europe, including Russia and Ukraine, are full members of the Council.[1] Those countries which still have special guest status are Belarus, Armenia and Georgia. In the former Yugoslavia, Slovenia and the former Yugoslav Republic of Macedonia are full members, while Croatia and Bosnia-Herzegovina hold special guest status.[2] Moreover, the Dayton Agreement has paved the way for the rebuilding of democratic institutions in this area, and the Council, apart from its clear involvement in the protection of human rights in Bosnia-Herzegovina, will contribute to the efforts of the international community in its particular fields of competence.

The policy of enlargement of the Council of Europe was confirmed by the Vienna Summit in October 1993, which brought together for the first time in the Organization's history its heads of State and Government. The Council was enjoined by the Vienna Declaration to create a vast area of "democratic security," the new motto of its activities. Indeed, it is now perceived that Europe can remain a peaceful and stable continent only if its Member States promote democratic values and practices while forging an active spirit of tolerance and mutual understanding.

The Organization now comprises 39 Member States,[3] 15 of which are part of Central and Eastern Europe and have acceded since 1989. The Council has transformed itself into a genuinely pan-European political organization, representing some 700 million people. It must also be stressed that the Council has clearly defined the "limits" of Europe: Armenia, Georgia and Azerbaijan have the possibility of joining the Organization because of their cultural links with Europe, provided they meet the political conditions of admission; the Asian republics of the former Soviet Union are not candidates for membership but may benefit from specific assistance programmes and sign some of the Council's international conventions. Today, 21 European countries benefit from the assistance programmes (the 15 new Member States, the 4 applicant States,[4] as well as Azerbaijan and Georgia).

[1] Situation at 30 June 1996. As of 1st September 1997, 40 member states, 16 of which are part of Central and Eastern Europe: Albania, Andorra, Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, San Marino, Slovakia, Slovenia, Spain, Sweden, Switzerland, "the former Yugoslav Republic of Macedonia", Turkey, Ukraine, and United Kingdom.

[2] Situation at 30 June 1996: Croatia, Belarus, Bosnia-Herzegovina, and Armenia. As of 1st September 1997, 4 countries held special guest status and were applicant states: Bosnia-Herzegovina, Armenia, Georgia and Azerbaijan. Belarus special guest status was suspended in January 1997.

[3] See footnote 1.

[4] See footnote 2.

II. Philosophy and Goals of the Council's Cooperation Programmes

Today, the area covered by the Council of Europe Member States is wider and more varied, complex, and unstable than it used to be and entails the development of cooperation programmes aimed at bringing about genuine democratic progress and thus achieving the goal of democratic security in Europe. These programmes are the operational instruments complementing the policy of enlargement.

The assistance programmes distinguish between the new Council of Europe Member States and the applicant countries. For the former, of which there are currently 15, the programmes aim at ensuring their full integration into the Council of Europe's cooperation machinery, in particular by helping them to fulfil their statutory obligations such as ratification of the European Convention on Human Rights or, in some cases, specific commitments made at the time of their accession. Thus, these countries continue to benefit from the special assistance programmes as the democratization process touches ever-deeper sectors of their societies. They are also encouraged to pass on their experiences to Central and East European countries which have further to go along the road to democracy.

For the applicant countries, the cooperation programmes aim at preparing them for their future accession and promoting democratic reforms through an exchange of information and experience. These programmes concern Belarus, Croatia, Bosnia-Herzegovina, and Armenia; a limited degree of cooperation is also taking place with the two other trans-Caucasian states.

These objectives mean that priority is given to the following:

- the functioning of a representative democracy and the training of those in charge of these institutions, at both local and regional levels;
- the setting up of efficient rules and mechanisms for the protection of human rights;
- the establishment of a legal system which conforms to the principles of the rule of law with an independent, fair and efficient judiciary;
- the creation of a strong and dynamic civil society through the strengthening and protection of NGOs and voluntary associations;
- the development of free, pluralistic, and independent media; and
- the promotion of an educational and training system aimed at producing responsible and tolerant citizens.

The increasing diversification of beneficiary countries, as well as the fact that they experience new problems as they progress along the democratic path, prompted the Council to adopt a country-oriented approach and to redefine its cooperation and assistance programmes in order to adapt them to the needs and requirements of the countries concerned.

The democratic assistance programmes are always set up at the request of the States themselves and their actual substance negotiated with the authorities concerned. There

is indeed no direct interference in the countries' democratic, political, or social choices. The beneficiary States in a given area are offered a range of options from different Council of Europe Member States.

The assistance programmes consist essentially of an East-West and West-East exchange and include the following types of activities which apply to all fields:

- expert missions, i.e sending experts from Council of Europe Member States to assist the authorities of Central and East European countries with a particular legislative or administrative problem;
- study visits by senior officials, judges, lawyers, administrators, etc. to Member States;
- information seminars or training programmes for civil servants, academics, administrators, legal professionals, etc.;
- information and documentation through new publications, translations, setting-up of information centres, etc.;
- participation of Central and East European countries in colloquiums and conferences;
- financial contributions to initiatives undertaken in Central and Eastern Europe by governmental or non-governmental institutions.

Three distinct programmes have been created: Demosthenes, Themis and Lode. Demosthenes (covering the new Member States) and Demosthenes Bis (covering the countries with "guest status") deal with all fields of activity of the Council of Europe. Their aim is to put at the disposal of Central and Eastern Europe the expertise acquired by the Council and its Member States and to bring their legislation and institutions into conformity with Council of Europe norms (conventions and other achievements). The targeted public for these two programmes are leaders within the political system, at national and local levels, civil servants and administrators, judges, lawyers, leaders of NGOs, youth leaders, journalists, health specialists, etc.

Themis is a special programme entirely devoted to legal cooperation and designed to train judges, prosecutors, and lawyers as well as policemen, prison administrators and civil servants in the judicial administrations. Themis focuses on the following areas:

- the role of the police and the role of the judge in a democratic society;
- the transformation of the "Prokuratura" into an organ of democratic justice;
- the reorganization of the prison system;
- the functioning of a ministry of justice in a democratic state; and
- the drafting of laws within a State governed by the rule of law.

If political pluralism, the rule of law and human rights are to be deeply rooted and implemented in each of our societies, these three principles have to be solidly established at local level. It is in towns and villages that the majority of men and women have the opportunity to participate in democratic life and decision-making. That is the reason why, in conjunction with the newly enhanced Congress of Local and Regional

Authorities of Europe, a new programme, Lode (for "local democracy"), has been set up specifically to promote grass-roots democracy and the training of local leaders, elected officials and administrators in the field of local politics and finance. The Lode programmes also try to foster local autonomy, which the former communist regimes did not accord, and trans-frontier cooperation. Training programmes in these fields regularly bring locally elected representatives to Strasbourg from all the countries concerned, including the Russian Federation. With the latter, an extensive programme is being implemented in order to analyse the various aspects of the functioning of federalism and to promote more sound relations between the centre and the periphery.

The Parliamentary Assembly of the Council of Europe launched a specific assistance programme in 1991, Demo-Parl, open to the parliaments of Central and East European countries, both Member States and those which enjoy special guest status. The following activities are involved: information and training for parliamentarians and parliamentary staff; cooperation in the legislative field and assistance with documentation, translation and the organization of meetings.

III. The Content of Cooperation Programmes

Given the purpose of the Council of Europe, human rights constitute the most important field of intervention in Central and Eastern Europe. It is a political obligation for new Member States to ratify the European Convention on Human Rights in its entirety, including the right of individual petition and recognition of the jurisdiction of the European Court of Human Rights. Early ratification of other fundamental human rights instruments is also encouraged; these include the European Social Charter, the counterpart treaty for the protection of social rights, the European Convention for the prevention of torture, which established a committee of independent experts entrusted to visit places in which persons deprived of liberty are held, and the Framework Convention for the Protection of Minorities.

Human rights programmes thus concentrate on bringing national legislation into line with the provisions of the European Convention on Human Rights and these other instruments. They also address more specific issues such as equality between men and women, human rights education, the establishment of non-governmental organizations and support for independent media. The activities in the latter field include legal advice on legislative texts as well as the organization of practical training for media professionals. These activities are implemented in cooperation with professional organizations. As regards the setting up of NGOs, training and assistance on how to organize, run and administer such organizations are provided.

The human rights programmes also address the crucial issue of the protection of minorities. In this field, the Council sponsors or co-sponsors multilateral meetings with the participation of all governmental structures dealing with minority questions. The Council has contributed to the drafting of constitutional, legislative and other provisions in order to resolve certain minority problems, in particular the Gagauze problem in

Moldova. It has also helped with the drawing up of new laws on citizenship and on the status of non-citizens in Estonia and Latvia. In the spirit of the Framework Convention for the Protection of Minorities, a new programme of confidence-building measures has been set up which is designed to support projects which foster mutual knowledge, intercultural dialogue and peaceful coexistence. These measures, which involve primarily non-governmental partners, are regarded as pilot projects which, if successful, will have a multiplier effect.

Human rights issues are also present in the educational and cultural spheres. Requests are received for human rights education and documentation on the Council's human rights activities, in native languages.

The activities in the legal field are geared to help the Central and East European countries in their current legislative reform. They concern all the aspects of the functioning of a democratic state where the rule of law is a prerequisite for fostering human rights and for the development of a sound market economy. Typical activities include, for all Central and East European countries, assistance in the reform of the penal code and the prosecution system, elaboration of a new civil code, redrafting of property law, etc. The programmes also cover, as we saw earlier in the framework of the Themis programme, the training of professionals in the legal and law-related fields to ensure that the reforms are implemented in a manner consistent with the principles of pluralist democracy, human rights, and the rule of law. In addition, the Council sponsors "European law weeks" to present to the legal professions the key aspects of European law, the procedures of "Habeas Corpus" and bail, European prison rules, etc. As countries progress in their democratisation of the legal system, seminars are also held on creating juridical structures to prevent money laundering, the development of commercial law, and the establishment of a legal status for NGOs.

The European Commission for Democracy through Law, a Council of Europe body based in Venice and composed of independent experts, has been actively assisting Central and East European countries in drafting their constitutions and other laws such as electoral laws, citizenship laws, and laws concerning the Constitutional courts. Its work complements the Council's assistance programmes for legal reform.

Education and culture are the first Council of Europe fields of activities where new Central and East European States are fully integrated. The European Cultural Convention which organizes activities in the realms of education, culture, youth, sport, heritage, and university issues, gathers countries well beyond Council of Europe membership. Today, 44 countries (Member States, applicant States, as well as Bosnia, the Holy See and Monaco) cooperate on an equal footing in these fields. Recently, Armenia and Azerbaijan have applied for accession to the Convention, and Georgia will follow suit in the near future.

The Council's other traditional activities (social affairs, including social rights, migration, health, environment, etc.) have now expanded to take on a fully pan-European dimension which means that the States that still hold guest status already participate in these activities as observers. The Council's special help for these countries mainly involves providing legal advice, sending experts for the drafting of fundamental legislation or training the professionals concerned.

IV. The Information and Documentation Centres

In order to promote the values of pluralist democracy, respect for human rights, and the rule of law, and increase awareness of its work among civil societies, the Council of Europe has decided to set up and fund Information and Documentation Centres in most countries which benefit from cooperation and assistance programmes. To date, such Centres exist in 11 countries: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Slovakia and Ukraine (see list of addresses in Appendix 1). These centres are located in public libraries, university institutions, or headquarters of independent organizations and they try to develop activities for citizens, NGOs and public entities.

The Centres are designed to make official Council of Europe documents available to the general public. They contribute to the translation and publication into native languages of various Council of Europe fundamental texts or documents which, in some Centres, may be distributed via the electronic network. Through computer data banks the Centres also constitute important research libraries on European topics. They also organize exchanges of information with different organizations and institutions.

The Centres organize seminars, round tables, or training sessions on Council of Europe work for interested professional groups, universities, schools, etc. They can help finance and create appropriate radio and audiovisual material to increase public awareness of the Council of Europe. Finally, they support Council of Europe activities and campaigns by organizing events in the countries concerned.

Special efforts have also been made to promote access to human rights material. Some 27 "libraries of basic human rights material" (Appendix 2) have been established in 13 countries, including 11 in the Russian Federation. In Russia, these libraries are developing as regional human rights centres acting not only as a resource base but also as a promoter of the Council's human rights activities.

V. Pooling of Resources

The democratic needs of Central and Eastern Europe, as well as those of the republics of the former Soviet Union, are such that no single international institution can meet them. It is also increasingly clear that the full integration of applicant States will not put an end to assistance programmes. The Council of Europe is thus confronted with a double challenge: to spread democracy even further in the societies concerned while trying to pool resources and make sure that there is no duplication of efforts.

Pooling of resources has already begun with other international organizations, notably the Commission of the European Union. Joint cooperation programmes have been drawn up for Albania, the Baltic States, the Russian Federation and Ukraine. They cover the reform of the legal system (Albania, Baltic States, the Russian Federation and Ukraine), the functioning of effective federal structures (the Russian Federation), local government reform (Ukraine, Baltic States), the integration of populations of foreign

origin (Estonia, Latvia) and the introduction of human rights protection mechanisms (the Russian Federation). These joint ventures benefit from the financial backing of the Phare and Tacis programmes. The Council has also developed closer ties with the OSCE on human dimension issues, in particular human rights and minorities.

Increasingly, assistance programmes are co-sponsored with major international NGOs (the Helsinki Committee, the International Institute of Human Rights) as well as with professional organizations (associations of judges, lawyers, journalists, bar associations, etc). Cooperation with national NGOs is also important, particularly in the field of human rights since NGOs play a vital role in the promotion and protection of these rights. The Council co-organized in 1994 a meeting for non-governmental human rights organizations from Central and Eastern Europe in order to develop cooperation between them as well as with intergovernmental organizations and other major NGOs, and to promote the sharing of knowledge and experience. Following this forum, the Council issued a handbook for NGOs providing some basic data on sources to contact for further documentation, funding and other forms of assistance. Another example of cooperation with non-governmental entities worth mentioning is the Moscow School of Political Studies which the Council supported from the outset in 1992. Created by a group of citizens from the Russian academic and non-governmental sectors, the School's mission is to identify young leaders in political, administrative, intellectual, and business communities of the Russian Federation and other CIS states and to introduce them to the basics of democratic culture and institutions through a series of short-term intensive training seminars. The School therefore incarnates practically all of the Council's cooperation programmes: teaching political pluralism and human rights to the political elites who will have the responsibility of passing crucial legislation to ensure the Russian Federation's democratic progress, participating in the building of regional and local self-government and strengthening civil society. The Moscow School is financed by multiple partners, including the Council of Europe.

The Council is also pooling forces with individual Member States willing to set up specific assistance programmes in countries with which they have special links or common interests. As we saw earlier, the Council is also relying more and more on the most advanced countries of Central and Eastern Europe to offer advice and assistance to the other countries since they have the best experience and understanding of the complexity of post-communist transformation.

Following the granting to the United States of observer status with the Council of Europe, the Organization is also trying to develop joint activities between this country and the new independent states, through foundations and institutes operating in Central and Eastern Europe. To that end, it organized a round table in Washington, DC in July 1996.

VI. Programme Assessment and Monitoring

Given the present budgetary constraints and the need to avoid wasting money, evaluation of cooperation and assistance programmes is becoming more and more

important. The success criteria vary according to the type of activity and the general context in which it takes place. For seminars, workshops or information meetings, the number of participants and their active participation could be an indication. For legislative expert appraisals, success could be measured by the introduction of European norms and standards into the texts concerned. The measures taken to implement the laws adopted can also be evaluated. As regards study visits, brief reports are written by the beneficiaries.

The programmes must also be examined in the light of their initial objectives and the values of the Council of Europe—that is, democratization, respect for human rights and integration into European cooperation structures. For applicant countries, the observations made in the various reports prepared by the Parliamentary Assembly in the framework of the accession procedure are useful guidelines. They are based on fact-finding and observer missions in the country concerned, the results of which contribute to the Assembly's opinion on accession and to the final decision of the Committee of Ministers. The visiting missions regularly meet with representatives of human rights NGOs, trade unions, the media, etc. For new Member States, an important step should be the ratification of the European Convention on Human Rights. The assistance programmes contribute to such ratification and to new members' honoring their commitments made at the time of accession.

The evaluation is carried out by the various partners involved: the Committee of Ministers of the Council of Europe as regards the objectives and priorities established; the beneficiary countries; and the Secretariat of the Council of Europe.

The evaluation of the cooperation programmes will play an increasingly important role in assessing each country's democratic progress and the fulfilment of its statutory commitments. The monitoring of the performance of new Member States is all the more important as the credibility of the Organization, accused of lowering its standards following the recent accessions, is called into question. Monitoring thus tries to reconcile the policy of openness and cooperation *vis-à-vis* Central and Eastern Europe with the basic principles of the Organization.

The Parliamentary Assembly was the first organ to establish a monitoring procedure for new Member States, which has been extended to all Member States since 1995. Under this mechanism, the Political Affairs Committee and the Committee on Legal Affairs and Human Rights are instructed to monitor regularly the honouring of Member States' commitments. The Assembly can adopt a resolution containing proposals for the improvement of the situation in the country concerned. The Assembly may sanction the failure to respect obligations by refusing to ratify the credentials of a parliamentary delegation, and, in the case of continued failure to honour commitments, it may address a recommendation to the Committee of Ministers requesting it to start the exclusion procedure.

In November 1994, the Committee of Ministers of the Organization adopted a Declaration on compliance with commitments accepted by Member States (Appendix 3) whereby it will consider questions concerning democracy, human rights, and the rule of law in any Member State, referred to it either by a Member State, the Secretary-General or the Parliamentary Assembly. This mechanism will imply a factual overview

of the statutory obligations accepted by all members, which is currently being examined by the Committee. This political monitoring will not replace the present mechanisms operating within the Council's conventional system: the judicial control within the European Convention on Human Rights (European Commission and Court of Human Rights), the investigation mechanism set up by the European Convention for the prevention of torture, the regular control of the commitments undertaken by States parties to the European Social Charter, the evaluation of Member States' laws and practices to combat racism and intolerance by the European Commission against Racism and Intolerance, the monitoring system to be established once the European Convention on the Protection of Minorities enters into force, to name but a few.

Monitoring requires an assessment of facts which, given the diversity and complexity of today's Europe, will have to be based increasingly on information provided by independent sources, such as NGOs, private institutes, etc., capable of evaluating their country's situation. The development of such independent institutions in Central and Eastern Europe, including the former Soviet Union, and networking among these institutions and the Western or North American institutes or organizations, are consequently very important for the work of the Council of Europe and for the democratization process. Given its human rights and democratization purposes and its limited financial resources, the Council is not the best suited organization for providing technical or financial assistance to improve communication and networking among European institutes. It has nonetheless contributed to this goal through its own cooperation and assistance programmes. The Council can coordinate so many projects in Central and Eastern Europe because it often acts as a facilitator. Many initiatives start with seed money from the Organization and are subsequently financed by Member States or, in some cases, non-governmental entities. The implementation of these projects is facilitated by the existence of a strong network of European experts that the Council has patiently built up during its almost 50 years of existence, and which will now be enriched by the Eastern part of Europe. Moreover, the beneficiaries of the programmes are expected to act as multipliers within their own society.

The Council of Europe, together with several other international institutions, has been contributing for six years now to the *rapprochement* of Eastern and Western Europe and to the democratic security of the whole continent. This is an in-depth, long-term task given the huge geographic area covered by the Organization and the newly emerging risks and challenges which require converging efforts from as many partners as possible, including partners from Central and Eastern Europe.

Appendix 1

26 June 1996

INFORMATION AND DOCUMENTATION CENTRE ON THE COUNCIL OF EUROPE

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Appendix 2

LOCATION OF COUNCIL OF EUROPE LIBRARIES OF BASIC HUMAN RIGHTS DOCUMENTATION IN CENTRAL AND EAST EUROPEAN COUNTRIES

ALBANIA	Tirana:	Law Faculty Library, Tirana University
BULGARIA	Sofia:	Law Faculty Library, St Clement Ochrid University
CZECH REPUBLIC	Prague:	Law Faculty Library, Charles University
	Prague:	Parliamentary Library, Chamber of Deputies
	Brno:	Centre for European Documentation, Law Faculty, Masaryk University
ESTONIA	Tartu:	Tartu University Library
HUNGARY	Budapest:	Hungarian Centre for Human Rights Library of the Hungarian Parliament
LATVIA	Riga:	Latvia University Scientific Library
LITHUANIA	Vilnius:	Law Faculty Library, Vilnius University
POLAND	Warsaw:	Library of the Law and Administration Faculty, Warsaw University
	Poznan:	Poznan Human Rights Centre
	Torun:	Library of the Law and Administration Faculty, Torun University
ROMANIA	Bucharest:	Law Faculty Library, Bucharest University
RUSSIAN FEDERATION	Moscow:	Parliamentary Library
	Moscow:	Russian State Library
	Moscow:	Law Faculty Library, Moscow State University
	St Petersburg:	Law Faculty Library, St Petersburg State University
	Saratov:	Saratov State Academy of Law
	Ekaterinberg:	Urals State Law Academy
	Kazan:	N.I. Lobachevsky Library, Kazan State University
	Irkutsk:	Scientific Library, Irkutsk State University

	Vladivostok:	Law Faculty Library, Far Eastern State University
	Rostov:	Law Faculty Library, Rostov State University
	Nizhniy Novgorod:	Law Faculty Library, Nizhniy Novgorod State University
SLOVAKIA	Bratislava:	European Documentation Centre, Faculty of Law, Comenius University
SLOVENIA	Ljubljana:	Law Faculty Library, Ljubljana University
THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA	Skopje:	Law Faculty Library, Cyril and Methodius University

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During the second half of 1996, further libraries were established in Bosnia and Herzegovina, Croatia, Moldova and Ukraine (2).

Appendix 3

COUNCIL OF EUROPE
COMMITTEE OF MINISTERS

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DECLARATION

ON COMPLIANCE WITH COMMITMENTS ACCEPTED BY MEMBER STATES OF THE COUNCIL OF EUROPE

(*Adopted by the Committee of Ministers on 10 November 1994 at its 95th Session*)

The Committee of Ministers,

Bearing in mind:

- the vocation of the Council of Europe to promote the reinforcement of democratic security in Europe, as stressed by the Vienna Summit (October 1993), where heads of State and government also resolved to ensure full compliance with the commitments accepted by all member States within the Council of Europe;

- the commitments to democracy, human rights and the rule of law accepted by the member States under the Council's Statute, the European Convention on Human Rights and other legal instruments;

- the importance of the strict compliance with these commitments by every member State;

- the statutory responsibility incumbent upon itself for ensuring full respect of these commitments in all member States, without prejudice to other existing procedures, including the activities of the Parliamentary Assembly and conventional control bodies;

- the need to facilitate the fulfilment of these commitments, through political follow-up, carried out constructively, on the basis of dialogue, cooperation and mutual assistance,

Decides as follows:

1. The Committee of Ministers will consider the questions of implementation of commitments concerning the situation of democracy, human rights and the rule of law in any member State which will be referred to it either:

- by member States,
- by the Secretary General, or

- on the basis of a recommendation from the Parliamentary Assembly.

When considering such issues the Committee of Ministers will take account of all relevant information available from different sources such as the Parliamentary Assembly and the CSCE.

2. The Secretary General will forward to the Committee of Ministers to this end information deriving from contacts and cooperation with member States that are liable to call for the attention of the Committee of Ministers.

3. The Committee of Ministers will consider in a constructive manner matters brought to its attention, encouraging member States, through dialogue and cooperation, to take all appropriate steps to conform with the principles of the Statute in the cases under discussion.

4. The Committee of Ministers, in cases requiring specific action, may decide to:

- request the Secretary General to make contacts, collect information or furnish advice;
- issue an opinion or recommendation;
- forward a communication to the Parliamentary Assembly;
- take any other decision within its statutory powers.

5. The Committee of Ministers will continue to seek greater efficacity in its procedures with a view to ensuring compliance with commitments, in the framework of a constructive dialogue.

Chapter 14

Preparing Tomorrow's Research Establishments

István SZŐNYI

I. Introduction

The post-Cold War era has left research establishments in the field of security studies in a precarious situation. The difficulties afflicting research institutes have two main dimensions. One of them is the confusion about the research agenda. This confusion has been exacerbated by the loss of interest in security studies worldwide. Attractive and consistent lists of issues for research have been mostly absent, and therefore the loss of interest has not been eased markedly. As the drawing up of such attractive and consistent agendas is not an easy task at all, the haphazardness in the work of research establishments sometimes overtakes any clear strategic concept. The other dimension is the decline in funding. Work based upon a strategic concept of research has been badly damaged by the scarcity of financial resources which accompanies the loss of interest in security studies.

Yet, it is clear to everybody in the field that there is a wide range of issues to be dealt with. But it is difficult to proceed with addressing the issues seriously in a climate of overall loss of interest in security studies and of decline in funding. The main task of preparing tomorrow's research establishments is therefore to overcome somehow the tension between the declining support and the persistence of issues to be addressed. This paper will approach this problem by addressing the question of the research agenda. It will then turn to the question of networking between the research institutes, the problems of the flow of information, the problems of financing work in the field of security studies, and the redefinition of the domestic context. Finally, in the concluding section, a few proposals with regard to the preparation of tomorrow's research establishments will be summarized.

II. Research Agenda

I think that the preparation of tomorrow's research establishments has to be based on consideration of substantive issues. The transformation of research establishments

makes sense only if it serves clear purposes, and the means of developing the establishments has to be closely related to these purposes. The purposes of research establishments are evidently the research interests, the issues that will figure predominantly in the research agenda. So, the first need is to define the new research agenda.

The definition of the research agenda has run into difficulties worldwide with a tangible decline of interest in security-related studies. A certain degree of decline of interest is understandable. However, it will certainly be recognized more and more widely that security-related research cannot be dispensed with. The decline can be reversed because security-related issues will call for this reversal. The preparation of tomorrow's research establishments will be successful if they are issue-driven. A greater selectivity and differentiation of issues can only contribute to this success.

From a Hungarian point of view, the issues to be tackled can be defined well enough. They are related partly to the problems of Hungary's region. The problems of the neighbourhood and their broader international context are major issues for Hungary. A major theme in this respect is that of the minorities. Hungary is also greatly interested in regionalism, and regional cooperation. The next major concern for Hungary is that of the pan-European security structures as outlined by the various institutions involved in the field of European security. The third major concern is constituted by the security aspects of the European/Transatlantic area and the needs of integration into that region. The Hungarian institutes have other more "peripheral" research interests as well, but they can devote much less energy to these interests than to the more "central" ones. These are, of course, very broad issues, and the problem is of translating them into research projects.

The research concerns of the Hungarian research establishments are, however, not irrelevant to the research concerns of many other countries and institutes. There are also many other issues that can attract the attention of a wide audience. These include issues related to the environment, to peace-keeping and peace support operations, to conflict prevention and crisis management, to managing ethnic tensions, and to consolidating democratic transitions. It is important to note that a change in terminology or in rhetoric is probably advisable. A greater selectivity of issues coupled with diminished resources will have to be accompanied by a rhetoric which avoids references to problems of "security" (a suspicious concept by now) and prefers references to specific issues or issue areas.

With this I have arrived at the first major challenge of defining research projects that can be conducted with limited resources. A well-defined research agenda can once again increase interest in security-related research. Hence, my first proposal in preparing tomorrow's research establishments is to engage in a regular wide-ranging coordination between institutes to define areas and issues of common interest and issues where a distribution of research efforts is a workable solution.

III. Networking

One of the major weaknesses of research institutes in Hungary is the lack of regular institutional contacts with other institutions involved in the field. Individual researchers have very good contacts with influential research institutions abroad. This, however, cannot replace regular institutional contacts which would allow institutes to keep in touch with each other's concerns and with issues of high political profile in each other's countries. Institutes in Western Europe and North America have a greater experience of regular institutional contacts. These contacts can be developed further and the greater inclusion of Central and East European institutes in these contacts is also a useful effort.

I could conceive of multi-layered cooperation between research institutes (noting, however, that the sound personal contacts between individual researchers and institutes can only promote such a cooperation):

- Project-centered cooperation between institutes: in this layer of cooperation, institutes would work on specific joint projects. This is not a new area of cooperation but its scope can be greatly expanded. Institutes could avoid a lot of duplication in their work this way while making contributions in their areas of strength.
- Informal cooperation between institutes: this area of cooperation would not be project-related. It would simply aim at keeping institutes in touch with what each works on and also at enhancing discussion between them regarding the shifting emphases in security-related issues.
- Enhancing cooperation between institutes of the Central and East European region with the inclusion of interested Western institutions. This layer of cooperation would strengthen the links between the research institutes in the Central and East European region, and the involvement of West European and North American institutes would make them more aware of the situation and concerns of the region.
- Networking with West European/North American institutions, that is, the inclusion of Central and East European institutes in projects in which they also have an interest. It is equally important to bring Central and East European perspectives into research about European/Transatlantic issues and about other issues of mutual interest. This layer would also help Central and East European institutes to better understand the concerns of their partner institutes.
- The usual and well-established exchange of scholars should also be maintained.

IV. Flow of Information

Improving access to information is a major dimension of preparing tomorrow's research establishments. The Internet is useful but it would be even more useful with

greater accessibility. Besides improving the hardware situation, greater accessibility could also be enhanced by institutional cooperation. Hungary and other Central and East European institutes could be included, for instance, in the ISN through the Internet. This would also allow them to provide an input into this network. By providing their own input, these institutes would become more than simple users of information. They would be able to widen the security dialogue. Widening the security dialogue by expanding the sources of information would be a major contribution to redefining the field of security studies.

A greater amount of contribution to the sources of information would have to be counterbalanced by the preferential access by the various institutes to each other's databases. There is also a possibility for cooperation in working out specific, issue-related or wider issue-area related databases and for a division of labour in this respect. Hungary, for instance, would be interested in establishing minority-related databases. Databases operated cooperatively would include documents, data, statistics and major research papers. Thematic searches in all of these categories, and even across the various databases, would be a major contribution to research capabilities.

V. Funding

In Hungary, the main problem in this respect is that research receives only small contributions from the Government, and there is not sufficient interest on the part of the private sector. Involving the private sector in funding research to an important degree is problematic because the private sector has not yet come to terms with itself regarding: 1) its role in a wider social context, and 2) its interest in supporting research. Also, the circle of enterprises in a position to be interested in and able to provide support for research is small. Hungary is, however, only an extreme case of the wider situation in the field of security-related research. There is a declining availability of both public and private funding for security studies all over Europe and North America. The task of reversing this trend will require major efforts.

I would suggest that joint proposals tabled by institutes as cooperative partners have a better chance of finding resources from foundations than individual efforts. There are certainly instances in which joint efforts by several institutes give the impression that their cooperation is a way of avoiding useless redundancies and repetitions. Combining their efforts into joint projects could on the one hand widen the range of perspectives brought into the research effort and on the other hand spare efforts that would otherwise run parallel to each other. Joint projects seem to be a cost-effective way of doing research and they are probably an attractive solution to private providers of funding.

Another solution to ease the financial problems could be the organization of associations around the institutes concerned with foreign and security policy studies. These associations could include individual, corporate and public members who could

contribute through various membership fees to the functioning of the research institutes.

The financing of institutes through sponsors is difficult in terms of maintaining the autonomy of these institutes in defining their research agenda and carrying out their work. Sponsoring would, therefore, have to be differentiated from commissioning specific research projects. The commissioning of research projects will not be enough to solve the financial problems of the institutes because the potential market is small and also because the institutes cannot afford to subordinate their research agendas entirely to commissioned work. However, a carefully selected array of commissioned work could make a useful contribution to easing the financial problems of research institutes.

Institutes could also associate themselves with each other, thus establishing an association of research institutes. Such associations could serve as chambers for institutes trying to defend and represent their interests, promoting relations among institutes and cultivating contacts between the research sphere, the sphere of politics and the public at large.

The financial problems mean from another perspective that the market for security-related research is small. One way of partially coping with the problem of a small audience (which is especially severe in the case of Hungary) is to widen that audience through joint publications. Joint publications can ensure wider circulation for research products, and they can enhance the exchange of work that would otherwise go unnoticed. Joint publications are also helpful in two more ways. They can motivate and discipline workers doing joint projects, and they can contribute to defining the research agenda instead of just adjusting to a readily available agenda.

With the issue of joint publications I refer back to the problem of defining the research agenda; with the issue of the audience I refer to my final point, that of the domestic context. Joint publications are one way of partially relieving the problem of a small audience; efforts to redefine the domestic context are another.

VI. Domestic Context

The redefinition of the domestic context is a major dimension of preparing tomorrow's research establishments. An important component of the domestic context is the political sphere. Governments are the main supporters and users of security-related research. This partnership between Governments and research institutes has to be reinforced because doing research is nowhere profitable. In an era of more diversified but maybe less visible issues, the relationship between Governments and research institutes is the most important element of keeping security-related research on track.

In the redefinition of the domestic context, the role of parliaments also comes into the picture. The legislators have a role because they decide about the money available to Governments and also because they are potential consumers of research. A

strengthened relationship between parliaments (for instance parliamentary committees) and research institutes can have an important role in providing the necessary resources for the functioning of the research establishments.

Another important element of the domestic context is the sphere of education. Most of the research institutes concerned with security studies are either associated with universities or they maintain good contacts with them. The redefinition of the domestic context means an upgrading of this relationship. This task applies especially to institutes which do not have an institutional relationship with universities. The involvement of individual researchers in education is not enough. The institutes themselves could assume a more important role in education. I would therefore suggest that those research institutes that work outside the framework of universities seek association arrangements with them. This could improve their visibility and their chances of raising funds.

A higher visibility for research institutes is also related to the third aspect of the domestic context, that of relations with the media. The media is a potentially important consumer of expertise on security-related issues. This potential interest in the expertise of the research institutes could possibly be used to enhance their visibility as well as their chances of raising funds.

VII. Conclusions

In this short conclusion I would like to summarize the various aspects of the task of preparing tomorrow's research establishments. The basic problem this preparation has to address is the following: there has been a decline in both interest in and funding for security-related research. However, a number of issues that can best be dealt with by institutes belonging to what used to be called security studies have either remained or emerged recently. The tension between declining support and the persistence of issues to be addressed has to be overcome somehow. The following proposals are aimed at easing this tension:

- There is a clear possibility for greater international coordination in defining research agendas of mutual interest.
- A greater selectivity needs to be applied in defining issues to be put on the research agenda. Beside this greater differentiation, a change in rhetoric is required. The terminology should not be dominated by references to security or security studies. Instead, specific relevant issues have to be emphasized, and the rhetoric should be issue-related rather than security-related. This step could be an important element in convincing the “consumers” that the emphases of research have changed.
- In order to properly address the issues, research establishments will need to engage in an enhanced level of networking in a multi-layered way.

- In order to increase the efficiency of research establishments, a greater cooperation is needed between them in sharing information.
- The problem of shrinking budgets but wide-ranging tasks can be managed by joint work on issues of common interest; joint projects probably have a better chance of receiving additional funding.
- In order to diversify the funding possibilities of institutes, it may be useful to organize associations around them with wide memberships.
- It may be equally useful to organise an international association or chamber of research institutes.
- Joint publications are also a way of reaching a wider audience.
- Last but not least, it is extremely important to emphasize the responsibility of Governments in supporting security-related studies.

These preparations will certainly contribute to the ability of research establishments to cope with the security-related issues that call for attention.

Chapter 15

Joint Research Activities Training Experts on National Security: The Bulgarian Experience

Sonia HINKOVA

I. Introduction

The Center for National Security Studies (CNSS) was established in October 1993 as a specific structure within the framework of the Ministry of Defence of the Bulgarian Republic. The Center, which reports to the Ministry of Defence, is nevertheless an autonomous unit and has the ability to decide the focus of its research, choose forms of instruction, and establish contacts for the implementation of its curriculum. At the very beginning, the Center was charged with training experts in matters of security and defence policy. Subsequently, however, its activity was broadened to include a research programme.

II. Joint Research Activities

CNSS organizes and encourages research in regional, European, and military studies. It also maintains contacts with various similar organizations, research centres, and institutes, developing joint research projects with Bulgarian and foreign institutes and organizations. CNSS has set up groups of experts, each deliberating over a particular subject matter. Representatives of other scientific institutes are usually invited because of the relatively small research staff working permanently at the Center.

A good understanding of regional particularities is a prerequisite for achieving compatibility and accelerating the integration processes on the European continent. It is in this light that the modifications of European security in its south-eastern part are treated. Hence, security problems and their regional particularities are considered to be of primary importance, particularly the impact of present and prospective political, economic, and military developments. Emphasis is placed on regional concerns such as ethnic and religious issues, which outline the historic process and

constitute the geopolitical barometer of South-Eastern European affairs. Other issues of concern are new threats to security that came about during the last few decades because of the political and economic changes, e.g., organized crime, traffic of narcotics, military conflicts, migration, etc.

Joint research projects with foreign institutes are conducted in various ways. The Center holds regular meetings and talks on specific security matters with the participation of experts representing each State in the region. The results of these conferences are sometimes the subject of a publication. The same practice is seen in joint research activities with DAS in France on the problems and perspectives of South-Eastern European security. At the time of this writing, CNSS is also conducting a joint research project with CeMiSS in Italy entitled *South-Eastern Europe: Bridge to the Mediterranean Region or Border Between Civilizations*.

The 1997 research programme shall provide possibilities for undertaking some joint research projects in cooperation with other international foundations. The problems being anticipated are those of overcoming the different methods of work and ways of funding. Attention shall also be given to other modes of partnership, such as the organization of conferences and seminars which are considered to assist in the development of research programmes.

CNSS is at the same time engaged in the study of current problems in the internal political development of the Bulgarian Republic. For instance, CNSS orchestrated the elaboration of the National Security Concept. It has also taken part in the analysis of the political and economic aspects of Bulgarian transition to civil society and of the different aspects of civil-military relations.

These kinds of activities raise possibilities for training tomorrow's researchers. At the time of the preliminary discussions, long-term specializations (3 to 6 months) have been agreed upon for training young experts. These trainees will have the chance to take part in the process of drawing up a joint project, while being involved in groups, each one deliberating on a particular subject related to the field of security.

These kinds of activities also seem quite favourable to CNSS because they enable the unification of criteria and scientific methods used by experts of different nationalities in their research activities. Also, they have an impact on the lowering of language barriers and improving communication among all Western, Central and Eastern European researchers. In accordance with these ideas, young researchers participate in specialized language courses to strengthen their competence. The CNSS, along with the Center for European Security Studies in Groningen (The Netherlands), has organized joint language education courses and specialized training sessions on security problems. The continuation of this programme for the next two years has been made possible by means of definite agreements with the Institute for Strategic and Defence Studies (Hungary) and DAS (France).

CNSS is in a position to assume the coordination of activities between Bulgarian and foreign research institutes. Relying on its multilateral contacts, the Center can provide numerous possibilities for training tomorrow's researchers, particularly on

security problems. In the future, these researchers will take an active part in the activities of CNSS by being involved in expert groups working on specific projects.

III. Training Experts on National Security

The training programme for experts on national security is to some extent different from the research programme. CNSS organizes regular courses and specialized training programmes in matters of security and defence. It provides a forum for discussions on various aspects of security and defence policy to military and civilian leaders, scholars, parliamentarians, Government officials, diplomats, cultural figures and journalists. The regular training programme is divided into modules, each of these dedicated to a different subject, in which various aspects of security in domestic and foreign policy areas are being discussed. In addition, CNSS maintains contacts with similar research institutes and centres. Some of the main partners of CNSS which send their guest lecturers are the George C. Marshall European Center for Security Studies, the Center for European Security Studies (Groningen), the Institute for Strategic Studies at the Defense University (USA), and the Institute for Defence and Strategic Studies (Hungary). Visiting lecturers from similar South-Eastern European institutes take an active and regular part in our activities. Specialized training programmes in the security field are conducted by means of conferences and workshops devoted to present problems and arranged on the basis of broad cooperation with Bulgarian and foreign partners.

CNSS also publishes the Bulgarian Military Review, which appears in English in four regular and two special issues annually. Provided that some additional funding is available, the papers delivered at conferences and workshops and the results of ongoing research projects could also be published. This enables the dissemination of information with different points of view on security problems, and at the same time, it enlarges the circle of experts trained at the CNSS.

The framework of the dialogue on security opens up exceptional chances for training experts. The participation of Bulgaria in many bilateral and multilateral agreements on strengthening stability leads to undertaking new joint initiatives in the domain of education and research.

In the fall of 1996 CNSS will carry out one of these: a four-week international workshop, aiming at the education of military and civilian experts on security and defence problems. The workshop is organized in accordance with the so-formulated Individual Programme for the Participation of the Republic of Bulgaria in Partnership for Peace, together with the International Military Staff of NATO. The subject discussed by the seminar—*Security and Defence Policy—Challenges of the New Millennium*—implies the participation of a broad circle of experts. These are representatives of security and defence organizations having residence in those States that have already signed the Partnership for Peace Programme. The lecturers invited

to take part are distinguished experts from the NATO and Central European countries, as well as the Russian Federation.

The new practice of organizing joint educational programmes is possible thanks to the keen contacts with a number of international institutions and organizations. Meanwhile, this practice also contributes to maintaining one of the particular aspects of the security dialogue in a more productive and prosperous way.

Other possibilities for carrying out joint educational programmes are likely to be found within the framework of bilateral agreements. These could assume a variety of forms, including seminars, conferences, exchange of lecturers and long-term educational courses for the partner experts.

Multilateral initiatives and the involvement of numerous States in the security dialogue programmes present many additional possibilities for cooperation. The efforts of each country should be directed towards maintaining keen contacts in order to capture and utilize the potential of the dialogue. This could be greatly aided by making use of the opportunities presented by the development of new information technologies, with a special regard to the Central and Eastern European countries, which would gain a lot by establishing an information database—one completely compatible with European criteria and methods.

With this in mind I would like, given this exceptional chance, to congratulate the organizers of the Conference, at a time when one particular aspect of the security dialogue is being promoted. It is, as well, remarkably effective.

Conclusions

Proposals for an Action Oriented Agenda

Working Group I
Identification of Partners
Chairperson: Kurt R. SPILLMANN

In the search for partners, our task group has identified three actors in the information dissemination process:

1. Information Providers
2. Clearinghouses
3. Consumers

The three presentations which were given to initiate further discussion addressed some of the problems these actors can encounter.

Mr Wenger talked about the International Relations and Security Network (ISN) as an ongoing clearinghouse initiative. The ISN, which consists of a virtual library and an electronic discussion list, will continue to function on a decentralised basis, allowing access to information through one common interface. He called attention to five different tasks:

1. to identify partners for technological cooperation and moderation;
2. to join efforts in fund raising;
3. to identify training cooperation;
4. to integrate other initiatives; and
5. to see to technical cooperation.

The International Relations and Security Network was further elaborated on the second day of our meeting during an online presentation. Mr Libiszewski showed us the search possibilities of the virtual library and explained that the advantage of the ISN is that it holds a unique subject-based search tool on international relations documents. Though a lot of information is there, not everybody is aware of its existence. Initiatives should thus be taken to train individuals to be both consumers and providers of online information.

Mr Tashan distinguished different regions in the international relations sphere. He suggested the use of different regional centres to function as clearinghouses, specifically because local problems—in particular those concerning language—can be addressed more easily locally than centrally. These special regional knowledge centres could see to the translation into English, at least of summaries of the online information. They could also host the information of research centres or official bodies from countries which do not yet have Internet connections. This idea was generally welcomed, as the creation of centralised databases would be too costly and technically unfeasible.

Mr Tashan further called for more help for institutes which are not yet on the Net. This help should consist not only of hardware and technical assistance, but also of training on how to use the electronic tools.

Mr Antoine drew attention to the fact that the Internet is what its users make of it: it is only through the effort of all players that the system can be a success. This implies that information must be provided by all actors, whether they be country officials, international organisations, researchers or members of the media. Having a global communications system is of little use if the mentality of all actors, especially the potential information providers, does not change. Though the group generally agreed that information should be provided for free, questions arose on the feasibility of this aim, especially when regarding research institutes which support themselves through the sale of their publications. Examples were given of successful online experiments with books and articles but the dilemma remains. Alongside this discussion, it was argued that it is more important to disseminate an article worldwide than to commercialise it locally.

In summary, our recommendations are as follows:

1. Identify partners

This we suggest doing through four criteria:

- What specialised information can potential partners provide, and can they do this on a sufficient level of competence?
- Do they have the necessary hardware and are they trained to use it?
- Do they have adequate funding to sustain their activities?
- Are they politically independent?

The group very much welcomed decentralised projects. Regional knowledge centres are better able to assess the information provided, and decentralisation is also preferred for technical reasons.

2. Join efforts and include existing projects

Linking new partners is a joint effort. Resources are generally scarce, and we must see to it that we cooperate and focus our efforts. Existing projects, such as the NATO integrated data service, the EINIRAS and SIPRI initiatives, and the ISN should be coordinated. The Euro-Atlantic Foundation could assume this role.

3. Assist in training

Providing hardware assistance is one thing, helping people to use the tools is another. An effort should be made to coordinate ongoing training projects. Again, the Euro-Atlantic Foundation could be a vital actor in this field.

And finally, we call upon all people present to join on the Net, disseminate information and use the tools available. The question should not always be "What can we retrieve from the Internet?" but rather "What can we provide?" Further cooperation and dialogue should continue, yet not exclusively on the Internet.

Interesting links

International Relations and Security Network: http://www.isn.eth.ch/

International Organisations

United Nations:	http://www.un.org/
UNHCR:	http://www.unhcr.ch
NATO:	http://www.nato.int
European Union:	http://europa.eu.int
OSCE:	http://www.osceprag.cz
IMF:	http://www.imf.org
World Bank:	http://www.worldbank.org
OHR:	http://www.ohr.int

Non-governmental organisations

ICRC:	http://www.icrc.ch/

Working Group II
Information Needs
Chairperson: Alyson JK BAILES

The Working Group began by considering *whose information needs should be met*, and agreeing that the aim should be to design information systems that are accessible and useful to the widest range of users, including Governments, NGOs and private individuals as well as academic institutions. However, these users' needs do not always coincide. Governments have their own sources of information and are likely to keep parts of their own electronic networks closed, for reasons of security. They also have a limited capacity to absorb information during tight decision-making schedules and need some pre-processing if they are to get real value from outside sources. To ensure the most rational approach to these difficulties, each Foreign Ministry should be encouraged to have a high-level information coordinator who would ensure coherent use of the different sources and networks available. The aim should be to make maximum use of and achieve maximum openness towards independent expert sources, and for this purpose Ministries should also have contact points who could join in academic conferences and other international discussions of the subject.

We also identified some general conditions which are necessary if this very open, democratic approach to information sharing is to work. One such condition is the need to pay attention to **updating.** Updating is an important ingredient in the quality of information. So, we suggest that whenever a system or a network or joint database is designed, a clear agreement be reached on who is responsible for updating the information in the system and how the date of latest revision will be shown. Extra precision will be needed on these points when several different contributors are taking delegated responsibility to compile such a database.

Another general though very important condition is the **national and international environment** in which these networks are built. Certain types of regulation by Governments interfere very seriously with the free exchange of information. These would include measures that would directly or indirectly increase the cost of using these networks, and also the administrative control of access to the Internet. Such actions are very much to be discouraged. This, of course, does not mean that the whole market should be totally unregulated: there may be, for example, ethical standards to be applied. From the long-term point of view, however, free competition and integration between the systems of different countries is the only way to proceed.

Having identified the needs and general conditions attending the distribution of information, we then examined the *types of information distribution systems* that might be used, by focusing on **shared, cooperative databases and information systems.**

Here again, we identified a number of general recommendations and the conditions for making these systems work.

First, we noted the importance of the quality of input which must be selected and entered by qualified staff. Very clear standards for input must be established early in order to differentiate between useful and not useful information (here, institutes have an important role to play in "pre-digesting" material relevant to security policy).

There are some successful examples of existing networks. In particular, it is desirable that there be some burden-sharing in maintaining these multi-media, multi-purpose systems.

Second, we recognized the importance of a **standardized terminology**. The question was what terminology to use to enter the system, conduct a search and call up information. There is a need for multilingual standardization so that initial access to information systems can be open to users of different nationalities (and also that the material contained in these networks should be made available in the original language). In this regard, an initiative for a shared thesaurus is being pursued through a network centered on the Stiftung Wissenschaft und Politik, Ebenhausen.

Third, we agreed that whenever possible these shared information systems should not be used only for retrieving information but should also be a basis for the cooperative use of that information. Cooperation can be raised to a higher level when shared information systems are associated with joint projects between institutes, or indeed with common policy conclusions. We acknowledged that some research databases do not lend themselves to such higher level cooperation but the possibilities should be exploited whenever possible.

Fourth, we noted that these information systems would be most valuable if they were true multi-media systems, and if they permitted access to graphic materials, maps, charts and video materials. Such requirements must be considered in the very early stages of designing a system, as they involve extra costs and extra technical requirements.

Finally, we noted that there are a number of other computer techniques that could be of interest to institutes and Governments working in the field of security policy. These include some relatively simple data modelling and forecasting techniques. Our attention was drawn to one technique known as "virtual history" which allows the playing through of certain policy processes to understand what the outcome could be, similar to war games. Such features will always have a certain informational and educational value. Whether they bring improvement in policy making, however, depends actually not on the sophistication of the computer techniques used, but rather on the motivation and the input of the people using them.

Having agreed on these general desiderata, we went on to discuss how to promote in a practical way the creation of shared cooperative databases and other cooperative information systems. Our first conclusion here was that more attention and money should be devoted to the problem discussed above regarding standardized terminology. Secondly, we would recommend that a *working-level follow-up meeting* to this conference on the subject of *cooperative databases* should be held in January next year. The representatives of SIPRI kindly agreed to take the lead in organizing such a conference—not necessarily to be held in Stockholm—but the question of

funding will have to be investigated separately. We suggest that those interested in participating should make themselves known to SIPRI and indicate at the same time whether they can contribute to the costs by paying their own travel fares. The agenda of this follow-up meeting would cover the construction of two different kinds of cooperative data systems:

- those providing generic tools, e.g. the addition of full-text material to existing databases, the wider availability of databases on international treaties and agreements, the provision of chronologies and fact-sheets on individual countries and security issues;
- those addressing specific topics of security policy and research: e.g. an example mentioned by SIPRI was their database on arms transfers. The aim would be for participants in the follow-up meeting to bring their own proposals for the cooperative extension of other databases for which they could provide materials.

Finally, the third part of our discussion entered on the particular problems faced in the use of cooperative data systems by *partner institutes from new democracies* and those countries which have fewer resources and less experience.

We shared the conclusion reached in the other workshops that, first, the provision of hardware as a gift is very important and should continue, and we would welcome further contributions by the Swiss Government in the next three years. When such assistance is given, however, it should include a sufficient range of equipment and support facilities (including training) **to provide a rounded capability**. Second, to ensure that information resources are properly used, it will also be useful for institutes in the West (or international organizations) to organize joint activities with these new institutes to allow them to share directly in the experience of how to prepare for meetings, publications, joint presentations to Governments, etc. It may be appropriate for certain individual institutes to "adopt" **an institute in a new democracy**.

The aim of such an initiative, however, should never be to develop an exclusive relationship, but to use that contact to draw the new institute into the wider international network, allowing it to attend meetings and join projects where other countries and institutes are involved. Specifically, it should help the new institute to place its own materials into international databases and international information networks, even when it does not have the technical means itself to access these networks directly.

Working Group III
Connectivity Issues
Chairperson: Edward IVANIAN

The problems which the group on connectivity issues identified were the following:

1. Cost: the price for access to Internet is in many cases far too high. Measures should be taken to make it more affordable for institutes both in the East and the West;
2. Psychological problem: as with all new technology, certain generations have difficulty adapting. There seems to be a form of computer illiteracy;
3. Both the quantity and quality of connectivity are insufficient;
4. Language: though English is the common denominative, other languages should also be available. This places heavy demands on the disseminators.

General Observations

- Encourage Governments to provide widespread, dependable, low-cost access to network services;
- Ensure that a framework exists for the successful implementation of a competitive environment (for communication services) which can then attract investment especially from the private sector for information service providers and related services;
- Practical recommendations for our Community:
  - Our group calls upon all participants to obtain Internet connectivity, meaning hardware and software, in the coming year;
  - The Euro-Atlantic Foundation could help with this by granting the hardware and the expertise in turn for information exchange. A Memorandum of Understanding could therefore be signed between the parties.
- On the language problem, we suggest that all parties adopt the UNICODE standard for document exchange. This is a language standard which can be easily implemented;
- As far as training and connectivity problems are concerned, we urge all parties to enhance their relationship with their local institutes and universities which already have the required skills;
- In order to lower the cost and facilitate Internet access, and to further ensure the free flow of information, we call upon an Inter-Parliamentary Organization or Assembly to prepare a conference or workshop on these issues. Key participants there should be governmental and parliamentary advisers. The latter need to be aware of the importance of free connectivity and Internet access. Only through mutual dialogue can this be established.

Working Group IV
Financial Implications
Chairperson: Mary LORD

We are concerned that funding for security research appears to be decreasing at a time when international security issues are more complex. This fact was emphasized

by the complete absence of private foundations at the meeting. Therefore it seems necessary to launch a set of coordinated actions to convince both Governments and foundations of the importance of supporting security research and encouraging coordination between institutes. Therefore it is important that NATO, the European Union, the Council of Europe and other institutions continue to support the existing programmes. In particular, it is important that there should be stable financial support of the existing programmes. This is particularly true for institutes from the countries in transition.

Recommendations:

1. Better coordination between institutes helps them to be more financially efficient and to produce better quality work. Over the long term, the establishment of an international professional association would help promote research in the field of security studies and disseminate the results.
2. The Working Group identified as an absolute prerequisite the need to get more information on the potential donors. If the American donor community has already been explored and a considerable amount of work of outstanding quality done, more information about European donors needs to be developed. Two distinct directories should definitely be established:

    - one listing the European foundations, funding levels, grants to institutes or individual researchers working in the field of international security; and
    - one listing the European private firms committed to the same goal.

3. Research institutes need to develop new markets and donors for their work. These new markets include:

    - parliaments;
    - media;
    - universities and libraries; and
    - private firms (such as investment banks).

4. Research institutes should make better use of Internet in order to promote their own activities.
5. The need to work through various pressure groups to improve and to develop initiatives for private firms to make donations.

In order to promote the ideas developed in this Conference, the Working Group suggests that every foundation and funding agency be provided with the report. In addition, the report should be accompanied by a letter from the top leaders of security agencies, emphasizing the need to lend better support financially to both the security institutes and their coordination.

Working Group V
Cooperation Programmes
Chairperson: Scott BRUCKNER

Rapid and dramatic changes in the international security order have made cooperation among institutes involved in the security dialogue imperative. The advantages to cooperation are manifold: it helps to bring new players and new ideas into the security dialogue as a means to keep it fresh and relevant; it helps to avoid redundancy and overlap in research programmes; and it allows for an essential exchange of information.

Currently, three types of cooperation are ripe for development. First, cooperation between Eastern and Western institutes will be valuable given the need on behalf of prospective Eastern partners for information and financing and the need in the West for access to local data sources that institutes in the East possess. Second, regionally based cooperation, in which centres in a specific geographic location are likely to have shared concerns, must be developed. Finally, issue areas are an important basis for bringing together partners with overlapping agendas.

But cooperation among institutes involved in the security dialogue is hampered by a dearth of financial resources and by a glaring lack of information about potential partners. The Working Group on Cooperation Programmes at the 1996 Geneva Conference on Institutes and the Security Dialogue has taken these constraints into consideration in making the following recommendations for enhancing cooperation among members of the security community.

New Recommendations

Strategies to develop far-reaching and long-lasting programmes:

1. Encourage exchanges of Government officials, researchers, and students as a relatively low-cost way to establish long-term personal ties that may lead to cooperation on security-related issues and, at a minimum, to a sustained exchange of views.
2. Produce directories of research centres, individuals, projects and training programmes to assist in identifying partners and in bringing new players into established networks.
3. Encourage information exchanges through computer and Internet links.
4. Joint research projects and conferences should be promoted as a first step toward long-term cooperation and far-reaching ties.

Means to assist in the publication, translation and printing of Eastern and Western literatures in different languages:

1. Encourage the development of electronic translation technology.

2. Build on existing translations by developing indexes of translated publications which should be disseminated.
3. Wherever possible, rely on local partners to share the burden of translation.
4. Build a translation expertise in security matters in local communities.

Cooperation initiatives related to training:

1. Establish and maintain a catalogue of training programmes dealing with security. The catalogue should include lists of students, faculty, curriculum, and programme frequency. Catalogues provide a means to reduce overlap and to share cost burdens.
2. Rely on multinational advisory boards to encourage cooperation in curriculum development.
3. Joint training programmes among institutions should be developed.

Cooperative ventures involving young researchers:

1. Special efforts should be made to bring new faces/young people into established networks through conferences, meetings, and seminars.

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