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**INFORMATION TECHNOLOGY AND
DIPLOMACY IN A CHANGING
ENVIRONMENT**

by

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DISCUSSION PAPERS



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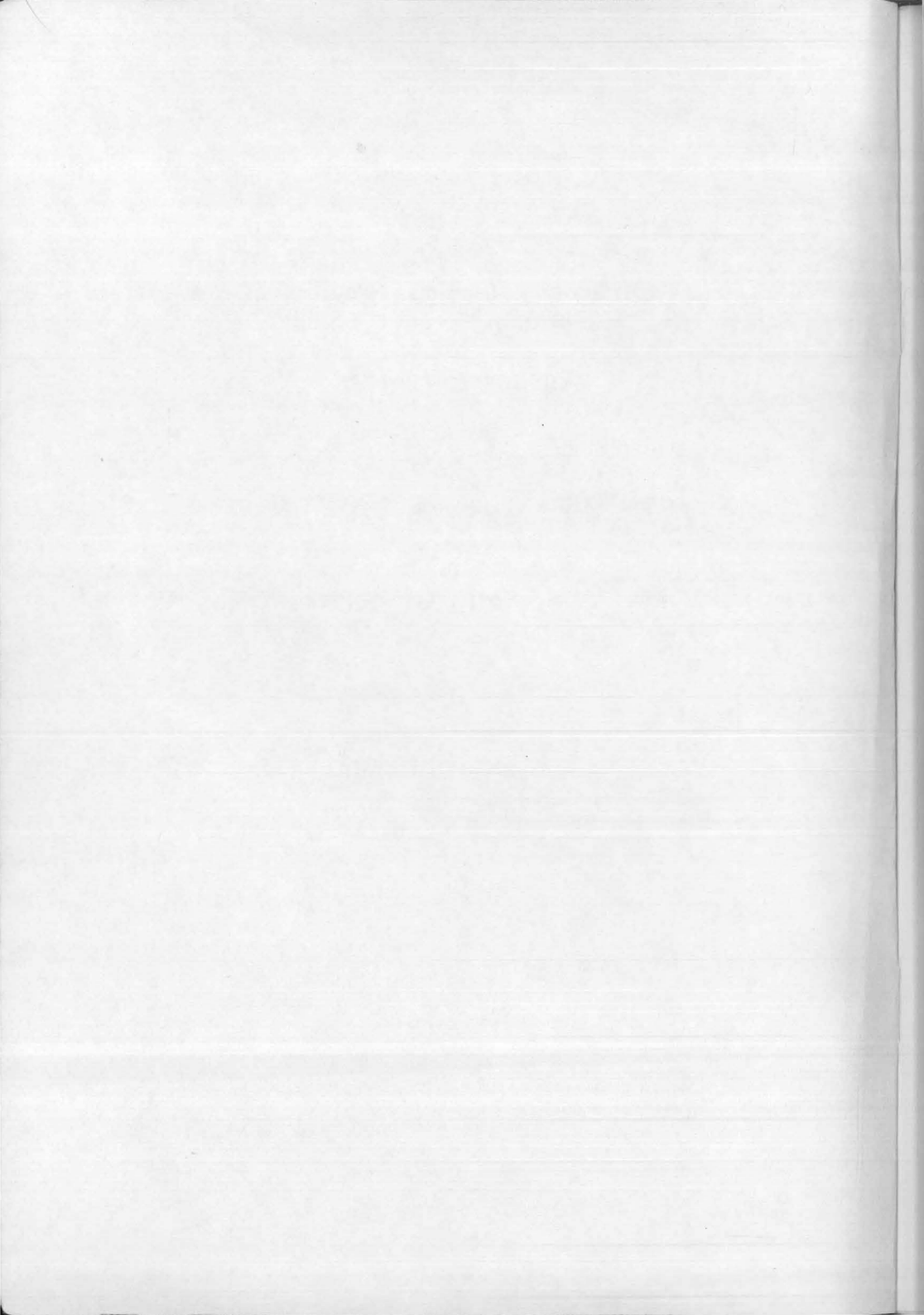
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In February 1995 ministers from the G-7 gathered in Brussels in order to discuss the future strategy for the development of an 'information society'. It was the first diplomatic meeting to officially discuss the issue of the influence of Information Technology on human society.¹ Within the same period the government of the USA. initiated several bilateral diplomatic activities aimed towards increasing the level of protection of intellectual property, mainly software, in China. These two important events announced the forthcoming importance that IT has for diplomatic activity.

Foreign policy and diplomacy have been influenced by advances in technology throughout history. It has changed the methods used by diplomats, the position of diplomacy, its style and protocol. The most profound influence has been made by the various technological devices that have altered the spatial and temporal aspects of humanity. In other words distance and speed of delivery and action have been greatly challenged and developed in various ways. Distance has been reduced to the touch of a button, and speed has answered the request for that prevailing and deeply sought urgency in diplomatic activities and processes. Interaction with time and space has been crucial for the efficiency of diplomatic activity and the independence of diplomatic agents. The inventions of new technological devices - mostly in the field of transportation and telecommunications - have been affecting the process of diplomacy. It was, for example, the establishment of railway services which made possible the higher mobility of diplomats. Another major turning point was the establishment of the electronic telegraph which introduced the possibility of direct and fast communication between headquarters and missions.² It resulted in a relatively reduced independence of diplomatic representatives from the Ministry of Foreign Affairs. In this continuum of inventions influencing

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¹ From this stage onwards we shall refer to the term 'Information Technology' in its modern abbreviated version - 'IT'.

² For more about the influence of technology on diplomacy see: K. Hamilton and R. Langhorne, *The Practice of Diplomacy; Its Evolution, Theory and Administration* (London: Routledge, 1995), pp. 22-50.

diplomacy one should add telephone, radio, television and satellite communications. Although most of the technological innovations influenced diplomacy they did not challenge the very nature of diplomatic functions. Technology helped diplomats to perform routine and traditional diplomatic work by using the latest tools without altering the real concept of diplomacy. In most cases it reinforced the importance of diplomacy and defined a more important role for diplomats in society.

After a long period of scientific development IT entered the new phase of growing and furnishing applications in all areas of human existence. The lower cost and increasing performance of hardware, as well as the power and easy use of software made the use of IT an affordable and functional tool that will fundamentally alter the way most people live and work. While certain fields have been responding quite swiftly to the challenges of IT, diplomacy and its fellow branches of government have delayed their entrance into the realm of IT. The latest example is the use of the Internet. While the academic and business communities entered the Internet world at an earlier stage it is only within the last year that diplomats have started using it as a tool in a more intensive manner. It is important to analyse the current interaction between IT and diplomacy as well as to indicate some of the possible elements that could shape future developments in this field.

Will IT change the nature of diplomacy or will diplomacy resist changes as a result of the development of IT? Will it evolve through multiple adjustments or will diplomacy become obsolete and diplomats unnecessary? These and other questions should be identified and could be answered and even challenged by both the academic community and diplomats themselves. The development of IT and its influence on human society opens many new social, political and economic issues. The need for work in this field is vital given the vast discrepancy that exists between the increasing importance of IT in society and our limited understanding of its impact. This may be ascribed to two fundamental factors. Firstly, the development of IT caught the social scientist unprepared. The leading role in analysing this phenomenon had been played by journalists. While one can easily find numerous articles in journals about the IT-revolution, it is difficult to find any comprehensive academic analysis.³ Secondly, the response of the

³ The most prominent journal at the moment is 'Wired', a monthly journal covering various social, political and economic aspects of the development of IT. It is published by Wired Ventures Inc. Also most of the current writings on the information revolution focus on identifying changes and general trends. There is an obvious lack of methodology for tackling this issue. The most solid insights have been provided in Nicholas Negroponte, *Being Digital*, (London: Hodder and Stoughton, 1995), Alvin Toffler, *Power shift: knowledge, wealth and violence at the edge of the 21st century*, (New York; Bantam Books, 1990); John Naisbitt, *Megatrends: ten directions transforming our lives* (Warner Books, 1982).

academic community dealing with international relations has been even more delayed. The result of this is a further lack of methodological and conceptual frameworks for studying these issues.

The primary objective of this paper is to survey the existing interaction between IT and diplomacy. The first section of the paper focuses on the overall position of diplomacy in the context of the changes of internal and international structures brought about by the IT revolution. The secondary objective is to introduce elements for building a conceptual framework and developing theory about IT and diplomacy. The second section includes a consideration of new IT-related issues (protection of intellectual property, transfer of technology, etc.) that diplomats should deal with. In order to have a comprehensive framework of the interaction between IT and diplomacy we will use a taxonomic approach which shall allow us to pin down some of the major, yet intricate, concepts. A multidisciplinary approach in terms of international relations, political science and diverse legal and economic concepts will provide a better understanding and an overall insight into the issue of the interaction between IT and diplomacy.⁴

DEFINING DIPLOMACY AND IT

The use of the term diplomacy frequently causes terminological misunderstandings. Most of the definitions of diplomacy are built around the function of diplomacy and/or the actors involved in diplomatic activities. Those definitions of diplomacy based on the function start from 'representation' as a main function of diplomacy. The second approach focuses on the definition of diplomacy as 'negotiation'. G.R Berridge, for instance, stresses that 'Diplomacy is the conduct of international relations by negotiation rather than by force, propaganda, or recourse to law, and by other peaceful means (such as gathering information or engendering goodwill) which are either directly or indirectly designed to promote negotiation'.⁵ The third group of authors base their definition on the description of the nature of diplomatic functions. Hamilton and Langhorne define diplomacy as 'the peaceful conduct of relations amongst political entities, their principals and accredited agents'.⁶ The fourth group, which

⁴ This study was initially written in hypertext format, which is promoted as a new methodology for research and studying at the Mediterranean Academy of Diplomatic Studies. Since the contribution will be made in printed format this text had to be transformed from non-sequential hypertext-structure into the traditional narrative based on sequence. This transformation resulted into the reduction of the explanatory and informative function of the study.⁴

⁵ G.R. Berridge, *Diplomacy, Theory and Practice* (Hemel Hempstead: Prentice Hall/Harvester Wheatsheaf), p. 1.

⁶ K.Hamilton and R.Langhorne, *The Practice of Diplomacy - its evolution, theory and administration* (London: Routledge, 1995), p.1.

consists mostly of American authors, identifies diplomacy with foreign policy. Harold Nicolson, one of Britain's foremost diplomatic theorists, stresses the definition of diplomacy as a foreign policy and as a machinery for executing foreign policy.⁷ The broadest function-based definition describes diplomacy as a particular method of solving problems among people. Another criterion used in definitions of diplomacy is based on the actors; the subjects of diplomatic activities. The basic actor, stressed in most of the definitions of diplomacy, is the state. The constant changes in world society and the emergence of new potential actors in diplomatic relations forced some authors to try and avoid any definitions of actors of diplomacy. Perhaps the most suitable definition is to be found in the intersection of these two approaches, simultaneously based on the function and the actors themselves.

It is obvious that it is impossible to have one definition covering all of these aggregated aspects of diplomacy. In order to bypass this limitation Dietrich Kappeler suggests a more honed scale of definitions.⁸ In its broadest sense, he defines diplomacy as the conduct of international relations by peaceful means. More restrictive is the definition which says that diplomacy is the peaceful conduct of international relations by official agents of states, international organisations and other international actors. Even more restrictive is the definition of diplomacy which is expressed as the conduct of relations between sovereign states by members of their respective foreign services. In this study we shall use Professor Kappeler's honed definition of diplomacy. The broader meaning of diplomacy as the conduct of international relations by peaceful means, will be operational in the first part of the research as we consider the new political, social and economic environment for diplomatic activities.

The traditional definition of IT is restricted to the 'use of computer technologies to store, process and transmit information'. This definition focuses on the technological aspect of IT. The broader definition stresses IT as a synthesis of computing, communication and content.⁹ The broadest definition describes Information Technology as the 'application of appropriate technology to process information. Currently it refers to: computers, communication equipment, and digital electronics.' Here even

⁷ Other definitions highlighted by Sir Harold Nicolson look towards diplomacy as negotiation, as a branch of the Foreign Service and as a personal quality or gift. For a more detailed analysis of these definitions see Nicolson, H. *Diplomacy* (Washington: Institute for the Study of Diplomacy, 1988).

⁸ Lectures delivered by Professor Dietrich Kappeler at the Mediterranean Academy of Diplomatic Studies (Course in Diplomacy, Academic Year 1991/1992).

⁹ J. Camilleri, (1994), *A National Strategy for Information Technology for Malta*, University of Malta, Malta.

the inclusion of the term currently magnifies the diffusing elusiveness of the term. Thus for the purpose of this research we will use the definition of IT which stresses computing, communications and content. The special emphasis will be mainly on the use of computer technology. Furthermore, some of IT's applications, such as the Internet, have achieved such prominence of late, and so they should be explained in more detail. The Internet is usually defined as the network of networks with the common method of transferring data - TCP/IP. Technically speaking the Internet uses the existing telecommunication infrastructure for transferring data. With regards to the services, the Internet consists of electronic mail, gopher, wais, ftp and the last but not most popular service World Wide Web (WWW). WWW gave the Internet user-friendly features and opened the Internet to the wider community of users. The conceptual basis of the WWW, nowadays the most dominant in the Internet service, is hypertext, presented through the hypertext mark-up language (HTML).¹⁰ Hypertext is the non-sequential way of presenting information where the author designs a network of ideas, concepts and information.¹¹ Here the author is not limited to the sequence imposed by traditional texts.

THE NEW POLITICAL AND ECONOMIC ENVIRONMENT

It is by now a familiar claim that IT is changing the way we live, work, learn and enjoy. International political documents such as *The Bangemann Report* suggest that, 'Throughout the world, information and communication technologies are generating a new industrial revolution already as significant and far-reaching as those of the past. It is a revolution based on information, itself the expression of human knowledge. Technological progress now enables us to process, store, retrieve and communicate information in whatever form it may take, unconstrained by distance, time and volume. This revolution adds huge new capacities to human intelligence and constitutes a resource which changes the way we work together and the way we live together.'¹² In 1991 capital spending in the United States for investment related to the information age (communications, computers, etc.) overtook that for investment related to industry (equipment, agriculture

¹⁰ First version of HTML was designed by Tomas Berners-Lee from CERN. HTML contains instruction for browser software how to display documents and materials.

¹¹ R.Rada., *Hypertext, From text to expertext*, p. 1 - The term hypertext is related to the term 'hyperbolic space' introduced in 1704 and popularized by the 19th century mathematician F.Klein. Klein used hyperspace to describe a geometry with many dimensions. Human mental processes have been modelled in such multi-dimensional spaces. Ted Nelson coined the term hypertext in 1967 because he believed that text systems should reflect the hyperspace of concepts implied in the text.

¹² Internet-URL: <<http://www.ispo.cec.be/infosoc/backg/bangeman.html>>.

equipment, construction, etc.). One should, perhaps, shrink from describing this impact as universal. Many Third World countries, for example, are still facing problems that the developed world had come across in the pre-industrial phase, such as supply of food, building of basic state infrastructure and so forth. Furthermore, even within the developed world the benefits of IT can hardly be described as having touched the whole of society. Many strata have been excluded from the IT-revolution altogether.

Yet, although the influence of IT is currently limited to some parts of modern society, it exerts a global influence because it brings what has been termed as a new determinant of political, social and economic success both within nation states and between them. By 'determinant of success' is meant those scarce resources in the largest demand, defined, in the IT-age, as information and knowledge of how best to manage it. 'In a First Wave economy, land and farm labor are the main factors of production'. In a Second Wave economy, the land remains valuable while the labor becomes centred around machines and larger industries. In a Third Wave economy, the central resource (data, information, images, symbols, culture, ideology, and values) is actionable knowledge.¹³ Jean-Marie Guehenno analysed this issue by stressing the diminishing importance of material elements in the creation of value.¹⁴ This process of 'immaterialisation' of value triggers further changes in society such as lower importance of space, land, and so on.

Based on this conceptual change in the determinants of success some theoreticians developed further the analysis of the impact of these changes on society. Drucker, the guru of management, stressed that knowledge has become the capital of a developed economy and that knowledge workers are the group that sets society's values and trends. The axial principle of this society is the centrality of theoretical knowledge as the source of innovation and of policy formulation. Information is inexhaustible and, with the emergence of networks, can be accessed by many people simultaneously, further aiding the decentralisation of power. This is why Drucker calls this a 'knowledge society' or 'post-business society'.¹⁵

¹³ Cyberspace and the American Dream: A Magna Carta for the Knowledge Age (Release 1.2, August 22, 1994), The Progress & Freedom Foundation, Internet-URL: <<http://www.townhall.com/pff/position.html>>.

¹⁴ Jean-Maire Guehenno (1994), *The end of the Nations-State*: In an automobile - the characteristic industrial product of the first half of the twentieth century - raw materials represent 30 percent to 40 percent of its value. In an electronic component, the symbol of the new age, raw materials barely represent 1 percent.

¹⁵ 14 Peter F. Drucker, *The new realities*, (Oxford: Heinemann Professional Publishing, 1989), p. 167.

Information and knowledge, as determinants of social, economic and political success, will be a crucial element of determining the haves from the have-nots in the future. This new social division will be noticeable in the movement from individual to global levels in different perspectives. Nicolas Negroponte highlighted the generation division between the have and the have-nots. For him young people are the biggest beneficiaries of IT-based changes. He extends his argument to the nations by saying: 'The digital revolution, blind to wealth, has left many powerful people behind- and, increasingly, nations too. Consider two countries with roughly the same population, Germany and Mexico. More than half of all Germans are over 40. More than half of all Mexicans are under 20. Which country is in a position to benefit more from the digital revolution in a world where a computer will cost less than a bicycle by the year 2000?'¹⁶ It is along this line that the new horizontal and vertical stratification of human society will be drawn. Negroponte's comment, however, requires qualification. The intellectual and economic capacity of a country does not depend solely on age and access to knowledge but depends also on various factors such as climate, raw materials, political energy, established power and history, and economic experience besides others.

The chain of transitions mentioned earlier starts with the introduction of the information economy based on information and knowledge as the main resources. The next step might be the adjustment of the social structure to the information economy. For instance, James Fallow stressed that IT poses three major challenges for society.¹⁷ First, there is the challenge of the permanent need of generating the flow of ideas and innovations. The second challenge would be to put the new ideas into commercial use. Thirdly, the most demanding challenge will be 'to absorb and buffer the purely social effects of an ongoing information revolution'.¹⁸ Although it is difficult to foresee all the effects of technology on society one can notice dominant tendencies towards the decentralisation and flattening of all organised structures, de-monopolisation of distribution of information, and so on.¹⁹

The development of IT recently years, in particular the rising importance of Internet, poses the question of the adjustment of national and

¹⁶ Nicholas Negroponte, 'In the Information Age, A New Set of Have-Nots' - *International Herald Tribune*, Tuesday, February 14, 1995, p. 9.

¹⁷ James Fallows, 'The Information Revolution: New Strains for Europe, America and Asia', *International Herald Tribune*, Monday, May 16, 1994 - p. 4.

¹⁸ *ibid.*

¹⁹ As illustration of one example of unpredicted influence of technology: 'Who would have foreseen that the invention of the post box would contribute to women's liberation - by enabling new generations of young ladies to post letters to their sweethearts without their parents' knowledge' - *The Economist* - September 30th 1995 - Survey Telecommunications pp. 40.

international legal and political systems to the needs of IT. What is the position of diplomacy in this changing environment both within the national and international framework? Here our analysis will be based on the few elements where diplomacy will be influenced by the current development of IT.

IT AND CHANGES IN MODERN SOCIETY

One of the features of modern diplomacy is the growing importance of domestic factors including business circles, societal movements and groups. In this context it would be important to see how these internal factors influenced by IT have, in turn, been affecting diplomacy.

As noted above, IT affects the distribution of wealth and power within states. The vertical stratification caused by the development of IT is highlighted by the following major characteristics: (a) the emergence of a new constantly fluctuating elite, (b) social and economic promotion based on knowledge and skills instead of inherited wealth or possession, (c) threat to the status of white-collars in developed countries. The new elite above all is still in a formation process permanently challenged by new-comers who have brought about rapid technological changes. For instance the latest boom of the Internet brought few new companies, such as Netscape, which made their fortune overnight. The day-to-day struggle to keep pace with the technological race did not give time to the new elite to promote and verify their social and political position.²⁰ Parallel to the emergence of a new elite IT poses a serious threat to white-collar workers in developed countries through the import of skills, knowledge and expertise of programmers and software engineers from developing countries without their physical relocation.

The processes of adjustment of the social and political structure in the developed world - especially in the United States - to the changed distribution of economic power is tectonic and profound. It will influence political institutions and government.²¹ The capacity of controlling the distribution of information and specialised expertise is not any more the monopoly of government. Although the development of IT empowered the

²⁰ These last few years were characterised by the establishment of organizations and lobbying groups that should protect and promote the interest of IT-industry. The most prominent are *The Alliance to Promote Software Innovation* (ASPI) and *The Business Software Alliance* (BSA). Both of them promote protection of software and export of software. BSA's members include leading software companies such as: Adobe Systems, Inc. Autodesk, Inc. Bentley Systems, Inc. Lotus Development Corp. Microsoft Corp. Novell, Inc. Symantec Corp. The Santa Cruz Operation, Inc.

²¹ Tectonic refers to the seismic nature of changes. The process of adjustment of the social and political structure in the developed world - especially in the United States - to the changed distribution of economic power.

government in certain respects, the dominant consequence of this development has been the increasing capacity of individuals and other entities to collect, distribute and manipulate information. These tendencies have already started to alter the position of the government and of diplomacy in the developed world.

Besides the vertical stratification that is based on the emergence of the new elite and diminishing importance of white collars, a horizontal stratification brings new successful regions and countries. In India, for instance, it is the southern city of Bangalore which has made its fortune due to IT. In the USA, IT brought success to states such as Utah and Washington which were not traditionally economic powerhouses or industrial centres. Their success is mostly based on the early recognition of the appearance of the IT as a new determinant of success.

What is going to be the position of diplomacy in this fast-changing society? Essentially, IT has been increasing the capabilities of individuals and institutions for communication both within countries and among countries. Although diplomacy has never had the exclusive monopoly in communication within foreign entities and individuals it was considered to be the dominant channel for official communication. IT is now levelling this communication infrastructure by enabling official and unofficial communication among entities and individuals to bypass the diplomatic structure of countries. In this context diplomacy will be losing the position of the main facilitator of contacts and communication with foreign entities. This tendency is also obvious with the governmental structure where contacts with foreign entities, especially in highly technical fields, have been shifted from the ministry of foreign affairs, to other ministries and departments. In the words of Brian Hocking, 'As the state is downgraded as the key focus on international relations, so diplomacy assumes a decreasing significance alongside alternative modes of communication facilitated by the processes of interdependence and globalization.'²² There were attempts to alter this tendency by promoting the position of diplomacy as the co-ordinating structure in the communication with foreign entities. These attempts had a limited success because the importance of diplomacy in the contacts with foreign entities was based on its function as facilitator not as co-ordinator. It is obvious that in this respect the position of diplomacy will depend on the position of the state as a political institution. The downgrading of the importance of the state would result in a marginalisation of diplomacy.

²² Brian Hocking - *Beyond 'Newness' and 'Decline': The Development of Catalytic Diplomacy*; Discussion Paper (Leicester: University of Leicester, Department of Politics, Center for the Study of Diplomacy, 1995), p. 6.

IT AND SOVEREIGNTY

The position of diplomats is closely interrelated to the destiny of states and the concept of sovereignty. One of the major function of diplomats was and is to protect sovereignty. While in the past state sovereignty was challenged only by other states, current tendencies are questioning the very nature of the concept of sovereignty. The dynamic process of globalization through the economic, political, and, social integration, questioned the capability of the nation-state as the principal actor capable of managing social, political and economic affairs at a certain territory.²³ Although it is difficult to separate IT from the other developments that are challenging the concept of sovereignty (environment, protection of health, etc.), our major objective will be to concentrate on the influence of the development of IT on the concept of sovereignty and its effect on diplomacy.

'Sovereignty is a status claimed from *within*, conferred from *without*'.²⁴ Thus, sovereignty is a claim rather than an uncontested concept. The history of the concept of sovereignty is characterised by the constant intention of the state to increase the level of sovereignty and control of territory, people and economic transactions under its control. This intention never resulted in achieving full sovereignty. IT challenges the concept of sovereignty in the following directions:

Firstly IT contests the spatial and temporal uniformity as a cornerstone of the concept of sovereignty. The idea of cyberspace does not correspond to the current division of world territories i.e. states. Cyberspace challenges the claim of the state to establish a definitive and binding relationship between citizen and a given territory. The threat to this link of citizen-territory is not coming from the other state, as it was the case throughout history, but from cyberspace. Secondly, national states have a limited capability to control the economic transactions of IT commodities and services. The very nature of IT commodities and services, which is non-physical, makes it difficult for states to impose customs control, tariffs regimes, taxation, etc. Thirdly, the development of IT is highly decentralised and based on invention. Although the state has an important function in providing the proper infrastructure for IT development, it has a limited function in directing the development

²³ Professor Richard Falk argues that economic integration do not necessarily mean a limitation of sovereignty. 'The struggles involving the establishment of regional and global frameworks for the expansion of trade and opportunities for capital investment are illustrative of the defensive roles of sovereignty', Richard Falk, *On humane governance: toward a new global politics. The World Order Models Project Report of the Global Civilization Initiative*, (Pennsylvania: The Pennsylvania State University Press, 1995) p.81.

²⁴ Richard Falk, *On humane governance: toward a new global politics. The World Order Models Project Report of the Global Civilization Initiative*, (Pennsylvania: The Pennsylvania State University Press, 1995), p. 81.

itself.²⁵ The state has the role to provide the necessary but not the sufficient elements for the development of IT.

Given the fact that the origin of the concept of sovereignty is related, to a large extent, to the need for the endemic protection of the economic space of every state, the erosion provoked by IT, in this respect, could threaten the overall concept of sovereignty itself. What are the implications of such changes for diplomacy? The first implication is related to diplomacy as a mechanism for maintaining *official relations between state and foreign entities*. The function of diplomacy, as a channel for the promotion and protection of the external aspect of sovereignty, will be directly affected. The changes in the concept of sovereignty will impose new demands on diplomacy, and, some of them will be paradoxical. One of the paradoxes that should be managed by diplomacy is to protect sovereignty and yet to promote state participation in the processes of global and regional integration simultaneously. For example in the field of IT the state will have to release a number of monopolies related to telecommunication with the outside world, the exchange of information and the protection of public order.

The second implication is related to diplomacy understood as a mechanism for *maintaining political, social and economic relations among states and other international entities and actors*. In this context it is more probable that the process of the lower importance of sovereignty will result in the further proliferation of entities and actors with the capacity of participating in international political and legal life. Their participation in international life will be framed mainly on the regional level (European Union, North America Free Trade Area). This process will result in the need for developing, representing, and negotiating capacities of such entities. It can give a boost to the development of new types of diplomatic methods and procedures.

IT AND INTERNATIONAL RELATIONS

Although diplomacy is considered as the conduct of relations by peaceful means instead of force, it is closely inter-linked with the use of military power in international relations.²⁶ The clear distinction between diplomacy as a promoter of national interest through negotiation and peaceful means, and, military power as a promotion of national interest by use of force has

²⁵ One article in *The Economist* aggressively highlights the states' inadequacy to provide the proper infrastructure for IT development by claiming governments are not good at directing technological advance. 'So the sight of politicians from the Group of Seven industrial countries congregating in Brussels this weekend to ponder the "information society" is an ominous one'. *The Economist*, 25th February 1995, pp. 13.

²⁶ The Dayton Peace Agreement is a recent example of the interplay of negotiation and use of force.

been blurring with the changes in the concept of power, both in its nature and location. There is a growing understanding of the importance of information as a source of power. As Nye and Owens point out: 'In a rapidly changing world, information about what is occurring becomes a central commodity of international relations, just as the threat and use of military force was seen as the central power resource in an international system overshadowed by the potential clash of superpowers.'²⁷ The position of the military force is challenged by IT in two directions.

The first challenge is related to the very nature of military force. It has been altered by the introduction of the IT-based concept of information warfare. The concept of information warfare should encompass: hacker wars - software-based attacks on information systems, information economic warfare - war via the control of information trade and cyberwar, i.e. combat in the virtual realm. According to Deutch, the director of CIA, cyberwar could become a 21st century national security threat second only to nuclear, biological and chemical weapons.²⁸ The fact that modern societies are increasingly relying on information technology in economy, industry, finance, and banking, they bring new elements of vulnerability to states. It is a fact that these modern IT-based systems could be easily damaged by one skilful hacker rather than by powerful military troops. Although the US has a significant lead in the field of the development of information warfare, it was recently stated in *the Report of the US General Accounting Office* that more than 120 countries are currently developing an information weapon capacity.²⁹

The second challenge to the traditional concept of military power is its relative decline in comparison to other elements of the concept of power; especially information technology used as a new source of power. J.S. Nye and W.A. Owens start their article on America's Information Edge with the statement: 'Knowledge, more than ever before, is power.' In the same article they stress that 'In assessing power in the information age, the importance of technology, education, and institutional flexibility has risen, whereas that of geography, population, and raw materials has fallen'.³⁰ This process is

²⁷ Joseph S. Nye, Jr., and William A. Owens, 'America's Information Edge', *Foreign Affairs*, (1996) p. 22.

²⁸ Tim Weiner - 'CIA Chief, Citing Security Threat, Maps a War Plan on Hackers', *International Herald Tribune*, June 26, 1996, p. 1.

²⁹ 'Hackers put the Pentagon on war status', *The Times*, June 5 1996 - p.4; These are the definition proposed in the Starategic forum - What is Information Warfare? by Martin C. Libicki.

³⁰ Joseph S. Nye, Jr., and William A. Owens, 'America's Information Edge', *Foreign Affairs*, (1996) p. 22.

changing the position not only of foreign policy actors but also of the whole Government in managing and promoting national interest.

The nature of information and knowledge as power is different from military, economic and political power. It cannot be easily centralised and controlled as military power, or co-ordinated and directed as economic power. Information and knowledge are more diversified and flexible. Besides the change in the position of the overall governmental structure in society, it is obvious that there will be a need for altering the role and position of key players in the foreign relations field. The latest developments have increased the importance of 'soft power' as a way of promoting national interest through attraction instead of coercion.³¹ Diplomacy here may play a more prominent position with respect to the use of 'soft power' in international relations.

It is also important to stress that IT contributes to the two major phenomena of the current world order - globalisation and fragmentation. 'Technological innovation is a driving force in the dynamics of global integration, but it is also, by way of affordable micro-electronic developments, encouraging unprecedented decentralisation and co-operative structures that span the earth without relying on bureaucratic hierarchies.'³² Keeping in mind such opposed phenomena helps us to grasp the complexity of the present era. Diplomacy as a major channel of communication among international actors, mainly states, will have to manage this paradox of bringing together global economic and political structures and facilitating the interest and promotion of small political and social entities, which were in previous phases neglected.

The diminishing importance of spatial elements in international relations has also demanded a change in the concept of geo-politics. The traditional geo-politics was based on spatial elements such as access to the seas, the existence of natural borders, and control of major communication facilities. For most countries, the geographical elements have been crucial in determining historical developments and foreign policies. Geographical elements will continue to be an important element for the geo-political

³¹ 'Soft power' is the ability to achieve the desired outcome in international affairs through attraction rather than coercion. It works by convincing others to follow, or getting them to agree to, norms and institutions that produce the desired behavior. Soft power can rest on the appeal of one's ideas or the ability to set the agenda in ways that shape the preference of others. If a state can make its power legitimate in the perception of others and establish international institutions that encourage them to channel or limit their activities, it may not need to expend as many of its costly traditional economic or military resources. Joseph S. Nye, Jr., *Bound to Lead: The Changing Nature of American Power*, (Basic Books, 1990).

³² Richard Falk, *On humane governance: toward a new global politics. The World Order Models Project Report of the Global Civilization Initiative*, (Pennsylvania: The Pennsylvania State University Press, 1995).

position of countries, given the fact that the territory is vital for the human existence. IT will reduce the importance of spatial factors of geo-political position due to the introduction of the 'immaterial' nature of value and power. In the words of Jean-Marie Guéhenno, author of *The End of the Nation-State*: 'Wealth has become less and less tangible.'³³ Consequently the importance of geography in the context of the transportation of raw materials, as key elements of production in the industrial period, will be lower.'

The emergence of the concept of cyberwar-war might also decrease the importance of territory for military purposes. The geo-political position of one country might be based on a new set of values related to the management of information and knowledge, and position in the emerging Global Information Infrastructure (GII). The new determinants of political, economic and social successes of one country will be related to the education of the population, the multicultural and multilingual qualities, and the IT-awareness of the political and economic elite. Therefore it is likely that 'provinces' and 'backwaters' in the forthcoming period will not be countries with geographical disadvantage, but countries without access to the networks, or, with IT-illiterate elite.

In this context diplomats should understand this profound change in geo-politics. They should facilitate and encourage changes within their states. While in traditional geo-politics the quality of political and strategic decisions was very important, the new geo-politics is more related to the structural advantages (higher level of education, multilingual and multicultural capabilities of population) which cannot be achieved overnight. They are results of long processes and investments.

NEW TOPICS ON THE DIPLOMATIC AGENDA

The end of the First World War saw the increasing involvement of economists and military experts within the diplomatic process in the consideration of issues such as economic co-operation and reparation. The period after the Second World War was characterised by the fast expansion of subject matter for diplomatic activities. 'For most of the Twentieth Century, the international diplomatic agenda has consisted of questions of political and economic relations between nation-states - the traditional subjects of diplomacy. After the Second World War new diplomatic issues arose, spurred by the technical advances in nuclear energy and electronics.'³⁴

³³ Jean-Marie Guéhenno, *The End of the National-State*, (Minneapolis: University of Minnesota Press, 1995).

³⁴ David D. Newsom, 'The new diplomatic agenda: are governments ready?', *International Affairs*, January 1989, p. 29.

The development of IT, especially the Internet, in the last few years intensified the process of bringing IT-related issues to diplomatic agendas.

An international regulatory framework for the Internet

The Brussels G-7 Ministerial Meeting of February 1995 on the Global Information Infrastructure stressed that the solution for most of the political and legal questions related to the development of the Global Information Infrastructure including the Internet can only be found on an international level.³⁵ The number of complex problems that must be addressed in the process of creating what we shall term as - an 'International Regulatory Framework for the Internet' will require international action involving various actors such as states, international organisations, non-governmental organisations, multinational corporations, and specialists in international law, IT, and the economy. Diplomacy will have an important role in co-ordinating activities of different levels of involvement and specialisation.

The current situation in the development of the Internet is characterised by the following features:

- the growing importance of the Internet for many spheres of international affairs such as international academic activities, international trade, development assistance, and so on.
- the lack of any solid international political and/or legal framework that should regulate the further development of the Internet.
- the fast shaping of the Internet as the global medium for the exchange of ideas and views, creativity and inventions.
- the high probability of misuse of the Internet.
- the growing interest of the business community to commercialise and dominate the Internet.
- the further deterioration of the position of the developing world through the limited access to the Internet.

Apart from the prevailing understanding that some sort of international regulatory framework for the Internet should be created, there is no unanimity about the principles and norms that should direct the future regulation of the Internet. For some, the regulation of the Internet should be restricted only to the prohibition of extreme misuse such as the display of

³⁵ For more about G-7 Ministerial Meeting on GII consult: Internet-URL: <<http://www.cec.ispo.be>> or Daily Internet News Brief on the G7 Ministerial Conference available on Internet-URL: <<http://www.ibm.com/sponsor/g7/live/g7live.html>>.

pornographic material. Other views are suggesting the regulation of the Internet by simply pouring new wine into old bottles i.e. by applying existing legal norms, as in the media, to the Internet. Others are questioning the conceptual basis of the Internet, which is, essentially, that nobody owns it. For them somebody has to be in charge of this new phenomenon. These basic political and legal dilemmas are further complicated at the international level through the need to accommodate the interests of various countries. In such situations it is difficult to predict with high precision any further developments of the international regulation of the Internet and other electronic communication. The current situation offers many possibilities and dangers. Below we shall list some of the possible positive and negative developments.

A positive development could lead towards:

- the further development of the Internet as a decentralised system for information exchange and knowledge creation.
- the empowerment of the broader population and social groups through the use of the Internet.
- providing global and equal access to the Internet and other resources for all countries and regions.
- creating international political and economic frameworks that will make a proper balance between the private and the public interest towards the Internet.

Negative development could lead towards:

- the high centralisation of the Internet.
- widening the gap between rich and poor at the national and international levels thereby creating information poverty.
- use of the access to the Internet as a tool for political purposes in international relations.
- creating an international political and economic framework that will predominantly suit the needs of the business sector.

The applicability of existing international regulatory techniques

Although the Internet is a unique phenomenon in its nature and complexity, there are a number of international regulatory techniques that could be applied in the process of creating a regulatory framework for it. The Internet, perhaps, could be regulated through the development of an

international regime for its function. Although there are many theoretical discussions about the definition of international regimes, the most widely accepted definition stresses that 'international regimes are defined as principles, norms, rules and decision-making procedures around which actor expectations converge in a given issue-area'³⁶ It seems that the vagueness of this definition provides sufficient room to accommodate the complexity of the Internet.³⁷ Out of the various types of international regimes, two groups could be useful.³⁸ The first is developed in order to regulate the *res communis omnium* (i.e. the high seas, outer space and celestial bodies).³⁹ The international regimes for the *res communis omnium* are based on the principle that they cannot be subjected to the sovereignty of any state, while at the same time the state's jurisdiction over the *res communis omnium* is allowed under certain conditions. This balance between the principle of having the *res communis omnium* beyond any sovereignty on one side and, yet, the principle of having certain legal jurisdiction of states over the *res communis omnium* on the other side could be a useful guidance for creating the international regime for the Internet.

The second group of international legal regimes have been developed for the regulation of technical issues such as telecommunications, civil aviation, and maritime transport. Such international legal regimes could be utilised for the regulation of the technical aspect of the Internet.

Forums for regulating the Internet

The Internet is not controlled by anyone. Its formal infrastructure consists of the Internet Society (ISOC) which is in charge of establishing technical standards, and the Internet Engineering Task Force (IETF) responsible for operational and technical problems.

Although ISOC and IETF did some magnificent work on developing the Internet, it is highly unlikely that these two organisations could be used for solving other political, economic and legal problems related to it. What then are the specific organisations and political initiatives that could be used as a carrier for the work on creating an international regulatory framework for the Internet? Two possibilities would be the Global Information

³⁶ Stephen D. Krasner, 'Structural Causes and Regime Consequences: Regimes as Intervening Variables', in Stephen D. Krasner, ed., *International Regimes*, (Ithaca, London: Cornell University Press, 1983), p. 2.

³⁷ Most critiques of these definitions are related to its vagueness. For more information see: Marc A. Levy, Oran R. Young, 'The Study of International Regimes', *European Journal of International Relations*, 1995, Vol. 1(3), pp. 270-273.

³⁸ For classification of the international regimes see: Levy, 'The Study of International Regimes', p. 274.

³⁹ Donald J. Puchala and Raymond F. Hopkins, 'International regimes: lessons from inductive analysis', in *International Organisation*, 36, no. 2 (Spring 1982), p. 185.

Infrastructure or UN-agencies and other international organisations specialised in the technical field. The GII was proposed by the US Vice-President Al Gore at the ITU World Telecommunications Development Conference in Buenos Aires. The global importance of the GII was reinforced during the Naples Summit of the G-7 with the decision to hold the first G-7 Ministerial Conference on GII in Brussels. In fact the Brussels' Ministerial Conference was a turning point as it adopted a number of decisions related to the further development of the GII itself.⁴⁰ The GII here stresses strongly the importance of creating an information-friendly environment on the national and the global level that should promote open and regulated telecommunication and computer markets, the protection of intellectual property, the protection of privacy, and so on.

The development of the GII initiated the creation of the new multilateral set-up that should deal with the question of the development of IT on a global level and actually it is quite interesting to point out that the lead in the development of this set-up was taken by members of G-7. Although there are a number of UN-based and other specialised agencies dealing with IT their participation in the GII has been limited. Furthermore the GII has brought new elements to the process of specialisation in diplomatic activities. The process of a faster introduction of technical issues in diplomatic agendas, especially after the World War II, intensified the tension between the 'specialists' and the 'generalists' in diplomacy. This dichotomy is further complicated by the introduction, within the framework of GII, of new elements in diplomatic practice of dealing with the social, political and economic consequences of technological developments. The latest example of this tendency is the last GII-Meeting held in Rome (May 1996) attended by Ministers of Education from the Mediterranean countries who dealt with the educational aspect of the development of IT. Thus besides the 'specialists' and the 'generalists' we will have 'new specialists-generalists' who are dealing with non-technical aspects of technical issues!

A number of specialised UN-agencies involved in IT, in telecommunications and in the Internet could play a more prominent role in the development of the international regulatory framework for the Internet. As it was already noted, some international regimes for technical issues such as telecommunications, developed by or around specialised UN-agencies could be useful in the future regulation of the Internet.

The most prominent is the International Telecommunication Union (ITU). Although the ITU was not directly involved in the development of the

⁴⁰ For more information about the G-7 Ministerial Conference on GII consult Internet-URL: <http://www.ispo.cec.be/infosoc/> and Internet-URL: <http://www.ibm.com/Sponsor/g7live/g7live.html>.

Internet, it was crucial in the process of standardising and harmonising the global telecommunication infrastructure which is used as the technical basis of the Internet. Besides continuing work on the international regulation in the field of telecommunications, the ITU initiated the process of the so called 'Telecom-conferences'. The process was initiated by Telecom-1995 organised in Geneva. It was followed in 1996 by Telecom-America in Rio de Janeiro. Telecom-Asia shall be organised in 1997 together with Telecom-Interactivity. In 1998 there shall be Telecom-Africa. This series of Telecom-conferences will finish with Global Telecom in 1999, to be held, once more, in Geneva. Telecom conferences have become important for discussing the Internet and other GII topics. Attendees usually include politicians, businessmen and specialists in IT.

The second UN organisation with an important role in the field of Internet and GII is the World Bank. The World Bank plays a crucial role in the development of telecommunication infrastructure in developing countries, especially in Africa. It is particularly involved in the development of national strategies for IT and telecommunications, and, in providing expertise and financial support in developing countries. InfoDeve, the latest initiative of the World Bank, shall assist African countries to prepare for participation in the global information revolution.

While ITU and World Bank concentrate on telecommunication and IT infrastructure, UNESCO focuses on the question of the development of contents for the Internet and other telecommunication systems. It promotes media development and information sharing with significant assistance for developing countries. UNESCO in fact has the following major programmes in the field of IT, an International Programme for the Development of Communication, a General Information Programme and an Intergovernmental Informatics Programme.

The Organisation for Economic Cooperation and Development (OECD) has a very broad coverage of IT and telecommunications. Special attention is paid to the world-wide standardisation of questions such as the protection of personal data and privacy, , , and . OECD also tackles issues of technology and policy convergence, diffusion and the impact of IT on the economy and society.

The transfer of information technology and North-South relations

One of the key issues related to IT and international relations is whether IT is going to reduce the development gap between the North and South. This turning point in international economy offers for developing countries both potentials to reduce the development gap and to become even more

disadvantaged through information poverty.⁴¹ In this context Jean-François Rischard, Vice-President of the World Bank, said that telecommunications and information technology could enable less advanced countries to make a big leap forward by helping them to streamline public service and expand education opportunities.⁴² Negroponte considers the element of the young population as crucial for future development of IT and a chance for developing countries to reduce the development gap.⁴³ Other analyses of the possibilities of development through IT are stressing the importance of the creation of an information-friendly environment which includes proper telecommunication policies, reducing state monopoly and increasing private initiative, the protection of intellectual property, and so on. There is now a widely accepted view that, in order not to miss this opportunity of development through IT, the governments of developing countries should devise national strategies by taking into account the specific needs of their societies, the actual potentials of IT, and the international environment for IT issues. One of the key elements is the transfer of IT. In the seventies and eighties the question of the transfer of technology, including IT, was viewed in the context of the adoption of a proper development policy; open-market versus the import-substitution strategy. With the end of the Soviet Union and the decline in the influence of socialist development policy, the development dilemma is replaced by linking the development policy to the free market and economic openness. In this context the major issues of the transfer of technology became more technical, by focusing on the readiness of developed countries to export the proper technology. Export of IT is more often linked to the questions of the protection of intellectual property, adoption of certain standards for development of IT-infrastructure, and so on.

The protection of intellectual property rights

The importance of the issue of the protection of Intellectual Property Rights (IPR) gained prominence recently in the dispute between the USA and China. The widespread breach of intellectual property rights in China, which includes software, films and compact disks, caused a damage of \$ 2.3. billion for US companies in 1995.⁴⁴ The question of the protection of intellectual property rights placed a high strain on the overall bilateral relations

⁴¹ The current discrepancy in telecommunication development is huge. South Africa's Deputy President Thabo Mbeki during the G-7 Ministerial Meeting on GII pointed out that: 'The reality is that there are more telephone lines in Manhattan, New York, than in Sub-Saharan Africa.'

⁴² Janet McEvoy, Third World Wonders About Information Highway, Reuters, February 1995.

⁴³ In the Information Age, new Set of Have-Nots, Nicholas Negroponte, International Herald Tribune, Tuesday, February 11 1995.

⁴⁴ China and U.S. Teeter on Edge of Trade Ware, *International Herald Tribune*, June 17, 1996 p.1.

between China and the USA. This issue, in fact, has been discussed intensively in bilateral negotiations between the two countries.⁴⁵ The question of the protection of intellectual property rights has been gaining higher prominence in the relations between the USA and developing countries. The legal basis for linking the higher levels of protection of IPR to trade issues and trade sanctions is provided in Section 301 of the US Trade Act of 1974. America's bilateral activities in the protection of the IPR were intensified in the Eighties; mostly towards the countries with a high-dependence on the export of goods to the USA (countries such as Singapore, South Korea and Taiwan).

The policy of linking trade with the protection of IPR was mostly successful at least in the field of the adoption of the proper IPR protection regulation in targeted countries. It is important to notice the tendency of the higher involvement of representatives of the USA and professional associations such as the Business Software Alliance and the International Intellectual Property Alliance both in the process of negotiation and in the monitoring and implementation of the IPR-protection bilateral agreements.

The regulation of the protection of IPR through bilateral channels is a relatively recent feature introduced in the eighties by the USA. In spite of these tendencies the major framework for the protection of IPR is multilateral. Responsibility for the protection of IPR is primarily the responsibility of the World Intellectual Property Organisation (WIPO). The other multilateral framework for dealing with IPR issues is connected to international organisations in the field of trade. IPR was an important issue in the GATT-framework, particularly during the Uruguay round of negotiations. The World Trade Organisation (WTO), successor of GATT, also dedicates special attention to the question of the IPR. The other multilateral organisation in the field of trade policy, which deals with IPR, mostly connected to the development, is the United Nations Conference on Trade and Development (UNCTAD). Recent years have brought a sharp development of powerful business associations such as the Business Software Association, which are strongly pressing the question of the protection of IPR onto the international agenda.

⁴⁵ China and the U.S.A. concluded the Anti-Piracy Pact which was not properly implemented according to the U.S.A. side. This led to the renewal of negotiation in June 1996 with the U.S.A. posing 4 requests: the verification of Chinese enforcement action on the Anti-Piracy Pact, the discouragement of future piracy through established procedures, increased market access for U.S. software and other IPR-intensive products, and, improved border control against export of pirated products. The U.S. threatened China with the imposition of trade sanctions (imposing 100 percent tariffs on Chinese goods imported to the U.S.) if this dispute will not be resolved.

TOWARDS AN INFORMATION SYSTEM FOR MINISTRIES OF FOREIGN AFFAIRS

A broader introduction of computers in diplomatic activities affects or will affect the diplomat's routine activities, the organisation of diplomatic services, diplomatic procedures and forms of communication. Information Systems (IS) however have been mainly developed in order to meet the needs of commercial, financial and industrial sectors. The provision of IS for Ministries of Foreign Affairs should be based on the proper combination of these techniques and those created in order to meet the specific needs of this area of government. These specific features relate to the higher importance of preserving the hierarchical structure, the management of non-structured data, the need to provide higher security and the specific process of human-resource adjustment.

Most of the Foreign Affairs Ministries in developed countries started implementing IT in their operations during the eighties, following, with some delay, similar tendencies in the private and governmental sector. The achievements of this early introduction of IT in Ministries of Foreign Affairs were limited. The use of IT in the diplomatic service was the privilege of developed countries for some time. The creation of IS for Ministries of Foreign Affairs in developing countries started in the nineties following a sharp decrease in the cost of hard and software. While the development of IS for the diplomatic services of developed countries has been proportional to the general development of IT in these countries, the development of IS for Ministries of Foreign Affairs of developing countries resulted out of the pure necessity to enable these countries meaningful participation in bilateral and multilateral diplomatic relations.

The British Foreign and Commonwealth Office (FCO) experienced a failure with regards to the first IS developed in the eighties.⁴⁶ After the failure of the first system, FCO created a new IS strategy in 1992. This IS Strategy should be implemented by the year 1998 with its major objectives being to create an advanced IS; fully networked both with missions abroad and other Governmental Departments in London.⁴⁷ In order to avoid the difficulties of the first IT-project, FCO based its new IS-Strategy on a business-driven approach with realistic objectives and early delivery phase

⁴⁶Presentation of IT-projects of the Foreign and Commonwealth Office by Mr Bradford, Head of Strategy Group on IT of the FCO (Workshop on use of Information Technology in International Relations, Malta - November 1995 - Internet-URL: <http://www.diplomacy.edu/wshop/cad95>) Some points indicated in the Coopers and Lybrand Report were that the project would not have met a defined business need. The project coordinated rather than managed. Rather than the necessary skills grade prevailed in decision making, the complexity of the project was not appreciated.

⁴⁷ For more information consult the Information Systems Strategy, Foreign & Commonwealth Office ISD (P) Technical Documentation Unit - Hanslope Park, 1995

by phase. The first phase (1992-1995) provides widespread basic word processing, electronic text storage and retrieval, electronic distribution of telegrams within the FCO, an increased use of electronic mail and the Internet.⁴⁸ The implementation of the IS Strategy should be completed by 1998 with advanced word processing, the enhanced electronic information storage and retrieval at FCO itself and other missions, long term electronic information storage and integration of financial management and accounting.⁴⁹ As far as communications are concerned IS should provide a secure electronic mail interchange between FCO and missions and multi-media links to major posts.⁵⁰

THE IMPLEMENTATION OF AN INFORMATION SYSTEM

Our analysis of the development of IS for Ministries of Foreign Affairs is based on the Model of Computerisation of Ministries of Foreign Affairs which was created in 1994 at the Mediterranean Academy of Diplomatic Studies.⁵¹ The major function of this Model was to help diplomats in understanding the process of the development of IS and to assist IT-specialists to grasp the nature and procedures of diplomatic activities. Since the Model is based on the analysis of typical bilateral and multilateral activities it can be relevant to most of the Ministries of Foreign Affairs.

The Model itself combines two major segments: an analysis of the requirements of diplomatic activities (demand side) and an analysis of available tools to meet these requirements (supply side).

Diplomatic procedures and their computerisation

Once the framework and objectives of the foreign policy are adopted by the highest political authorities of the country, the execution of adopted foreign policy is to a large extent the responsibility of the diplomatic service. Here both bilateral and multilateral diplomatic activities are based on reliable information. The quality of information at this stage determines very much the quality of the diplomatic activities. Most diplomatic activities start with information gathering and verification of information. The gathered information is then, processed, analysed and contextualised in order to be used by decision-makers. The next phase leads to consultations at the

⁴⁸ *ibid*, p. 3.

⁴⁹ *ibid*, p. 4.

⁵⁰ *ibid*, p. 4.

⁵¹ The Academy is currently involved in the development of the Model of Information System for Ministries of Foreign Affairs. The New Model is based to the large extent on the Model of Computerisation of Ministries of Foreign Affairs developed in 1994. This New Model will be based on the latest developments in the fields of design of information systems and progression of Information Technology.

national and/or governmental level, often depending on the importance of the decision. To this process of interaction one should add the internal dynamics in decision-making within a diplomatic service involving various departments, position of mission etc. Once the decision is made through interaction and various consultations it will be implemented. The implementation of the decision should be permanently supervised through feedback mechanisms.

Since a number of diplomatic activities are organised around the preparing of official documents, materials, proposals, IS for Ministries of Foreign Affairs should also be document-centred. These document-centred working procedures should be combined with other working procedures that do not assume any production of internal documents. The working procedures in Ministries of Foreign Affairs are usually important and well-developed. From the long list of diplomatic procedures indicated in the Model for the Computerisation of the Ministry of Foreign Affairs the following typical procedures could be highlighted: the preparation of official and state visits, the preparation for participation in multilateral conferences, the preparation of reports, of official diplomatic communication, protocol procedures, and finally the preparation of consular procedures. The logical analysis of these and other procedures was organised around the following issues: the actors involved in the particular procedure, interaction among actors, the necessary data and information, the sequence of activities, feedback mechanisms, the storage of materials and information produced in the particular procedure, and finally the utility of expertise and knowledge generated during the procedure for other activities of the Ministry.

Information management

The fast and precise access to necessary information is *conditio sine qua non* of the proper functioning of the ministry of foreign affairs and other participants in foreign policy.⁵² Information gathering is a traditional diplomatic activity listed in the Vienna Convention of Diplomatic Activities and in most definitions of diplomacy. IT posed the real challenge for this diplomatic function, by making available a vast amount of information through the Internet and other information systems. It is now easy to tap in numerous Internet-available resources through web-sites, discussion groups and other Internet-based services. Internet has made a serious breakthrough in the process of providing information. Activities like media-coverage,

⁵² *Data* are unconnected facts; *information* is data that have been fitted into categories and classification schemes or other patterns; *knowledge* is information that has been further refined into more general statements. See Alvin Toffler, *Powershift: knowledge, wealth and violence at the edge of the 21st century.*, (London: Bantam Books, 1990), p. 18.

especially of printed media, could, nowadays, be easily performed through computer networks even from headquarters. Although IT brought the explosion of a quantity of information, it reinforced the relevance of diplomats 'on the spot' in the following ways:

- There is a need to have proper contextualisation of information; information should be correlated to the particular operational context exercised by the diplomatic service; the most suitable structure for contextualisation of information is the particular diplomatic mission in the country of interest.
- There is still highly relevant information that could be obtained only through the traditional diplomatic information gathering procedures.

Nevertheless, diplomacy will have to involve a greater awareness of the need for information management. The major objective of information management is used to reduce the time difference between the creation of information and its use; with the new technology this problem is overcome, to a large extent, by making information available instantly.

- The critical skill in information management becomes how to manage available information and not how to gather information.
- There is a need to overcome the problem of the 'Information Glut', i.e. the impossibility managing information retrieval.
- The decentralisation of information production and dissemination brought about the problem of reliability of available information.

Information, which is gathered from outside resources, has to be processed and analysed within the Ministry of Foreign Affairs. Besides information from outside resources, decision-making procedures within the Ministry require other inputs from the resources available within the Ministry. This is the permanent process of generating new information. This process requires a proper organised storage and management of the retrieval of information within the Ministry of Foreign Affairs. Information management within the Ministry should be organised in order to enable handling of the following types of information:

- Structured information; this type of information carries a clear logical structure which can be transformed and implemented in IS through databases. Structured information is mainly present in consular activities, in administrative support for diplomatic activities; the

typical applications with structured data are address database, mailing database, library database and so on.⁵³

- Semi-structured information; this type of information consists of a structured part which could be organised in database and a non structured part that requires other management techniques. The typical example of IS with partly structured information is the Database of International Legal Documents.⁵⁴ On the structured side, this database contains a basic description for each document, its bibliographical reference: title, place and date of acceptance, keywords, registration number, list of countries that signed and ratified multilateral documents, etc. On the non-structured side it contains free texts of documents where content cannot be accessed through any structured way.
- Non-structured information; this type of information does not have any consistent structure. It could have only few structured elements such as title, date, source, and so on. Diplomats use a high percentage of non-structured information in their work. It is important to stress that most of the content of non-structured information is not fully accessible through databases and other tools for managing structured tools. The new generation of tools, mostly based on the hypertext technology, could be utilised for the access of non- structured information. Thus solutions that are going to be found for the non-structured data on the Internet could be utilised also within the diplomatic field.

THE INTRODUCTION OF IT BASED TOOLS

A survey of the available IT-based tools that could be utilised in diplomatic activities consist of traditional tools for IS such as office automation tools (word-processors and databases), new tools such as hypertext IS, AI-based applications and Geographic Information Systems and communication tools such as the Internet and e-mail.

⁵³ Address database is a proper example of an application supporting structured data. Each record in an address database contains data with this same structure: name, address, telephone number, fax number, e-mail, etc.

⁵⁴ Database of International Legal Documents was developed in 1994-95 by the Mediterranean Academy of Diplomatic Studies, University of Malta, Malta in cooperation with the Management Systems Unit, Ltd. (Malta) for the needs of the Ministry of Foreign Affairs, Malta.

i/ Office automation

Office automation includes the following applications: word-processors and desktop-publishing, groupware, databases, spreadsheets and presentation packages.⁵⁵

ii/ Word-processors and desktop-publishing

Since diplomacy is a document-centred and text-intensive activity, the use of word-processors is one of the most important instruments of work. Word-processors are a common and widely used application. Besides the basic functions of word-processors the new word-processors introduced lately use advanced features for text management such as: language and linguistic assistance (spell and grammar checking, thesaurus, dictionaries, etc.), desktop-publishing tools (complete preparation of text for offset printing).⁵⁶ Word-processors, being the most common used application by diplomats, should also support group-work and interaction in the process of preparing documents. Groupware applications, integrated with word-processors and other applications, could be one of the crucial tools for the support of diplomatic procedures. Most groupware application systems support group editing, exchange of documents, amendments on documents, preserving history of amendments to the original document, etc. The exchange of documents and information should be facilitated through the communication means.

iii/ Databases and hypertext information systems

Databases are a traditional and major IT-based tool for managing structured data. Most of IS in Ministries of Foreign Affairs rely heavily on databases used in the following areas: archive and registry, legal instruments, libraries and documentation, addresses, protocol matters, consular matters, and, cultural and scientific matters. Databases will continue to have an important position in the organisation of structured data. The major breakthrough should be made towards the integration of databases with other IT-tools for management of non-structured data, such as the Hypertext Information Systems. The Model of computerisation of Ministries of Foreign Affairs indicate a number of areas where the hypertext

⁵⁵ In order to preserve the consistency of our research on this point we will analyse the word-processor only as a key application for diplomatic activity. Spreadsheets applications could be used for accounting purposes. The use of databases was discussed under heading information. Presentation packages could be used for the promotion of country and foreign policy.

⁵⁶ There is a tendency of improving the functionality of word-processors through adding desktop-publishing features. It will lead towards merging of word-processors and desktop-publishing applications in powerful software for handling texts for paper and electronic publishing.

information system could be implemented. It should be mostly in the field of management of partly structured and non-structured data (free text reports, media coverage, texts of conventions, etc.).⁵⁷

iv/ Internet and intranet

Internet, which is usually defined as a network of computer networks, is one of the major technological phenomena of our period. Very similar to the concept of Internet the Intranet is the restricted application of Internet within one organisational structure (institute, company, etc.) for the sake of internal communication.⁵⁸

With the growing importance of World Wide Web (WWW) in recent years Internet is very often identified with WWW. It is important to mention that WWW was developed at CERN in order to facilitate exchange of materials and joint work on materials by researchers at CERN and other institutes. It was developed as a text-management tool. Creators of WWW were inspired by the concept of hypertext which is the very basis of the WWW. This is important for the application of Internet and Intranet in diplomatic activities, since diplomats, similar to researchers at CERN, have to work on joint materials and texts and to manage non-structured information. The hypertext-based functionality of Internet made it very attractive for the internal use within the companies and institutions. It leads towards the creation of Intranet-application.

Internet and Intranet combined with groupware and office automation applications can be the technological basis for the IS that should facilitate the computerisation of diplomatic procedures with an intensive interaction among all actors involved in these procedures.

There is a recent tendency of using Internet by Ministries of Foreign Affairs.⁵⁹ Beside Ministries of Foreign Affairs more than 100 embassies, consulates and permanent missions have some sort web-presence (homepage).⁶⁰ Most of Web-sites have been used for the dissemination of

⁵⁷ For more information about hypertext refer to the 'Definitions' section of this paper.

⁵⁸ Businesses of every kind have found that the Internet's World Wide Web as a great way to get information to customers, partners, or investors. Now, they're finding that using the same technology internally on intranets can dramatically improve communications, unlock hidden information, and transform organisations - 'Here Comes the Intranet, Special Report' - *Business Week*, February (1996), p. 46.

⁵⁹ According to Internet-URL: <http://www3.itu.ch/MISSIONS/Italy/mofa.htm> the following Ministries of Foreign Affairs have web-presence: Argentina, Australia, Austria, Brazil, Canada, Chile, Ecuador, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, India, Ireland, Israel, Italy, Japan, Latvia, Mexico, New Zealand, Norway, Peru, Poland, Singapore, Slovenia, Switzerland, Thailand, Turkey, United Kingdom, United States of America, Vietnam, all in all 33 countries.

⁶⁰ For more information about Embassies available on-line consult <<http://www.embpage.org/>>.

information about the foreign policy of a particular country. The initial phase of the rush to create Web-sites will probably move into the more sober analysis of the approach on how to use WWW for the promotion of the country. There are some contradictions which are related to the way of presenting information on WWW by Ministries of Foreign Affairs and diplomatic missions. Many countries have similar, sometimes contradicting, information on web-sites of Ministries of Foreign Affairs and diplomatic missions. Thus, openness of cyberspace, that is specific to the non-spatial nature of WWW contradicts the necessity to have web sites of diplomatic missions covering all information about countries they represent. While in the spatial world a citizen of particular country should go to particular foreign embassy in order to get specific information about the country represented by the embassy, the user of Internet could go directly to the website of Ministry of Foreign Affairs or any other official web-site of that country. The diplomatic mission should have only the data relevant for its activities and related information for the host country such as information about the function of a mission, the business hour, location, press releases of missions, information about relations between host and sending countries, and information for nationals living in the host country.

v/ Electronic mail

Electronic mail (e-mail) is a new way of exchanging messages through computer networks. The profile of e-mail rose with its development on the Internet. Many Ministries of Foreign Affairs embarked upon using e-mail due to the number of advantages related to the possibility of communicating over long distances (between Ministry and missions) with greater speed and reduced cost. One of the major specific advantages for diplomatic activities is the possibility of having a 'rapid long-distance transfer of text requiring further processing'.⁶¹

Although e-mail offers many advantages there are a number of potential difficulties related to the introduction of e-mail into the working procedures and organisational structures of Ministries of Foreign Affairs. As a matter of fact e-mail is one of the best example of difficulties of introducing IS into the working procedures and organisational structures of not only Ministries of Foreign Affairs but also of other institutions.⁶² Basically, the introduction of e-mail influences interaction within the Ministry with other institutions and individuals, especially with regard to official communication. The introduction of e-mail in Ministries of Foreign Affairs

⁶¹ H. Hendriks and M. Staring, 'Electronic mail: techniques and procedures', I&T Magazine, 3rd Issue (No. 12), Winter 1993, pp. 8.

⁶² *Ibid*, 8-9.

could cover two areas. First, there is internal e-mail that should include communication among officials, among departments, and between the Ministry and its missions. The second areas which is external e-mail provides communication with other Ministries, institutions and individuals both within the country and abroad.

These two types of use of e-mail require different treatments in the view of working procedures, security protection, archiving and registration. For example in use internal e-mail it is important to separate official from private communication, and to create e-mail boxes for departments with clear responsibilities for using e-mail boxes, and so on.⁶³ External mail would require a more formalised procedure for sending e-mail in order to avoid the temptation of user-friendly e-mail interface that could lead towards unintended official commitments. It is also important for external e-mail to have in-built registration and archiving procedures.

vi/ The use of applications based on artificial intelligence

The following applications, based on artificial intelligence (AI), could be mentioned in this group: expert-systems, knowledge-based systems and intelligent agents. All of these applications use AI-based techniques such as the classical rule-based representation of knowledge, case-based reasoning, genetic algorithms, neural networks and frame-based representation.⁶⁴

Expert systems (ES) and knowledge-base systems (KBS) are the latest generation of computer applications in the AI-field. Both applications have the function to capture knowledge and to use that knowledge for solving similar problems in the future. The greater interest for ES and KBS started in the early nineties with the significant improvement of computer power and few significant scientific breakthroughs related to the fuzzy logic and non-linear statistics. It resulted in the creation of applications that produced very good results in areas such as financial planning and optical recognition of text.

Intelligent Agents have recently become one of the most attractive AI-based applications. Intelligent Agents can be rule-based, such as the *Bargain Finder*, or can be based on collaborative filtering; for instance, *Firefly*, can

⁶³ Ibid, pp. 8-9.

⁶⁴ The rule-based representation of knowledge is the application of classical algorithms based on 'if..then' rule in AI. It requires extensive and very complex work in order to convert knowledge into 'if..then' format. Case-based reasoning uses previous experience expressed in the form of cases. Application based on this techniques should find solution based on the previous experience. Genetic algorithms are based on the principles of genetic. Applications based on genetic algorithm should find solution on near-optimal principle. Neural networks simulates human nervous system and brain. Frame-based representation is technique based on creating cluster of descriptions and information about particular object that should be utilised in the retrieval procedure.

perform various tasks such as e-mail filtering, organising meetings, making appointments, etc.⁶⁵ With the massive load of information on WWW, Intelligent Agents could become an extremely useful tool for finding relevant information, sorting mail, etc.

Diplomatic services can benefit to a large extent from the use of AI-based applications. In truth, diplomacy is a knowledge-intensive activity demanding a lot of expertise rigorously used for finding and managing information. One of the major challenges for developers of IS for Ministries of Foreign Affairs will be the development of expert-systems based on knowledge and expertise of diplomats and other specialist involved in diplomatic activities. This development will be crucial for countries with limited human resources and expertise. The Model for Computerisation of Ministries of Foreign Affairs identifies diplomatic activities and procedures that could be supported by AI-based applications. This is primarily the case with consular and protocol affairs which are fields with clear structures, rules and procedures. In activities with less clear procedures and structures such as political analysis and reporting, AI-based applications could be utilised to a certain extent more as consultative tools.

vii/ Geographic Information Systems (GIS)

GIS are powerful tools that integrate geographic information and descriptive data. GIS has become an indispensable tool for managing the vital environmental and social problems such as tropical deforestation, overpopulation, hunger, spread of disease and global climate changes, to name a few. All of these problems require the combination of spatial data (geographic maps) and descriptive information such as on population, economic activities, and environmental data, etc.).

GIS has been recently been introduced to diplomats and foreign policy decision makers. The first major utilisation of GIS and related tools in diplomatic activities happened in the preparation and during the Proximity Talks in Dayton. There GIS was used in order to correlate territorial delimitation with data about the population and economic activities attached to the particular territory. PowerScene, virtual reality GIS, was used in Dayton in order to break stalemates in negotiation. Whenever negotiators had a problem with topography they had a chance to see the particular place from birth perspective at virtual-reality flight over Bosnia. According to the American journal 'Wired' one of the major stumbling blocks during the negotiation in Dayton was the width of the corridor towards Eastern

⁶⁵ BargainFinder is the rule-based intelligent agent for shopping. It is developed at Andersen Consulting' Centre for Strategic Technology Research and it can be visited on: <<http://bf.cstar.ac.com/bf/>>.

Bosnian city of Gorazde. The intriguing dilemma was solved after President Milosevic saw in virtual reality the topography of that area.⁶⁶ This could be a starting point for the further utilisation of GIS in diplomatic activities.

One can envisage GIS as an important tool for supporting diplomatic activities, which can enable permanent real-time data about the developments of the territory of the country diplomat is representing. Technically speaking it is not unrealistic to have diplomats negotiating agreements on the support for developing particular industrial establishments with constant updates from the GIS - particularly with information about available locations for that establishment, environmental regulations for those locations, available work-force, and, transportation facilities. In traditional diplomatic activities in order to get such support it would require long consultations involving many experts and institutions.

SOME IMPLICATIONS OF THE APPLICATION OF IT

Security

Security is one of the most important issues in developing IS for Ministries of Foreign Affairs. Secure and protected communication could be vital for efficient diplomatic activities. At the same time, the traditional image of secretiveness of diplomatic services could overemphasise problems of security. The first question is related to the level of confidentiality of diplomatic activities. For instance the US State Department published a report stating that between July 1973 and 1 February 1993 the level of confidentiality of records at US State Department was the following: 72.8% - unclassified; 10.3% - 'limited official use'; 13.1% - confidential; 3.8% secret and 0.02 top secret.⁶⁷ The other statistics show that there was an even higher percentage of unclassified documents in the activities of Foreign Ministries. Although these quantitative surveys show a lower level of confidentiality of the activities of the diplomatic service than is generally perceived, it should not imply the conclusion that less attention should be paid to its security. A scaleable security system could be adjusted to the level of confidentiality of documents. Should, for example, different levels of protection be enabled through the medium of transport of documents (a separated communication system) or through a different method of ciphering?

The second question is linked to the theoretical fact that the protection of IS is more related to the cipher-protection of documents than to the protection of physical mediums of communication. In other words,

⁶⁶ Virtual War and Peace, *Wired* (March 1996) - p. 51.

⁶⁷ Reinventing Government: Change of State, Department of State publication 10105, September 1993, p. 67.

whichever medium is used for communication, (e.g. from a simple diskette to an advanced proprietary telecommunication system) the quality of protection is related to the efficiency level of ciphering and not to the actual communication medium. Does it mean that Ministries of Foreign Affairs could replace their specialised and secure systems for communication with the Internet as a communication medium? The answer could be positive in a sense that the protection of documents will depend at the end on the quality of cipher-protection. This, however, could expose communication to a wider community of users including skilful hackers.

The third question is related to the fact that the protection of paper-based documentation was easier because of its physical volume. With the introduction of Information Technology more than 1000 pages of text could be stored in electronic form on computer disk. This increases the vulnerability of IS for Ministries of Foreign Affairs.

The fourth question is related to the human factor in providing the security of IS. With IS, the likeliness of having security difficulties due to human error has increased. This problem could be overcome by developing computer programmes that might reduce the possibility of human mistakes, by creating strict procedures for using IS, etc.

Human resource building for IS

The implementation of IS requires organisational change related primarily to the training and acceptance of organisational changes by employees. Given the specific working culture in the Ministry of Foreign Affairs, often governed by extremely conventional approaches, it is highly likely that diplomats would be more hostile to changes connected to the implementation of IT than employees in the business sector. A related problem stems from that information and expertise are the major tools and comparative advantage of diplomats and that, therefore, they are less likely to accept IS based on sharing knowledge and contributing through the use of various technologies to the common repository of information and knowledge. Since the most advanced IT-techniques are based on sharing and on collective work it could present serious obstacles in the process of implementation of IS. Furthermore, the response of the employees of the Ministry of Foreign Affairs to the use of IT would depend on their position in the structure of the Ministry.⁶⁸ The planning and organisation of IS should take into

⁶⁸ In the discussion at the Workshop on IT and International relations, held in Malta in November 1995 the following tendencies with regards to the acceptance of IT by personnel were indicated by the most of participants. For instance the top management, whose support is crucial for the success of IT-projects, could be reluctant to introduce any change in the structure of the Ministry brought about by IT. The middle-management, which carries the day-to-day operational activities, is very often overloaded with work in order to dedicate any time or

consideration the problems of the preparation of human resources for changes. Some Ministries of Foreign Affairs have been innovative in solving the problem of the adjustment of staff to IT. The Ministry of Foreign Affairs of Trinidad and Tobago established a computer room for children of employees of the Ministry, with the assumption that employees would adjust easier to IT with the help of their children. Some other Ministries have introduced special incentives for staff to purchase personal computers.

The use of IT in multilateral organisations

International organisations accommodate many multilateral activities, such as, negotiations, consultations, the drafting of international documents, and so on. Most of them provide permanent forums for diplomatic activities with well developed infrastructures. IT and communication networks have been used in the following multilateral frameworks: OSCE (X.400-network), EU (COREU-telex-network), WEU (WEUCOM-telex-network) and Schengen Information System (SIS).

Multilateral organisations such as the United Nations (UN) have faced many difficulties in recent years with regards to the use of IT. Bennon Sevan, the UN Assistant Secretary-General for Conferences and Support Service, conceded recently that 'the United Nations, due to various reasons, has globally fallen behind in information technology.'⁶⁹ The reasons for this are as follows. The UN entered into the transition process towards using new IT systems and applications in the period of budgetary cuts. The situation was further worsened due to the lack of proper planning for the new development of IS. Unlike in its previous phases UN faced the increased interest of member states for the use of UN advanced IT-services, especially those based on the Internet. Without proper planning, however, and as a result of a reduction in available resources and the increased demand for IT services, the UN faced serious difficulties in running Information Systems. It has, nevertheless, been temporarily undertaking a number of measures in order to contain current damage and difficulties. The United Nations Development Programme (UNDP) has been assisting permanent missions in New York in using the Internet, both in accessing information and in the dissemination of information.

Another area of intensive UNDP activities is in the field of developing a global network for the UN-system. It has already developed the VSAT

energy for additional training and support for the new technology. The administrative and support staff sees, in most cases, IT as a potential danger for their future employment.

⁶⁹ Economic and Social Council, Substantive Session, 36th Meeting, 16th July 1996 (ECOSOC/5670); Source of information: the United Nations Information Centre in Sydney for Australia, New Zealand and the South Pacific.

Network for Eastern Europe and the Newly Independent States.⁷⁰ This network met the telecommunication needs of the UNDP offices in the Eastern European region, CIS and Central Asia. It should also facilitate the communication of other UN Agencies as well as local institutions involved in UNDP Projects.

As far as diplomatic processes in the UN are concerned it is important to stress that the permanent missions of Member States, especially those of developing countries, have been insisting on the higher utilisation of IT within the UN-system. The broader use of IT should help the permanent missions and diplomats of countries with limited resources to participate fully in the activities of the UN. Such a need was stressed during the last meeting of the Economic and Social Council on IT by delegates from developing countries.⁷¹

IT support for international conferences

IT has been intensively used in the organisation of major international conferences. The first in a series of UN-sponsored major conferences with strong IT-support was the United Nations Conference on Environment and Development (UNCED). Computer networks were the official means of communication. The major objective of using computer networks was to help the NGOs' participation in the actual preparation of the Conference. The UNCED Secretariat established a Global Electronic Network (GEN) in order to facilitate the exchange of information among actors involved in the preparation of the conference. The major computer tools were e-mail and electronic conferencing. They were used in order to circulate ideas, and encourage discussion about papers and proposals.

Other initiatives

SIDS/NET is a new program aimed at reducing the isolation of small island states through a program providing full access to global computer networking. The program was initiated during the UN Global Conference on Sustainable Development of Small Island Developing States held in Barbados between the 25th of April and the 6th of May 1994.⁷²

⁷⁰ VSAT Network for Eastern Europe and the Newly Independent States, United Nations Development Programme, Division of Management Information Services, March 1993.

⁷¹ *ibid.*

⁷² Biliana Cicin-Sain, 'Earth Summit Implementation: progress since Rio', *Marine Policy*, Vol.20, No. 2. pp.129; 1996.

CONCLUSIONS

A global paradigm shift, based on IT, is emerging and affecting attitudes and values world-wide. It has created new structures of political, social and economic relations. International relations and diplomacy are not excluded from this general tendency. The traditional functions of diplomacy are being challenged in a number of ways. Diplomacy is and will continue to be affected by the increasing capabilities of individuals and organisations to communicate with the outside world and with the changing stratification of economic and political power within society caused by the development of IT. The growing importance of IT has already started bringing new economic and social groups into the foreign-policy decision-making process. There has been an obvious influence of the software industry in the United States, for example, on aspects of foreign policy, such as the protection of intellectual property.

IT is also influencing the role of diplomacy as a mechanism for maintaining relations among states. With the growing impact of IT and the spread of global networks in all areas of human activity inter-state relations are no longer the key component of international relations. Indeed, informal or business-related international links are swift in taking the lead among cross-border relations. Moreover, it is often difficult to make a distinction between official and unofficial international relations and this, perhaps, further complicates the role of diplomats in such a new environment. One result of these trends forwards evidence of a decline in the importance of diplomacy as the key medium for inter-state communication.

IT has also facilitated a tremendous increase in the cross-border flow of information and in the production of data and information. Ministries of Foreign Affairs and diplomatic services, even if well-equipped in terms of an IT infrastructure, cannot now nor ever will cope with the sheer volume of information flows. Thus the Ministry of Foreign Affairs should not so much aim to *control* as much as strive to *co-ordinate* inter-state relations.

The development of IT has brought the profound alteration of the concept of sovereignty and state as a major political actor in the current world system. The diminishing importance of the concept of sovereignty will force diplomacy to adapt properly in order to remain the main representative of the foreign aspect of the sovereignty of states. At the same time the lower importance of sovereignty will bring a set of new political and social entities which will have to develop representing and negotiating capabilities towards the other entities, including states. The development of these new entities will bring new challenges to diplomacy.

Finally, IT has altered the position of diplomacy in international relations as a result of changes in the concept of power related to a new geo-politics based on the higher importance of IT and the lower importance of territoriality. Diplomats will also have to manage new paradoxes in the international arena such as simultaneous processes of globalisation and fragmentation.

One of the major issues brought out in the second section of this paper has been the need the development of a regulatory framework for the Internet. This regulatory framework should provide rules and guidance for a number of international legal issues raised by the development of the Internet. While the discussions on the regulation of the Internet usually focus on controlling its content, our understanding of the regulatory framework must be related to broader issues such as the legal status of the Internet, the protection of copyright, international responsibilities for using the Internet, etc. Although a few applicable concepts for regulation were hinted at the focus here was on the development of a new diplomatic framework that should tackle these issues. Current processes within the international community were analysed that could develop into forums for the regulation of Internet-related issues.

The introduction of IT within the Ministries of Foreign Affairs has involved no major change yet in working procedures. Working procedures and organisational structures must be adjusted by Foreign Ministries in the future to accommodate the specific needs of IT. The forthcoming period should see a levelling of the organisational structure, the introduction of business-based procedures and working methods, and changes in the relation between the Ministry of Foreign Affairs and diplomatic missions. Parallel to the developments in the Ministries of Foreign Affairs, IT has become a valuable tool in the framework of the international organisations and international conferences. IT played an important role in the preparation of major international conferences as well as in the work of the UN and other international organisations. Some first signs of the use of IT in diplomatic activity were visible in the Dayton Proximity Talks, where modern multimedia systems were used successfully in order to convince negotiating parties to accept certain negotiating options. The wider use of IT within Ministries of Foreign Affairs on the one side, and within international organisations and international negotiation forums on the other, should produce in the near future a new IT-influenced diplomatic interaction symbolised by the exchange of communication through dedicated e-mail. This should be followed by integrated conferencing systems and other advanced tools that could replace some traditional forms of diplomatic

activity. These developments will require a re-engineering of diplomatic practice of the kind that has been used widely within the business community. IT will also bring change in diplomatic activities through the development of an information-rich environment. Individuals and governments behave differently in information-rich environments than poor ones and it is likely that this will reduce the mistrust and misperception which exacerbate international conflict and provide more ground for inter-state co-operation.

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