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The Global Information Infrastructure (GII) and the G-7 Meeting in Brussels: Issues for Congress

Glenn J. McLoughlin
and
Marcia S. Smith
Science Policy Research Division

SUMMARY

The Global Information Infrastructure (GII), as proposed by Vice President Al Gore in February 1995, is a global expansion of the National Information Infrastructure (NII) and is based on the same five principles: encouraging private investment; promoting competition; providing open access; creating a flexible regulatory environment; and ensuring universal service. The February 25-26, 1995, G-7 meeting in Brussels, Belgium, provided an international forum for discussion of these issues. This led to adoption of modified versions of the five U.S. principles and addition of three more. The G-7 also established 11 GII pilot projects that will be discussed in greater detail at the G-7 meeting in Halifax, Nova Scotia, in June 1995. The 104th Congress will likely address issues related to the GII concept in the context of debates over universal service, open access, intellectual property rights, and export controls.

GLOBAL INFORMATION INFRASTRUCTURE (GII)

In March 1994, Vice President Gore gave a speech in Buenos Aires, Argentina calling for the establishment of a global network of networks -- a Global Information Infrastructure (GII) -- as a global expansion of the National Information Infrastructure (NII).[1] He stated that three major developments could arise from creation of a GII: its applications could result in greater democracy worldwide; it may act as a key for economic growth and increased global trade among all nations; and it could become an important element of sustainable growth for lesser developed and developing nations.

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[1] The Vice President announced plans for the NII in a September 1993 report, The National Information Infrastructure: Agenda for Action. The report called for development of a "seamless web of communications" that includes capabilities and applications enabled by technological advances. The NII and the "Information Superhighway" are usually referred to synonymously. For a discussion of the NII and the Buenos Aires GII speech, see: U.S. Library of Congress. Congressional Research Service. The Information Superhighway: Status and Issues. CRS Rept. 94-471, by Marcia S. Smith. 24 p.



The Vice President recommended that the five major NII principles also be the guidelines for establishing the GII (although implementing them in an international, rather than national, context is likely to be quite different). These principles, and the Administration's recommendations for achieving them, were addressed in *The Global Information Infrastructure: Agenda for Cooperation*,[2] a February report of the Information Infrastructure Task Force (IITF, a White House group chaired by Secretary of Commerce Ron Brown). The principles include several assertions.

Encouraging Private Investment. Industry, not national governments, will build a global infrastructure in which far-reaching communities can share information. Nations have found a variety of ways to encourage investment, from privatization of telecommunications services to government-industry joint ventures for fostering technology development. The report encourages development of individual national strategies to meet this goal.

Promoting Competition. The GII will be developed through competition. When governments create national telecommunications monopolies and limit foreign competition, technologies and services may be inhibited and delayed. The report recommends that competition for technology development and services, liberalization of markets, removal of foreign barriers among nations, and multilateral agreements on telecommunications technologies and services should be sought by all nations.

Providing Open Access. A goal of the GII is to ensure that all information service providers have access to facilities, networks, and network services on a nondiscriminatory and low-cost basis. The ability to connect applications, services and networks -- interoperability -- is fundamental to achieve open access. The report recommends that compliance with international standards which are voluntary and market-driven become an important priority for all nations' telecommunications regimes.

Creating a Flexible Regulatory Environment. Each nation may face a unique telecommunications regulatory framework. However, a flexible regulatory environment should encourage permissible competition, not discriminate in favor of incumbents in the market, and should create transparency for new market entrants. The report recommends that nations adopt these goals to establish a common global regulatory framework.

Ensuring Universal Service. The report states that universal service is vital for creation of the GII, but that the definition varies from country to country. Variables such as cost, level of existing infrastructure, technological capabilities of national networks, and maintenance and service, among others, differ from country to country. In developing countries, universal service may mean basic telephone technology and service, while in developed countries universal service may now include a wide range of digital telecommunications

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[2] Office of the Vice President. Global Information Infrastructure: Agenda for Cooperation. Washington, U.S. Govt. Print. Off. Feb. 1995. 49 p.

and information technologies and services. The IITF contends that as technologies and services evolve, nations should seek to ensure that all citizens have equal availability to the benefits of these advances.

The report also recommends that, as the GII develops, Government and industry leaders form broad global agreement on policy and content issues of privacy, security, protection, and applications. The IITF recommends that implementation of these and other GII issues may occur through coordinated national, multilateral and global organizations and agreements.

THE G-7 MEETING, FEBRUARY 1995

The release of the GII report was in preparation for the Group of 7 (G-7) meeting on telecommunications policy in Brussels, Belgium, from February 25-26, 1995. Officials from the G-7 industrial nations met to discuss global telecommunications issues, as well as participate in a concurrent telecommunications conference with industry leaders. Vice President Gore, in the keynote speech, challenged the European Union (EU) to speed its process of liberalizing telecommunications markets before 1998. He also stated that further liberalization of the U.S. telecommunications market to permit more foreign competition likely will be linked to efforts by other nations to reciprocate. Some European participants seemed to welcome this proposal, since it may result in a greater foreign presence in the U.S. telecommunications market. Others, however, state that this bilateral, reciprocal policy may also encourage anticompetitive and protectionist measures by nations. They prefer addressing these issues on a multilateral basis through fora such as the World Trade Organization.

Representatives from over 140 businesses, government organizations, and academia took part in the meeting. It produced an agreement that, among other things, adopted modified versions of the five U.S. GII principles (for example, promoting "*dynamic* competition" instead of simply "competition"), and added three more: promoting equality of opportunity to citizens; promoting diversity of content, including cultural and linguistic diversity; and recognizing the need for worldwide cooperation with particular attention to less developed countries.[3] The meeting also identified 11 pilot projects ranging from creating global healthcare applications to developing digitized libraries for global public access. They will be discussed further at the G-7 meeting in June 1995 (Halifax).

Generally, U.S. industry has responded favorably to the outcome of the G-7 meeting. Prior to the meeting, the U.S. Information Technology Industry (ITI) Council, in conjunction with its European and Japanese counterparts, issued a

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[3] Documents Resulting From the G-7 Ministerial Conference on the Information Society, issued Feb. 26, 1995. Chair's Conclusions. In: Bureau of National Affairs, Daily Report for Executives, 2-28-95. p. M-4.

report outlining computer and telecommunications industry recommendations.[4] After the meeting, ITI representatives commented that U.S. officials at Brussels were effective in advancing the GII and opening the dialogue between nations for further liberalization of global telecommunications markets.[5] Many observers view the proposal made by Vice President Gore for the reciprocal liberalizing of telecommunications markets, and its warm reception by other G-7 nations, as a landmark breakthrough in global telecommunications policy.[6]

Still, there are concerns by the ITI and others that some issues raised at the G-7 meeting were too broad and abstract. For example, one European observer has commented: who might oppose "dynamic competition," or support its opposite notion of "static competition?"[7] Unless such concepts are more concretely addressed, many are concerned that any understanding arising from the Brussels meeting will lose momentum. At the June 1995 G-7 meeting, participants will attempt to define these concepts more precisely.

POLICY ISSUES AND THE 104th CONGRESS

Many laud the goals and objectives of the U.S. GII report and the U.S. position at the G-7 meeting in Brussels. In one respect, U.S. efforts to implement NII policies may presage the same issues policymakers will face establishing a GII. However, differing national policies, priorities, regulations and industry structures may make implementing the GII's goals difficult. In this respect, the GII differs from the NII. For the NII, U.S. policymakers must implement five principles within a national regulatory and legal policy framework. For the GII, the challenge is compounded as policymakers decide how its tenets -- and perhaps which ones -- are applicable in a global environment. The G-7 recommendations also face issues of implementation.

Defining Universal Service. In an age in which telecommunications technologies and applications are rapidly evolving, how will universal service be defined in a global context? The U.S. GII report calls for guaranteeing universal service in all nations, but also acknowledges that differences in what may be defined as universal service from nation to nation is great. The G-7 agreed that "Universal service is an essential pillar" in the development of policies to avoid

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[4] The European Association of Manufacturers of Business Machines and Information Technology Industry (EUROBIT) and Japan Electronic Industry Development Association (JEIDA) joined the ITI for this report, Global Information Infrastructure (GII): Industry Recommendations to the G-7 Meeting in Brussels February 25/26, 1995.

[5] ITI Congressional Staff Briefing on the GII and G-7 Meeting, March 3, 1995, Washington, D.C.

[6] 'Sea Change' in Europe; U.S. Sees Benefits on Hill from G-7 Pact on Information Services. Communications Daily, v. 15, no. 39, Feb. 28, 1995. p. 1.

[7] Gonzalez, Juan Carlos. A Very General Set of Ideas Concerning "Information Highways." El Pais (Madrid), Feb. 27, 1995, p. 26. Translated in: Foreign Broadcast Information Service. FBIS-WEU-95-039, Feb. 28, 1995. p. 1.

the emergence of two classes of citizens. The U.S. Senate is currently considering legislation to deregulate the U.S. telecommunications market (S. 652)[8] and is addressing the concept of universal service in the United States. Concepts like universal service would benefit from a common definition among all nations, but it is unclear what effect U.S. actions would have on other countries' attempts to define such terms.

Providing Users' Access to Telecommunications Services. Many agree that open access to global telecommunications networks will be a key principle if the GII is to ensure that the world does not develop into telecommunications "haves" and "have nots." If universal service ensures that telecommunications technologies and services are provided competitively, then open access ensures that all users can gain entry into the global telecommunications networks. Yet as Canadian Industry Minister John Manley stated at Brussels, "half of the planet has no access to even a telephone."[9] Officials from the G-7 and other developed nations express concern that many undeveloped and lesser developed nations do not have the diversity of services and applications to ensure the goal of open access. In these nations, access to basic telephone service is a goal, not a reality. But is there a role for the United States and the G-7 to create policies and promote, through development programs, global open access -- and if so, what should be those policies?

Some contend that harmonizing telecommunications standards will be the key for creating new market opportunities. Governments sometimes use the standards as a non-tariff trade barrier.[10] When a nation's electrical or mechanical standards are incompatible with those which are accepted globally, foreign firms are effectively prevented from doing business in that country unless they conform to the national standards. Congress generally has had an interest in promoting fairness and openness in the standards-making process (even though the legislative branch does not directly set standards policy).[11] Many U.S. firms are world leaders in computer software, semiconductor technology, digital and communications transmission and their presence establishes electronic, manufacturing and broadcast standards in global markets. It is likely that Federal policymakers may continue to seek guidance from U.S. firms, which ultimately will set interoperable telecommunications standards.

Protecting Intellectual Property Rights (IPR). The G-7 meeting opened discussion between governments on how to best protect patent, copyright

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[8] U.S. Library of Congress. Congressional Research Service. Telecommunications Regulatory Reform, by Angele Gilroy. CRS Issue Brief 95067. 15 p. Regularly updated.

[9] Gonzalez, op. cit.

[10] Daniels, John D. and Lee H. Radebaugh. International Business: Environments and Operations. Sixth Edition. Reading: Addison-Wesley Company, 1992. p. 184.

[11] U.S. Congress. Office of Technology Assessment. Global Standards: Building Blocks for the Future. Washington, Govt. Print. Off., 1992. p. 53.

and trademark rights in the information age. However, there is still little consensus on how to rigorously protect and enforce IPR protection, beyond encouraging it in the GII framework. Protection of the works of authors, musicians, researchers and others is critical if creative and innovative ideas are to be exchanged in the GII. Neither advances in information technology security (e.g., encryption) nor legal remedies (e.g., the World Intellectual Property Organization), to date have proven to be adequate safeguards. Critics contend that since global networks increasingly include voice, music, data, images, and multimedia applications, more is needed from policymakers than just international recognition of IPR issues.

For businesses, not only is protection against global piracy and theft of tangible data, goods and services important, but it is paramount that companies' intangible ideas and concepts -- the source of inventiveness and innovation behind product development and commercialization -- also are protected. U.S. policymakers may seek to develop more concrete remedies to ensure that protection and enforcement of private sector and proprietary IPR are guaranteed. A draft U.S. IPR position was released by the IITF in July 1994; a final version is expected soon. The ITI recommends strong IPR measures against nations and companies which transgress international agreements.

Reviewing Export Control Policy. Most experts believe that export control policy, development of the GII strategy, and implementation of the G-7 goals and objectives, all are linked. In the 104th Congress, reauthorization of the Export Administration Act of 1979 (EAA, P.L. 96-72) may become part of a significant policy debate on national security and export policies.[12] In the post-Cold War era, policies controlling exports of civilian goods, services, and technologies are being reexamined, as is the rationale for export security controls. Exports of U.S. information and telecommunications goods, services, and technologies are a part of this policy debate.

Current U.S. export control policy debate focuses on "dual use" exports -- goods, technologies, and services which have both commercial as well as potential military applications. These include many in the information and telecommunications sector. But some in business contend that restricting U.S. exports because of potential military application unnecessarily chokes off American commerce. They claim that current U.S. policy establishes conditions in which foreign competitors (without the same restrictions) have no U.S. competition internationally. The Federal Government is concerned about loosening export controls, however, and may take legal action against an individual who allegedly violated U.S. export policy by making software with embedded cryptography available internationally (over Internet, a computer "network of networks"). Policymakers in the 104th Congress will likely need to balance any support of either the GII or G-7 objectives with concerns that exporting important technologies, including information and telecommunications technologies, may assist countries seen as unfriendly by the United States.

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[12] U.S. Library of Congress. Congressional Research Service. Export Controls: Background and Issues. CRS Rept. 94-30, by Glennon J. Harrison. Washington, Jan. 12, 1994. 19 p.