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# Information Society as a Global Policy Agenda

## What Does It Tell Us About the Age of Globalization?

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### Abstract

The issue of information society commands worldwide attention: diverse constituencies work at closing the gaps in access to and in use of digital technology. Why are such efforts directed specifically at the issue of the information society? In this article I argue that the redirection of world society's attention towards this issue is related to the correspondence between the dimensions of globalization and those of the field of information and communications technologies. Specifically, I highlight five such shared dimensions: economic transactions, political relations, globality, networks, and world norms. In this way, the theme of information society was quickly defined as a global social problem because it corresponds to the themes of the era of globalization. I also argue that while various realist theories of globalization focus solely on the dimensions of economic and political transactions, world society theory expands on these by highlighting the cultural and institutional dimensions of globalization.

**Key words:** global digital divide • globalization • information society • world society

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We reaffirm our commitment to turning the digital divide into digital opportunity, and we commit to ensuring harmonious and equitable development for all.

(World Summit on Information Society 2005 Declaration, Tunis Agenda for the Information Society, Section 49)

Starting with the 1992 United Nations Conference in Rio that came to be known as 'Earth Summit,' the United Nations has organized numerous world summits, as a way to identify urgent global social problems and concentrate international efforts towards the solution of such problems. Following the Copenhagen 1995 World Summit for Social Development and the Johannesburg 2002 World Summit on Sustainable Development, the UN diverted its efforts towards the global problem of the digital divide. The dual world summits held in 2003 in Geneva and in 2005 in Tunis focused specifically on the goal of establishing a global information society and hence were titled the World Summit on Information Society (WSIS).

Why has the world's attention turned towards technology and specifically towards information and communications technology (ICT)? Why has the goal of information society come to be listed among of most urgent global social problems?

In this article I describe this reframing of development as intertwined with the vision of information society and thus dependent on advanced technological means for its achievement. I argue that this reframing of the development vision reflects the core features of the age of globalization. The tight correspondence between the core features of globalization – namely, as an age of globalized practices and images, networked social contacts, and glorification of technology-driven progress and of aspirations for equity – has worked to propel the issue of information society to the pinnacle of global policy efforts. The information society agenda is, therefore, a reflection and an outcome of these specific features of globalization. In this article, world efforts on information society serve as a prism, or a mirror, to consider and reflect the characteristics of globalization. Following world society theory (Meyer et al., 1987, 1997), I maintain that such characteristics extend over and above the concrete economic and political dimensions and that information society is particularly driven by the nature of world society at this era of globalization, in which it is immersed.

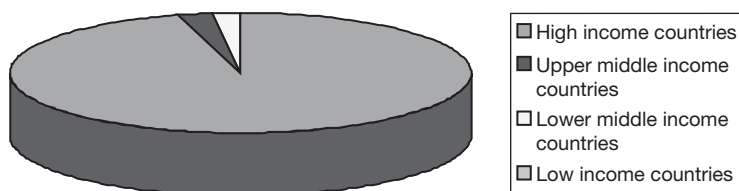
To outline this claim I start with a review of the global digital divide, highlighting its hastened definition as an urgent and a global social problem and describing global policy efforts that exemplify the place of this issue among the most acute global concerns. I then map the global ICT field onto the core features of globalization. I conclude with some general comments on the study of globalization: how globalization can be analyzed through the study of the issues it highlights in policy and through the targets it sets for global social action.

### THE GLOBAL PROBLEM OF THE DIGITAL DIVIDE

Today's world is divided not by ideology but by technology.  
(Jeffrey Sachs, essay in *The Economist*, June 2000)

Many highlight the drama of global inequalities. Arguing against the claim that 'the world is flat' and rapidly converging towards a common form (Friedman, 2005), many demonstrate that even in the age of rapid globalization and of intensifying global exchanges the distribution of most world resources is highly skewed. With the advent of the age of high technology and the related emphases on highly skilled labor and the culture of innovation, inequalities within the global knowledge economy have also become clear. A decade after the high-tech boom and several years into world initiatives to bring such high-tech to people worldwide, we still observe dramatic unevenness in the distribution of various high technologies. From the standpoints of most countries and most people, the global digital divide still looks more like a digital abyss (*Foreign Policy*, 2001).

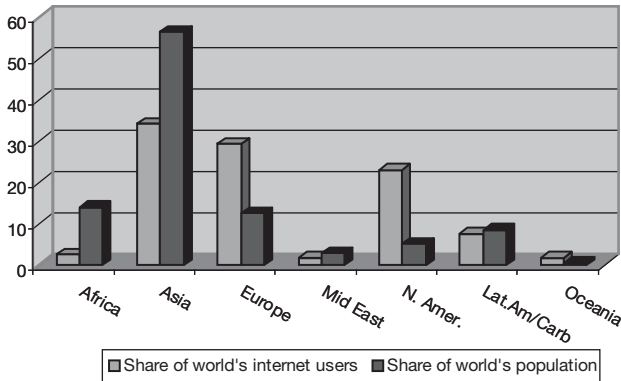
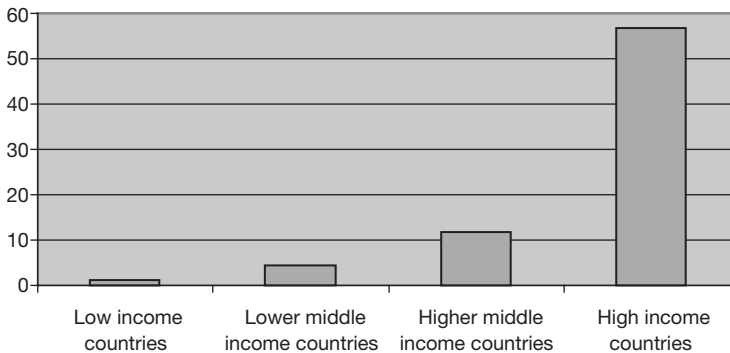
High-tech capacity is still concentrated in a few societies. Figure 1 shows the drama of such inequality: in 2004 the lion share (some 96%) of all Internet hosts

**Figure 1** Total number of Internet hosts, 2004

was concentrated in a few developed nations. At the end of 2005, the United States alone held 22 percent of all broadband Internet users, 29 percent of the world's personal computers (PCs), and 74 percent (!) of the world's Internet hosts (ITU, 2006). And, the top-15 countries in broadband Internet use – all of which with the exception of Brazil, Taiwan and China are OECD members – held over 86 percent of the global market of 212 million users (Computer Industry Almanac, 2005). This bias of the global distribution towards the western (North American and Western European) and developed countries (adding Japan, S. Korea, New Zealand and Australia to this group) is also clearly demonstrated in the discrepancy between the size of the population and the size of the Internet-using population (Figure 2). The share of the developed countries (here, North American and Western European countries) in the world's Internet population is strikingly disproportional to their share in the world's population in general.

This dimension of biased ICT penetration is also evident in the comparison with market size: the richer the country, the more extensive is the penetration of ICT to local markets. As presented in Figure 3, the number of PCs per capita is much greater in high-income countries than in low-income countries: in 2004, the numbers stretched from 1 per 100 people in low-income countries to 57 per 100 people in high-income countries. Countries that hold the biggest share of the global high-tech market are not necessarily those who rank highest on the distribution of such capacity since countries differ greatly in the penetration of ICT to their populations, again privileging developed countries over developing countries. For example, while the US ranks #1 in total broadband Internet users, it ranks only #15 in ratio per capita; toping the per-capita rates of Internet broadband users is South Korea, followed by the Netherlands, Hong Kong, and Scandinavian countries. Adding layers of technological and social marginality to these wealth and nationality factors, access to and use of ICT is also differentiated by gender, race and ethnicity, language, education and other social status markers (see Drori, 2005b).

Global digital inequalities, while related to immersion in the consolidating world society, highlight particular dimensions of global inequalities. Table 1, comparing inequality in global immersion (column 1) with three scales of the global digital divide, reveals that countries differ greatly in their digital capacity

**Figure 2** Uneven share, 2005**Figure 3** PCs per 100 inhabitants, 2004

and in digital emphasis. The group of top-10 most globalized countries (column 1) signals global integration on technological, political, economic and social dimensions. The group of top-10 countries with greatest population of Internet users (column 2) signals size of market and is thus influenced heavily by population size. The group of top-10 countries with highest number of Internet hosts (column 3) signals Internet capacity and infrastructure. And the group of top-10 countries on ITU's Digital Access Index (column 4) signals penetration digital technology to local population, thus adjusting capacity by size of country. The list of countries per category differs: some underscore overall capacity (column 2 in particular) while others emphasize accessibility (column 4 in particular). Still, all these scales of globalization – as a general process or as three different dimensions of the digital divide – highlight only a few developed nations, leaving behind most nations and most of humanity as 'digital laggards.'

**Table 1** Top-10 countries: comparing globalizers with high-tech leaders

Top-10 most globalized countries, 2005 <sup>a</sup>	Top-10 countries with highest numbers of internet users, 2005 <sup>b</sup>	Top-10 countries with highest numbers of internet hosts, 2003 <sup>c</sup>	Top-10 countries on digital access index, 2003 <sup>d</sup>
Singapore	United States	United States	Sweden
Ireland	China	Japan	Denmark
Switzerland	Japan	Netherlands	Iceland
United States	Germany	United Kingdom	S. Korea
Netherlands	India	Canada	Norway
Canada	United Kingdom	Brazil	Netherlands
Denmark	S. Korea	Australia	Hong Kong, China
Sweden	Italy	Germany	Finland
Austria	France	France	Taiwan
Finland	Brazil	Italy	Canada

<sup>a</sup>Source: *Foreign Policy* (2005).

<sup>b</sup>Source: ITU (2006).

<sup>c</sup>Source: CIA (2006).

<sup>d</sup>Source: ITU (2003).

This painful inequality – between and within countries – has come at the time of dramatic globalization of high-tech. Indeed, the expansion of high-tech worldwide has been extraordinary: as soon as a technology is available for mass consumption, its rate of diffusion worldwide had been close to exponential. ‘Moore’s law,’ expecting processing power of computer technology to double every 18 months, and ‘Gilder’s law,’ expecting transfer capacity of this technology to double every six months, have codified the extraordinary pace of growth in the IT sector (see Drori, 2005b). This pace of growth is reflected on almost every dimensions or indicator of ICT. For example, the worldwide number of Internet broadband subscribers surpassed 215 million in 2005, up from less than five million in 1999 and still only 67 million in 2002 (Computer Industry Almanac, 2005). Similar rates are documented in regards to the numbers of Internet users, personal computers, and cellular phones. In addition to China, Eastern European and Latin American countries have showed the most dramatic rates of penetration of high-tech, celebrating two to six percent growth rates *monthly* on some high-tech measures. And, the rates of growth are particularly concentrated in specific semi-peripheral countries in these regions: those countries that have quickly transitioned into democracy in the early 1990s (particularly Hungary, the Czech Republic and Poland), those that are labeled emerging markets (particularly Turkey, Mexico, Brazil and South Africa), and especially the few countries that rode the high-tech economy to be labeled ‘high-tech tigers’ (Israel, Ireland and India). In these countries in particular, the globalization of the technology translated also to their integration into the global knowledge economy and reflected their status as globalized countries in general. Indeed, there is a clear and strong correspondence between technological and other social dimensions of globalization (*Foreign Policy*, 2001, 2002, 2003, 2005, 2006). In this era of dramatic expansion and diffusion of high-tech capacity and

of its reaches, the harsh reality that so many of the world's citizens have not been touched by the e-revolution and are being left behind has turned into a lever for concerted policy efforts.

### ICT AS A GLOBAL POLICY CONCERN

Here in the Tunis phase of the Summit, we will be closing one chapter – on the development of a common vision of the Information Society – and we will be opening a new and much bigger chapter – on the implementation of that vision. (Speech by Mr Yoshio Utsumi, Secretary-General of the International Telecommunication Union, given at the opening ceremonies of WSIS 2005)

The path between a realization of a social problem and global action to resolve it is long. While UN efforts to confront the global problem of the digital divide peaked with the two-stage WSIS, hosted in 2003 in Geneva and in 2005 in Tunis, the seeds for such action were sown as early as 1998. On that year, Tunis placed this issue as an agenda item before the Plenipotentiary Conference of the International Telecommunications Union (ITU). ITU, after adopting Resolution 73 (Minneapolis 1998), campaigned to pass UN General Assembly Resolution 56/183 (December 2001), which declared information society as an urgent global matter. This 2001 UNGA resolution also invited ITU to assume the leading managerial role in the executive secretariat of the WSIS and its preparatory process. With these formal declarations (and many more plenary sessions and preparatory workshops) the UN and its member organizations took the lead role in addressing the global problem of the digital divide.

These formal declarative steps and the peak events were not the first time that the UN, being the prime international nexus for policymaking, had addressed matters of technology or information. Rather, the UN first addressed the role of information in international affairs in 1948, by convening of the UN Conference on the Freedom of Information. At the time, information was regarded as a prerequisite to political stability and its role related to liberties and to the functions of the news media, rather than a tool for development and prosperity per se. And still in spite of the important 1970s discussions on the prime role of information in post-industrial society and extensive policy debated surrounding the so-called 'new international information order,' the UN did not come back to consider this matter and its impact on development before the late 1990s.

The current UN agenda is substantively different than such earlier references to information would suggest. The UN policy on ICT diffusion that started making headway in 1998 and peaked in the 2003 and 2005 WSIS is intertwined with the UN's initiative towards development, encoded in the Millennium Development Goals (MDGs). The last in this list of eight goals lists ICT as an important component of this global and comprehensive effort 'to meet the needs of the world's poorest' by 2015. It states: 'In cooperation with the private sector, [we aim to] make available the benefits of new technologies – especially information and communications technologies.' Infused with the themes of other MDGs,

which call for empowerment of women and children and for equitable access to social services like education and healthcare, ICT came to be declared a means for development – personal and national – and a platform for equitable engagement in the intensely globalizing knowledge society.

These various policy steps reflect, and try to consolidate further, an image of an emerging global social problem: these UN summits and other UN-led policy initiatives on the digital divide agenda are expressions of collective concern (see Boli and Lechner, 2005). Through these concerted policy directives, we came to regard the global digital divide as diagnosed social pathology. In addition to documenting the clear inequalities in access and use of ICT worldwide (hence, symptoms), this policy agenda also scientized (or ‘medicalized’) the condition and defined it as a social crisis, an ailment to be remedied.<sup>1</sup> I argue that this imagery of global ICT inequalities as a global social problem is related to the features of the age of globalization, which are magnified through the prism of ICT. The following section deconstructs globalization, to evaluate the role of ICT and of the emerging problem of the global digital divide in the era of globalization.

### GLOBALIZATION, THROUGH THE PRISM OF THE GLOBAL DIGITAL DIVIDE

By *technoscape*, I mean the global configuration, ever fluid, of technology and the fact that technology, both high and low, both mechanical and informational, now moves at high speeds across various kinds of previously impervious boundaries ...  
(Appadurai, 1990: 297)

The popularity of the term ‘globalization,’ particularly since the mid-1980s (Guillén, 2001), confounds the debates about the meaning of the term. In spite of such competing and complex definitions, there is a general agreement that globalization involves the intensification of social exchanges of various sorts on a global scale. To this definition, I add the component of the constitution of the global: a part, as well as an outcome, of intensifying global exchanges there is a construction, or institutionalization, of the world as the social horizon (see Drori, forthcoming). The globe has become the relevant ‘imagined community,’ in Benedict Anderson’s terminology, and more social processes are conceived as worldwide (Hwang, 2006). As a result, more social policy is also crafted internationally or transnationally and more social action diffuse or extend worldwide. This definition of globalization as a dual process – of intensifying social exchanges, coupled with rise of the global – parallels another dichotomy in the definition of globalization: globalization as international process of diffusion and influence (described as ‘transference’ and ‘transformation’; Bartelson, 2000), as well as a transnational process of consolidation and institutionalization (or ‘transcendence’; Bartelson, 2000). Both dimensions help to frame the issue of information society as an urgent global social problem and a global call for action.

In this section I combine this analytic definition of globalization with a description of the globalization of ICT and the global digital divide. I therefore



introduce two competing emphases in the definition of globalization: as focusing on intensifying global exchanges and as focusing on the cultural meanings of such intensification in the constitution of the global and reinterpretation of world society. I also explain each of these approaches to globalization in terms of the processes, events, and meanings that are evident in the field of high-tech and digital divide.

### **Globalization, as Transactions**

Following the realist line of thought, globalization is defined as a set of concrete exchanges among partners, concentrating obviously on those transactions that cover the globe (e.g. Keohane and Nye, 2000). Such transactions describe 'globalization at work' as a set of intensifying exchanges in multiple domains and sectors: diplomacy and policymaking, but predominantly in terms of and production, trade, labor, and consumption.

#### *1) The Global e-Economy*

The globalization of the high-tech sector signals the creation of a post-industrial informational economy, one that has global reach. The components of such a post-industrial global economy include a restructuring of economic sectors (move away from both agriculture and industry to the service sector being the dominant economic sector), redirection of industrial focus (move away from labor-intensive industrial manufacturing to knowledge- and technology-rich industries), and a related change in professional and human capital capacity (move towards credentialed professions, requiring high education and skills). This 'post-Fordist' transition is reflected in the creation of a global high-tech sector, or global e-economy. Marked by such corporate milestones as the 1976 founding of Apple and of Microsoft and the 1994 launch of the Internet browser Netscape, a global industrial sector was formed around IT (information technology). Riding the exuberance of the late 1990s, which was indicated by the rapid formation of start-up companies and flows of venture capital that added to some the older and bigger corporate backbone of such companies as IBM, Sun and Intel in addition to the above-mentioned, a 'new economy' or 'e-economy' was established rapidly (see Kogut, 2003). That e-economy rapidly overflowed Silicon Valley and Route 128 to become a globally networked sector, with multiple technology hubs or 'venture capitals' worldwide (Hillner, 2000).

Paralleling such changes in economic structure since the 1980s, globalization pressures pushed countries towards liberalization of national economies. With that came the privatization of telecommunication markets in many countries (Henisz et al., 2005; Levi-Faur, 2003), which opened such markets to penetration of global IT companies and products. Greater foreign direct investment, mostly from private and corporate sources, meant the creation of start-ups and venture capital companies and had a direct and immediate impact on the local IT sector.

Such forms of investment and companies, which were new and innovative forms in the corporate and financial worlds, were fueled by the mobility of money. Also mobile in this era were the workers in the global IT sector (see Altbach and Bassett, 2004; Iredale, 1999). The migration of IT workers created ethnic enclaves in IT hubs and strengthened the spatial aloofness of such global cities from their national/local environment, while also fueling 'brain circulation' and the creation of IT hubs in previously peripheral countries such as Taiwan and India (Saxenian, 2002). This fluidity of labor added to the tech- and media-based condensation of space and time (see Sassen, 1996) and to the constitution of a global technoscape (see Appadurai, 1990, 1996): one could work in an IT company from almost anywhere across the world. But in spite of this global dispersion of production tasks, the global production line and the global division of labor were kept as unitary processes through technological means: technology allowed for the dispersion of production tasks but also linked distant locals into a production line. Most importantly, these economic (corporate, financial, labor) changes altered the base for industry: from national to multinational or transnational.

This industrial change led to an explosion of production of high-tech gadgets, a dramatic and continuous reduction of costs (for purchase of e-economy's goods and service), and thus an expansion of the circle of users. As described in detail above, the rates of growth in ICT – of various specific technologies, of various audiences – has grown exponentially soon after the introduction of such ICTs. This intense production, coupled with the growing affluence in the new e-economies, resulted in an escalation of consumerism and translated to a size of a market: more digital instruments (software and hardware), more consumers, more companies, more funding for the growing e-economy. And the bursting of 'the bubble' in 2000, while painful at the time, did little to temper the rates of growth of the global e-sector to date. Overall, this 'gadget race,' as the intensifying contest to purchase the next new device came to be called, enlarged the circle of users ever faster and contributed to the pressure of e-waste on the natural environment, and so strengthened the rates of growth of the sector.

Overall, in the major waves of corporate structuration in the 1980s and 1990s, a new economic sector emerged and rapidly turned global. This new sector demanded major economic adjustments: in infrastructure (wiring, energy supply, industrial parks), in labor skills (IT and engineering skills, language), in funding sources (venture capital, rapid IPOs). The transnational nature of this emerging economic sector challenged existing foundations of trade and business: labor, capital and commodities became truly globally mobile.

## 2) *Global e-Governance*

These dramatic economic transformations – globally and worldwide – drove political changes: regulatory regime, governance measures, and political alliances.

Most concretely, global economic integration – in general economic terms, but most directly in regards to the e-economy – called for tightening of global regulatory regime. With the commodification of intellectual capital, the transfer of such capital across borders, and thus the need to protect intellectual property rights worldwide, several international organizations are now charting and supervising numerous multilateral agreements and treaties to secure the global IP regime: the World Trade Organization (WTO) and World Intellectual Property Organization (WIPO) serve as anchors for such treaties as TRIPS, or the Trade-Related Aspects of Intellectual Property. These multilateral treaties are based on the premise of superseding national law and often require amendments to national laws or creation of national-level regulatory agencies. As a result, political processes and institutions, both national and international, are critical to technology globalization (Milner, 2006).

Similarly, the influence of global arrangements for the governance of the transnational technology of the Internet, specifically the grip of the ICANN (Internet Corporation for Assigned Names and Numbers) as the prime mechanism for control of the Internet and of its globalization, reflects the statelessness of the globalization of high-tech. This political dimension of the globalization of the Internet reflects the period's logic of governance (or mode of governmentality, in Foucauldian terms): a cooperative, non-state, non-binding and non-hierarchical mode of governance, anchored in a loose but highly normative regulatory regime, became the mode for global governance. With this, the influence of global ICT field has permeated the boundaries of the mythically sovereign state, worldwide.

Equally challenging state sovereignty at this time of hyper-globalization was the emerging mode of global governance at the turn of the 21st century. The privatization of world politics (see Pattberg, 2005) and the seemingly corporatist model of world governance (Ottaway, 2001) mean that non-state actors – from the corporate or civil society sectors – are increasingly involved in the policy-making process. This new mode of governance is clearly reflected in the sphere of policymaking on ICT issues. For example, WSIS was the first ever UN policy effort, and surely the first world summit, to engage diverse audiences into the policymaking process. Whereas previous UN-led international policy initiatives reserved the right to set the agenda and chart the policy path for states and their delegates only while anti-globalization protesters were barricaded in the streets, WSIS brought together – into the planning sessions as to the conference halls – civil society organizations, private sector companies, and state representatives. And while the vote on resolutions was still left squarely in the hands of states, the halls reflected a more inclusive, possibly co-opted, version of the range of issues, initiatives, and proposals to alleviate the problem of the digital divide.

This highly decentralized mode of authority that governs globalization in general and particularly the globalization of ICTs tell much about the mechanisms involved in the rise of the digital divide into prominence as a global social problem. Contrary to realist expectations that globalization (of products and policy

initiatives alike) is driven by capitalist or political motives,<sup>2</sup> the agenda of the digital divide has been brought to the table of policymakers from the margins of the international system society and mainly by loose coalitions of interested parties. As mentioned earlier, the formal and chief advocate for the information society in the UN was the country of Tunisia and both WSIS events gathered a heterogeneous group of organizations and advocates towards cooperative policy agenda. This makes for an unlikely coalition, from a realist perspective; rather, the powers behind information society agenda act more like a global social movement,<sup>3</sup> loosely organizing around common themes in assorted coalitions. In addition, neither political nor economic national characteristics predict the global diffusion of ICT, but rather cultural features (predominantly embeddedness in world society and scientization) are the prime causes for ICT globalization (Drori and Jang, 2003). In this muddled configuration of forces and actors, the UN has served as a central node: UN summits serve as peak events for the 'scared drama' (see Boli and Lechner, 2005: 83–4) of global inequalities and of the promise of ICT for development. Overall, this novel mode of governance is highly pronounced expression in the field of ICT and the digital divide. The cause of this coupling between the new agenda and the new mode of governance may be related to their mutual history: for one, 'the origins of the Internet from the public sector created a natural tension between the culture of the early users and the subsequent commercial development' (Kogut, 2003: 25) and hampered any form of centralization or authoritative organization of the field.

### **Globalization, as World-Spanning Cultural Practices and Perceptions**

Onto this concrete layer of intensifying economic and political ties across the world, we add a layer of cultural meanings, products and processes that deepen transnationality further. Realist approaches to globalization<sup>4</sup> emphasize: a) the cross-border character of an increasing number of social activities; b) the intensification of such cross-border activity, in both volume and magnitude; and c) the re-scaling of social space by the shrinking of social distance through means of transportation and communication. Yet, globalization also dissolves the divide between inside and outside on a global scale, creating an enmeshment of definitions, units and actions – all in a co-constitutive and fluid manner. Globalization is therefore a dual-level process of: a) diffusion of the features of this world polity to its sub-units; and b) construction, or institutionalization of a global field, an acknowledgement of global society and a constitution of a global polity. Globalization does not mean the creation of a mega-society, but rather a constitution of a 'world horizon' (Beck, 2000: 12), a series of models that set the agenda and the reference for the units. It does not mean the constitution of a mega-state, but rather the creation of an oft-contested organizational framework and a condition of global statelessness. And, globalization does not necessitate a unidirectional process of influence from the core to the periphery, but rather describes a co-constitutive process of mutual, even if not equal, influence. In this section

I highlight three such institutional and cultural features of globalization and, as in the previous section, I describe their role in the globalization of ICT and the rise of the digital divide as a global social problem.

### 3) *Globality*

The global nature of social life seems obvious today, to lay people and scholars. The seminal works cited above on the extension of social imagination to encompass the globe (Appadurai, 1990, 1996; Beck, 2000) and on the emergence of a world society (Meyer, 2000) have anchored this imagery firmly in the mind of people, allowing the extraordinary reliance on the term 'globalization' since the 1990s (Guillén, 2001). Such constitution of the global results also in a consolidation of a world culture (Drori, 2005a) that extends beyond, and to some degree regardless of, the diversity of national and ethnic cultures (e.g. Berger and Huntington, 2002), the psychology of globalization (Arnett, 2002), the variation that comes with glocalization (Robertson, 1995), or the loose coupling between globalization's homogenizing pressures and local practices (Drori et al., 2003). And the practice and perception of a world society, with a world-spanning culture, enables the extension of norms and expectations – in addition to transactions and rules – to societies worldwide. And so issues that were once the concern of national societies, ethnic groups or familial clans, are now re-defined as human – and thus as universal and global – concerns.

This expansion of the boundaries of the relevant social unit to the parameters of the globe is taken-for-granted in discussions of ICT. This is obviously exhibited in the corporate global division of product tasks and in the UN's global policy initiative on the issue of the information society. But the clearest link between the newly conceived global dimension of society and ICT is captured in the name of one of its most recent and most revolutionary technology, namely the World Wide Web (WWW). WWW captured the imagination not only because of its capacity to share information in a remarkably democratic and web-like way, but also because it explicitly aspired to be worldwide. Tim Berners-Lee, the inventor of the WWW and currently the director of the W3C (WWW Consortium), captures this ideal of universality (as distinct from universal access) in his comments about the commercial prospects of the Web: 'the essence of the Web is that it's a *universe* of information,' he is quoted as saying in 1995, 'And it would not be universal if it were tied, in any way, to one company' or to one country (Lohr, 1995: D-1). In this fundamental way, many ICTs are linked with imagery of a global society; more so, they imagine such society to be remarkably networked, rather than hierarchical or centric, society.

### 4) *An Age of Networks*

The Internet is a web of connections, literally: its developers designed the World Wide Web, as well as e-mail before it and computer communications even preceding these, as a network, with contacts possible from every point to another.

This is surely an architectural element, challenging designers of such systems to enable multiple spheres and parallel exchanges. Yet, this is also a conceptual shift in our imagery of social contacts (see Podolny and Page, 1998; Powell, 1990). This imagery directly challenges old-fashioned and economic perspectives on social relations: while such views regarded social relations as arranged in either markets (emphasizing competition) or hierarchies (emphasizing authority structures), most social contacts, particularly among organizations, are organized as networks, hence building upon multiple intersecting relations. And, such networks often link a heterogeneous group of social actors: big and small, governmental and non-governmental, for-profit and non-profit. And so with these new scholarly and strategic concepts emerging in the early 1990s, the birth of the Internet in mid-1990s and its conceptualization as a *web* were in step with the social psyche that captured the nature as social relations as *networked*.

Computer networks quickly grew fast to build a bigger, denser and more diverse network: what started as a LAN (local area network) in the early 1970s to link among a single organization's specialists, quickly grew to link with external networks of partners, consumers, academics and government officials and thus to bridge across differences in e-literacy or roles. The result is a computer-enabled network that is very loosely configured and which brings together various platforms of software and hardware. Today, multi-layered networking is critical to ICTs: companies from Skype to Google rely on the concept of cascading ties, building on 'Metcalfe's law' for the value of networks.<sup>5</sup>

This networked nature of the physical architecture of the web is also reflected in the loose arrangement for its governance. In spite of the efforts to create a governance framework (as described above), such efforts focus on coordination, rather than on control or domination. Hence, due to the transnational nature of ICTs, the Internet is not subject to national and international law; rather, it is governed by a set of international agreements, all feebly enforceable, and negotiated among the heterogeneous group of stakeholders. In this context, national law still matters, but even nations become partners in a negotiated web of relations: the case of the arrangement struck between Google and China in early 2006 comes to mind as an example. And, such network connections describe more appropriately the policy efforts on the matter of the global digital divide: WSIS, in particular, is formulated to build multi-sectoral and multi-stakeholder cooperation to advance the cause of global information society. Last, the Internet allowed for springing of high 'democratic' forms of authority: most clearly, wiki-forms of data compilation, where users initiative the recording of information (as in the very popular Wikipedia), rely on the public's knowledge and on its initiative to record it, rather than on the knowledge of credentialed, or even reviewed, experts.

These changes, social and technological, re-define the nature of authority. World society is organized around highly decentralized authority: not hierarchical

and not divine or supremacist. Global social and technological networks, like the Internet, are also not hierarchical or authoritative in a muscular way. Instead of being run by a world state (see Meyer, 2000) or even a singular governing body or treaty, both world society and the ICT world are governed in a highly decentralized manner, which builds on an empowering (democratic, agentic, rights-based) mode of authority. Many small but vocal INGOs influence international policy (see Pattberg, 2005), while open source software is another example of such loose authority in the development and globalization of ICT (see von Krogh and von Hippel, 2003). Often this synchronicity between the images of global society and of ICT is described in rather literal terms: for example, Choi et al. (2006) describe the ranking of global cities as a product of their centrality to the global networks of the Internet. Still, this synchronicity also operates at the conceptual level: there is conceptual correspondence between the worlds of social interactions and of ICT's structural set-up, a correspondence that implies a shared normative basis.

##### *5) World Norms – Progress and Justice*

Cultural aspirations, or norms, are increasingly also shared the world over (see Drori, 2005a). An umbrella of world culture and its norms covers most societies: countries worldwide are subject to international laws and regulations, often translating such laws into national codes, and are complying with international standards and 'soft laws.' Dominant among these norms are the two 'pillars' of Judeo-Christian or western culture, namely the aspirations for progress and for justice (see Meyer et al., 1987, 1997). These two norms ontologically define the social agenda; in the case of the global digital divide, they highlight the urgency of this social condition and thus helped to define it as a social problem.

Progress is a primary moral calling for people and societies, describing the cultural aspiration around which plenty of purposive and rationalized action is organized. It calls for achievement of betterment, with various means and at various levels. In this cultural environment, technology has been defined as one such means for development and progress. We indeed label historic eras by their technological achievements: the Space Age and the Stone Age mark human progress by the mastery and utilization of specific technology. And technology is conceived as panacea, for a plethora of social ills, for both private and public good. Justice describes the normative theme that sets aspirations for equity in universalistic terms. These days, the aspiration for justice is encoded in the discourse of human rights as universal claims and privileges. Hence, barriers to universal privilege or access – labeled inequality – come to be defined as social problems.

These two moral codes are intertwined and poured into the social agenda, as in the case of 'information society.' The condition of digital inequalities is re-defined as a global social problem because it is measured against the moral codes of progress and justice. On the one hand, ICT is conceived as a tool for development, or a means that can be harnessed to achieve social goals of growth

and advancement. In this scheme<sup>6</sup> ICT aids both the advancement of production and thus of prosperity, while also making tech-based advances (in health, communications, manufacturing, agriculture, etc.) available to individuals. On the other hand, ICT is conceived as tool for providing unabridged access to the primary social resource of this era, namely information. With the aid of ICTs, we envision marginalized peoples – from minorities to the poor to residents of remote areas – connecting with the wealth of information that is available to people everywhere. In this scheme, ICT is a bridge over the traditional social barriers of class, gender, and physical distance and thus a means for participation and for empowerment. Overall, ICT is conceived as a means for both progress and justice, enveloping the aspirations for both ambitious norms into a single instrument or course. To paraphrase Meyer et al. (1987: 32), the theme of the information society gains special standing above other issues – and thus comes to be defined as the social problem of the global digital divide – because it is tied to, or interpretable by, the theories of progress and justice.

To conclude, economic and political exchanges indeed create the concrete base for globalization. They foster the overwhelming growth, strength and density of world economy and the constitution of an active international community. These dimensions are captured, quite sensibly and effectively, in comparative scales of globalization. *Foreign Policy's* indexes (2001, 2002, 2003, 2005, 2006), which combine political, financial, trade, personal contact, and technological measures to scale unitary globalization rankings, confirm the intensity of international exchanges, their multi-dimensionality and the inertia built-into their trajectory. The age of globalization comprises many processes that are often conflated to the point of being indiscernible from each other, making it difficult to untangle the key causal factors in the process.<sup>7</sup> The focus on the economic and political dimensions of globalization also captures the important effects of globalization, as a set of intensifying transactions, on everyday life. Still, the reduction of the technological as a dimension of (mainly economic) globalization obscures the cultural and institutional qualities of the rise of global social problems, like that of the global digital divide, and their constituted nature.<sup>8</sup> A focus on the role of world culture and on the centrality of institutions – in addition to the intensification of transactions – draws a more comprehensive picture of globalization, a picture that includes the rise of global as the relevant social horizon, an age of networked social contacts, and norms of progress and equity where technology is a means to their attainment.

The crystallization of the theme of Information Society (or the social problem of the global digital divide) particularly benefits from the expansion of the definition of globalization. While focusing on exchanges, economic and political, helps to describe the dramatic expansion of ICTs, the extension of globalization's interpretive grid to include also the cultural dimensions allows one to re-interpret the theme as infused with global meanings and its globalization as fueled by its perception as a tool for human progress.



### **CONCLUDING COMMENTS: UNDERSTANDING GLOBALIZATION THROUGH THE ISSUES IT RAISES**

For far too many people, the gains [of international development efforts] remain out of reach. There is a tremendous yearning, not for technology per se, but for what technology can make possible. I urge you to respond to that thirst, and to take the tangible steps that will enable this Summit to be remembered as an event which advanced the causes of development, of dignity and of peace.

(Speech by Mr Kofi Annan, Secretary-General of the United Nations, before WSIS 2005, Tunis, 16 November 2005)

The term 'globalization' is frequently conflated with the social activities and fashions that became popular and globalized during its era of pre-eminence since the 1980s: 'globalization' is often equated with post-industrialization, neoliberalism and capitalism, Americanization, McDonalidization, as well as the rising tide of consumerism and popular culture. Globalization discussions tend to mix the analytic with the normative: studies of the dimensions of globalization also involve judgment about whether globalization is good or bad. Indeed, when it comes to discussion of the globalization of high-tech, the analytic and the normative are intertwined in academic discussions as they are in policy debates. None of the people addressing the globalization of ICT regards the related global digital divide as a satisfactory condition: some may regard it as merely a temporary state, whereas others emphasize its entrenched sources and lingering impact, but all agree that this situation calls for urgent global attention.

This consensus leads us back to my original question in this article, namely – why has the goal of information society come to be listed among of the most urgent global social problems? The obvious component of this answer is the newness of the technology itself. In other words, digital technology is a new human capacity and the Internet explosion of the mid-1990s builds on only four preceding decades of computer and digital expertise and gear. And so the social problem of uneven access to digital technology could not have been conceived before the technology was in existence. Still, it is striking that the era of hyper-globalization of the 1990s is also the period when digital technology is defined as a core social resource and its uneven distribution is highlighted as a social problem. This co-occurrence between hyper-globalization and the definition of high-tech as a social problem is no coincidence, I argue. Rather, the features of the age of globalization created an environment that was conducive to the conceptualization of uneven access to high-tech as a global and social problem. As outlined in this article, the increasingly global scope of society (globality), the image of society as a network, the emphasis on the means of progress, and the aspiration towards a justice-based community – in addition to the economic and political interdependencies that are fueled by globalization – have come to propel the global digital divide into the exclusive list of current global social problems. In this sense, the global conditions of the 1990s directly contributed to the definition of high-tech globalization as a global social problem.

## NOTES

- 1 For a discussion of the constructed nature of global social problems and on the traditions of defining social problems, see Best (2004).
- 2 Even if not specifically regarding the globalization of ICT or the definition of the digital divide as a global social problem, this argument is developed by Abbott and Snidal (1998) or by Moravcsik (2000), from a neoliberal perspective, and by Sassen (1998) and Sklair (1997), from a critical perspective.
- 3 For a historical review, see Tilly (2004); for analysis of the features of current global social movement, see for example, Smith (2005).
- 4 Ranging from liberal IR theories (themselves stretching between neoliberal institutionalist [such as Nye and Keohane] to functionalists [Haas] to regime theory [Krasner]; see Baldwin, 1993), to critical theorists (such as Wallerstein, Jameson, Chase-Dunn, Sklair, or Kellner). These realist approaches to globalization stand in theoretical opposition to the constructivist theories: from IR constructivism (Finnemore, Sikkink, Ruggie, Wendt and Katzenstein) to sociological world society theory (Meyer, Boli and Thomas). See Guillén (2001) and Drori (forthcoming) for reviews of globalization literature.
- 5 'Metcalfe's law' asserts that the value of network systems is proportional to the square number of connections (or users) in the network.
- 6 See Drori (2005b: 81, Figure 5.1) for explication of the model of ICT for development.
- 7 For example, Lipsey (1999) argues that that fact that the period marked as 'globalization' conflated the collapse of the Communist bloc, massive privatization and economic liberalization initiatives worldwide, dramatic rise in social inequality within and between nations, as well as the high-tech revolution, masks our ability to point to the causal factors in this worldwide social change.
- 8 For description of various global social problems, as constituted issues, see Ritzer (2004).

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