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INTERNET TODAY

In our days the Internet becomes more than just the technology. The Internet is the decisive technology of the Information Age, and with the explosion of wireless communication in the early twenty-first century, we can say that humankind is now almost entirely connected, albeit with great levels of inequality in bandwidth, efficiency, and price.

People, companies, and institutions feel the depth of this technological change, but the speed and scope of the transformation has triggered all manner of utopian and dystopian perceptions that, when examined closely through methodologically rigorous empirical research, turn out not to be accurate. For instance, media often report that intense use of the Internet increases the risk of isolation, alienation, and withdrawal from society, but available evidence shows that the Internet neither isolates people nor reduces their sociability; it actually increases sociability, civic engagement, and the intensity of family and friendship relationships, in all cultures.

Our current "network society" is a product of the digital revolution and some major sociocultural changes. One of these is the rise of the "Me-centered society," marked by an increased focus on individual growth and a decline in community understood in terms of space, work, family, and ascription in general. But individuation does not mean isolation, or the end of community. Instead, social relationships are being reconstructed on the basis of individual interests, values, and projects. Community is formed through individuals' quests for like-minded people in a process that combines online interaction with offline interaction, cyberspace, and the local space. In order to fully understand the effects of the Internet on society, we should remember that technology is material culture. It is produced in a social process in a given institutional environment on the basis of the ideas, values, interests, and knowledge of their producers, both their early producers and their subsequent producers. In this process we must include the users of the technology, who appropriate and adapt the technology rather than adopting it, and by so doing they modify it and produce it in an endless process of interaction between technological production and social use. So, to assess the relevance of Internet in society we must recall the specific characteristics of Internet as a technology. Then we must place it in the context of the transformation of the overall social structure, as well as in relationship to the culture characteristic of this social structure. Indeed, we live in a new social structure, the global network society, characterized by the rise of a new culture, the culture of autonomy.

Internet is a technology of freedom, in the terms coined by Ithiel de Sola Pool in 1973, coming from a libertarian culture, paradoxically financed by the Pentagon for the benefit of scientists, engineers, and their students, with no direct military application in mind (Castells 2001). The expansion of the Internet from the mid-1990s onward resulted from the combination of three main factors:

The technological discovery of the World Wide Web by Tim Berners-Lee and his willingness to distribute the source code to improve it by the open-source contribution of a global community of users, in continuity with the openness of the TCP/IP Internet protocols. The web keeps running under the same principle of open source. And two-thirds of web servers are operated by Apache, an open-source server program.

- Institutional change in the management of the Internet, keeping it under the loose management of the global Internet community, privatizing it, and allowing both commercial uses and cooperative uses.
- Major changes in social structure, culture, and social behavior: networking as a prevalent organizational form; individuation as the main orientation of social behavior; and the culture of autonomy as the culture of the network society.

I will elaborate on these major trends.

Our society is a network society; that is, a society constructed around personal and organizational networks powered by digital networks and communicated by the Internet. And because networks are global and know no boundaries, the network society is a global network society. This historically specific social structure resulted from the interaction between the emerging technological paradigm based on the digital revolution and some major sociocultural changes. A primary dimension of these changes is what has been labeled the rise of the Mecentered society, or, in sociological terms, the process of individuation, the decline of community understood in terms of space, work, family, and ascription in general. This is not the end of community, and not the end of place-based interaction, but there is a shift toward the reconstruction of social relationships, including strong cultural and personal ties that could be considered a form of community, on the basis of individual interests, values, and projects.

The process of individuation is not just a matter of cultural evolution, it is materially produced by the new forms of organizing economic activities, and social and political life, as I analyzed in my trilogy on the Information Age (Castells 1996–2003). It is based on the transformation of space (metropolitan life), work and economic activity (rise of the networked enterprise and networked work processes), culture and communication (shift from mass communication based on mass media to mass self-communication based on the Internet); on the crisis of the patriarchal family, with increasing autonomy of its individual members; the substitution of media politics for mass party politics; and globalization as the selective networking of places and processes throughout the planet.

But individuation does not mean isolation, or even less the end of community. Sociability is reconstructed as networked individualism and community through a quest for like-minded individuals in a process that combines online interaction with offline interaction, cyberspace and the local space. Individuation is the key process in constituting subjects (individual or collective), networking is the organizational form constructed by these subjects; this is the network society, and the form of sociability is what Rainie and Wellman (2012) conceptualized as networked individualism. Network technologies are of course the medium for this new social structure and this new culture (Papacharissi 2010).

As stated above, academic research has established that the Internet does not isolate people, nor does it reduce their sociability; it actually increases sociability, as shown by myself in my studies in Catalonia (Castells 2007), Rainie and Wellman in the United States (2012), Cardoso in Portugal (2010), and the World Internet Survey for the world at large (Center for the Digital Future 2012 et al.). Furthermore, a major study by Michael Willmott for the British Computer Society (Trajectory Partnership 2010) has shown a positive correlation, for individuals and for countries, between the frequency and intensity of the use of the Internet and the psychological indicators of personal happiness. He used global data for 35,000 people obtained from the World Wide Survey of the University of Michigan from 2005 to 2007. Controlling for other factors, the study showed that Internet use empowers people by increasing their feelings of security, personal freedom, and influence, all feelings that have a positive effect on happiness and personal well-being. The effect is particularly positive for people with lower income and who are less qualified, for people in the developing world, and for women. Age does not affect the positive relationship; it is significant for all ages. Why women? Because they are at the center of the network of their families. Internet helps them to organize their lives. Also, it helps them to overcome their isolation, particularly in patriarchal societies. The Internet also contributes to the rise of the culture of autonomy.

The key for the process of individuation is the construction of autonomy by social actors, who become subjects in the process. They do so by defining their specific projects in interaction with, but not submission to, the institutions of society. This is the case for a minority of individuals, but because of their capacity to lead and mobilize they introduce a new culture in every domain of social life: in work (entrepreneurship), in the media (the active audience), in the Internet (the creative user), in the market (the informed and proactive consumer), in education (students as informed critical thinkers, making possible the new frontier of e-learning and m-learning pedagogy), in health (the patient-centered health management system) in e-government (the informed, participatory citizen), in social movements (cultural change from the grassroots, as in feminism or environmentalism), and in politics (the independent-minded citizen able to participate in self-generated political networks).

There is increasing evidence of the direct relationship between the Internet and the rise of social autonomy. From 2002 to 2007 I directed in Catalonia one of the largest studies ever conducted in Europe on the Internet and society, based on 55,000 interviews, one-third of them face to face (IN3 2002–07). As part of this study, my collaborators and I compared the behavior of Internet users to non-Internet users in a sample of 3,000 people, representative of the population of Catalonia. Because in 2003 only about 40 percent of people were Internet users we could really compare the differences in social behavior for users and non-users, something that nowadays would be more difficult given the 79 percent penetration rate of the Internet in Catalonia. Although the data are relatively old, the findings are not, as more recent studies in other countries (particularly in Portugal) appear to confirm the observed trends. We constructed scales of autonomy in different dimensions. Only between 10 and 20 percent of the population, depending on dimensions, were in the high level of autonomy. But we focused on this active segment of the population to explore the role of the Internet in the construction of autonomy. Using factor analysis we identified six major types of autonomy based on projects of individuals according to their practices:

- a) professional development;
- b) communicative autonomy;
- c) entrepreneurship;
- d) autonomy of the body;
- e) sociopolitical participation;
- f) personal, individual autonomy

These six types of autonomous practices were statistically independent among themselves. But each one of them correlated positively with Internet use in statistically significant terms, in a self-reinforcing loop (time sequence): the more one person was autonomous, the more she/he used the web, and the more she/he used the web, the more autonomous she/he became (Castells et al. 2007). This is a major empirical finding. Because if the dominant cultural trend in our society is the search for autonomy, and if the Internet powers this search, then we are moving toward a society of assertive individuals and cultural freedom, regardless of the barriers of rigid social organizations inherited from the Industrial Age. From this Internet-based culture of autonomy have emerged a new kind of sociability, networked sociability, and a new kind of sociopolitical practice, networked social movements and networked democracy. I will now turn to the analysis of these two fundamental trends at the source of current processes of social change worldwide.

We can only make progress in our understanding through the cumulative effort of scholarly research. Only then we will be able to cut through the myths surrounding the key technology of our time. A digital communication technology that is already a second skin for young people, yet it continues to feed the fears and the fantasies of those who are still in charge of a society that they barely understand.

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