7. Networks and chains
The Internet and the world-system(s)

Piotr Konieczny

The Internet promised to usher in many revolutions. The debate on what it has and will deliver is still ongoing and consensus is far from sight. Surprisingly, considering the prominent role that information and communication tools (ICTs) have played in delivering the current world-system, the world-system scholars are not among the most active participants of that discussion.

ICTs have accompanied the world-systems since the very beginnings of human history; *homo sapiens* were using mnemonic tools—painting caves, engraving sticks, and stacking stones—for tens of thousands years. Where scribes were recording business transactions in clay tablets filled with cuneiforms, or where printing presses were busily churning copies of the Bible and other works, the elites—not the scribes themselves, but rather, the priests, the nobility, and the kings who ordered them—reaped the benefits from the power given to them by their monopoly on the flow of information, propaganda, and censorship.

However, such monopoly was useful not only to individuals; it empowered the entire world-system. Commenting on the birth of the modern world-system, Wallerstein (1999) noted that the technology, notably advances in transportation and communication, was one of the major factors that allowed Europe—later, the West—to become the system’s core region. As Pomeranz (2000) wrote, it was a time of Great Divergence; a time of improvements in maritime technology and the spread of printing presses throughout Europe. The former provided the tools needed to break the Middle Eastern lockdown of European trade. As European merchants and soldiers gained direct access to Americas and Asia, Europe was propelled from a periphery into a nearly unchallenged hegemon of the new world-system. The latter resulted in a growing deluge of steadily cheaper printed materials; the resulting growth in literacy transformed Europe into the one place in the world where the notion of progress became normal. The technological advancements, having found a receptive ground in a society, began a virtuous spiral: after printing came the telegraph, then the telephone, radio, television … All those ICTs were first developed and deployed in the core, which had decades if not centuries of near monopoly on their use.

On the surface, the newest branch of ICTs, the Internet, is no different. It began as a US military project (ARPANET). It relies on expensive technology and skills that are hard to come by in the poor periphery, and it is most widely used in the developed core.

Yet while existence of a global digital divide cannot be denied (Chen and Wellman 2004), there are some interesting counter-trends underneath the surface. The Internet is no longer the bastion of the English-speaking West. According to Internet World Stats, in mid-2004, 26 percent of English-speakers had Internet connection, and constituted 36 percent of Internet users, way
ahead of the Chinese, of whom only 8 percent had Internet access, constituting 13 percent of Internet users. In late 2009, Internet penetration among English-speakers was 39.5 percent and they accounted for 27.7 percent of the Internet population, while in China, the Internet has spread to almost 30 percent of the population, with Chinese accounting for 22.6 percent of the internauts worldwide. In 2007, Arabic became one of the 10 most widely used languages on the Internet, with the number of Arabic Internauts growing twice as fast as that of the Chinese, at a staggering rate of 2500 percent. According to Alexa, in 2009, two Chinese sites—Baidu, a search engine, and QQ, a communication portal, have broken into the Internet Top 10 most popular sites, previously an English-only list. At least 80 percent of articles in Wikipedia, the online encyclopedia, are in languages other than English.

The Internet is still evolving; sites such as Wikipedia, YouTube, and Facebook are just a few years old. Semiperiphery and periphery countries are catching up to the cores, and may be getting ahead by bypassing obsolete ICTs. In countries with weak infrastructure, landlines are rare—but mobile phones use has surged, as putting up cell towers is more efficient than laying cables. Where the Internet has been introduced only recently, people are beginning their cyber-experience not with email or static websites but with Web 2.0 applications like social networks.

The Internet is not limited to state or corporate actors. As it is becoming cheaper and more user-friendly, it is increasingly used by individuals and transnational NGOs focusing on the inefficiencies of the modern world-system. Traditional authorities are trying to retain control, and their efforts should not be underestimated (Lessig 2006), but if history is any guide, the growth of literacy and access to ICTs have been tied to empowerment of previously underprivileged actors. And when we consider the Internet’s efficiency in asynchronous many-to-many communication, it could be argued that no ICT developed since the printing presses has been so versatile, and friendly to individuals and small groups, as the Internet.

History shows us that technology was one of the key forces that helped to usher in the current world-system. The global digital divide still tilts the balance to the core, but the gap is closing, as the Internet, still evolving, is rapidly penetrating the peripheries. When better ships and printing presses developed in a periphery, they propelled it toward centuries of core hegemony. Since then, the core has had almost absolute control over ICTs. The Internet is breaking that pattern. As the economies of regions such as China and India are churning on, and their populations are rapidly becoming digitally literate, could we be witnessing another periphery-core shift? We may find it beneficial to look closer at how this is shaping the current—and the future—world-system.

References