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On science and technological innovation in media and communications

Kaarle Nordenstreng has talked about geopolitics and Cees Hamelink about ethics and morality. My theme as we celebrate IAMCR's 60th anniversary is 60 years (and more) of power, mediations, science and technological innovation in our field. The internet, algorithms, robots and maybe driverless cars are everywhere, along with 'fake' or false news, corruption in media production and huge consolidations of media power. But in the wake of science and technological innovation, the problems we confront today have been around for a long time. To name just a few of these, we have problems with scientific and technological innovation and technological unemployment, with the speed of technical change and slower changes in media and digital literacies, with technological innovation and individual privacy, with scientific and technological innovation and people's collective safety and security. And today, there is more and more evidence of a link between investment in digital technologies and growing economic and social inequality.

In addition, historically and now, policy responses are mostly reactive. They aim to fix problems, to patch, or paper them over. How many times have you heard this said by policy makers or company spokespersons? Digital technology – the Internet - is changing rapidly. We do not have a robust evidence base. We had better do nothing until we have substantial (unequivocal and direct causal) evidence of harm. So, little is done to tackle underlying asymmetrical power relations, exclusions and harms.

In contrast, from a media and communication studies perspective in the critical traditions and in the constructivist traditions in science and technology studies, we have known for at least as long as IAMCR scholars have existed (and before that), that technology is an instrument of power - that 'hiding political agendas and power relationships in technological artefacts, practices, or systems is nothing new'.[1] We know, following Roger Silverstone - 'mediated connection and interconnection define the dominant infrastructure for the conduct of social, political and economic life across the globe'.[2] In today's world of algorithmic assemblages and their exclusionary and harmful biases, we hear about the urgency of research on the material and the symbolic aspects of the mediated world, yet this is not new to critical media and communication scholars who have talked about the double articulation of technology for a long time. As Silverstone said, it's all about power! And, as Marin-Barbero insisted, power is central to all forms of mediations.[3] Silverstone also argued that 'research should also be doubly articulated' as Sonia Livingstone has pointed out.[4] This means our research should 'connect critical theories of production and consumption with theories of representation, interpretation and influence'.

Despite these observations, the online world is still predominantly being researched separately from the offline world using instrumental (or non-critical) perspectives. Mono-disciplinary

instrumental studies are still very prominent. They are most easily funded and they are the most cited by those policy makers who do not want to intervene in the digital marketplace to address power asymmetries.

Just as in earlier times, it is companies mostly based in the global North or West –the digital platforms – that manage our access to their operations, and in some countries it is the state apparatus. They are making choices about how to treat fundamental values –freedom of expression, individual privacy and whether diverse voices are heard and people's views can be acted upon.

Critical scholarship, in and outside the media and communication field, has been demonstrating for decades that: the production of older media and newer digital technologies 'means producing instruments of control and influence over other individuals, firms and nations'.[5] What has changed in contemporary times is that a principle contradiction – as political economy of communication scholar, Dallas Smythe – might have said, is more visible today than it has ever been. This contradiction is that the more digitally mediated benefits we have, the fewer opportunities there are for humans to exercise control and authority in their lives. This contradiction exists thanks to high velocity, non-transparent computational systems and more and more powerful computing power.

Today, there is too much fascination with the fast pace of technological change and too much tinkering with markets after the harm has been done – this is especially visible, for example, in the case of children and their rights online as well as the rights o women, minorities, and the disabled. However, if it was once possible for some of those at the top of the hierarchy of power to equivocate about the harms associated with these technologies, it is harder today to sweep this contradiction under the carpet.

Today, we are on a pathway, not to the creative destruction of older technologies in a way that will bring improvements in the everyday lives of *all* people wherever they are. Instead, we are on a pathway well described as 'destructive creation' using the Belgian scholar who follows the digital industry and scientific and technological innovation, Luc Soete's phrase.[6] His phrase is a play on the Schumpeter's phrase which is frequently coined by business and governments.

For us as specialists in the media and communication field, the challenge is to lay bare how destructive creation works. We need to do this at every opportunity. We need to publish widely. We need to engage wherever we can with the choices that are leading us towards destructive human relations with each other and with the environment – all mediated by digital technology in endlessly creative ways. Change cannot wait for the next generation of digital technologies, the robots, or the next algorithm, or indeed, until we have decades of evidence of the experience of harms. There is still too much privileging of the internet and the novelty of digital platforms over their meanings and consequences. The contemporary emphasis on the materiality of technology is very welcome, but it too often excludes meaning and consequence for human beings that result from asymmetric power relations.

We need to take our critical perspectives and understandings of mediated connection into other disciplines and fields. Of course we need to listen to the views of scholars in other fields, but we also need to influence them and to influence policy makers and practitioners. This means going beyond the comfort zones of our own field and journals. We need to join forces with the critical traditions in politics, in economics, in sociology, and in geography. Some IAMCR scholars are doing this, but more is needed. We need to speak out about rights and freedoms, about why and how digital technologies are linked to inequality, exclusion, political and cultural harms and social injustice. We have more opportunities to get our voices heard than we once did and multi-stakeholder forums, flawed as they sometimes are, open a doorway to influence.

We need to recall that 'who controls technology also controls development' to paraphrase Dag Hammarskjöld 1975 report on Development and International Cooperation. He called for 'another development' and so do many in the global South. Achieving another development does not focus on exploitative technologies so much as on self-reliance, on eliminating poverty and inequality. We must contest the destructive creation which is being wrought by the digital technology designs and systems that are in the hands of huge companies and some states. We must counter the mantra about transformative, always beneficial technological change. We must foster a consideration of ethics, of rights, and of strategic actions that could help to shift science and technological change away from the corrosive pathway it is on. It sometimes feels like two steps back for every small step forward, but the enduring challenge is how to make critical media and communication research make a difference in countering power asymmetries through the mediations in our world.

Notes:

[1] Hecht, G. and Allen, M. T. (2001) 'Authority, political machines, and technology's history' in M. T. Allen and G. Hecht (eds)*Technologies of power: Essays in honor of Thomas Parke Hughes and Agatha Chipley Hughes*, (pp. 1-20). Cambridge, MA: MIT Press, p. 18.
[2] Silverstone, R. (2007) *Media and morality: On the rise of the Mediapolis*. Cambridge: Polity Press, p. 26.
[3] Martin-Barbero, J. (1993) *Communication, culture and hegemony: From the media to mediations*. London: Sage.
[4] Livingstone, S. (2007) 'On the material and the symbolic: Silverstone's double articulation of research traditions in new media studies'. *New Media & Society*, 9(1): 16-24, p. 18.
[5] Lozoya, J., Estevez, J. and Green, R. (1979) *Alternative Views of the New International Economic Order: A Survey and Analysis of Major Academic Research Reports.* New York: UNITAR, Pergamon Press, p. 74.
[6] Soete, L. (2012) 'Maastricht reflections on innovation', Tans Lecture 2011, UNU-Merit Working Paper Series No. 2012-001, UNU-Merit, Maastricht.