Abstract

Title: Governance and national resource allocation to ensure quality public goods

Authors: Dr Alison Gillwald and Anri van der Spuy

Global hype around the World Economic Forum's Fourth Industrial Revolution (4IR) has resulted in a plethora of commissions and initiatives in multilateral organisations and governments, including South Africa, to harness the opportunities afforded by emerging technology. The frameworks for these initiatives tend to be tech and industrial policy driven, with little attention being paid to existing digital inequality or the potential risks of further marginalisation that accompany our growing dependence on data. Without policy interventions to redress current inequities, the introduction of more advanced technologies will simply mirror existing inequalities. Arguably the paradox is that as more people are connected to globalised markets, the greater digital inequality we experience. In developing countries, policymakers do not have the luxury of dealing with the governance challenges posed by advanced technologies – they have to deal with addressing the national preconditions that must be met for digital inclusion. These are varied, and demand much greater coordination across sectors and between the public and private sector to realise constitutional and developmental objectives.

This paper will address the research question of what data governance frameworks and resource (e.g., spectrum) allocation measures are required to ensure access to quality public goods in the digital era. In the data driven economy, the importance of data being governed as a public good – non-rivalrous, non-excludable – that can be accessed for purposes of public planning, entrepreneurship and public interest underpins all other forms of governance. Developing open data policies that are governed by anonymisation and privacy protections underpins all other dimensions of public interest governance. Drawing on Ostrom's (2009) theory of common pool resources, we will use Frischmann (2005, 2012) to explain why some classes of key resources need demand-side valuation. This is contrary to the prevalent economic analyses of infrastructure which focus primarily on supply side value and the profit imperative in network investment and regulation to generate value for consumers. Besides infrastructure resources being fundamental and generating greater value when used as inputs into a wide range of productive processes, outputs of infrastructure industries are generally public and *non-market* goods that create positive multipliers in both the economy and society.

In relation to global Internet resources and governance, we also draw on Kaul *et al.* (2003), who focuses on the dimension of global goods and governance in terms of global public policy outcomes such as the Internet and knowledge, which are only starting to be explored as global public goods. Such global public goods emerge, in large measure, to the extent that all countries also help produce them. In this context we will also examine global frameworks to regulate the security of cyberspace, the governance of data protection and personal privacy with the emergence of global digital platforms. Drawing on Ulrich Beck's theory of risk (2006; 1992). We will propose ways to mitigate

risks associated with the use of citizens' data in big data and algorithm-driven platforms that safeguard their rights both to expression and information while safeguarding anonymity and privacy.

References

Beck, U. 2006. Living in the world risk society: A Hobhouse Memorial Public Lecture given on Wednesday 15 February 2006 at the London School of Economics. *Economy and Society*, vol. 35(3): 329-345.

Beck, U. (1992) *Risk Society: Towards a New Modernity* (translated by Ritter, M.). London: Sage Publications Ltd.

Frischmann, B. M. (2005) An Economic Theory of Infrastructure and Commons Management. *Minnesota Law Review*, vol. 89:917–1030.

Frischmann, B. M. (2012) *Infrastructure: The Social Value of Shared Resources*. New York: Oxford Un.

Gillwald, A.; Mothobi, M. & Rademan, B. (2018) *The State of ICT in South Africa. Research ICT Africa*. Available at: https://researchictafrica.net/wp/wp-content/uploads/2018/10/after-accesssouth-africa-state-of-ict-2017-south-africa-report_04.pdf. (last accessed 2019, April 10)

Kaul, I.; Grunberg, I.; & Stern, M. (2003) *Global Public Goods: International Cooperation in the 21st Century*. Oxford University Press: London.

Ostrom, Elinor. (2010) Beyond Markets and States: Polycentric Governance of Complex Economic Systems. *American Economic Review*, vol. 100 (3): 641-72.