

## **The End of Core:**

*Should disruptive innovation in telecom invoke discontinuous regulatory response?*

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### **Abstract**

The traditional paradigm for telecommunications regulation rests on the regulation of a well-defined set of services, offered by a well-identified operator (or small group of operators) in a well-circumscribed geographical area. The Internet has shattered each of these foundations. In United States, the 1996 Act mentioned the word “Internet” only once in the whole Act. Today, much of the 1996 Act and telecommunications regulation in general need a major overhaul. This research raises the question: *is the traditional paradigm of telecommunications regulation – in its theories and practice – adequate and sustainable in the Internet age?* The Internet offers unprecedented flexibility for operators to invest in technologies that could avoid regulatory burden. It also offers consumers (including criminals) the ease to innovate so as to circumvent regulation. These characteristics have the potential to render the current regulation inadequate and unsustainable. I argue that the present situation calls for understanding the regulation in telecommunications more holistically as a socio-technical system that includes actions and reactions of regulators, corporations, consumers, and technologists. In such a socio-technical system, the uncertainty arises due to statistical or strategic nature of human response, and the actions and reactions of the different actors produce the emergent behaviors such as regulatory adequacy, sustainability, and the level of innovation. This research offers a systems model of telecommunications – developed using the hierarchy theory, and the feedback theory – as the third, and complimentary, approach to economic theory and legal doctrines that currently support regulation in telecommunications

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