

Series Editor's Introduction

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For one who reads the history of information policy since the revolutions of the late eighteenth century as constantly confronted by the need to reconsider just what is meant by fundamental principles and what we should do with them because of technological change, cloud computing fascinates. Where privacy used to involve drawing the shades and lowering voices, it now can mean specifying the conditions of the route through which digital packets will flow. Where free speech used to mean having the right to stand on a street corner, tell people what you thought, and hand out flyers so they could continue to consider arguments later and elsewhere, it now can mean having effective access to a global information infrastructure and, arguably, the right to store your arguments and the data supporting them anywhere in the world where they might be safe.

In one sense, all is familiar. In a manner that almost seems as if phylogeny recapitulates ontogeny, today's questions about cloud computing include those that have come up across the history of telecommunications and information policy, reasserting themselves all at once. The fact that innovations in communication technologies can provide challenges to nation-states has been evident at least since British control over the global telegraph network spurred network development by other countries, including, influentially, the United States during and following World War I. In the Internet, jurisdictional problems are notably rife, but cloud computing takes these challenges to another level, undermining types of sovereignty and authority that characterized modernity and provided the ground for the Westphalian international system of geopolitical states.

Just as it was said that the Internet incorporated all previous media, so cloud computing may be, as Jean-François Blanchette points out in his introduction, meta-infrastructure—increasingly a type of infrastructure

(like electricity) upon which other forms of infrastructure (such as finance and, increasingly, transportation) depend. The complexity of the governance of cloud computing and the range of issues it raises make an edited volume particularly useful at this point in its history. One of the great strengths of this book is that those learning about particular types of policy problems for the first time, whether copyright or reliability, are in most chapters clearly walked through the necessary foundations, so feel free to wade in.

The multiplicity of definitional approaches is another strength. Far from being repetitive, the descriptions of cloud computing across the chapters present faces of the phenomenon that differ greatly from each other deriving from differences in how policy problems manifest themselves when perceived from diverse theoretical perspectives and/or in light of particular primary concerns. The core subject of cloud computing is commonly visible, but the question of when a trace of a software program on a user's drive matters gets quite different answers when provided by an economist, an intellectual property rights attorney, and someone with cybersecurity responsibilities. Similarly, just what takes place when something is stored looks different when viewed through environmental as opposed to archival eyes. That said, chapter 1, "Cloud Strategy and Economics," by Joe Weinman, stands out for also including examples of the cloud model as it works in other industries where it has been long familiar, referring to hotels, taxis, coffee shops, and banks.

A third notable feature of the volume is that in most case the authors bring to their analyses many decades of sophisticated and deeply informed attention to the issues under discussion as they have manifested themselves in round after round of the effort to adapt laws and regulations to the digital environment, a struggle that began in the United States in the 1950s. The combined depth of expertise, breadth of knowledge, and duration of sustained attention and vision in this volume are extremely rare, resulting in a collection that offers insights of particular value. It is for this reason, I believe, that authors such as William Lehr achieve such clarity regarding the transformations of the multiple industries involved in cloud computing over the long haul. And it is for this reason that we should all pay a lot of attention when authors such as Marjory Blumenthal are skeptical regarding the likelihood that a particular proposal could actually be achieved. The problem of achievability appears in almost every, if not every, chapter in the book, whether in discussion of a policy or of the

processes that would be required for a particular type of policy to be put in place, let alone implemented.

One could read the combined insights of the authors in this volume as reporting that cloud computing may actually not be governable at all. At the request of former MIT Press Senior Acquisitions Editor Marguerite Avery and of co-editors Christopher Yoo and Jean-François Blanchette, the concluding chapter of this collection is mine. I will leave further discussion of the book's substance for there.