International Journal of Communication 13(2019), Book Review 3869–3875 1932–8036/2019BKR0009

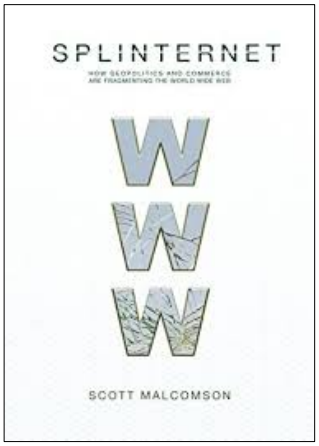
Three Volumes on Information and Value Communication: A Review Essay

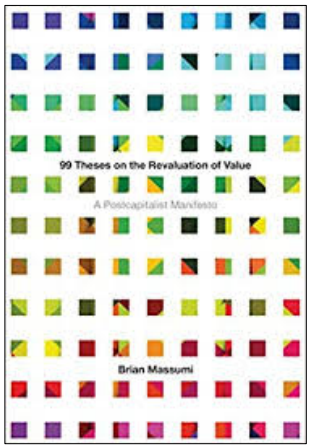
Scott Malcomson, **Splinternet: How Geopolitics and Commerce Are Fragmenting the World Wide Web**, New York, NY: OR Books, 2016, 202 pp., $16.00 (paperback), $10.00 (e-book).

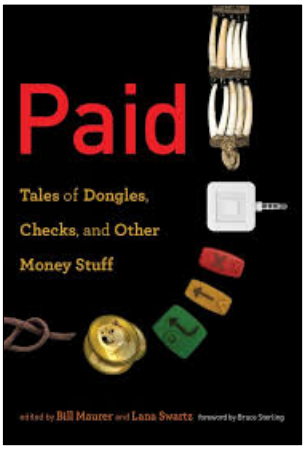
Brian Massumi, **99 Theses on the Revaluation of Value: A Postcapitalist Manifesto**, Minneapolis, MN: University of Minnesota Press, 2018, 152 pp., $76.00 (hardcover), $18.95 (paperback).

Bill Maurer and Lana Swartz (Eds.), **Paid: Tales of Dongles, Checks, and Other Money Stuff**, Cambridge, MA: MIT Press, 2017, 320 pp., $27.95 (hardcover), $17.95 (paperback).

Reviewed by
Glenn W. Muschert and Dimitrios Reppas
Khalifa University of Science and Technology, Abu Dhabi, UAE



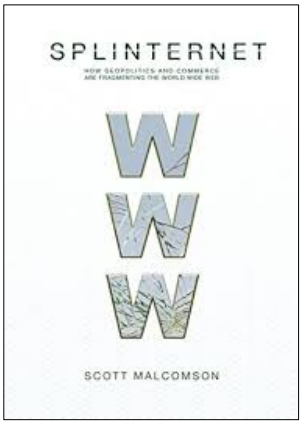




Each book in this recent cluster deals in some way with communication of value and information, and taken together they make an interesting contribution to Internet studies and their relevance to economic relations. Scott Malcomson's ***Splinternet*** presents an approximately century-long history of the development of the Internet, including its importance for government, military, and corporate interests. Brian Massumi's ***99 Theses on the Revaluation of Value*** examines the philosophical issue of reassessing traditional notions of value exchange in light of emergent and electronic forms, such as cryptocurrencies. Finally, Bill Maurer and Lana Swartz's ***Paid*** provides a cultural examination of 20 items that have been used to record value and/or to convey value in remittances.

A unifying theme is that each book deals with information and value in the form of recordkeeping or transactions, which in the contemporary sense are increasingly digital in format. Both information and value, dependent on the storing, retrieval, and communication of such, are subject to economic, governing, and cultural conditions. Within this cluster each volume deals in varying ways with the issues of what is important (of value), how it gets communicated (as transaction), and systems of storage (for historical record or for future usage).

A Critical History of the Internet



Scott Malcomson's short text, *Splinternet*, provides a critical history of the development of the Internet from the earliest days of formal computing to the present day, and in particular its three sections coincide with three major periods: first, the first half of the 20th century encompassing both world wars, when computing concentrated on resolution of complex calculations necessary for targeting artillery; second, a period of utopian optimism running approximately from the 1960s to the 1990s and centered around Silicon Valley, California, during which time computing companies and dot-com start-ups forged headlong toward a perceived social liberation facilitated by global communications networks; and third, the contemporary period in the early 21st century, which has seen the rise of significant impediments to this utopian vision, including mass surveillance, the enormous capital accumulation in information industries, and the fragmentation of the Internet. Given that the Internet was built on a military infrastructure, was it perhaps naive during the utopian period, Malcomson seems to wonder, to expect that such a system would lead to a new level of personal liberty, democratic governance, and accountability for corporate and public entities.

The first section, "The Virtual Reality of Modern War," examines how digital computing and the Internet were developed as a part of U.S. military and government projects. The main argument is that digital computing and the Internet were the unintended byproducts of U.S. government-led projects, aimed at improving the accuracy of naval artillery against moving targets, within the context of advances in early computing. Overall, the motivation for these advances in the first half of the 20th century were geopolitical, were backed with government funds, and involved partnerships among entities from the military, private industry, and academia.

Chapters 1 through 5 are devoted to the development of digital computation systems, rather than the emergence of the Internet as a communications network, while in chapters 6 and 7, the reader encounters the concept that personal computers should be able to share information and that electronic devices should not only store information but also be able to use memory to provide feedback. Thus, this first section of the book gives a detailed (but quite interesting) account of U.S. government agencies' efforts to build computers; nevertheless, it is only in the final pages of this section that it becomes clear to the reader that these government agencies realized (in the late 1950s) the significance of improving communication among computers. In short, the first section of the book documents the shift from the perception of "computers" as people performing mathematical calculations, to the notion of computers as machines for calculation and

communication. Moreover, while it is clear that the United States was a dominant player in the development of digital computation, the contributions of other nations may have been understated in the text.

In the second section, "Liberation Technology," the author describes how innovations in personal computing and networked computing emerged from an antiauthoritarian hacker subculture located in the San Francisco Bay Area. This section explains how this new movement, in the late 1960s, imagined the Internet as a place for all (not just for military or academia) and how computing would lead to human liberation (individual and collective). Furthermore, they envisioned computer terminals sharing all kinds of information (such as books and news) through phone lines. In short, this generation believed that individuals could do something better with computing power than governments, militaries, and corporations had done before.

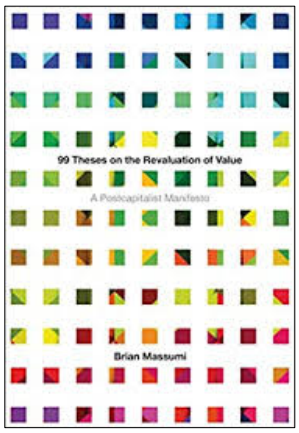
By the mid-1980s, the Internet had become accessible to anyone (mainly, hackers, geeks, and academics) with a phone line and a modem. At the same time, private companies (e.g., Apple and Microsoft), as well as international agencies (e.g., European Organization for Nuclear Research (CERN), in Geneva, which established hypertext transfer protocol [HTTP] and hypertext markup language [HTML]), had also become big players in the rise of networked computing. Overall, by the 1990s, the Internet had become fundamentally economic, rather than military, and the need to stabilize Internet governance had also become apparent.

The third and final section, "The Splinternet," expounds the book's title by explaining how the geeks of Silicon Valley failed to achieve the utopian vision of the Internet as a free and global medium for individual and collective liberation and benefit. Overall, their idea of a global web, being independent completely from governments and industry interests, was, to a large extent, an illusion. Instead, the two major players shaping the Internet of today are governments and the big capital. The author concludes that today's fragmented Internet will keep some of its aspects of universality (no single state seems able to dominate the governance of the Internet), because companies and governments understand that they cannot continue to prosper by simply limiting themselves to local markets.

Splinternet is well written and requires no prior knowledge of computer science or any technical understanding of the Internet. Given that in today's world so many people worldwide live in highly digitized societies, this book can be of interest to undergraduate students in a wide range of specializations (e.g., engineering, natural sciences, or social sciences). The book could easily be read for pleasure or as a supplementary text in courses in various fields. One limitation, however, is the book's overwhelming U.S. focus.

Liberating the Concept of Value

Brian Massumi's *99 Theses on the Revaluation of Value: A Postcapitalist Manifesto* is a short but dense volume that is difficult to categorize, as much due to its content as its form. It is not an easy volume to engage, but for its depth and sweep of relevancy, an effort on the part of the reader is rewarded. The volume considers the concept and practice of value and seeks to define a way in which such can be reclaimed and redefined in the contemporary context (described as postcapitalist and digital).



Given the unfamiliar structure of the volume, and its often oblique (at least from the point of view of social scientists) formulary of argumentation, it would be easy to overlook the depth of scholarship reflected in the volume. Indeed, the structure (not to mention content) provides an homage to the social philosophers upon whose work the argument is based, including, among others, Deleuze, Foucault, Guattari, Marx, and Simmel. Written in the form of a philosophical treatise, the volume is organized in a structure that may be unfamiliar to scholars in communications studies. As the title suggests, there are 99 theses (T1–T99) that form the basic structure of the text, and these range in length from one or two sentences to several pages. Many theses are followed by scholia (plural for *scholium*), which are points meant to support their respective theses, often with respect to existing literature and ideas. Many scholia are further followed by one or more lemmata (plural for *lemma*),[1] which are points that support both the theses that they follow and their scholia.

The volume wends its way through a series of statements concerning capitalist system's production of value (including surplus), how such is valuated, exchange, and the affective qualities of value. The point of departure for the volume is that the concept of value has been in the hands of promulgators of the status quo of exploitation and oppression and that it "is time to take back value" (T1), by articulating a "strong *alternative conception of value*" (T2). Such a conception should move beyond normative concepts of value (T3 & T4) and should conceive of value not as quantitative (T5) but as both "*irreducibly qualitative*" and "*this-worldly*" (T6). Since the revision of value "*is too valuable to be left to capital*" (T7), reconceptualization should rebut both the economic logic of value (T7) and the dominance of value as defined in terms of money (T8). From these premises, the volume discusses scholarship in value and ultimately offers guiding principles for revaluing value. The volume then proceeds through explication of such concepts as money for storing value (T9), the myth of equal exchange (T10), systemic factors of exchange (T11), and labor (T12).

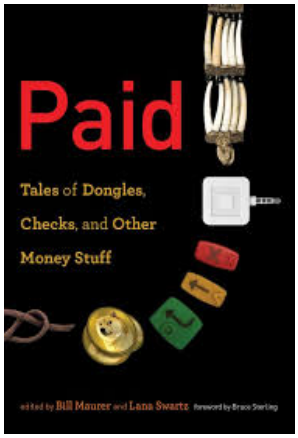
The heart of the volume mulls over media of exchange in traditional forms, and into emergent capacities in digital exchange such as cryptocurrencies (e.g., Bitcoin and Ethereum) and blockchain technologies. In the volume's most significant contribution, Thesis 94 provides a series of 14 speculative strategies that "weave together into a *speculative fabulation* of what a collectivist postcapitalist economy might involve" (T94, Fabuation), including use value, fun, work, labor time, individualism, product, accumulation, incentivization, the digital, transactional exchange, decision, humanism, privatization, and purity. Yet, how might all this be put into practice, as "a creative process engine that stays true to its mission of producing surplus-value of life for its own sake at the same time style itself an economization process capable of interfacing with the dominant economy in self-sustaining ways" (T95)? One further reflection (T96, Fabuation, Fact) caps the discussion with the idea that the organization SenseLab (www.senselab.ca) has been cooperating with software developers and the European Space Agency to digitally operationalize the speculative strategies needed for the revaluation of value, which ultimately should embrace beauty (T98) and be achieved nonviolently (T99).

---

[1] Consider a *lemma*, a unified point, versus a *dilemma*, which is a point that may lead to two plausible outcomes.

The book is erudite and reflective of a sweeping intellectual exertion, but as such it is not for casual consideration. Engaging the volume requires significant effort and likely foreknowledge of economic philosophy and sociological theory, although no prior knowledge of technical details of cryptocurrencies or other digital innovations are required. The book will be of primary interest to social scientists, academic futurists, and scholars of economic philosophy. While the book does require effort to read and digest, such effort is rewarded as the discussion is very thought-provoking, if oblique on occasion.

Objets d'Échange



Paid: Tales of Dongles, Checks, and Other Money Stuff is an edited volume exploring various transactional objects other than money (i.e., paper notes and metal coins). In total, 20 authors from diverse disciplines contribute short chapters on either a forgotten/ignored physical object that had been used in the past to settle transactions (e.g., shells or beads), or some more contemporary form of remittance, which may refer to either a tangible item (e.g., a credit card) or something intangible (e.g., a cryptocurrency). The volume is visually appealing and seemingly playful at times.

While it is not explicitly stated precisely why the 20 items have been selected for inclusion in the volume, there does emerge some sense of grouping as the reader progresses. A number of chapters examine visible transactional objects: Chapter 3 describes how Native Americans in California used to imprint tattoos (on the interior of their forearms) to measure the length of strung shell beads (beads were used as a measure of wealth); chapter 5 describes how the use of deposit receipts has facilitated the formation of family collective financial associations in Ecuador; chapter 7 describes the Incan *khipu* method of accounting, which involved a double-entry ledger; and chapter 11 explores the widespread habit of keeping tallies in the ancient world (such as in Greece, Egypt, and China).

Furthermore, half of the chapters of the book describe how infrastructure and technology have resulted in new forms of payment, two of which are intangible (chapters 6 and 19). More specifically, chapter 1 discusses the use of dongle-based payments connecting digital systems. Chapter 2 describes how, in the United States, the government gradually shifted to electronic payments for public benefits, now delivered through prepaid debit cards. Chapter 4 discusses the development of identification systems for plastic credit cards, such as magnetic stripes. Chapter 6 discusses the "Dogecoin," a cryptocurrency with two features distinguishing it from traditional forms of payment: It was not backed by any central bank or government, and it engaged the notion that the value of the currency emerged from the community of its users, which in this case also drew upon a sense of humor generated by the Dogecoin. Chapter 8 discusses the Diners' Club card in 1950s America. Chapter 10 examines the practice of accepting signatures for credit card transactions in the United States, while the rest of the world has now adopted a PIN security feature. Chapter 14 describes how the telephone service allowed France to introduce the first World Wide Web in the 1980s (called Minitel) and the reasons why it had been so successful. Chapter 16 discusses the deployment of ATMs worldwide, and chapter 18 discusses the issue of swipe fees for use of credit cards. Finally, chapter

19 discusses Ether (i.e., airtime divided into bands of frequencies for mobile telecommunication, radio, satellite, etc., services) as a form of intangible money.

Finally, there are a handful of chapters standing apart, or that are not as strongly conceptually connected with other chapters in the volume. Chapter 9, perhaps the most fascinating chapter in the volume, describes the experimental Squamuglia coffee shop in Los Angeles, where customers throw money on the floor rather than handing it directly to the server, a practice that allows people to experiment with treating cash as trash. Chapter 12 describes the Airbnb digital platform, launched in 2009, for short-term accommodation rentals. The most obvious connection with the rest of the chapters is that Airbnb can be seen as an example of a "sharing economy." Chapter 13 describes Benjamin Franklin's adoption of leaf prints (on dollar notes) to discourage counterfeiting. Chapter 17 shows that money is a means of communication, or that money creates intimacies.

Overall, this book will capture the attention of readers wishing to learn more about various transactional remnants from the past or recent innovations in financial remittances. Nevertheless, the book may leave them wondering about the conceptual connections between some of the early systems (predating the use of coins) and some of the more contemporary forms of payments. While the editors' stated purpose is to "juxtapose archaeological, historical and ethnographic material" (pp. xxi), with a view to achieving a compendium of payment objects, it is sometimes confusing to the reader how some of the chapters refer to transactional articles or how the topics for these 20 chapters were determined. One possibility afforded is that the chapters appear as fairly stand-alone and that they can be understood individually, or in any order.

Paid is generally well written and requires no prior knowledge of academic or technical fields to engage. Given the ubiquity of financial transactions and innovations in this area, the book may be of interest to general readers, and individual chapters may be selected as supplementary readings in undergraduate courses in finance, economic history, archaeology, ethnography, cultural studies, and communications.

Conclusion

The overall image that develops is that data and information systems are all about power and control. While certainly not a surprise to scholars of ICTs and networked societies, the point of these three recent texts is to highlight not only the technical and ethical aspects of information but also particularly the normative aspects. Each of the volumes examined here approaches the issues of information and electronic communication in digital networks from various perspectives, and taken together they complement one another. *Splinternet* reminds that the Internet was not constructed upon a neutral backbone.

Despite some utopian aspirations that seemed to dominate the development of the personal computing industry and development of the Internet, events in recent decades have revealed that the Internet has become a mechanism of mass surveillance and further accumulation of capital and control, which is precisely the point of *99 Theses on the Revaluation of Value*: that the very notion of value has been appropriated and is defined by dominant classes. Indeed, as data are a site for storing and discovering value, perhaps the need to reclaim the concept of value itself is more imperative than ever. The outlook seems gloomy indeed. At its worst, the Internet is a technical assemblage with antecedents in military and

government institutions, which serves as site and promulgator of exploitative discourses legitimizing unfettered accumulation of capital and political domination.

Yet, is it time to pull the plug on the whole Internet and to advocate a Neo-Luddism? Fortunately, the volumes also remind us that such practices are not new, nor are they always determined to result in their intended consequences (for good and/or bad). *Paid* is intentionally playful and sweeping in its scope and thus reminds us that perhaps the rational aspects of ICTs (whether economic, military, technical, and/or governmental) may be relegated to the dustbin of history before long, just as they may also be the very locations in seemingly robust systems in which resistance takes place. Perhaps all is not as dire as it seems as surveillance capitalism sets in, and measured optimism may be in order. After all, *99 Theses* also reminds us that what has been created by humans, even if appropriated and distorted by powerful forces, has potential to be reclaimed and redefined.