Open And Closed Systems

Tim Wu and *The Master Switch: The Rise and Fall of Information Empires*

By Tim Toohey

The recent debates between the "Internet" and "Hollywood" over the now tabled Protect IP Act (PIPA) and Stop Online Privacy Act (SOPA) were not noted for understatement by either the bills' proponents or opponents. In the House of Representatives, SOPA's bipartisan sponsors claimed that the bill was necessary to stem the $100 billion annual costs of intellectual property theft and that "[m]illions of American jobs hang in the balance."[1] The bill's opponents, which included eBay, Facebook, Google, LinkedIn, Twitter, Yahoo!, and Zynga, claimed that SOPA would "set[] a precedent in favor of Internet censorship and could jeopardize our nation's cybersecurity"[2] and was nothing short of a plot by Hollywood to "break the Internet."[3]

Tim Wu's *The Master Switch: The Rise and Fall of Information Empires*, is a historical exposition of the ideological underpinnings of the Internet side of the debate. In Wu's view, the proponents of the "utopia of openness (the dream of the Internet's founders)" are in constant warfare with the centralizers—the big telecommunications and entertainment companies—who want the "perfection of the closed system" (p. 303). So persistent is the "oscillation" between "open and closed" information systems that Wu dubs this phenomenon the "Cycle."

Tracing historical developments in telephony, radio, film, and television, Wu chronicles the inevitable movement of the Cycle from "revolutionary novelty and youthful utopianism" to a "highly centralized and integrated new industry." He concludes that:

> without exception, the brave new technologies of the twentieth century—free use of which was originally encouraged, for the sake of further invention and individual expression—eventually evolved into privately controlled industrial behemoths, the "old media" giants of the twenty-first, through which the flow and nature of content would be strictly controlled for reasons of commerce (p. 6).

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In Wu's view, the Cycle is a largely negative phenomenon with the occasional positive side effect. Both the positive and negative are epitomized by the rise of AT&T—the undoubted central player in Wu's narrative. Telephony originally was a "disruptive" technology destined to break through the old knowledge and habits of the entrenched telegraph system. Through the guidance of AT&T's "defining mogul" Theodore Vail, the telephone company utilized patent lawsuits against Western Union and the destruction of the small independent telephone operators to lay its long-distance lines and to make the United States the most wired country in the world.

For a time, AT&T, with the active sponsorship of the federal government, was the model of an enlightened, public-minded "information despot." But AT&T, while fostering innovation through the famous Bell Labs, also squelched inventions of potential competitors, such as manufacturers of add-ons, and internal inventions, such as answering devices, that threatened to disrupt the company's monopoly or allegedly endanger its transmission lines.

When the tide eventually turned, AT&T was forced to divest itself of certain businesses and was split by the government into "Baby Bells" to compete for long-distance service, phone attachments, and data processing. Despite this forced divestiture, the Cycle showed its continued force when AT&T was reconstituted from one of the Baby Bells and Verizon from another company. Within a relatively few years, these two behemoths entered into a new relationship with the federal government, and had gained power over the realms of broadband and wireless, as well as traditional landlines. For Wu, the reconstitution of the "giants of telephony" demonstrates not only the inevitability of the "Cycle of information empires" but also the power of the "master switch" over free speech. In the words of former CBS News President Fred Friendly, who coined the term, the master switch is "an autocracy where a very few citizens are more equal than all the others" (p. 183).

Much of the historical detail that Wu marshals in support of the existence of the Cycle is intriguing, particularly where he delves into little known episodes such as AT&T's attempted suppression of the "Hush-a-Phone" (an early telephone silencer) or its squelching of the development of magnetic tape technology. Although Wu sometimes seems a little too determined to fit disparate developments in multiple industries into one inexorable "Cycle," this narrative structure provides

a useful point of debate, particularly regarding information empires that do not seem to fit Wu's mold, such as newspapers and books.

Interesting as is his historical exegesis of the Cycle, Wu's pulse quickens when he turns to the rise of the Internet and the challenges it faces today. In Wu's view, the past workings of the Cycle are merely a prologue to the challenges posed by the forces of centralization to the "utopia of openness" embodied by the Internet. More is at stake than engineering and transmittal of data packets through a network. The Internet, "like all design," is "ideology embodied." The Internet's ideology lies in "the opposition to bigness characteristic of the era" and the embrace of a system where the trains do not always run on time and which is not centrally controlled (pp. 201, 304).

Like the prior information industries described by Wu, the Internet has been swept into a "perennial ideological struggle." In Wu's view, the forces of openness, epitomized by Google, are "locked in a complex, slow-moving struggle with AT&T and cable, the entertainment conglomerates and Apple" (p. 295). The future will "be decided by one of two visions." On the one hand, there is the utopia of the "openness movement" espoused by the "apostles of openness"—a "world in which most goods and services are free or practically free, thereby liberating the individual to pursue self-expression and self-actualization as an activity of primary importance." On the other hand is the dystopia of the "centralizers—AT&T, Hollywood, and Apple," which will be "informed by a marriage of twenty-first century technology and twentieth-century integrated corporate structure." In this world, the "worst of the Internet" will be eliminated, "the spam, the faulty apps, the junky amateur content," but also, in Eric Schmidt of Google's words, "choice, freedom and openness" (pp. 296, 297).

Wu reluctantly concludes that the Internet itself may not be able to resist the Cycle and that it will be brought "to heel one way or another" (p. 256). "The antagonists assume new form, the generals change, but essentially the same battles are fought over and over again. It is the very essence of the Cycle, which even a technology as radical and powerful as the Internet seems able at most to moderate but not to abolish" (p. 289). Although his conclusion was written before the debate over SOPA and PIPA, Wu undoubtedly would see these fights as another form of the perpetual battle between centralizers and the proponents of openness.

Facing the unpalatable prospect of eternal warfare, Wu proposes (in the least convincing section of the book) that the various forces enter into a cease fire and peace accord by adopting the "Separation Principle." This principle, which is inspired by the Constitution's separation of powers, is "that those who develop information, those who own the network infrastructure on which it travels, and those who control the tools or venues of access must be kept apart from one another." Similar restrictions, which apparently would not have the force of law, would apply to the government, which could "not intervene in the market to favor any technology, network, monopoly or integration of the major functions of the information industry"

because of the government's destructive potential.

Given the current dysfunctional level of discourse, in which the head of the Motion Picture Association of America has called the Internet blackout an "abuse of power," "stunt," and "gimmick,"[4] and the Electronic Frontier Foundation accused Hollywood of being "tired of those pesky laws that help protect innovation, economic growth, and creativity" and of "trying to . . . regulate the Internet, and damn the consequences for the rest of us,"[5] it may be "utopian" to expect the powers of centralization and openness to agree to self-limiting principles. Indeed, the economic forces of the Cycle chronicled by Wu would seem to doom such an enterprise from birth.

If Wu's proposed solution is unlikely, are we doomed to the recurrence of the Cycle with its repression of freedom of expression and crushing of innovation? There are signs that the evolving reality is not so clearly delineated between the open and centralized systems as Wu posits. Take the case of Apple. Wu puts Apple in the camp of the centralizers because of its "beautiful and perfect," closed, and "Hollywood" and telecom friendly machines, but Wu's conclusions are at least debatable. How "closed" and oppressive of free expression is a system that, at last account, has over 500,000 iPhone and 140,000 iPad apps, few of which were designed by Apple? How closed and crushing of innovation is a company that not only allows users to run a large number of third-party applications on its machines, including Microsoft Office, but Windows itself? And how subservient is a company to the telecoms and Hollywood that has enough capital to buy and sell all but the biggest "old media" companies? Are we simply being "dazzled," as Wu claims, by "ever newer toys, faster connections, sharper graphics, and more ingenious applications" from the "consequences of centralized control" (p. 318)? Or are these new systems actually providing numerous people with the tools that they need, not only to communicate, but to create?

Although *The Master Switch* undoubtedly makes a contribution to understanding the supposed divide between the Internet and Hollywood that was painfully revealed in the SOPA/PIPA debates, Wu's somewhat one-sided reading of the history of information empires glosses over the common ground held by the proponents and opponents of those bills. Most of the opponents of the bills generally voiced their support for enforcing intellectual property law and preventing illegal counterfeits, albeit not in the form of this legislation. The bills' supporters, although decrying the "stunts" and "gimmicks" of the Internet, did not go on record as being opposed to the innovations and at least certain aspects of decentralized access to the Internet. Indeed, they know as well as anyone else that the Internet is an integral portion of their business distribution model and that they must innovate to survive. Although Wu does not dwell on the commonalities of the proponents of centralization and openness, the future may rely much on the ability of both sides to explore this common ground—a ground that is neither entirely open nor entirely closed. ∎

Endnotes

1. Press Release, U.S. House of Representatives Comm. on the Judiciary, Bipartisan Bill Combats Online Piracy (Oct. 26, 2011), http://judiciary.house.gov/news/HR%203261%20Introduced.html (statement of Ranking Member John Conyers (D-Mich.)).

2. Testimony of Katherine Oyama, Copyright Counsel, Google Inc. before the House of Representatives Committee on the Judiciary Hearing on H.R. 3261, the Stop Online Piracy Act, at 1 (Nov. 16, 2011), http://judiciary.house.gov/hearings/pdf/Oyama%2011162011.pdf.

3. Corynne McSherry, *SOPA: Hollywood Finally Gets a Chance to Break the Internet*, ELECTRONIC FRONTIER FOUND.: DEEPLINKS BLOG (Oct. 28, 2011), https://www.eff.org/deeplinks/2011/10/sopa-hollywood-finally-gets-chance-break-internet.

4. Statement of Senator Chris Dodd, Chairman & CEO of the Motion Picture Ass'n of Am., Inc. on the So-Called "Blackout Day" Protesting Anti-Piracy Legislation (Jan. 17, 2012), http://www.mpaa.org/resources/c4c3712a-7b9f-4be8-bd70-25527d5dfad8.pdf.

5. McSherry, *supra* note 3.