



8-2012

# The connectivity doctrine: A critique of techno-utopian discourse, liberal governmentality, and the colonization of cyberspace

Geoffrey S. Pettys

DePaul University, [gpettys31@siumed.edu](mailto:gpettys31@siumed.edu)

---

## Recommended Citation

Pettys, Geoffrey S., "The connectivity doctrine: A critique of techno-utopian discourse, liberal governmentality, and the colonization of cyberspace" (2012). *College of Liberal Arts & Social Sciences Theses and Dissertations*. 131.  
<https://via.library.depaul.edu/etd/131>

This Thesis is brought to you for free and open access by the College of Liberal Arts and Social Sciences at Via Sapientiae. It has been accepted for inclusion in College of Liberal Arts & Social Sciences Theses and Dissertations by an authorized administrator of Via Sapientiae. For more information, please contact [wsulliv6@depaul.edu](mailto:wsulliv6@depaul.edu), [c.mcclure@depaul.edu](mailto:c.mcclure@depaul.edu).

**The Connectivity Doctrine:  
A Critique of  
Techno-Utopian Discourse, Liberal-Governmentality,  
and the Colonization of Cyberspace**

**A Thesis Presented in  
Partial Fulfillment of the  
Requirements for the Degree of  
Master of Arts**

**August 2012**

**By  
Geoffrey S. Pettys**

**Department of International Studies  
College of Liberal Arts and Sciences  
DePaul University  
Chicago, Illinois**

## **Table of Contents**

Acknowledgements	3
Introduction	4
Chapter Overview	6
Chapter I: The Connectivity Doctrine	9
1.1: The Connectivity Doctrine as Articulated in US State Department Speeches	14
1.2: The United States' "International Strategy for Cyberspace"	19
Chapter II: Analysis of the Connectivity Doctrine	23
2.1: Cyber-Utopianism and Techno-Optimism: Historic and Present Variations	23
2.2: Technology, Knowledge, and Power	27
2.3: Strategic use of History in Techno-Optimism Rhetoric	28
2.4: Unique Qualities of Modern ICT and the Connectivity Doctrine's Contradictory Nature	30
Chapter III: Theoretical Framework: Biopolitics and Governmentality	33
3.1: Governmentality: A Brief Overview	33
3.2: Governmentality, Biopolitics, and Liberalism	40
Chapter IV: Governmentality and the Internet <i>or</i> The Conduct of Cyber Conduct	43
4.1 Cyber Governmentality via "Human Rights"	46
Chapter V: The Biopolitics of Connectivity	50
5.1: Connectivity and Capitalism	54
Chapter VI: Connectivity, Violence, and Empire	58
6.1 Epistemic Violence	59
6.2 Physical Violence	62
6.3 Technological Intervention and Violence	65
6.4 US Foreign Policy and Violence	69
6.5 Connectivity and Empire	72
6.6 Selling Empire	78
Chapter VII: Conclusion	87
Bibliography	92

## Acknowledgements

With my deepest gratitude, I would like to acknowledge all of my family, friends, and colleagues for their support and patience while I completed this project. In particular, I would like to thank Kaveh Ehsani and Shiera Malik for shaping my graduate experience, forcing me to accomplish things I would never have done on my own, and otherwise changing my life forever. I would also like to thank Gil Gott and Scott Hibbard for providing the necessary academic base and encouragement to complete this project. And a special thank you to Phil Ackerman, for being my “human cairn” and always showing up at exactly the right moment to point me in the right direction.

I also owe an immeasurable debt of gratitude to Molly Hoover and Brooke Lautz, without whom this thesis would never have been completed. Thank you so much for your constant support, thoughtful feedback, and friendship. I love you both.

Finally, I would like to thank:

my parents, Ron and Dawn Pettys, for encouraging me to always speak truth to power.  
my brother, Greg, for encouraging me to believe in what is irrational and impossible.  
and my boo, Megan Freeman, for reminding me that we should do nothing without joy.

“Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather.”

- John Perry Barlow, “A Declaration of the Independence of Cyberspace”<sup>1</sup>

## **Introduction**

The widespread proliferation of information and communications technologies (ICT) over the past few decades has undoubtedly had profound impacts on innumerable facets of human life. The transformative effects that ICT use has had on social relations, international business, and global politics are in themselves remarkable, yet the speed with which they have occurred is at least equally impressive. Indeed, the so called “Internet revolution” has lived up to its moniker in so many ways that some leading media scholars argue that “immersion in the digital world is now or soon to be a requirement for successful participation in society.”<sup>2</sup> Whether this modern requisite is ultimately for the better or worse, and if the associated changes have brought about more positive or negative effects, are subjects of much ongoing debate. Still, an overwhelming number of academics, politicians, and pundits believe modern ICT to be universally beneficial and staunchly advocate for accelerated global connectivity via the widespread adoption of such tools.

At the same time, a quieter and less publicized debate is emerging concerning who should direct the evolution of cyberspace (the notional environment created by

---

<sup>1</sup> John Perry Barlow, “A Declaration of the Independence of Cyberspace,” 8 February 1996, <https://projects.eff.org/~barlow/Declaration-Final.html> (accessed 23 February 2012).

<sup>2</sup> John Bellamy Foster and Robert W. McChesney, “The Internet’s Unholy Marriage to Capitalism,” *Monthly Review* (March 2011): 1.

interconnected and interdependent ICT infrastructures, telecommunications networks, and computer processing systems) and who should govern the various activities that take place within. The explosion of e-commerce, cyber crime, and most recently the use of ICT in political and social movements, make this debate ever more pertinent. As such, countless actors from the private sector, governing agencies, and civil society have joined this conversation, each developing and advancing their own preferred plans for the future of ICT growth and governance. This thesis is a contribution to this ongoing discussion.

While ICT includes a broad array of telecommunications systems, computers, hardware, software, etc, much of my analysis will be concerned with the Internet, as it constitutes what is arguably the greatest area of contention within the broader debate. Likewise, while this topic is of global import, this thesis will focus primarily on the US government's approach to international ICT governance (the US State Department's involvement with the subject in particular) and the role of US based ICT companies in promoting the adoption of ICT across the globe. The decision to narrow the focus was made for sake of brevity but also because of the US's prominent role in global cyber-related matters. Beyond the typical clout it enjoys as the sole remaining superpower, the US has enormous influence over how global debates concerning cyber-issues unfold due to its position as the Internet's (and many ICT's) place of origin. Furthermore, the model of cyber infrastructure and governance that the US employs domestically and advances abroad is the most complete illustration of the "integration of monopoly-finance capital and the Internet, representing the dominant tendency of the global capitalist system."<sup>3</sup> With such immense global influence over the issues of concern, the US is the ideal analytical focal point.

---

<sup>3</sup> Foster and McChesney 2011, 1.

In the coming chapters, I will critically assess the US's "International Strategy for Cyberspace," its policies concerning Internet freedom, and its corollary promotion of global connectivity via ICT. I will argue that the Internet freedom discourse constitutes a form of epistemic violence that the US government and its like-minded allies perpetrate against those who adhere to contradictory communication policies. I will further suggest that the associated policy initiatives render the US culpable, if not wholly responsible, for the physical violence that people may fall victim to as a result of using the technology it actively helps develop and promote. I also contend that the US's attempt to establish the guiding norms and govern the behavior in "cyberspace" is an example of "international governmentality," a contemporary variant of Michel Foucault's notion concerning modern power relations. Following this, I will demonstrate how Foucault's understanding of governmentality reveals important aspects of the US-led cyber agenda that remain hidden in the rhetoric; aspects which allow for a more complete assessment of the policy and its implications.

### **Chapter Overview**

In chapter one, I will define what I call the "Connectivity Doctrine;" a term meant to serve as shorthand for the (primarily) U.S.-led efforts to promote the proliferation of ICT use across the world and the global adoption of particular infrastructure models, as well as its desire to direct the evolution of cyberspace. The term also includes the argumentation, rhetoric, and relevant policies concerning "Internet freedom," ICT development, and international cyber-governance. I will then include a discourse analysis

of the Connectivity Doctrine's major speeches and policies concerning the Internet in order to contextualize the parameters of the leading positions.

In the second chapter, I will critically analyze the Connectivity Doctrine in an effort to reveal its underlying purposes as well as the potential implications, effects, and consequences it may have that are not explicitly articulated in the rhetoric. I will draw parallels between past and present variations of the "techno-optimism" discourse, situating the Connectivity Doctrine as a modern manifestation of a time-honored hegemonic strategy to maintain and expand power. I will argue that the same logic, rhetoric and methodology that was used by past hegemonic powers to justify imperialism in the 15<sup>th</sup>-20<sup>th</sup> centuries is being used today to justify the contemporary, virtual "colonization" of cyberspace.

Once the Connectivity Doctrine has been defined, dissected, and contextualized, I will shift the focus of my thesis to theory. I will present Michel Foucault's study of neoliberal governmentality as a theoretical framework which can be used to explain what, how and why specific actors advance certain organizational designs and policy recommendations concerning how the Internet should evolve and how it ought to be governed. I will provide a brief, but necessary overview of Foucault's theory in chapter three, followed by two chapters in which I apply governmentality theory to the Connectivity Doctrine to illustrate its broad implications. Finally, I will conclude my thesis by arguing that the Connectivity Doctrine is part of a larger project of neo-liberal globalization; a project that has historically fostered the overthrow of governments, military invasions, and otherwise represents a form of subjugation disguised as

benevolence that can lead to various forms of state violence and ultimately, modern Empire.

## Chapter I: The Connectivity Doctrine<sup>4</sup>

The use of the Internet, social networking sites, mobile devices, and other ICT in recent social and political movements has reinvigorated a long-established spirit of “techno-utopianism” that had seemingly been dormant since the “dot-com bubble” burst in the 1990s. Such optimism has been a historically reoccurring trend that tends to emerge whenever new technology is developed, especially technology that has the potential to transform both the market and social spheres. It is important to note that the promise of new technology is almost always predicated on economic and material improvements first; the potential social benefits (efficient global communication, greater access to knowledge, the strengthening civil society by fostering democratic debate, etc.) are typically addressed later, as the discourse evolves. While both rationales are important, the economic impact must be great enough to influence market behavior as well as policy makers before the potential social benefits are integrated into the rhetoric.

In the present case, ICT has opened up countless new markets and has thus gained the interest of both capital and political nodes of power. Many contemporary cyber-optimists,<sup>5</sup> in turn, have hypothesized about the potential social benefits modern ICT may have and believe that global connectivity via ICT represents the solution to many of the world’s problems. To cite just a few examples, cyber-optimists argue that ICT (particularly the Internet) has brought about a new wave of citizen journalism; that it

---

<sup>4</sup> The term, “Connectivity Doctrine,” is my expanded take on what Evgeny Morozov calls the “Google Doctrine.” While the terms are similar in that both refer to the “enthusiastic belief in the liberating power of technology” (Morozov 2011, xiii), the “Google Doctrine” focuses primarily on US governmental partnerships with Silicon Valley on foreign policy matters. The “Connectivity Doctrine” takes this as a point of departure and expands it to include the US-led effort to shape the Internet’s architecture globally and establish behavioral and governmental norms in cyberspace. The term also borrows from Julian Reid’s outstanding analysis of the “biopolitics of information technology” and the subjectification of “the Connected” and “the Disconnected” as new categories of human beings (Reid 2009).

<sup>5</sup> This term and its variants refer to the virtually messianic belief in the “emancipatory nature” of ICT coupled with a “stubborn refusal to acknowledge its downsides.” (Morozov 2011).

fosters a new sense of collective identity and community among users;<sup>6</sup> and that it will provide people with unprecedented resources, information and power. They point to the reduced costs of democratic participation, ease of communication, increased access to information, and expedited social mobilization as examples of how ICT have been used to promote political engagement. Furthermore, cyber-enthusiasts contend that modern ICT made possible novel modes of activism such as cyber disobedience, virtual protest, and hacktivism,<sup>7</sup> which are better suited for contemporary social and political movements. As such, those subscribing to these beliefs advocate for the proliferation of ICT to increase global connectivity, arguing that doing so will help quell existing power imbalances and decrease inequality across the globe. Like-minded politicians and policy makers in turn adopt this line of argumentation and include ICT in development plans and international aid packages. Taken together, the academic research, the political rhetoric, and the promotion of specific policies comprise the theoretical basis and driving force of the Connectivity Doctrine.

Still, the Connectivity Doctrine is more than a collection of position papers and policies. While these are important components that help illustrate its principles, the Doctrine is fundamentally a philosophical view that guides the pertinent research and informs the related policies. Similar to the “Bush Doctrine”<sup>8</sup> and the “Monroe

---

<sup>6</sup> Saeid Golkar, “Liberation or Suppression Technologies? The Internet, the Green Movement and the Regime in Iran,” *International Journal of Emerging Technologies and Society* vol. 9, no.1 (2011): 51.

<sup>7</sup> *Ibid.*, 52.

<sup>8</sup> The “Bush Doctrine” is a phrase used by politicians and pundits to describe the guiding ideology and policies of the George W. Bush Administration that were initially outlined by President Bush in his speeches following the attacks on September 11, 2001 and later developed throughout his term in office. Never presented as an official or comprehensive document, the Bush Doctrine was a set of principles that informed policy decisions; core among them, the right to subject any state or organization that it deemed a potential threat to the United States to the “full range of instruments of power,” including economic, diplomatic, and military means (most notably the right to wage unilateral and pre-emptive war).

Doctrine,”<sup>9</sup> the Connectivity Doctrine is not a formal document or official policy ratified by congressional legislation, but is instead a phrase that refers to various principles and ideologies that help shape foreign and domestic policy. It is strongly influenced by cyber-utopianism in that it is a “quasi-religious belief in the power of the Internet to do supernatural things.”<sup>10</sup> As we will explore further, such a techno-centric approach to foreign policy often replaces more effectual political action in a way similar to how the Bush Doctrine’s emphasis on unilateralism often left no room for more traditional diplomacy and compromise.

The Connectivity Doctrine is similar to other Western-engineered development plans in both its initiation and deployment. Setting aside the potential merits of the arguments, the agenda, like most modern development plans, assumes a market-based understanding of improvement and progress, one that demands infinite growth potential and is assessed primarily by quantitative measurements. Also similar to other modern development plans, it is experts and academics from NGOs, think tanks, and academia who establish boundaries, define units of measurement and assessment, and generate models for achieving “progress” and “success.” Likewise, politicians and policy makers translate these action plans into official policy and then try to convince the broader public

---

*Chambers Dictionary of World History*, 2005, s.v. “Bush Doctrine,” [http://www.credoreference.com.ezproxy1.lib.depaul.edu/entry/chambdictwh/bush\\_doctrine](http://www.credoreference.com.ezproxy1.lib.depaul.edu/entry/chambdictwh/bush_doctrine) (accessed 23 February 2012). *Greenwood Encyclopedia of International Relations*, 2002, s.v. “Bush Doctrine,” [http://www.credoreference.com.ezproxy1.lib.depaul.edu/entry/abcintrel/bush\\_doctrine\\_2001](http://www.credoreference.com.ezproxy1.lib.depaul.edu/entry/abcintrel/bush_doctrine_2001) (accessed 23 February 2012).

<sup>9</sup> Likewise, the Monroe Doctrine, which expressed the US’s neutrality in European Affairs and condemned all future acts of European colonialism in the Americas, was never ratified by congress, but rather existed as a set of principles and beliefs that guided official policy and decision making. First expressed by President Monroe in a speech to congress, the Doctrine evolved over time in response to US foreign policy priorities. *The Columbia Encyclopedia*, 2008, s.v. “Monroe Doctrine,” [http://www.credoreference.com.ezproxy1.lib.depaul.edu/entry/columency/monroe\\_doctrine](http://www.credoreference.com.ezproxy1.lib.depaul.edu/entry/columency/monroe_doctrine) (accessed 23 February 2012).

<sup>10</sup> Evgeny Morozov, *The Net Delusion: The Dark Side of Internet Freedom* (New York: Public Affairs, 2011), 19.

of their worth. The rhetoric used often presents these policies as politically neutral and uncontroversial, and as specific terminology gets repeated and policies approved, ideas and discourses become normalized and gradually gain widespread public acceptance. In this way, “idea producers” and governmental agents work together to manufacture “universal knowledge.”

The United States has a pronounced interest in expanding global connectivity as well as shaping the governing architecture of cyberspace. As the base of many of the largest technology companies, the US economy stands to gain tremendously from increased sales of its products and services abroad. The US government also has a strategic interest in global connectivity, as its evolution has immeasurable implications for national security, international relations, military engagements, and countless other arenas. Thus, understandably, the US private and public sectors each try to take advantage of the techno-optimism discourse and promulgate the assertion that modern ICT use serves as the best and most efficient path toward global economic development and societal progress.

Beyond increasing sales of US based ICT products and services, the United States government further seeks to establish and institutionalize guiding principles and norms of behavior to govern cyberspace. To advance this goal, it positions itself as the natural leader in shaping, codifying, and administering Internet governance. The US argues that as the birthplace of many ICT and the home of many of the preeminent experts on the subject, it is uniquely qualified for this role. In the International arena, the US has been successful in influencing the evolution of cyber-governance largely by exercising the aforementioned strategy of creating “universal knowledge” through directing the terms

and conditions of relevant discussions. It strategically situates global connectivity and “Internet freedom” as part of broader human rights and development discourses; a clever political maneuver that makes the issues appear politically and value neutral. As we will see, this is not always the case. While arguing that it is simply advancing *universal* rights and norms, the “Connectivity Doctrine” implicitly privileges Western, neo-liberal conceptions and ideologies concerning property rights, freedom, governance, economics, and world view.

## **1.1 The Connectivity Doctrine as Articulated in US State Department Speeches**

The Obama administration has been clear since taking office that cyberspace is central to its foreign policy. Among other things, Secretary of State Hillary Clinton has given several highly publicized speeches concerning the United States' Internet freedom agenda; the State Department's "NetFreedom Taskforce" has been notably active; and in May of 2011, the White House released the official "International Strategy for Cyberspace," the first of its kind.<sup>11</sup> Despite these speeches and documents, the term "Internet freedom" remains rather ambiguous; likewise, what its promotion entails and what the benefits and costs associated with this endeavor might include remain unclear. Still, careful analysis of the relevant speeches and policy documents helps clarify some of these ambiguities.

In January 2010, just days after Google announced it would no longer comply with the Chinese government's demand for the company to censor web searches in the country, US Secretary of State Hillary Clinton gave a speech to a group of politicians, NGO representatives, and leaders from the telecommunications industry that laid out the Obama administration's Internet freedom policy.<sup>12</sup> In February of the following year, just days after the Egyptian government shut down the entire country's access to the Internet in response to growing demonstrations, Secretary Clinton made another speech, titled "Internet Rights and Wrongs: Choices and Challenges in a Networked World, that further

---

<sup>11</sup> In the introduction to the document, President Obama writes: "this is the first time that our nation has laid out an approach that unifies our engagement with international partners on the full range of cyber issues." Executive Office of the President and the National Security Council (U.S.). "International Strategy for Cyberspace: Prosperity, Security, and Openness in a Networked World." May 2011. [http://www.whitehouse.gov/sites/default/files/rss\\_viewer/international\\_strategy\\_for\\_cyberspace.pdf](http://www.whitehouse.gov/sites/default/files/rss_viewer/international_strategy_for_cyberspace.pdf) (accessed 29 April 2012).

<sup>12</sup> Hillary Clinton, "Remarks on Internet Freedom," Speech, The Newseum, Washington D.C., 21 January 2010, <http://www.state.gov/secretary/rm/2010/01/135519.htm>, (accessed 2 April 2011).

articulated the US's position and policy. Beyond simply advocating for an open internet that allows for free speech and fosters democratic dialogue, the text of these speeches (as well as the strategic timing of their delivery) offers insight into how communication technology can help advance the US's broader ideological, technological, political, economic and geo-strategic goals. To help unpack these ideas, I will first provide a brief overview of the US's position on Internet freedom, as defined in Clinton's speeches. Following this, I will review the US' *International Strategy for Cyberspace* in an effort to further clarify the US' position and related policy. In subsequent chapters, I will dissect some of the deeper implications this policy may have concerning foreign intervention, surveillance, and violence.

Without using the words explicitly, Clinton begins both of her speeches by framing the issue of Internet freedom as one of "good" vs. "evil." She warns that communication and information technologies can just as easily be used to foster economic progress and social justice as they can to undermine them. As such, she argues that it is essential for the US to promote network designs and policies that advance liberal-democratic values while at the same time increasing the number of people who have access to the Internet.<sup>13</sup>

Clinton acknowledges that the Internet's architecture can be constructed in numerous ways; ranging from a severely restricted Internet, such as the Chinese model, where governments have the authority to monitor and censor the content that individual users view, to a radically free and lawless model, akin to what the Internet's originators had in mind, and everything in between. Clinton recognizes that the world's information

---

<sup>13</sup> Clinton 2010, 2. (Note: the transcripts of Clinton's speeches are not numbered. For ease of reference, any page numbers listed in footnotes are my own, based on a copy of the transcript printed directly from the cited url)

infrastructure being built today will have profound and long-lasting effects on global power configurations of the future. This being the case, she contends that the United States' design can "deliver the greatest possible benefits to the world"<sup>14</sup> and should thus serve as the model for other countries to emulate. Further arguing the supremacy of the American model, Clinton charges that countries with alternative Internet policies,<sup>15</sup> such as those with aggressive surveillance and censorship practices, are "taking the wrong path" and that their misguided approach will ultimately fail.<sup>16</sup>

Still, an Internet that simply reflects liberal-democratic values by embracing Western interpretations of free speech and market-driven content production and dissemination, yet remains fragmented along national borders in terms of access and governance is not adequate, according to Clinton. Reaching further, she states that the ideal network architecture would be a singular, global Internet that is accessible to "all of humanity."<sup>17</sup> Defending this point, she argues that this particular version of the Internet can serve as both "the great equalizer" and "the on-ramp to modernity,"<sup>18</sup> as it allows for the expedited exchange of information and enable capital to spread to new markets more efficiently.

Secretary Clinton also explains how the US has committed diplomatic, financial, and technological resources to promote its preferred form of the Internet and the liberal-democratic values embedded within. The US has used various diplomatic channels to

---

<sup>14</sup> Hillary Clinton, "Internet Rights and Wrongs: Choices and Challenges in a Networked World," Speech, George Washington University, Washington D.C., 15 February 2011, <http://www.state.gov/secretary/rm/2011/02/156619.htm>, 2, (accessed 2 April 2011).

<sup>15</sup> Clinton is specifically referring to governments that restrict citizen access to the Internet in the name of security or public morality.

<sup>16</sup> Clinton 2011, "Internet Rights and Wrongs," 4.

<sup>17</sup> Hillary Clinton, "Remarks on Internet Freedom," Speech, The Newseum, Washington D.C., 21 January 2010, 3, <http://www.state.gov/secretary/rm/2010/01/135519.htm> (accessed 2 April 2011).

<sup>18</sup> Clinton, 2010, 5.

help associate Internet freedom with human rights on a global level, including placing the issue on the agenda of the United Nations Human Rights Council.<sup>19</sup> Financially, the State Department provides funding for individuals, companies and institutions that develop global information and communications technologies that “advance [their] diplomatic and development objective.”<sup>20</sup> And technologically, the US helps create and deploy software that enable foreign citizens to circumvent their home government’s censorship and surveillance practices and provides training on how to use them.<sup>21</sup>

Clinton infuses Western interpretations of human rights, modernity, and progress in her rhetoric to justify the US’s Internet policy. Of these, she spends the most time arguing that that Internet freedom should be regarded as a basic human right. Clinton contends that certain individual rights (now among them the right to have unfettered access to information and communicate via a free and open Internet) are universal and calls for a global commitment to protect these rights. Her references to the Universal Declaration of Human Rights’ inclusion of the right to exchange information seems to support international agreement on these issues, yet she also refers to a particularly American experience with and understanding of rights. For instance, Clinton argues that the right to speech should never be restricted, yet concedes that this freedom has limitations, such as restrictions on libel and slander as well as provisions to protect intellectual property. Highlighting the distinctly American, liberal interpretation of free speech for which she advocates, Clinton notes that she disagrees with legal restrictions on hate speech, presumably including many European countries’ laws against holocaust

---

<sup>19</sup> Ibid., 7.

<sup>20</sup> Ibid., 8.

<sup>21</sup> Ibid., 7.

denial.<sup>22</sup> Clinton further contends that governmental processes should be made transparent, but maintains that governments have the final say in what information is appropriate for public consumption and what should remain confidential.<sup>23</sup>

Beyond the human rights frame, Clinton furthers her claim that the US model works to the benefit of all by highlighting its ability to stimulate economic growth and foster liberal democratic principles. In this way, the US's Internet policy is promoted as an act of benevolence; the diplomatic efforts, financial investments, and acts of technological intervention are all aimed at "improving the lives" of the global population and providing the "foundation for global progress."<sup>24</sup> Calling the Internet "the great equalizer," she argues that modern communication networks can help integrate more people into the global market economy and will "create new opportunities where none exist."<sup>25</sup> Clinton then makes an allusion to the primacy of Western enlightenment philosophy as she argues that the US's efforts will also promote greater respect for diverse views and help strengthen democratic principles. She asserts that access to information and reasoned discourse alone can nullify intolerance and offensive speech; by merely exposing different ideas to debate, she contends, "those with merit [will be] strengthened, while weak and false ideas [will] fade away."<sup>26</sup>

Finally, Clinton argues that the US has a responsibility to shape the architecture of a single, global Internet and establish international "norms of behavior" concerning the

---

<sup>22</sup> Clinton 2011, 6.

<sup>23</sup> Clinton uses WikiLeaks as an example here, arguing that the ensuing debate over government confidentiality was a "false debate" because the U.S. could "neither provide for our citizens' security nor promote the cause of human rights and democracy around the world if we had to make public every step of our efforts" (Clinton 2011, 5).

<sup>24</sup> Clinton 2010, 9.

<sup>25</sup> Ibid., 5.

<sup>26</sup> Ibid., 6.

“global networked commons.”<sup>27</sup> She traces this responsibility back to the nation’s founding commitment to the free exchange of ideas,<sup>28</sup> yet more recent factors are also pertinent. Clinton maintains that because it is the birthplace of many communication technologies, the United States has a responsibility to ensure that they are used for good. To do this, the US must synchronize “technological progress with [its] principles”<sup>29</sup> by using diplomatic mechanisms to establish guiding rules and norms for communication networks, by providing funding to promote connectivity, and through technological intervention, technological or otherwise, when necessary.

## 1.2 The United States’ “International Strategy for Cyberspace”

In May 2011, the Obama Administration released the US’ first ever comprehensive agenda concerning global ICT titled: [The] *International Strategy for Cyberspace: Prosperity, Security, and Openness in a Networked World*. This document is the clearest articulation of the Connectivity Doctrine to date, and alongside Secretary Clinton’s speeches, serves as its ideological basis. As such, these texts will serve as the anchor around which I will situate my analysis.

Released several months after she initially introduced the US’s position on cyber issues, the *International Strategy for Cyberspace* reinforces the principles Secretary Clinton had outlined previously in her speeches. The *Strategy* maintains the three main priorities of economic prosperity, security, and the promotion of universal rights, and uses these to justify its strategic approach. It also expands on the US’s role in directing

---

<sup>27</sup> Ibid.

<sup>28</sup> Ibid., 3.

<sup>29</sup> Ibid.

the future shape of cyberspace and its governance structures. In a highlighted section of the document, the policy's overarching goal is clearly articulated.<sup>30</sup>

“The United States will work internationally to promote an **open, interoperable, secure, and reliable** information and communications infrastructure that supports international trade and commerce, strengthens international security, and fosters free expression and innovation. To achieve that goal, we will build and sustain an environment in which **norms of responsible behavior** guide states' actions, sustain partnerships, and support the rule of law in cyberspace.”<sup>31</sup>

For present purposes, it should be noted that the economic objective is listed first, followed by security, with free expression coming last. Furthermore, while this highlighted section suggests that the US will “work internationally,” the second sentence states matter-of-factly, “. . .we will build” [with we referring to the US and perhaps like-minded states] an environment in which norms of responsible behavior guide state actions. Also intriguing is that establishing and formalizing “norms of responsible behavior” is not only stated explicitly, but is actually written in bold typeface to emphasize the importance of this particular goal.

What constitutes responsible behavioral norms, and who defines them as such, reveals an extremely important power dynamic that lies at the core of the Connectivity

---

<sup>30</sup> Worthy of note, this section is literally highlighted in the document with the subtitle, “Our Goal.”

<sup>31</sup> Executive Office of the President and the National Security Council (U.S.), “International Strategy for Cyberspace: Prosperity, Security, and Openness in a Networked World.” May 2011, 8, [http://www.whitehouse.gov/sites/default/files/rss\\_viewer/international\\_strategy\\_for\\_cyberspace.pdf](http://www.whitehouse.gov/sites/default/files/rss_viewer/international_strategy_for_cyberspace.pdf) (accessed 29 April 2012) (emphasis is from the document).

Doctrine, yet is often hidden in the rhetoric. Assuming responsibility over the construction of the cyber-environment, the US becomes the de facto party that determines what constitutes said “responsible” norms of behavior; however, the strategy document does state that the US will work with “like minded states” to establish these norms.<sup>32</sup> In its explicit pronouncement of this role, the document extends the model of hegemonic power demonstrated in other US foreign policy strategies to the cyber realm. Such bold declarations concerning global leadership roles perpetuates the implicit belief in the supremacy and global applicability of Western norms and values, which are to be integrated into the architecture of cyberspace. Still, the document goes on to argue that these norms are not new, but rather are extensions of the already-existing norms that guide international relations, the “rules that promote order and peace, advance basic human dignity, and promote freedom in economic competition.”<sup>33</sup>

At present “cyberspace” has no universally accepted or codified norms, and its governance structure remains in its infancy. As such, the US *Strategy* suggests five principles that “provide a basic roadmap” to guide how states’ policies concerning the Internet: fundamental freedoms should be upheld; intellectual property rights must be respected and protected; individual privacy should be valued as a priority; states should cooperate in international cybercrime investigations; and finally, states should enjoy the right to self-defense against “aggressive acts in cyberspace”<sup>34</sup>

In order to achieve its policy objectives, and “help promulgate positive norms,”<sup>35</sup> the US strategy combines diplomatic, defensive, and developmental initiatives. The US

---

<sup>32</sup> Ibid., 9.

<sup>33</sup> Ibid., 10.

<sup>34</sup> Ibid.

<sup>35</sup> Ibid., 11.

asserts that the benefits of connectivity are universal, and thus remains committed to “ensuring others benefit from our technical resources and expertise.”<sup>36</sup> Diplomatically, the policy states that the US will “create incentives” for other states and private actors to embrace the stated behavioral norms and guiding principles.<sup>37</sup> And in terms of development, it will continue to provide the “knowledge and capacity” to build and/or support new and existing digital networks around the world.<sup>38</sup>

The defensive portion of the strategy is especially interesting as it highlights the importance and novelty of cyberspace as a focus of international relations and a new front for modern warfare. The strategy is clear that the US “reserve[s] the right to use all necessary means-diplomatic, informational, military, and economic- as appropriate...to defend our Nation, our allies, our partners, and our interests.”<sup>39</sup> This sentiment echoes that of U.S. Deputy Secretary of Defense, William J. Lynn III, who wrote in an article for *Foreign Affairs*<sup>40</sup> (subsequently published on the U.S. Department of Defense’s website<sup>41</sup>) that “as a doctrinal matter, the Pentagon has formally recognized cyberspace as a new domain in warfare...[one that is] just as critical to military operations as land, sea, air, and space.”<sup>42</sup>

---

<sup>36</sup> Ibid., 14.

<sup>37</sup> Ibid., 11.

<sup>38</sup> Ibid., 14.

<sup>39</sup> Ibid., 14.

<sup>40</sup> William J. Lynn III, “Defending a New Domain,” *Foreign Affairs* 89, no. 5 (September 2010): 97-108.

<sup>41</sup> William J. Lynn III, “Defending a New Domain: The Pentagon’s Cyberstrategy,” U.S. Department of Defense, [http://www.defense.gov/home/features/2010/0410\\_cybersec/lynn-article1.aspx](http://www.defense.gov/home/features/2010/0410_cybersec/lynn-article1.aspx) (accessed 12 May 2012).

<sup>42</sup> Lynn III 2010.

## **Chapter II: Analysis of the Connectivity Doctrine**

Before analyzing the Connectivity Doctrine through the Foucauldian lens of governmentality, it is worthwhile to examine some of its rhetoric, claims, policies and inconsistencies in greater detail. In the following section I will situate the contemporary Doctrine as part of a long evolving “techno-utopian” discourse. I will then examine the role of trusteeship and claims to authority within the Doctrine. Finally, I will highlight some of the logical, intellectual, and practical inconsistencies within the rhetoric and policies associated with the Connectivity Doctrine.

### **2.1 Cyber-Utopianism and Techno-Optimism:**

#### **Historic and Present Variations**

From the printing press to the Blackberry, technological advances have long inspired optimistic conjectures about the potential impacts they might have on society. These have often been welcomed as harbingers of human progress and are given immense credit for societal improvement. At the same time, there has also been a concurrent discourse of techno-pessimism that rejects such optimistic assertions. Prometheus and Frankenstein along with modern concerns about atomic energy and the “singularity<sup>43</sup>,” are all part of this long history of criticism that warns of the dangers of “playing god” through technological advances.

Despite this debate’s long history, both discourses continue to make their arguments for or against the adoption of new technology. These arguments remain largely the same as their historic variations, altered only as necessary to address the

---

<sup>43</sup> The so-called “singularity” is a hypothetical super-intelligence brought about through technology that far exceeds that of humanity.

technology-du jour. True to form, and with perhaps more fervor than ever before, techno-enthusiasts are now making broad claims about the transformative, empowering, and democratic effects the Internet and other information and communications technologies (ICT) may have on individuals and societies the world over. Such claims are not necessarily without merit, as technology has undoubtedly had a tremendous effect on human society throughout history. However, the historic record is riddled with examples of times when the techno-optimism discourse has failed to deliver on many of its promises.

In the fifteenth century, the printing press revolutionized the production and dissemination of information, which many credit with making possible the Renaissance, the Protestant Reformation, the scientific revolution, and the birth of modern democracy. In the nineteenth century, the electrical telegraph ushered in a new era of global communication and international relations along with promises of unprecedented world peace.<sup>44</sup> Likewise, many heralded the advent of the “flying machine” in the twentieth century as a technological achievement that would “erase international boundaries associated with nations, languages, and money” and subsequently bring about a “brotherhood of man.”<sup>45</sup>

These romantic accounts of technology’s contribution to human progress are often as misleading as the techno-enthusiasts’ promises. They all too easily overlook the potentially negative consequences of so-called “liberation technology”<sup>46</sup> and instead, overemphasize the positive effects of these tools. Keeping with the previous examples for

---

<sup>44</sup> Larry Diamond, “Liberation Technology,” *Journal of Democracy*, Vol. 21, Number 3 (July 2010): 71.

<sup>45</sup> Foster and McChesney 2011, 2.

<sup>46</sup> Defined by Larry Diamond as “any form of information and communication technology that can expand political, social, and economic freedom.” Diamond 2010, 70.

instance, the printing press certainly made it simpler to spread information to mass audiences, but it also facilitated increased state control over populations via the production of more effective propaganda and gave rise to more robust practices of censorship. Similarly, the use of the telegraph (and its succeeding technologies) and the development of aeronautics allowed for unprecedented communication and travel, yet their use in warfare contributed to the bloodiest century in human history.<sup>47</sup> Such consequences are generally accepted as justifiable (albeit negative) externalities, as the social benefits are argued to exceed any unfavorable effects. Thus, even while acknowledging that all technology comes with potentially deleterious repercussions, its advocates persistently promote advances in ICT as being universally beneficial.

In recent years, the benefits of new technology have often been framed in terms of economic opportunities or democratic empowerment. In the 1980s, it was Xerox machines, VCRs and fax machines that were supposed to (and later romantically credited with) toppling communism and usher in liberal-democratic regimes, one reproduction at a time. Likewise, the Internet was marketed to the US consumer population as an egalitarian and liberatory technology when it first became publicly available in the 1990s.<sup>48</sup> Accounts from the Internet's early years hypothesized that it would revolutionize all existing institutions; communication systems would be democratized, corporations would be forced to act more responsibly, governments would become more transparent, and there would be a global renaissance in education.<sup>49</sup>

---

<sup>47</sup> Diamond 2010, 71.

<sup>48</sup> I will elaborate further in subsequent chapters.

<sup>49</sup> Foster and McChesney 2011, 2.

While the dreams of the 1990s never fully came to fruition,<sup>50</sup> the same promises and arguments are being made today as ICT and connectivity are promoted globally as universally beneficial in both the economic and political realms alike. Again, the potentially harmful effects are readily acknowledged (identity theft, unauthorized surveillance, decreased privacy, etc.), they simply are downplayed as the acceptable risks of an otherwise positive technology.

---

<sup>50</sup> As John Bellamy and Robert McChesney put it, “if the Internet actually improved the world over the past twenty years as much as its champions once predicted, we dread to think where the world would be if it had never existed.” Ibid.

## 2.2 Technology, Knowledge, and Power

Of course there is some truth to the positive assertions made concerning technology; each innovation was indeed employed as a means to achieve some users' desired ends. Still, technology and knowledge are far from being neutral products or concepts. Each has deep rooted ideological, political, and economic imperatives that influence their development. What is often missing from the techno-optimism discourse (besides the negative externalities) is a discussion regarding the intimate connection between power and knowledge production and management.

Michel Foucault argues that the basic premise of power is knowledge, and that through appropriating and (re)producing knowledge, modern power thereby reproduces and strengthens itself.<sup>51</sup> As such, agents of hegemonic power have long been concerned with the production and management of both knowledge and technology. These interests are separate but complimentary, as technology has long played an integral role in the production, delivery, and consumption of knowledge. And as technology advances, power adapts accordingly, incorporating it into its 'truth' manufacturing and dissemination processes.

Modern hegemonic power networks<sup>52</sup> privilege and promote the forms of knowledge and technology that ensure their continuity. Technology is systematically employed to produce, code, and order knowledge in such a manner so that its recipients

---

<sup>51</sup> Robert Hassan paraphrasing Foucault in *The Information Society: Cyber Dreams and Digital Nightmares* (Malden, Ma: Polity Press, 2008), 21-22.

<sup>52</sup> In using the term "modern power networks," I am drawing from both the work of Manuel Castells (*The Network Society*) and Michael Hardt and Antonio Negri (*Empire*). Castells argues that networks are the basic units of modern society and that nation-states, corporations, and international financial and political organization are each nodes in larger power network. Hardt and Negri argue that an international coalition of governmental, financial, and corporate agents of power constitute a post-modern 'Empire,' which respects neither territorial nor temporal boundaries and whose primary concern is market expansion.

accept it and internalize it as truth, reproduce it, and redistribute it. While the actors have changed, this process is not all that different from the methods employed by Western Imperial powers in their attempts to colonize new territories (this will be examined further in subsequent chapters).

### **2.3 Strategic use of History in Techno-Optimism Rhetoric**

Like their techno-utopian-minded predecessors, modern cyber-enthusiasts often conjure up sanitized versions of history to support their optimistic stance. The most common historical references made by Western advocates of the Connectivity Doctrine have to do with the Cold War and the (arguably overemphasized) role fax machines, Xerox machines, and VCRs played in toppling the Soviet Empire. Secretary Clinton recently made such an allusion in her 2010 speech on Internet freedom, warning that a new “*information* curtain” is beginning to divide the world and that in response, “viral videos and blog posts are becoming the samizdat<sup>53</sup> of our day.”<sup>54</sup> Similarly, Senator Arlen Specter argued that the U.S. should find ways to help foreign nationals breach the firewalls erected by their governments because “tearing down these walls can have the same effect of what happened when the Berlin Wall was torn down.”<sup>55</sup> Many other politicians and pundits from within and outside the United States are also quick to draw parallels from the Cold War.<sup>56</sup>

---

<sup>53</sup> Samizdat literature was material that was officially banned in former Soviet Union, but was reproduced and distributed clandestinely.

<sup>54</sup> Clinton 2010.

<sup>55</sup> as quoted in Morozov 2011, 41.

<sup>56</sup> Morozov cites several examples including Sam Brownback (Republican senator from Kansa), Carl Bildt (former prime minister of Sweeden), Arvind Ganesan (Human Rights Watch), Roger Cohen (columnist for the *International Herald Tribune*), etc. in *The Net Delusion*, 41-42.

There are several problems with drawing such parallels: they are historically inaccurate; they oversimplify complex issues; and they can result in severely misguided policy initiatives. Touching on the first issue, while rhetorically appealing, the Internet is extremely different than technologies that were widely used in the 1980s. Fax machines and photocopiers certainly simplified the proliferation of samizdat literature, but the risk was minimal, as was (arguably) their utility. Unlike 1980s-era technology, the Internet can serve an infinite number of purposes and harbors far more risk for those who use it to challenge oppressive regimes. For example, the Internet can just as easily be used as a surveillance mechanism or a carrier of propaganda as it can be to organize demonstrations or pass along oppositional information.<sup>57</sup> And unlike Xeroxed reproductions, information published online can often be easily and quickly traced back to its point of origin.

While historic parallels and metaphors can be rhetorically appealing, they tend to oversimplify issues and leave critical factors not included in the metaphor left unexamined, thus “creat[ing] the illusion of complete intellectual mastery of an issue.”<sup>58</sup> They often emphasize certain aspects of an issue to make a point, while ignoring other aspects that do not fit the intended abstraction. Furthermore, theoretical devices like these frequently have the effect of implicitly suggesting solutions based on their own referent, even if these solutions are not explicitly stated. These (perhaps) unintended consequences can have profound implications on how policymakers understand and respond to a given situation. In the present case, the metaphor suggests that, similar to the Berlin Wall and the Iron Curtain, firewalls simply need to be destroyed or circumvented and democracy

---

<sup>57</sup> Morozov 2011, 46.

<sup>58</sup> *Ibid.*, 43.

will inevitably and peacefully follow. What is left out is that physical walls are much more expensive and require far more time and manpower to erect than virtual walls. Such misguided optimism creates an “illusory sense of finality and irreversibility”<sup>59</sup> that can be as seductive as it is dangerous. Focusing only on technological ease, this line of argumentation ignores the sociopolitical nature of the issue and neglects the enormous risks involved.

## **2.4 Unique qualities of modern ICT and the Connectivity Doctrine’s Contradictory Nature**

There are certainly similarities between the spread of ICT and the adoption of past technologies. However, there are several characteristics of modern technology that make it truly revolutionary<sup>60</sup> and unlike anything that came before. One noteworthy example is that cyber-technologies are the fastest diffusing communication technology in history<sup>61</sup> and have facilitated the “democratization of communication” to a degree few other technologies have achieved.<sup>62</sup> Furthermore, although they are the consequence of all technological systems, the socio-political ramifications of modern ICT are especially pronounced due to their necessary interactions with and influences on the multifaceted processes of globalization. Countless actors simultaneously help shape and are shaped by their interactions within cyberspace on a daily basis, making it a constantly evolving

---

<sup>59</sup> Ibid., 44.

<sup>60</sup> This admittedly bold use of the word “revolutionary” stems from my agreement with Robert McChesney, who argues in *Communication Revolution* that modern technologies offer an unprecedented opportunity to “create communication systems [that foster] a more egalitarian, humane, sustainable, and creative society.” McChesney 2007, xv.

<sup>61</sup> Manuel Castells, *Communication Power*, (Oxford: Oxford University Press, 2009), 62.

<sup>62</sup> Ronald Deibert and Rafal Rohozinski, “Liberation VS. Control: The Future of Cyberspace,” *Journal of Democracy* Vol. 21, Number 4 (October 2010): 43.

domain, rather than a static artifact or tool, like the copy machine, fax machine, or VCR.<sup>63</sup>

The unique qualities of modern ICT makes it especially difficult to regulate and govern. This difficulty is especially evident in the US-led attempt to institutionalize universal rules and norms and behavior for cyberspace. As a consequence, obvious inconsistencies are present in the Connectivity Doctrine in terms of its theory and application.

One of the more troublesome inconsistencies lies in how the Doctrine subjects Internet freedom to liberal notions of governmental sovereignty. The Doctrine also has trouble defining what it means by “Internet freedom.” The Doctrine embraces broad rights for private corporations to restrict access to content in the name of “intellectual property,” while at the same time cautioning against governmental restrictions of Internet content. Likewise, it argues that while on the one hand, WikiLeaks threatened the security of people around the world, governments should still strive for maximum transparency.

The Doctrine is also unclear on the extent of governmental sovereignty and state rights. It seemingly wants to have it both ways; it promotes a free and open Internet that is assessable to all, but also maintains that the government has the final say in what material should be kept confidential. While it may be reasonable for a regime that rules with its people’s consent to assume a limited right to keep certain information secret in order to protect its citizens, the Connectivity Doctrine offers a very biased understanding of what is included in this protection. For instance, restricting access to material that is culturally offensive or otherwise runs counter to prevailing dominant values is not

---

<sup>63</sup> Ibid., 45.

included in this limited, yet ambiguous, definition. Restrictions resulting from concerns over morality (such as access to pornographic material) or potentially harmful content (such as hate speech) are deemed illegitimate by the Doctrine's reasoning. Thus, although confusing, the Doctrine seems to argue that states have the right to determine what is appropriate for public consumption, but only if their final determination coincides with the US's view.

### **Chapter III: Theoretical Framework: Biopolitics and Governmentality**

Now that the Connectivity Doctrine has been defined, dissected, and historically contextualized, I will shift the focus to theory to determine how Michel Foucault's understanding of Governmentality might augment our understanding of its underlying goals and implications. I will first provide a brief overview of the theory's major tenets before demonstrating how it applies to the present study.

#### **3.1 Governmentality: A Brief Overview**

Foucault's work on governmentality came at the end of his short, but prolific career. While touching on the subject in his earlier work, Foucault did not fully explore the notion of governmentality until his lectures at the College de France in the years immediately preceding his death. Admired by many devotees who praise his theories and criticized by an equally fervent camp of scholars who dismiss his philosophy for various reasons, Foucault has long been one of the most oft-cited theorists of all time.<sup>64</sup> Still, the recently published transcriptions<sup>65</sup> of his final lectures have brought about another resurgence of interest in his work. What is striking about this recent wave of intrigue is how much his final lectures have changed scholarly opinion about Foucault's philosophy. Rather than being referenced as a "thinker of power," as he was in the 1980s and 1990s when his name was virtually synonymous with the term, Foucault is increasingly

---

<sup>64</sup> A search for Foucault in the Arts and Humanities and Social Sciences Citation Index has consistently returned far more results than other "big names" associated with theory, such as Deleuze, Derrida, and Lacan, for several decades. Jeffrey T. Nealon, *Foucault Beyond Foucault: Power and Its Intensifications since 1984*, Stanford, Ca: Stanford University Press, 2008), 1.

<sup>65</sup> These lectures were published in eight installments beginning in 1997. Initially available in French only, Palgrave Macmillan began publishing English translations in 2006.

becoming regarded as a “thinker of subjectivity.”<sup>66</sup> This shift in viewpoint of the scholar reflects the theoretical revisions Foucault made to his earlier work during his lectures on governmentality. Foucault introduced the notion of governmentality as a “necessary critique” of his previous conceptions of power;<sup>67</sup> the concept addresses some of the limitations of his earlier work and presents a novel understanding of modern power relations in Western societies.<sup>68</sup>

One of the most dramatic differences between Foucault’s earlier work and his analysis of governmentality is his shift in understanding of power. In his later work, Foucault stresses that modern power is principally about guidance and “structuring and shaping the field of possible action of subjects.”<sup>69</sup> Consensus and coercion remain relevant, but are reformulated as “means of government;” “they are ‘elements’ or ‘instruments’ rather than the foundation or source of power relations.”<sup>70</sup>

Here Foucault makes a shift in his understanding of power and domination, terms that he previously used interchangeably. In a theoretical improvement on his earlier work, Foucault now carefully differentiates between power and domination. He explains that domination is a particular, asymmetrical type of power relationship, in which the subordinated individuals and groups have an extremely limited margin of freedom.<sup>71</sup> As an alternative to power-as-domination, Foucault introduces the theoretical notion of power relations as “strategic games between liberties,” which seek to structure the field

---

<sup>66</sup> Jeffrey T. Nealon, *Foucault Beyond Foucault: Power and Its Intensifications Since 1984* (Stanford: Stanford University Press, 2008), 1.

<sup>67</sup> Thomas Lemke, *Foucault, Governmentality, and Critique* (Boulder, Co: Paradigm Publishers, 2011), 4.

<sup>68</sup> Lemke 2011, 10-12.

<sup>69</sup> *Ibid.*, 17.

<sup>70</sup> *Ibid.*

<sup>71</sup> *Ibid.*, 20.

of possible actions and guide the behaviors of individuals who ultimately decide their own course of action.<sup>72</sup>

This marks another radical theoretical shift in Foucault's thinking. Foucault's earlier studies on the analytics of power focused on the impact of disciplinary processes on "docile bodies" in the formation of subjects.<sup>73</sup> Many prominent scholars (including Jurgen Habermas, Nancy Fraser, Charles Taylor, etc.) criticize this interpretation of subjectivity for being "monolithic relativism," citing its neglect to recognize individual agency and the potential for resistance.<sup>74</sup> In response, Foucault makes clear in his later work that "an analytics of government demands the recognition of the 'other' as the subject of action" and that "power is exercised only over free subjects, and only insofar as they are 'free.'"<sup>75</sup> He further concedes that individuals *do* have autonomous agency that allows them to "transform themselves in order to attain a certain desired state."<sup>76</sup>

Now viewing power as a relationship, rather than simply domination, Foucault introduces the notion of government to analyze the connections between "technologies of domination" and what he now calls "technologies of the self."<sup>77</sup> In other words, "governors" still attempt to guide the behaviors of individuals, but individuals remain free to conduct themselves as they please. In contrast to power-as-domination, Foucault explains that "governing people is not a way to force people to do what the governor wants," instead, "it is always a versatile equilibrium, with complementarity and conflicts between techniques which assure coercion and processes through which the self is

---

<sup>72</sup> Ibid., 19.

<sup>73</sup> Ibid., 21

<sup>74</sup> Ibid., 22.

<sup>75</sup> Ibid.

<sup>76</sup> Ibid., 21.

<sup>77</sup> Ibid.

constructed or modified by himself.”<sup>78</sup> Likewise, the “techniques of government” do not forcibly or directly shape the actions of individual or collective actors, but instead set the *conditions* of possible actions.<sup>79</sup>

Foucault defines “government” as “the set of institutions and practices, from administration to education, through which people’s conduct is guided.”<sup>80</sup> More concisely, governmentality is simply, “the conduct of human conduct.”<sup>81</sup> As direct as this definition is, its simplicity is deceptive. Semantically linking the act of ‘governing’ (‘gouverner’) and ‘modes of thought’ (‘mentalité’),<sup>82</sup> governmentality is presented as a modern manifestation of power that seeks to “shape human conduct by calculated means.”<sup>83</sup> The simplified definition expresses this by playing on numerous senses of the word ‘conduct.’ ‘*To conduct*’ refers to leadership, in that an actor is directing or guiding another how best to carry out a task. A reference to a particular understanding of morality or value system is implied when the word is used as a reflexive verb, ‘*to conduct oneself*,’ alluding to certain forms of behavior that are deemed appropriate in specific situations. A related sense of the word, the noun ‘*conduct*,’ is also used to define an individual’s actions or behaviors, again with the supposition that there exist agreed upon modes of (appropriate) conduct.<sup>84</sup>

Usages of the various terms are almost invariably normative and evaluative. They presume standards or norms of behavior that serve as the ideal by which individual

---

<sup>78</sup> Ibid., 22.

<sup>79</sup> Ibid, 18.

<sup>80</sup> Lemke 2011, 1.

<sup>81</sup> Mitchell Dean, *Governmentality: Power and Rule in Modern Society* (London: SAGE Publications LTD, 2010), 17.

<sup>82</sup> Thomas Lemke, “The birth of bio-politics’: Michel Foucault’s lecture at the College de France on neo-liberal governmentality,” *Economy and Society* Volume 30 number 2 (May 2001): 191.

<sup>83</sup> Tania Murray Li, *The Will to Improve*, (Durham, NC: Duke University Press, 2007), 5.

<sup>84</sup> Ibid.

conduct can be assessed.<sup>85</sup> And in almost all cases, a notion of guidance or regulation is inferred; a presumption that not only is it possible to direct behavior, but also that agents exist whose responsibility it is to ensure this control occurs.<sup>86</sup> Combining the various senses of the word ‘conduct’ and their associated presumptions, Mitchell Dean puts forth the following, expanded definition of government:

*Government is any more or less calculated and rational activity, undertaken by a multiplicity of authorities and agencies, employing a variety of techniques and forms of knowledge, that seeks to shape conduct by working through the desires, aspirations, interests and beliefs of various actors, for definite but shifting ends and with a diverse set of relatively unpredictable consequences, effects and outcomes.*<sup>87</sup>

This definition exhibits the novelty of Foucault’s analytics of government and demonstrates how governmentality employs, but remains distinct from, sovereign and disciplinary power. The classic understanding of sovereign power is concerned primarily with securing and expanding the territorial reach of *the sovereign’s* realm. The sovereign has absolute authority to issue edicts, punish enemies, and determine who will live or die.<sup>88</sup> In contrast, the focus of governmentality is not on territory or riches, but rather on the population it governs. The art of governance requires the governing body to receive

---

<sup>85</sup> Ibid.

<sup>86</sup> Ibid., 18.

<sup>87</sup> Mitchell Dean 2010, 18.

<sup>88</sup> Li 2007, 12.

authorization to exercise authority.<sup>89</sup> Rather than “wreak[ing] havoc with impunity... violence must be justified by a notion of *improvement*. Its purpose cannot be mere plunder or domination.”<sup>90</sup>

Likewise, Foucault’s understanding of governmentality is distinct from disciplinary power. While disciplinary power seeks to establish order (in specific groups of people or things) via “technologies of domination” such as detailed supervision, laws and/or punitive measures, the purpose of government is to protect the welfare of a given population and improve its overall condition.<sup>91</sup> Whether this means decreasing unemployment, providing better healthcare, improving education, or increasing access to information and communication technology, the focus is not on the individual, (as it is in disciplinary institutions such as prisons, asylums, and schools) but rather on the population as a whole. Disciplinary power alone is insufficient for such lofty aims. At such a grand level, physical coercion and training of each individual is impossible, as is the detailed regulation of their actions. Instead, governmental techniques operate by “educating desires and configuring [the] habits, aspirations and beliefs” of a given population.<sup>92</sup> Instead of brute coercion or ubiquitous regulation, conditions are artificially set in such a manner that individuals may not necessarily be aware that their conduct is being conducted; rather, “people, following their own self interest, *will do as they ought*.”<sup>93</sup>

---

<sup>89</sup> Ibid.

<sup>90</sup> Ibid. (italics added).

<sup>91</sup> Michel Foucault, “Governmentality,” in *The Foucault Effect: Studies in Governmentality, with Two Lectures by and an Interview with Michel Foucault* (Chicago: University of Chicago Press, 1991): 100.

<sup>92</sup> Li 2007, 5.

<sup>93</sup> Ibid.

Foucault explains that there are two related but distinct sides of governmentality (both reviewed above), one dealing with the rationalization of exercising power and the construction of specific forms of intervention and the other dealing with processes of subjectification. The first allows those governing to define “problems” that need to be addressed by identifying and demarcating the pertinent concepts, objects, and borders of assessment. The second refers to the codependent nature of governmental institutions and autonomous, individual actors.<sup>94</sup> While Foucault’s analytics of government focus on power relationships between the modern sovereign state and a domestic population, NGOs, international political and economic institutions, and other governing agencies use the same governmental techniques in their various policies and development projects to guide the behaviors of individuals throughout the world.

Demonstrating this point in her work on developmental programs in Indonesia, *The Will to Improve*, Tanya Murray Li examines the means by which outside “experts” are able to diagnose problems, develop solutions to solve said “problems,” and otherwise intervene in communities of which they are not a part. These experts and other external participants act as “trustees,” a role that she explains is “defined by the claim to know how others should live, to know what is best for them [and] to know what they need.”<sup>95</sup> While Li’s focus is on the various attempts to “improve the lives” of people in Indonesia through targeted reform, her underlying logic applies perfectly to the Connectivity Doctrine’s proposed goal of global improvement and progress via connectivity.

As a governmental stratagem, trusteeship requires some degree of approval before policies are enacted. An NGO, for instance, cannot implement a development plan

---

<sup>94</sup> Lemke 2001, 191.

<sup>95</sup> Li 2007, 4.

in a country by forceful coercion alone. It must, instead, appeal for public consent directly or otherwise set conditions by which to ensure official endorsement of their plan. This is not to imply any nefarious intentions; on the contrary, the trustees' objective is not typically to dominate others, but rather to "develop the capacities of another," "enhance their capacity for action, and to direct it."<sup>96</sup> Their intentions are thus often altruistic, desiring nothing more than to "make the world a better place." Whatever their proposed course of action for solving the identified problems may be, it is believed to be for the betterment of the common good – the health of the population at large, the stimulation of economic growth, the fostering of democratic values, etc. And the solutions often appear commonsensical, as the "natural expression of the everyday interactions of individuals and groups."<sup>97</sup> Still, regardless of the altruistic intentions that often drive these plans, "the claim to expertise in optimizing the lives of others is a claim to power, one the merits careful scrutiny."<sup>98</sup>

### **3.2 Governmentality, Biopolitics, and Liberalism**

Governmentality, as a "technology of security" employed for the "regulatory control of a population" developed in large part as the modern nation-state's response to the unique properties of classical liberalism. First developed in 17<sup>th</sup> century Britain, this political ideology rejected the idea of absolute monarchy and the Divine Right of Kings, and instead embraced individual rights, minimal government, and a free-market economic system. The role of government, according to this view, was limited to protecting the populace from foreign aggressors and providing public services and

---

<sup>96</sup> Ibid., 5.

<sup>97</sup> Ibid.

<sup>98</sup> Ibid.

institutions that were not profitable when managed within the private sector. The challenges posed by this system, which in many ways represented a new and innovative “art of governance” in its own right and threatened the very purpose of the state, necessitated a drastic adaptation of the role and function of governmental power.

More than simply an economic theory or a political ideology, liberalism emerged as a unique system of governing human beings, with the new epistemic figure of the population as its target and political economy as its principal form of knowledge.<sup>99</sup> Governmentality thus adopted certain liberal rationalities to guide state power. As divinely ordained power was no longer deemed legitimate, laws now had to be enacted in accordance to a newly defined “natural order” based on the market’s principles of efficiency and self-regulation. Similarly, “economic reasoning” was to assess the merits and usefulness of governmental action; rather than physical domination and disciplinary control, the focus was shifted to creating spaces for market expansion.<sup>100</sup>

The neo-liberal reforms enacted by numerous countries over the past few decades clearly demonstrate the success and global extension of Foucault’s notion of governmentality. By redefining the social sphere as part of the economic realm, neo-liberal regimes have been able to develop “indirect techniques for leading and controlling individuals” while at the same time redirecting social risks such as illness, unemployment, poverty, etc. into the domain of individual responsibility.<sup>101</sup> The effectiveness of this epistemological shift is clearly illustrated in the contemporary understanding of *homo oeconomicus*, or the rational-economic individual, which is now defined by an artificially arranged, yet purportedly instinctual entrepreneurial and

---

<sup>99</sup> Lemke 2011, 42.

<sup>100</sup> Lemke 2011, 43-44.

<sup>101</sup> Lemke 2001, 201.

competitive behavior.<sup>102</sup> In this way, assuming responsibility for matters and problems that had previously been the domain of state agencies has become a bizarre “reward” for those who accept that this “liberty” is a gift.<sup>103</sup>

The widespread adoption of neo-liberalism marks a fundamental shift in the modern state’s *raison d’être*; rather than territorial expansion, the market is now its “organizing and regulative principle.”<sup>104</sup> The fundamental task of the modern liberal-democratic state is to “universalize competition and invent market-shaped systems of action for individuals, groups and institutions.”<sup>105</sup> What were previously sacrosanct, “extra-economic domains are now rendered ‘economic’ and are colonized by criteria of economic efficiency.”<sup>106</sup> In keeping with this fundamental task, the Connectivity Doctrine employs governmental techniques in order to integrate market ideology into the Internet’s architecture in a manner that presents liberal norms and values as “natural” and inevitable. In this way, the Doctrine conditions Internet users’ behaviors in such a way that market logic is internalized and reflected in their virtual actions. In other words, Internet users’ conduct is being conducted, even if they are unaware this is the case.

---

<sup>102</sup> Ibid., 200.

<sup>103</sup> Ibid., 202.

<sup>104</sup> Ibid., 200.

<sup>105</sup> Ibid., 197.

<sup>106</sup> Ibid., 202.

**Chapter IV:**  
**Governmentality and the Internet *or***  
**The Conduct of *Cyber* Conduct**

Despite the rhetorical promotion of freedom, empowerment and progress, the seemingly innocuous Connectivity Doctrine takes on an entirely different meaning (with much broader implications) when viewed through the lens of governmentality; after all, “to govern the Internet is to govern people.”<sup>107</sup> By applying the “analytics of government” to the Doctrine, a more calculated political strategy begins to unfold, one whose ultimate aim reaches far beyond simply ‘freedom,’ as its proponents suggest.

The United States has positioned itself as the leader of Internet freedom and for all intents and purposes, represents the embodiment of the Connectivity Doctrine. As such, the U.S. stands as the key agent seeking to “conduct the conduct” of individuals in cyberspace,<sup>108</sup> and its official speeches and policies can be regarded as instruments or techniques of governmentality. That said, cyberspace is not a typical territory with fixed borders, and its “inhabitants” do not meet the standard definition of “citizen.” Rather, the sovereignty of cyberspace remains highly contested and activities that occur therein often have dramatic effects in the “real world.” Thus, when US Secretary of State Hillary Clinton states that the U.S.’s Internet freedom policy is “about what kind of world *we* want...a planet with one Internet, one global community, and a common body of knowledge,”<sup>109</sup> she is implicitly suggesting that the U.S.’s agenda is not only concerned

---

<sup>107</sup> Michael Markwick, “The Unlawful Freedom of Communication,” Oxford Internet Institute, September 2010, 1, [http://microsites.oii.ox.ac.uk/ipp2010/system/files/IPP2010\\_Markwick\\_Paper.pdf](http://microsites.oii.ox.ac.uk/ipp2010/system/files/IPP2010_Markwick_Paper.pdf) (accessed May 20, 2012).

<sup>108</sup> Of course there are several governments, institutions, corporations, and other parties that also embrace the Connectivity Doctrine and stand to gain from its global adoption; however, the U.S. will remain the focus of this papers’ inquiry.

<sup>109</sup> Clinton 2010, 9.

with influencing cyber governance, but is ultimately concerned with shaping the structure of the *physical* world and guiding the behaviors of *its* inhabitants.

As defined by Foucault, government is typically concerned with improving the welfare of a domestic population (by increasing the GDP, lowering infant mortality rates, improving education, etc.). However, the population of interest does not necessarily need to be comprised of citizens of a particular state. Instead, Secretary Clinton alludes to governance that extends to a global population of the Connected, one that uses biopolitical power to work through a singular “global community”<sup>110</sup> in order to deliver “the greatest possible benefits to the world.”<sup>111</sup> The population of concern here are not Americans (or its allies, or its enemies for that matter), but rather “all of humanity.”<sup>112</sup>

An integral characteristic of Foucault’s understanding of governmentality is the ability of those governing to exact influence over human conduct without the individual’s explicit knowledge or consent. This is done not through direct force, but rather by “setting conditions to encourage people to behave as they ought.”<sup>113</sup> Individuals may not know they are being “conducted,” and instead believe they are acting in their own self-interest.

In shaping the architecture of the Internet, the Connectivity Doctrine sets virtual conditions in a manner that encourages users to internalize certain norms and values as uncontested, natural, neutral and/or inevitable. Its proponents thus ensure that an increasingly expanding connected global population conforms to their preferred version of liberal ideology. Users become connected seemingly of their own free will, responding

---

<sup>110</sup> Clinton 2010, 9.

<sup>111</sup> Clinton 2011, 2.

<sup>112</sup> Clinton 2010, 3.

<sup>113</sup> Li 2007, 16.

to the many advertised benefits of connectivity: instantaneous communication, increased access to information, low-cost entry into a global marketplace, business efficiency, etc. Still, in becoming connected (in the dominant, Western sense), users tacitly accept a set of behavioral norms and values that are set by those seeking to shape and govern cyberspace.

As more and more individuals become connected, cyberspace's 'population' grows, and with it the pool of 'governable' subjects. The U.S. and other advocates of the Connectivity Doctrine are likewise concerned with the general welfare of the connected population; they believe their technical expertise and purported moral superiority leave them responsible for instituting the proper regulations that will improve the wellbeing of the Connected. Thus the Connectivity Doctrine (as discourse) insists that there is a "singular valid shape for the network's architecture" and that this sole version represents "the peoples' interests."<sup>114</sup> Again, this appeal to users for their approval is where governmentality differs from sovereign power. Sovereign power would simply demand compliance and obedience. Instead, modern power networks employ governmental techniques to convince a globally diverse, connected population that its policies serve their greater interests and likewise set the conditions in such a manner that individuals *choose* to become connected.

The improvement of a population writ large constitutes the central purpose of liberal government and explains the motivation of those seeking to influence the architecture of cyberspace. Nevertheless, *how* this is done (without physical coercion) requires further clarification. To 'conduct the conduct' of an individual assumes that the

---

<sup>114</sup> Daniel R. McCarthy, "Open Networks and the Open Door: American Foreign Policy and the Narration of the Internet," *Foreign Policy Analysis* 7 (2011): 96.

one being governed is a capable political actor and therefore, a “locus of freedom.”<sup>115</sup> It likewise assumes the possibility that the governed are capable of thinking and behaving *differently* than desired. Liberal modes of government work through this freedom and try to shape it,<sup>116</sup> conceiving it as a “technical means of securing the ends of government.”<sup>117</sup> Rather than *denying* the individual actor her freedom, liberal rationalities “attempt to *define* the nature, source, effects and possible utility of these capacities of acting and thinking.”<sup>118</sup>

#### 4.1 Cyber Governmentality Via “Human Rights”

By situating the Connectivity Doctrine within the broader Human Rights discourse, the US depoliticizes the highly contested nature of technology and the cultural and symbolic understandings thereof. The very formulation of Internet freedom as a fundamental human right is universalistic in nature and serves as an extension of Western, hegemonic discourse. Likewise, the Connectivity Doctrine’s model of Internet freedom is largely premised on the US’s understanding of free speech. As such, unrestricted access to the Internet is the ideal norm and any sort of censorship or restricted access is seen as an illegitimate claim to power and an affront to human rights.

Such a liberal definition of free speech is problematic if for no other reason than it is a distinctly US definition. Several states have limits on speech, including several US allies. Many European countries, for instance, have laws against holocaust denial, and have made it illegal to publish websites that espouse such claims. According to the

---

<sup>115</sup> Dean 2010, 21

<sup>116</sup> Ibid.

<sup>117</sup> Dean 2010, 24.

<sup>118</sup> Ibid.

Connectivity Doctrine, however, individuals and groups should be free to present their views online and these sites should be freely accessible to all; no country should limit their production.

Likewise, the US, and many of its allies, view pornography as a commodity that can be bought and sold (provided all relevant parties are consenting adults). With such a substantial role in shaping its content, the Connectivity Doctrine leaves no room for states to censor pornographic material on religious or cultural grounds; rather, individual users should be free to choose whether or not to view such content. While a more thorough examination of this point is beyond the purview of this paper, for present purposes it is sufficient to note that the Connectivity Doctrine's position of Human Rights, Free Speech, and Internet Freedom are all premised on particular understandings of the terms and are not necessarily universally applicable or valid.

The Doctrine's identification of a particular network architecture as the harbinger of [Western-defined] universal human rights trumps competing norms of communal rights, self-determination, or national sovereignty.<sup>119</sup> As Daniel McCarthy of the Centre for International Studies and Diplomacy at the University of London argues, this line of argumentation is an example of the US's larger post-Cold War attempt to alter the international understanding of sovereignty. Claiming a monopoly on "authoritative knowledge," the US advances a catchall definition of sovereignty, which deems states that do not adhere to modern, liberal norms<sup>120</sup> as not *properly* sovereign.<sup>121</sup>

---

<sup>119</sup> McCarthy 2011, 95.

<sup>120</sup> Modern liberalism exists as a hybrid of political liberal ideology and economic neo-liberalism. Politically, this term refers to the restraint of government, the protection of individual rights, and the rule of law. Taking into account the limited role of government, economic neo-liberalism defines the role of the state as maintaining the institutional framework to ensure stringent private property rights, free markets, and free trade.

<sup>121</sup> Ibid.

While the Connectivity Doctrine is often framed as being part of a broader Human Rights discourse, the issues are far greater than simply “individual freedom” or “universal rights.” Furthermore, its policy implications go well beyond basic domestic, foreign, or even cyber realms. The Connectivity Doctrine is ultimately concerned with shaping the structure of the *world* and guiding the behaviors of its inhabitants. Clinton is surprisingly upfront about the political, economic and ideological agendas that the Doctrine serves. She readily admits that “no country more than America stands to benefit” from what a globally free Internet can offer, and that information technology can absolutely “help advance [the US and its allies’] diplomatic and development objectives.”<sup>122</sup> To this point Clinton adds: “it’s about what kind of world we want... a planet with one Internet, one global community, and a common body of knowledge.”<sup>123</sup>

In this vein, the US seeks to control the terms of the debate over the correct architecture of the Internet and its governance so that its position appears to be the only rational and logical possibility. The Connectivity Doctrine’s core arguments are framed as though they are the results of a “pre-given technological rationality” rather than the outcome of a politically contested process. The success of such argumentation is achieved by means of “technological closure,” through which targeted problems seemingly disappear as new technological norms become increasingly internalized within a society as natural and uncontroversial until they eventually become routine and taken for granted.<sup>124</sup>

In the case of information and communication technology for instance, proponents of the Connectivity Doctrine first identify authoritarian, non-liberal states

---

<sup>122</sup> Clinton 2010, 7-8.

<sup>123</sup> Ibid., 9.

<sup>124</sup> McCarthy 2011, 90.

with contradictory ICT policies as problematic. Such states are subsequently labeled illegitimate and criticized for not being in line with the interests of their population (interests which are often conveniently defined by the same hegemonic powers that embrace the Doctrine). The Connectivity Doctrine is then presented as the best solution to solve the perceived deficits and the model that can serve the needs of the problematic states' population more effectively than those offered by non-liberal states. Those advocating for this particular, singular global Internet architecture thus identify both the problem and the solution while at the same time imbuing ICT with symbolic meaning. In this way, they can establish the legitimacy of their claims by highlighting examples of connectivity's success, without addressing the more contentious aspects of the Doctrine. Any misgivings concerning the proposed "solution" become secondary issues, as the "success" helps establish the technological artifact as an accepted part of the social environment.<sup>125</sup>

---

<sup>125</sup> Ibid.

## Chapter V: The Biopolitics of Connectivity<sup>126</sup>

In 1997, as the Internet was still just beginning to gain mass popularity, journalist Jon Katz wrote an article for *Wired* magazine about the emergence of a new kind of people he called “the Connected.” These were not simply tech-savvy individuals who used the Internet, but rather constituted a distinct category of people with unique characteristics who could be identified and studied as a whole. The Connected, he argues, are “knowledgeable, tolerant...[p]rofoundly optimistic about the future...[and] convinced that technology is a force for good.”<sup>127</sup> They also tend to favor a free-market economic system, which they believe to be a powerful engine of progress.<sup>128</sup>

Katz was referring specifically to the birth of ‘the Connected’ in the U.S., yet the rapid proliferation of information and communication technologies (ICT) has caused a global surge in this new category of people, and with it, a resurgence of technoutopianism. Among the leading academics touting the liberatory potential of connectivity are Manuel Castells, the world’s foremost-cited communications scholar, and James Rosenau, former president of the International Studies Association. Both agree that the Connected constitute a new type of socius that may represent the very “transformation of sociability itself.”<sup>129</sup> Rosenau further argues that the Connected are more skilled, more competent, and more imaginative than any other historical social formation.<sup>130</sup>

These scholars, and those that share their opinion, contend that this revolutionary change in humanity also initiated a “major transformation of the global structures that

---

<sup>126</sup> This title is borrowed from Julian Reid’s article “Politicizing Connectivity: Beyond the Biopolitics of Information Technology in International Relations,” *Cambridge Review of International Affairs* Vol. 22, Number 4 (December 2009): 608.

<sup>127</sup> Jon Katz, “The Digital Citizen,” *Wired* 5.2 (December 1997) [http://www.wired.com/wired/archive/5.12/netizen\\_pr.html](http://www.wired.com/wired/archive/5.12/netizen_pr.html) (Accessed January 29, 2012).

<sup>128</sup> A scientific survey of 1,444 randomly selected Americans later confirmed his hypothesis. *Ibid.*

<sup>129</sup> Castells quoted in Reid 2009, 608.

<sup>130</sup> Reid 2009, 608.

govern world affairs.”<sup>131</sup> Cyber-utopians argue that this process is transforming “existing institutions and practices of state sovereignty into something more benign and beneficent to *human life on a global scale.*”<sup>132</sup> Connectivity is seen here as something organic and natural, the “outcome of a historical process of gradual increases in the evolutionary powers of the human species.”<sup>133</sup>

It is important to note here, again, that within the cyber-utopian argument, information technologies are assumed to be politically neutral. However, connectivity is not an *inevitable* evolutionary step, but is rather a *potential* evolutionary capacity that ICT can foster, provided certain conditions are met. What this means is that the “advance of the Connected” depends on the “securing of strategic conditions in which the Connected can be constituted.”<sup>134</sup> Therein lies the political dimension of connectivity, as liberal governments seek to secure said conditions, they are inevitably acting in accordance with an ideological agenda. Liberal regimes, through modern technologies of government and security (political actions), “configure habits” and “set conditions” to ensure people “do as they ought,”<sup>135</sup> i.e., become part of the Connected.

Foucault explains that the modern liberal project embodies a unique “faith in its ability to correlate the political development of humanity with a knowledge of its biological properties and capacities.” Likewise, its success has depended on “strategies to promote those tendencies and habits within governed populations which accord with the ‘biological destiny of the species.’”<sup>136</sup> As such, if connectivity is understood to be an

---

<sup>131</sup> Ibid., 609.

<sup>132</sup> Ibid., (emphasis added)

<sup>133</sup> Rosenau quoted in Reid 2009, 609.

<sup>134</sup> Reid 2009, 611.

<sup>135</sup> Li 2007, 5.

<sup>136</sup> Reid 2009, 611.

“evolutionary capacity” that requires certain prerequisites be met before it can develop, liberal governmentality is concerned with promoting those tendencies and habits that ensure these conditions are met.

This further demonstrates how ICT are far from neutral tools, but are instead highly political “technologies of security” which liberal regimes employ to promote the “optimal and proper functioning of the economic, vital, and social processes” of a given population.<sup>137</sup> Furthermore, technology is never merely a tool; rather, “[its use] is a way of enframing the human as a thing that both uses and can be made use of.”<sup>138</sup> In the case of connectivity, subjects must be taught how to be connective. Connective habits must be instilled so that individuals can be subjected to the “lore of connectivity.”<sup>139</sup> This is why ICT proliferation is so central to the Connectivity Doctrine. Information has become the hegemonic organizational code, thus there is great interest in controlling information (or at least regulating how it is produced, disseminated, and received). As Julian Reid notes, “[i]n embracing information politically, we subject ourselves to a biopoliticized account of connectivity. We become informatic subjects, performing the works of a global political order in which the very problem of order – and the problem of your and my place in it – is conceived in informational terms.”<sup>140</sup>

Guided by liberal rationalities, connected regimes benefit from the expansion of the Connected population, and thus have a vested interest in “converting” those who remain disconnected. As such, the Connectivity Doctrine’s rhetoric is often highly optimistic, promising unparalleled personal and societal improvement, or else the benefits

---

<sup>137</sup> Dean 2010, 29.

<sup>138</sup> Reid 2009, 612.

<sup>139</sup> Ibid.

<sup>140</sup> Reid 2009, 615.

of connectivity are simply assumed and presented as obvious. This is an example of what Foucault terms “mentalities of government;” a term which refers to governmental practices that become embedded in language or are otherwise taken for granted. Such mentalities are not usually subject to debate and are simply accepted as authoritative.<sup>141</sup> This governmental technique allows for the production of “truth,” which can be used to condition and direct the conduct of a population.<sup>142</sup>

In a demonstration of just how effective these mentalities of government have been in neutralizing the issue, connectivity has now become a metric by which international institutions, academics, and others evaluate the well-being of human life throughout the world. To remain disconnected is interpreted as being at best primitive (lacking the capacities to become connected), or at worst threatening. Similarly, connectivity has become analogous with freedom and progress, thus imbuing the issue with both moral and security implications. Morally, the Connected feel obliged to shepherd the Disconnected into modernity so they too can reap its rewards. As a security issue, “disconnectedness defines danger” to the Connected, as it is within this population where they are likely to find “instability” and “threats to the functioning of the international system and the global economy.”<sup>143</sup> As such, rather than being a “natural evolutionary capacity,” connectivity is a security project hinging on the subjection of humanity to the Connectivity Doctrine. And like all security projects, it is a violent one, for the Connected must resort to force whenever it encounters people who are hostile to its Doctrine.<sup>144</sup> As former advisor to the US Secretary of Defense, Thomas P.M. Barnett

---

<sup>141</sup> Dean 2010, 25.

<sup>142</sup> Dean 2010, 27.

<sup>143</sup> Reid 2009, 613.

<sup>144</sup> Reid 2009, 614.

writes: “Eradicating disconnectedness is the defining security task of our age, as well as a supreme moral cause in the cases of those who suffer it against their will.”<sup>145</sup> Whichever the case, “disconnected peoples must be made into connected ones.”<sup>146</sup>

## 5.1 Connectivity and Capitalism

The Internet has certainly had transformative effects in countless arenas, still it has failed to deliver on many of its champions’ more ambitious promises, particularly those having to do with its ability to precipitate social equality or economic prosperity. This is not to say that the Internet is devoid of liberatory potential. Quite the contrary, this cyber network, still in its infancy,<sup>147</sup> continues to possess extraordinary democratic and revolutionary promise. However, technologies do not exist in a vacuum; rather, “they are developed in a social, political, and economic context.”<sup>148</sup> These factors have absolutely shaped the course of the so-called ‘digital revolution’ and their influence remains ever-present in the Connectivity Doctrine.

The historic and contextual development of the Internet highlights its paradoxical existence. Contrary to the prevailing logic, the Internet has not always been a haven for individualism, and capitalist entrepreneurialism. Rather, this particular field of digital communication was developed almost entirely through government subsidized and directed research. Indeed, had it been left to the private sector, “the Internet never would have come into existence.”<sup>149</sup> Still, although it was created as a free and open public

---

<sup>145</sup> Thomas P.M. Barnett, *America and the World After Bush*, New York: Putnam, 2009, 429.

<sup>146</sup> Reid 2009, 612.

<sup>147</sup> Widespread public use of the internet only began in 1993, making it an 19 year old technology at best at the time of this writing.

<sup>148</sup> Foster and McChesney 2011, 3.

<sup>149</sup> *Ibid.*, 4.

sphere, separate from the world of commodity exchange, the Internet quickly became subjected to the processes of capital accumulation, as its maintenance and access increasingly became the purview of private corporations. As a result, the Internet has evolved into a virtual private sphere of “increasingly closed, proprietary, even monopolistic markets.”<sup>150</sup> Such markets have logics of their own, which are all too frequently inimical to democratic practices. Ironically, the very structure of the Internet runs counter to market logic. And as such, there are inherent problems with allowing the profit motive to dictate its development;<sup>151</sup> weaknesses that help explain why the Connectivity Doctrine has failed to deliver on some of its promises.

As an intangible, virtual network, the Internet has always had awkward footing within a market system based on supply and demand. The main reason for this is that the Internet is neither a scarce resource nor a consumable commodity, but is rather a *medium* by which users can communicate with others and/or access information. Therein lies the fundamental problem: in economic terms, the Internet and its content are considered “non-rivalrous and non-exclusionary” given that “[one] person’s use of information, unlike tangible goods and services, does not prohibit others from using it.”<sup>152</sup> For this reason, media products have long posed problems for capitalist systems and have historically required market interventions for them to operate within its framework.<sup>153</sup> Keeping in step, intervention was required in order to introduce the Internet to the public as a billable good within the free-market system.

---

<sup>150</sup> Ibid.

<sup>151</sup> Ibid.

<sup>152</sup> Foster and McChesney 2011, 14.

<sup>153</sup> This was the origin of copyright laws and other intellectual property provisions, which effectively grant monopoly licenses for a given period of time to ensure that there is incentive for people to create new material. (Foster and McChesney 2011, 14.)

In order to commodify the Internet, service providers (ISPs) had to create scarcity artificially, largely by controlling and charging for access. In the US, the giant telecommunication corporations became the gatekeepers of the Internet by default because they already had what amounts to government-issued monopoly licenses over telephone and cable television wires. Fortuitously, the Internet became publicly available at the very time that the government (responding to pressure from the powerful telecom lobby) was easing regulations of the telecommunication industry. With such strong commercial and political power behind them, U.S. telephone and cable television firms established an Internet access industry that was (and remains) the antithesis of free-market capitalism. In 2011, for instance, 78 percent of U.S. households had at most two options for wired broadband access. This amounts to an effective duopoly; an uncompetitive market form in which it is in both firms' self-interest to charge extremely high prices and where neither firm has any real incentive to improve their service.<sup>154</sup>

This model is certainly not ideal, and other countries have adopted alternative, and oftentimes more efficient, means of providing Internet access. In fact, it is worth noting that the U.S. ranks between fifteen and twenty in terms of global broadband access, quality of service, and cost.<sup>155</sup> Such statistics help illustrate the difficulties in aligning the Internet to market logic and cast doubts on the U.S.'s position as the example of how the Internet should be governed.

Beyond charging for access, private companies are further commercializing the Internet via Internet-related industries (such as search engines, email, social media, mobile applications, etc.), in many cases generating incredible market concentration.

---

<sup>154</sup> McChesney 2007, 7.

<sup>155</sup> Ibid.

Many ICT companies are seizing enormous profits by establishing virtual monopolies with global reach. Google, for example, commands between 70-90 percent of the global search engine market and Apple's iTunes controls an estimated 87 percent of the digital music market and 70 percent of the MP3 player market.<sup>156</sup> Microsoft, Intel, Amazon, Facebook and others enjoy similar monopolistic power in their respective markets as well.<sup>157</sup>

Such examples run directly counter to the Connectivity Doctrine's projection of the Internet as a free-market utopia and a facilitator of competition and consumer empowerment.<sup>158</sup> Moreover, by design, networked markets like the Internet actually accelerate market concentration and encourage monopolies by a process called "Metcalfe's law," which states that the value of a network increases in proportion to the square of its connections. Correspondingly, consumer attraction to a particular firm increases by an order of magnitude as it gains an increased share of the market. This is especially true for companies like Google and Facebook, whose service actually improves with each new user. Such market tendencies make competition nearly impossible as the largest companies quickly expand and drown out all competitors.<sup>159</sup>

---

<sup>156</sup> Adam L. Penenberg, The Evolution of Amazon, *Fast Company* 137 (July/August 2009): 66-72.

<sup>157</sup> McChesney 2007, 8

<sup>158</sup> Ibid.

<sup>159</sup> Ibid., 9-10.

## Chapter VI: Connectivity, Violence, and Empire

In their influential book, *Empire*, Michael Hardt and Antonio Negri present a definitively postmodern and theoretical notion of ‘Empire’ to address the modern political order of globalization. The motivations, goals, and characteristics of modern Empire, as articulated by Hardt and Negri, are seemingly quite similar to those of the Connectivity Doctrine. As such, a brief overview of their theory may prove helpful in working through the Connectivity Doctrine’s guiding logic.

Hardt and Negri contend that modern Empire honors no territorial limits and instead seeks to rule over a spatial totality that constitutes the “civilized world.” Empire also effectively “suspends history,” thereby removing all temporal boundaries that might suggest a yet-to-be alternative. Borrowing Foucault’s notion of biopower, Hardt and Negri further argue that Empire not only manages populations and constructs the world in which they live, but ultimately tries to rule over the social sphere in its entirety. Finally, no matter how violent its actions may be, peace consistently remains at the center of Empire’s rhetoric.<sup>160</sup>

Despite similarities in the terms, this novel conception is significantly different than the traditional understanding of imperialism, which they, in agreement with Eric Hobsbawm, believe to be a project that has long since died and is no longer manageable in the modern age. In the absence of the center-periphery power dichotomy on which Western Imperialism was premised, modern power now flows through networks. As such, in the present case, proponents of the Connectivity Doctrine strategically navigate these power networks in an effort to influence the production, coding, ordering, and dissemination of knowledge via ICT.

---

<sup>160</sup> Michael Hardt and Antonio Negri, *Empire* (Cambridge: Harvard University Press, 2000), xiii-xv.

In its present form, Empire is guided by a liberal, capitalist-based market logic; thus its goals mirror those of the US and its allies. It is therefore understandable that proponents of the Connectivity Doctrine have adopted many of the aforementioned characteristics of Empire to advance their mutual aims. Likewise, the Doctrine's adherent's employ epistemic violence as a means to systematically "suspend history," and "remove special and temporal boundaries" in order to "manage [virtual] populations and construct the world in which they live." Peace and tolerance remain central themes of the Connectivity Doctrine's rhetoric, despite the epistemic violence that silences and condemns alternative viewpoints.

### **6.1 Epistemic Violence**

Such bold claims to authoritative knowledge like those presented in the Connectivity Doctrine are examples of epistemic violence being carried out on "subjugated knowledges" that are not analogous with hegemonic discourses. As Gayatri Chakravorty Spivak explains in her influential inquiry into the Western intellectual's role in power relations, "Can the Subaltern Speak," epistemic violence establishes a particular explanation of reality as normative and uncontested. In the process, it disqualifies contradictory claims to knowledge as "inadequate to their task," "insufficiently elaborated," "naïve," or "beneath the required level of cognition or scientificity."<sup>161</sup> As with other forms of imperial violence, epistemic violence is often justified as necessary to

---

<sup>161</sup> Gayatri Chakravorty Spivak, "Can the Subaltern Speak," in *Marxism and the Interpretation of Culture*, ed. Nelson and Grossber (Chicago: University of Chicago Press, 1998): 281.

protect “the other” from her “own kind” and to establish “good society”<sup>162</sup> in places held back by inferior knowledges, norms, and values.

By situating their goals within a broader commitment to political and civil rights, advocates of the Connectivity Doctrine advance a particular type of technology that accords with a Western understanding of liberal-democratic norms and values.<sup>163</sup> Such a strategy is part of the larger goal of expanding liberal, democratic capitalism internationally; “Internet freedom” is but one of many vehicles employed to advance this goal.<sup>164</sup> These norms and values, however, have contested political and economic aspects that do not always coincide with the freedom rhetoric or the rights discourse.

For one example, while the US argues that everyone should *in principle* have access to information, the *ability* to access that information is not guaranteed. Thus a strictly *political* and *liberal* definition of equality is implied even when the benefits are said to be universal.<sup>165</sup> The US is thereby able to maintain its commitment to intellectual property rights, whose profits would be threatened by the extension of *substantive* equality of access, without explicitly discussing this point.<sup>166</sup> In using the limited, political definition of equality, the US is able to quietly weave liberal-economic values into the human rights discourse without having to explicitly defend the merits of doing so. Similar to “adding pork” to congressional legislation, this strategic method ensures that the debate is kept to a minimum. Any challenge to the inclusion of these symbolic values can be dismissed as an affront to human rights and thus unworthy of debate.

---

<sup>162</sup> Ibid., 298-299.

<sup>163</sup> McCarthy 2011, 97.

<sup>164</sup> Ibid., 98.

<sup>165</sup> Ibid.

<sup>166</sup> Ibid.

Because the terms of the debate have been so effectively demarcated, the questions that academics, NGOs, and international governing institutions ask often fall neatly within the established perimeters. These inquiries typically involve how to close the digital divide, how information technology can be used to improve economic conditions, and how best to regulate information traffic flows. The debate is primarily concerned with how ICT affects populations (in terms of its economic output, education, democratic participation, etc); rarely does the debate include what impact connectivity has on users as individuals.

Addressing this point, Julian Reid argues that the act of becoming connected subjectifies peoples, constituting them as members of a group distinguished by the properties of connectivity.<sup>167</sup> “The Connected,” as a subset of people, are increasingly understood to be more social, more competent, and more skilled, than “the Disconnected.” Categorizing peoples in this way makes it easier to identify problems, prescribe solutions and assess progress quantitatively. Viewed in this light, connectivity appears as both the problem and its solution; because “the Connected” are simply “better equipped to participate in modern society,”<sup>168</sup> expanding this group becomes the main objective of “responsible governments.”

The US’s position on Internet freedom is premised on the arrogant supposition that the US knows what is best for the whole of humanity<sup>169</sup> and is therefore duty bound to save the ill-informed from their own ignorance. Similarly, this logic implicitly suggests that conflicting policies concerning ICT are based on knowledge that is “beneath the

---

<sup>167</sup> Julian Reid, “Politicizing Connectivity: Beyond the Biopolitics of Information Technology in International Relations,” *Cambridge Review of International Affairs* 22 (2009): 608.

<sup>168</sup> *Ibid.*, 608.

<sup>169</sup> “We stand for a single Internet where all of humanity has equal access...” Clinton, 2010.

required level of cognition” and that run counter to the natural course of historical progress and are thus “inadequate to their task.”<sup>170</sup> Casting itself as the embodiment of universal, normative values and claiming responsibility for network governance, the US deploys epistemic violence to subjugate and silence alternative discourses and establish the terms of the debate over global Internet practices. The assumption underlying the free speech and human rights rhetoric in Clinton’s speeches, and the Connectivity Doctrine in general, is that free markets and Western-style democracy are universally good. From this premise, the “problem” becomes how best to spread these values. The “solution” is, accordingly, increased connectivity modeled on the US’s preferred ICT architecture. American officials and their allies effectively shut down alternative avenues for argumentation; differing viewpoints are not merely cast as misconceived or illegitimate, they are categorically dismissed as unworthy of even being considered for debate.<sup>171</sup>

## 6.2 Physical Violence

Epistemic violence often paves the way for physical violence as states frequently cite perceived security concerns or appeal to their preferred version of a Human Rights Doctrine to justify foreign interventions. As Foucault explains, the success of the liberal project has long depended on strategies that promote certain norms and practices within governed populations which accord with the ‘biological destiny of the species.’<sup>172</sup> Those who employ the “historical progress” argument to advance global ICT adoption via the Connectivity Doctrine often subscribe to this type of logic.

---

<sup>170</sup> Spivak, 281.

<sup>171</sup> McCarthy 2011, 97.

<sup>172</sup> As quoted in Reid 2009, 611.

James Rosenau provides some of the requisite scholarly credibility to this line of reasoning, arguing that connectivity is a natural, “evolutionary capacity of humanity” that represents the culmination of five million years of a progressive process of learning.<sup>173</sup> Employing this logic, those who remain “disconnected” are oftentimes marked as the dangerous “other”; their rejection of techno-modernity is interpreted as either ignorance or a threat to progress. Thus it becomes the task of the Liberal-Connected to either convert the disconnected into believers of the Connectivity Doctrine or force them into compliance. If their rejection is due to ignorance, than the disconnected “other” must simply “be taught how to be connective.”<sup>174</sup> As James Rosenau argues, “connective habits and tendencies” must be meticulously constituted in a manner that “will subject [the disconnected] to the lore of connectivity.”<sup>175</sup> The underlying assumption is that once they see ICT’s utility and promise, the disconnected subjects should become amenable to connectivity. If they do not, the disconnected must either be coerced into transforming or removed, “if necessary with violence, force and war.”<sup>176</sup> Regardless of the method, “disconnected peoples must be made into connected ones.”<sup>177</sup>

As the American military strategist Thomas Barnett opined: “Eradicating disconnectedness is the defining security task of our age, as well as a supreme moral cause in the cases of those who suffer it against their will.”<sup>178</sup> Defining connectivity as a “security task” adds a military dimension to the issue that is not always addressed when advocates use human rights rhetoric to advance global ICT proliferation. Like all security

---

<sup>173</sup> Reid 2009, 609.

<sup>174</sup> *Ibid.*, 612.

<sup>175</sup> As quoted in Reid 2009, 612.

<sup>176</sup> Reid 2009, 612.

<sup>177</sup> *Ibid.*, 612.

<sup>178</sup> as quoted in Reid 2009, 614.

projects, this security project is a violent one.<sup>179</sup> And the violence becomes even more imminent when the global divide between the “‘Functioning Core’ of connected peoples” and the “‘Non-integrating Gap’ of disconnected ones” is advanced as not merely a technological disconnect, but as a direct threat to the “correct” way of life and the liberal project at large.<sup>180</sup> The rejection of ICT and the emancipatory Connectivity Doctrine, whether by choice or from the lack of material capacities, is understood to be a disconnect from the “rules that define the organization of life” and thus “demand[s] attention from US military forces.”<sup>181</sup>

As such, it is likewise understandable that “the Connected” wage wars almost exclusively on the “Disconnected”<sup>182</sup> The severity of military action varies according to the circumstance, but connectivity is regularly used in one way or another to justify most contemporary acts of foreign intervention, and is almost always linked to human rights and democracy.<sup>183</sup> Technological interventions have become increasingly common in the last few decades and often serve as a precursor to more aggressive forms of intervention or at least set the stage for more physical forms of violence.<sup>184</sup>

---

<sup>179</sup> Reid 2009, 614.

<sup>180</sup> as quoted in Reid 2009, 613.

<sup>181</sup> Reid 2009, 613.

<sup>182</sup> Ibid.

<sup>183</sup> Anti-censorship and other Connectivity campaigns are typically targeted at states that the US and its Allies have existing problems with. The New York Times published a report in 2011 on one of the most recent initiatives that included the US deploying “shadow” Internet and mobile phone systems in locations such as Syria, Libya, Iran, and Afghanistan all countries with which the US has expressed concerns. Equally repressive regimes that the US has friendlier relationships with (such as Saudi Arabia, Turkmenistan, Bahrain, etc.) tend not to be included in anti-censorship campaigns. See James Glanz and John Markoff, “U.S. Underwrites Internet Detour Around Censors,” *New York Times*, June 12, 2011, [http://www.nytimes.com/2011/06/12/world/12internet.html?\\_r=1](http://www.nytimes.com/2011/06/12/world/12internet.html?_r=1) (accessed January 12, 2012)

<sup>184</sup> A recent example of this is the US and its allies’ approach toward Iran. The US State department lauded the use of censorship circumvention technology in Iran and purportedly teamed with Israel to deploy the Stuxnet worm that effectively shut down several uranium enrichment plants. In the months since, the international rhetoric regarding Iran has become increasingly more aggressive, causing many to question whether the US is preparing to attack Iran militarily.

With such ties between technology and foreign intervention, it is understandable that ICT has rapidly been integrated into a new canon of network-centric warfare. Employing handheld computers and communication devices, CGI and satellite mapping systems, and computer-guided weaponry, the “Connected” enjoy a far superior military elite than the “Disconnected,” at least in terms of technological capabilities. Thus while its proponents often praise the emancipatory potential ICT may have, “its emergence has been as much tied to the exigencies of demands for improvement in the capacities for war-making as it has for new systems of global governance.”<sup>185</sup> Indeed, ICT and violence often go hand in hand; many of the dominant information and communications technologies (most famously the Internet) that are now available for public use were first developed for the use of Western militaries. Now, these same militaries are helping expand ICTs globally through their role in advancing the Connectivity Doctrine.

### **6.3 Technological Intervention and Violence**

The US State Department has actively funded the development and promotion of Internet censorship circumvention tools since at least 2001, allocating a reported \$15 million to the effort in 2008<sup>186</sup> and another \$28 million in 2011.<sup>187</sup> These figures may seem relatively low for a US governmental line item, but they reflect the minimal cost and labor required for this type of foreign intervention. With numerous institutions and NGOs willing and able to develop, deploy, and provide training on how to use these technologies, coupled with the international approval garnered from the diplomatic

---

<sup>185</sup> Reid 2009, 612.

<sup>186</sup> McCarthy 2011, 102.

<sup>187</sup> Nicole Gaouette and Brendan Greely, “U.S. Funds help Democracy Activists Evade Internet Crackdowns,” Bloomberg News, April 19, 2011, <http://www.bloomberg.com/news/2011-04-20/u-s-funds-help-democracy-activists-evade-internet-crackdowns.html> (accessed 21 April, 2012).

capital invested in the UN Human Rights Council and elsewhere, the US is able to promote its policies at marginal cost.<sup>188</sup> Still, while the monetary expense of technological intervention may not be substantial, the objectives are far from inconsequential. Despite the rhetoric, the US does not act solely out of concern for human rights. Rather, its ultimate goal is to transform international political and economic systems in a manner more sympathetic to its norms and values. As Daniel McCarthy argues, “[t]he desired transformation is a *physical* one, an attempt to literally build the international system in line with the American vision for global politics.”<sup>189</sup>

Even with broad international support for this type of technological intervention, it should be noted that such policies are not legally sanctioned by international society. These efforts are a form of direct intervention into the laws and policies of sovereign states, designed specifically to simultaneously assist foreign nationals in breaking their home country’s laws and hinder the ability of foreign governments to enforce them.<sup>190</sup> Moreover, such seemingly “mild” forms of intervention can have serious consequences for individuals caught using US financed censorship circumvention technology or attending US-sponsored training sessions.

One striking example of the potentially violent ramifications of technological intervention emerged during the demonstrations in Iran following the contentious presidential election in 2009. Wanting to help Iranians access websites that were banned by the government, Austin Heap, a San Francisco based software developer created an

---

<sup>188</sup> McCarthy 2011, 103.

<sup>189</sup> McCarthy 2011, 104.

<sup>190</sup> Ibid.

anonymizer<sup>191</sup> called Haystack that pierced virtual firewalls<sup>192</sup> while also creating the illusion (to any third party monitoring Internet activity) that users were browsing innocuous sites (like weather.com or official state media websites).

Haystack received overwhelmingly positive coverage from Western media; *The International Herald Tribune*, NPR, *Christian Science Monitor*, BBC News, among others,<sup>193</sup> cast Austin Heap as a wunderkind in their reports and *The Guardian* even declared him “innovator of the year” in March 2010 for his work.<sup>194</sup> Yet Heap received these accolades before anyone could verify that the software actually worked. No one outside Heap’s team, including reporters or security professionals, was allowed access to Haystack’s code. When asked to examine the program, Heap simply offered reassurance of Haystack’s functionality and warned that releasing a copy would undermine the project’s security.<sup>195</sup> So confident was Heap in Haystack’s capabilities that he boasted in *Newsweek* of his plan to export the program to other countries: “We will systematically take on each repressive country that censors its people. We have a list. Don't piss off hackers who will have their way with you. A mischievous kid will show you how the Internet works.”<sup>196</sup>

---

<sup>191</sup> An anonymizer is a program that “acts as an intermediary and privacy shield between a client computer and the rest of the Internet. It accesses the Internet on the user's behalf, protecting personal information by hiding the client computer's identifying information.” <http://en.wikipedia.org/wiki/Anonymizer>

<sup>192</sup> A firewall is a “device or set of devices designed to permit or deny network transmissions based upon a set of rules and is frequently used to protect networks from unauthorized access while permitting legitimate communications to pass” [http://en.wikipedia.org/wiki/Firewall\\_%28computing%29](http://en.wikipedia.org/wiki/Firewall_%28computing%29)

<sup>193</sup> Morozov 2011, 207.

<sup>194</sup> Aleks Krotoski, “MediaGuardian Innovation Awards: Austin Heap V Iran’s Censors,” *The Guardian*, <http://www.guardian.co.uk/media/2010/mar/29/austin-heap-megas-innovator-award> (accessed 2 April 2011).

<sup>195</sup> Evgeny Morozov, “The Great Internet Freedom Fraud: How Haystack Endangered the Iranian Dissidents it was Supposed to Protect,” *Slate*, September 26, 2010, <http://www.slate.com/id/2267262> (accessed 30 March 2011).

<sup>196</sup> William J. Dobson, “Needles in a Haystack,” *Newsweek*, June 8, 2010, <http://www.newsweek.com/2010/08/06/needles-in-a-haystack.print.html> (Accessed 15 April 2011).

Without independent verification or testing, Heap was simply taken at his word and praised for his work. The US State Department went so far as to “fast-track” Haystack through the necessary bureaucratic channels to ensure Heap would not be in violation of the US trade embargo with Iran. That he received the necessary licenses and clearance so quickly suggests that no one at the State Department examined the software very closely. Still, the US government’s endorsement of Haystack (Secretary Clinton even mentioned the software by name during an interview), coupled with the positive coverage in mainstream (Western) media outlets, gave the software an apparent seal of approval that led many to believe that the software worked and could successfully shield Iranians from government surveillance.

The problem is that Haystack did not live up to Heap’s promises. After just a few hours of reviewing a leaked copy of the software’s code, third-party testers discovered enormous problems with the program.<sup>197</sup> Not only did the program fail to bypass Iran’s firewall, it also left virtual trails containing users’ GPS coordinates that the Iranian government could potentially use to identify anyone who ever used the software, even years after the fact.<sup>198</sup>

It is unclear how many Iranians used this particular software and very little is known of any Haystack-related arrests in Iran.<sup>199</sup> Still, based on its history of violent dealings with anti-government demonstrators, it is not a far stretch to speculate that the potential ramifications for Iranian citizens caught using Haystack would have been severe. If indeed the Iranian state did use brute force to punish those who used this particular software, or technology like it, the US is certainly culpable, if not wholly

---

<sup>197</sup> Morozov 2011, 208.

<sup>198</sup> Morozov 2010.

<sup>199</sup> Motosov, 2011. 208.

responsible for the violence. Likewise, the 26 year old software developer, the international media, the UN, the numerous countries that supported this type of technology, and countless others also share some burden of responsibility.

As evidenced by its response to the recent pro-democracy demonstrations throughout the Middle East, as well as the speeches given by Secretary Clinton, the US is showing no signs of curtailing its policy on technological interventions, nor any other part of its Internet agenda, despite learning of the Haystack debacle. Quite the contrary, the US and other proponents of the Connectivity Doctrine remain committed to the global expansion of a “singular,” Western-based model of the Internet at all costs. Thus the relevant question for this inquiry becomes, if it has not happened already, how long will it be before this readily accepted, “mild” form of intervention results in *physically* violent consequences?

#### **6.4 US Foreign Policy and Violence**

Through her speeches, Secretary Clinton meticulously presents the Connectivity Doctrine as a benevolent gift to the world’s “disconnected” populations. And she preemptively defends the policy from attack by situating it within a globally respected human rights discourse. Such tactics may be politically savvy, but they also serve to draw attention away from the potentially violent repercussions of the Doctrine’s associated actions. Besides the aforementioned epistemic violence and the potentially violent punishment for circumventing ICT censorship, violence can also be the consequence of inconsistencies in the content and application of foreign policy that has been influenced by the Connectivity Doctrine.

Over the past few decades, philosophically realist theories of international relations have guided much of U.S. foreign policy. As such, the U.S. has, on occasion, supported regimes that they may not agree with ideologically, but that are, nonetheless, of strategic importance at a given time. Recent instances, which are especially pertinent to the present argument, include supporting authoritarian regimes financially, militarily, and in official statements while at the same time providing financial backing and technical support to opposition movements. For example, in the years leading up to the 2011 revolution, Egypt received nearly \$1.4 billion annually in military aid from the U.S. (the second highest recipient behind Israel) despite its authoritarian government and dismal human rights record. At the same time, according to diplomatic cables obtained by WikiLeaks,<sup>200</sup> the U.S. was funneling tens of millions of dollars to pro-democracy organizations in the country.<sup>201</sup> Many members of these oppositional groups were subjected to physical violence as a result of their involvement in anti-regime protests, violence that was often carried out by Mubarek-led military that was in part funded by US aid. The U.S., in effect, helped fund both sides of the conflict. In its official statements, however, the Obama administration remained ambiguous; they refused to call for President Mubarek's resignation and never seriously threatened to take away its financial assistance.<sup>202</sup>

While exalting the emancipatory and democratic promises of ICT, and actively funding its global proliferation, the US continues to provide diplomatic, financial, and

---

<sup>200</sup> Margaret Scobey, "President Mubarak's Visit to Washington," 19 May 2009, *WikiLeaks*. WikiLeaks cable: 09CAIRO874, <http://www.wikileaks.ch/cable/2009/05/09CAIRO874.html#> (Accessed May 25, 2012).

<sup>201</sup> Middle East Online, "Cables: US funded Egyptian pro-democracy movement," 28 January 2011, <http://www.middle-east-online.com/english/?id=43952> (Accessed 2 February 2012).

<sup>202</sup> A timeline of the official U.S. reactions to the revolution in Egypt can be found at <http://www.trust.org/alertnet/news/timeline-the-changing-us-reaction-to-egypts-crisis/>

military support to undemocratic and oppressive regimes. Many of these recipients of US aid are amongst the worst in terms of Internet censorship and surveillance and have often used violence to punish those caught using ICT to promote democratic movements. To cite just a few examples besides Egypt, Vietnam, Pakistan, Turkmenistan, Bahrain, Saudi Arabia, and several others were all labeled “enemies of the Internet” or “under surveillance” by Reporters Without Borders,<sup>203</sup> yet all received substantial foreign aid packages from the US, in many cases funding specifically targeted for military purposes.<sup>204</sup>

Such inconsistencies are obviously not included in official speeches, yet they are nonetheless essential in understanding the Connectivity Doctrine. As a political device, the Doctrine may guide policy, when it is convenient to do so, but its application is certainly not universal or evenhanded. Despite best intentions, the governments, institutions, and corporations that support the Connectivity Doctrine have to measure policy decisions in terms of their own self-interest. The techno-optimistic rhetoric that claims otherwise is simply misleading and demands serious scrutiny, as the gaps between promise and practice share troubling similarities with those created by past imperial powers.

---

<sup>203</sup> Reporters Without Borders, *Enemies of the Internet Report 2012*, 12 March 2012, <http://en.rsf.org/beset-by-online-surveillance-and-13-03-2012,42061.html> (Accessed May 15, 2012).

<sup>204</sup> John Norris, “Interactive Map: Foreign Aid Analysis Made Easy,” *Center for American Progress*, February 7, 2011 <http://www.americanprogress.org/issues/2011/02/foreignaid.html> (Accessed May 12, 2012).

## 6.5 Connectivity and Empire

Marx argues that a social formation (capitalism, communism, neoliberalism, etc.) must reproduce the condition of its production to ensure its longevity. In the capitalist system, this is accomplished by securing the conditions for capital accumulation through the extension of capitalist logic and practices to new territories and commodities.<sup>205</sup> In the era of early capitalism, imperialism ensured the necessary territorial expansion to maintain its preferred social order. In the modern “Information Age,” the Connectivity Doctrine is the vehicle of choice with which to secure the conditions of production within the new knowledge-based economy.

Adding to Marx’s assertion, Louis Althusser contends that “repressive and ideological state apparatuses” are deployed in tandem to secure said reproduction of the condition of production. These ideological apparatuses (church, school, consumerism, etc.) facilitate the movement of capital by instilling the requisite principles and practices in the minds of a population, while at the same time demystifying the “gruesome consequences of capitalism.”<sup>206</sup> The repressive apparatuses (military, police, etc.), in turn, work to squelch any dissent that might threaten the state’s desired ends. States have adapted such apparatuses over time in response to changes in socio, political, and economic demands.

Throughout history, imperial powers have continually employed technology and manipulated knowledges as part of both of these processes. Doing so has served the dual purpose of maintaining order while also allowing for the more efficient exploitation of the population’s labor force. As previously mentioned, in the Information Age, neo-

---

<sup>205</sup> A.J.M Shafiu Alam Bhuiyan, “Peripheral View: Conceptualizing the Information Society as a PostColonial Subject,” *International Communication Gazette* 70 (2008): 101.

<sup>206</sup> Ibid.

liberalism has replaced the imperial state as the dominant hegemonic force. Powerful states now work to secure new arenas for capital accumulation and to foster market proliferation, rather than territorial expansion. While the goals of modern Empire have changed, the means by which they are achieved remain consistent with those of its imperial forebearers.

In the preface to his work on power and modernity, *Colonizing Egypt*, Timothy Mitchell explains that 19<sup>th</sup> century imperialism involved far more than military occupation and economic exploitation. Beyond establishing a ruling presence, imperialism as a theoretical concept also refers to “the spread of a political order that inscribes in the social world a new conception of space, new forms of personhood, and a new means of manufacturing the experience of the real.”<sup>207</sup> While Mitchell’s analysis focuses on Egypt, similarities exist between his analysis of British physical and mental colonization in the 19<sup>th</sup> and 20<sup>th</sup> centuries and the modern “techno-imperialism” that is occurring within the virtual space of the Internet. Likewise, parallels can further be drawn between knowledge production and colonial “enframing” and the knowledge-ordering processes currently taking place by Google and other technology giants.

Mitchell explains that colonizing forces aimed to “re-order” Egypt as something “object-like” so it would appear as a world enframed.<sup>208</sup> Egypt had to be reorganized and recoded in a manner consistent with a European understanding of order, thus rendering it available to political and economic calculation. In other words, “colonial power required the country to become readable, like a book, in our own sense of such a term.”<sup>209</sup> The result of such micro-level ordering of society was the production of what Mitchell calls

---

<sup>207</sup> Timothy Mitchell, *Colonizing Egypt* (Cambridge: Cambridge University Press, 1988), ix.

<sup>208</sup> Mitchell 1988, 33.

<sup>209</sup> Ibid.

the “world-as-exhibition,” in which a strict binary exists between the physical, material reality and its representation, which is imbued with meaning.

Colonial processes allowed for modern forms of “systematic yet unseen surveillance”<sup>210</sup> that further isolated and disciplined individuals in order to mold them into modern political subjects. These new subjects were to conform to the new European conception of personhood as something “set apart from a physical world...as the one who observes and controls it...” The “true nature of the human person” was to be industrious, self-disciplined, and “objective.”<sup>211</sup> Through surveillance, meticulous data collection, and discipline, colonial forces applied European forms of knowledge to the colonized populations so that they could come to “know” them. This “knowledge” was then to be used to produce and codify a visible hierarchy, which enabled more consistent control and efficient exploitation of the population and its labor power.<sup>212</sup>

The means by which information is ordered on the world wide web is strikingly similar to the organizing techniques employed by colonial powers in their efforts to restructure occupied lands into readable territories. While she does not explicitly draw parallels between past and present imperial projects, Rita Raley does an excellent job of explaining the modern “colonization of cyberspace” in her article, “eEmpires.” Raley argues that the success of “eEmpire” is the result of the historic amalgamation of technology and finance; a partnership that allows “eEmpire” to operate on a global scale more efficiently than past forces ever achieved.<sup>213</sup> This merger has effectively

---

<sup>210</sup> Ibid., x.

<sup>211</sup> Ibid., 19.

<sup>212</sup> Ibid., 45

<sup>213</sup> Eric Hobsbawm and others have noted how modern technology has effectively “abolished time and space,” the two main obstacles toward perfect efficiency (see Hobsbawm, *On Empire*, 36).

transcended the previous obstacles posed by time and space and has fundamentally changed how capital and Empire operate.

As a networked operation, the strength of eEmpire lies in its flexibility and growth potential; “its value increases as it grows, as [more] knowledge is accumulated, more computers are linked to the system, and information processing becomes more complex.”<sup>214</sup> It does this in part because of the way the original architects of the Internet inadvertently constructed the system. Every time someone accesses a Web page, the user’s computer participates in an “incessant dialogue” with other networked machines during which it constantly transmits information such as the Internet Protocol (IP) address, browser type, user domain, etc.<sup>215</sup> In this manner, the Internet is able to “code” each user and circulate their “reproductions” without their consent or knowledge,<sup>216</sup> which in turn allows for vastly improved methods of “systematic yet unseen surveillance,” for use by those with access to this data.

Differing from past empires that sought to extract raw materials and exploit cheap labor from colonized lands, in the modern “information society,” individual users’ personal information is the key exploitable commodity. This information is collected, ordered, packaged and sold to marketing firms who in turn produce carefully targeted advertisements to users. Such a model, based on the accumulation of virtual information, allows global sales and marketing to penetrate geographical boundaries on an unprecedented scale. Adding to this, multiple modes of consumption are increasingly being synchronized into one platform, so that communication, buying, selling,

---

<sup>214</sup> Raley, 121-2.

<sup>215</sup> Wendy Hui Kyong Chun, *Control and Freedom: Power and Paranoia in the Age of Fiber Optics* (Cambridge MA: The MIT Press, 2006), 3.

<sup>216</sup> *Ibid.*, 4.

entertainment, etc. all take place on a single computer, smart phone, or tablet, thus allowing for progressively more efficient and precise means of data collection.

Striking as this may sound, such data collection does not necessarily result in a virtual, “Big Brother-esque” panopticon on a global scale. Internet “cookies” only code certain information, not all web activity. And while a tremendous amount of data is collected, the majority is left unanalyzed. Still, the “digital traces” that users leave behind produce extremely valuable information that can be coded and sold as a commodity,<sup>217</sup> appropriated by governments for surveillance purposes, or used for any number of other purposes.

Eric Schmidt, Chairman and CEO of Google, admits that his ultimate goal is to acquire enough detailed personal information about each web user that Google “could provide customized answers to the questions ‘what shall I do tomorrow?’ and ‘what job shall I take?’”<sup>218</sup> Admittedly, the possibility of instantaneous access to unlimited information is as romantic as it is appealing. However, the potential remains for this personal information to be used for more nefarious purposes. Furthermore, with such a storehouse of data, some information must necessarily remain hidden, neglected, or otherwise silenced. A hierarchy of knowledge is literally encoded in the means by which information is ordered on the Internet and delivered via search engines. As such, regardless of web developers’ intentions, consolidating information and offering answers in this manner demonstrates a contemporary form of epistemic violence.

Gayatri Spivak warns that knowledge of the Other will ultimately “cohere with the work of imperialist subject-constitution, mingling epistemic violence with the

---

<sup>217</sup> Chun 2006, 5-6.

<sup>218</sup> Randall Stross, *Planet Google: One Company’s Audacious Plan to Organize Everything we Know* (New York: Free Press, 2008), 16.

advancement of learning and civilization.”<sup>219</sup> Google’s aggressive desire to accumulate intimate details about every person on earth and to provide that information freely applies directly to this warning. Google’s algorithm is explicitly programmed to privilege and deliver dominant discourses whenever a user enters a search term, thus all material drawn from it reinforces the hegemonic power that supports the particular information or positions presented. In this manner, the structure of Google and the architecture of the Internet in general, serve to silence subordinate ideas and in doing so “consolidate an inside” from which to draw profit.<sup>220</sup>

This association with epistemic violence is not meant to imply any moral judgments concerning the CEO of Google or the company in general; however, there is legitimate cause for concern over a corporation that warehouses such a vast collection of data about private individuals. Such an arrogant desire to offer individualized answers to personal questions submitted to an algorithm-based Internet query will absolutely privilege certain epistemes at the expense of others, especially when the company’s ultimate goal is to generate profits. Furthermore, as some of the Google’s top executives enjoy positions alongside some of their counterparts from Facebook and other Internet giants as advisors to the President of the United States on ICT policy, it seems imperative to scrutinize such close relationships between the world sole remaining superpower and the world’s most powerful repositories and gatekeepers of knowledge.

---

<sup>219</sup> Gayatri Chakravorty Spivak, “Can the Subaltern Speak?” in *Marxism and the Interpretation of Culture*. Nelson and Grossberg, eds. (Chicago: University of Illinois Press 1998), 295.

<sup>220</sup> *Ibid.*, 293.

## 6.6 Selling Empire

There exists a striking similarity between 19<sup>th</sup> century imperialism and the modern Connectivity Doctrine in the techniques employed to “sell” the two projects to the affected populations. Immanuel Wallerstein explains in *European Universalism* that hegemonic powers typically appeal to three primary varieties of universalism for justification of their policies: defense of human rights and the spread of democracy; western superiority [which is closely tied to positivistic notions of progress and modernity]; and the inevitability of market neoliberalism.<sup>221</sup> As reviewed in the previous analysis of Secretary Clinton’s speeches and US policy, these appeals to universalism are repeated continuously in the Connectivity Doctrine to justify the proliferation of the hegemonic model of ICT governance.

The Doctrine’s active promotion of technology-fostered economic growth represents a twenty-first century manifestation of the historically oft-used discourse of “progress.” Prominent academics and economists provide the Doctrine with theoretical justification and “legitimacy” by asserting that developing countries can “leapfrog” industrial production and move directly from an agriculture-based economy to an information-based economy by simply adopting the new technology-centric model of progress.<sup>222</sup> It is interesting to note here that the U.S. and other advocates of the Connectivity Doctrine embraced this model of development at the very time that resistance toward other “modernization” projects<sup>223</sup> was gaining momentum.<sup>224</sup> While the

---

<sup>221</sup> Immanuel Wallerstein, *European Universalism: The Rhetoric of Power* (New York: The New Press, 2006), xiv.

<sup>222</sup> *Ibid.*, 107.

<sup>223</sup> Acting on the belief that “modernization” would eliminate global poverty, development plans were implemented in the global south starting in the mid 1950s, which advocated for the adoption of new technologies in production as well as the widespread embrace of a consumer lifestyle. Such modernization projects were met with much criticism and were largely abandoned in the mid 1980s.

specifics of the projects may have changed, the overall goals and assumptions remained largely the same.

Appealing to a sense of “Western superiority,” as in the past, modern hegemonic power presents itself as the model of progress that others should emulate. In the present case, the dominant “nodal powers”<sup>225</sup> that promote the Connectivity Doctrine argue that the widespread adoption of ICT (again, considered to be politically neutral tools) and global adherence to the preferred (Western) structural, operational and governing norms are essential for progress. Fittingly, such optimistic faith in the transformative potential of ICT tends to mirror the Connectivity Doctrines’s leading proponents’ foundational assumptions about the power of reason, rationality, and the scientific method to bring about predictable and beneficial results. Arguing a similar point about development agencies, Rafal Rohozinski argues: “when applied to the role of ICTs, these rational self-assumptions become even further reified by a pseudo-scientism that considers tools that are themselves a product of scientific methods (as ICTs are) to necessarily be carriers of rationality.”<sup>226</sup>

Understandably, telecommunications companies that stand to profit from the widespread adoption of their technologies reaffirm the Connectivity Doctrine’s basic premises.<sup>227</sup> Yet governments and international institutions also actively promote the Connectivity Doctrine without questioning its intrinsic assumptions. The United Nations,

---

<sup>224</sup> A.J.M Shafiul Alam Bhuiyan, “Peripheral View: Conceptualizing the Information Society as a PostColonial Subject,” *International Communication Gazette* 70 (2008): 104.

<sup>225</sup> Again, using Manuel Castell’s term stemming from his argument that networks are the basic units of modern power and that states, corporations, international political, economic, and financial institutions, NGOs, etc. are all nodes within larger power networks. See Castells, *The Network Society*.

<sup>226</sup> Rafal Rohozinski, “Bullets to Bytes: Reflections on ICTs and ‘Local’ Conflict,” in *Bombs and Bandwidth: The Emerging Relationship Between Information Technology and Security*, (New York: The New Press, 2003), 219.

<sup>227</sup> Chun 2006, 147.

the WTO, the IMF and many NGOs and academics tacitly accept the underlying neo-liberal logic and look for ways to foster economic growth by adopting the framework of the knowledge-based economy. Several UN reports even repeat the Doctrine's language, urging developing nations to "catch the Internet Express" and argue that doing so is their "best hope...for integrating into the global economy."<sup>228</sup> Recommendations and development projects endorsed by the UN and other international political and economic organizations strongly encourage global integration into the new knowledge-based economy and implicitly support everything that comes with it, including strict intellectual property laws, privatizing state-owned telecommunications networks, offering incentives to and protecting new markets in ICT, etc. Promoting the Doctrine further, in 2000, UN Secretary General Kofi Annan urged governments of developing countries to "nurture and support" the private sector by providing institutional support, offering tax incentives, and other measures. Such "other measures" of support include selling off domestic telecommunication networks to foreign corporations, as was done by Estonia in the 1990s, a country that the UN lists as a model of successful integration into the global knowledge-based economy.<sup>229</sup>

The Connectivity Doctrine helps illustrate the way power operates in the modern networked society. Foucault argues that modern power must be analyzed as "something that circulates...[because] Power is exercised through networks...[and] passes through individuals. It is not applied to them."<sup>230</sup> Similarly, Empire works through individuals by their own participation within said networks. Modern Empire, operating through networks and facilitated by the Internet, does not seek to extend its fixed, territorial

---

<sup>228</sup> Chun 2006, 148.

<sup>229</sup> Ibid.

<sup>230</sup> Michel Foucault as quoted in Mark Poster 2007, 385.

boundary but rather to “incorporate the entire global realm within its open, expanding frontiers.”<sup>231</sup>

Such rapid and expansive incorporation can be detrimental to an individual’s understanding of identity. As states no longer serve as the singular “locus of power,” they, consequently, no longer provide an adequate mythology that can bind a diverse population.<sup>232</sup> This failure is inconsequential for modern Empire, which is not interested in preserving past unities that present potential barriers to capital expansion. Instead, individuals linked to the networks forge new “hybrid identities” that are no longer rigidly defined by a First World – Third World split, but rather, “a body so fragmented that its morphology is a diaspora.”<sup>233</sup> Nodal centers (such as global media conglomerates, transnational corporations, and the ICT industry) battle for control of the “dominant cultural memory” by “develop[ing] competing archives to store and produce the ‘truth’ or a dominant cultural memory.”<sup>234</sup> Individuals engage with these networks constantly yet remain “unconscious of the mechanisms that structure the [position] in which they find themselves,”<sup>235</sup> they remain “focused on the content [of networks], not on their mechanic or formal qualities.”<sup>236</sup>

Wendy Hui Kyong Chun provides an analysis of one company’s attempt to (literally) “sell” modern ICT using the Connectivity Doctrine’s guiding logic, and its effect on individual identity, in her work on modern forms of power in the Information Age. In the mid to late 1990s, when the Internet was still a novel technology for most

---

<sup>231</sup> Hardt and Negri as quoted in Raley 2004, 127.

<sup>232</sup> Hobsbawm explains how former colonies especially, including the U.S., do not have a unifying myth of origin or other elements necessary for a unifying nationalism (Hobsbawm 2008).

<sup>233</sup> Mark Poster, “Postcolonial Theory in the Age of Planetary Communications,” *Quarterly Review of Film and Video* 24 (2007), 383.

<sup>234</sup> Raley 2004, 126.

<sup>235</sup> Poster 2007, 385.

<sup>236</sup> Poster 2007, 387.

people, private Internet service providers spent millions in advertising campaigns aimed at convincing consumers to become connected. During this time, telecommunications giant MCI ran a now-infamous commercial titled “Anthem” that presented the Internet as a virtual, utopian realm of endless possibility, free from "real world" inequities like race, class, gender, age, illness, etc. The advertisement features people of various races, genders, ages and with physical challenges who recite the following script:

People can communicate mind-to-mind

Not black-to-white.

There is no race.

There are no genders.

Not man-to-woman

There is no age.

Not young-to-old

No age.

There are no infirmities.

Not short-to-tall.

Just thought-to-thought. Idea-to-idea.

There are only minds.

What is this place?

Utopia?

No.

The Internet,

Where minds, doors and lives open up.

Nice place, this place called the Internet.

Is this a great time, or what?<sup>237</sup>

While the advertisement states that the Internet is not utopia, the overriding sentiment implies it is *like* utopia. The commercial presents a virtual world that is seemingly superior to the “real world;” a world devoid of inequality where the normative merits of Enlightenment philosophy prevail. It insinuates that users can “resist objectification (become emancipated) by becoming text online.”<sup>238</sup> While users suffer from inequality in the real world, the users’ textual, virtual self-representations allow them to feel empowered in their ability to “pass as the (fictional) unmarked white male” and “buy oneself back into the realm of rational-critical debate, [the realm] which is now redefined as the marketplace of ideas.”<sup>239</sup> Marketing the myth that Internet users are all regarded as equal and (race, class, gender) neutral “minds” in cyberspace depoliticizes the individual; rather than addressing political, economic and social inequality, ISPs claim to simply offer a place where they do not exist. The unspoken argument thus becomes: with such an incredible opportunity, why would anyone NOT want to become part of the Connected?

Marketing the Internet in this way was extremely successful<sup>240</sup> as the number of US Internet users doubled from 1997 to 1998.<sup>241</sup> While seemingly obvious, it is important

---

<sup>237</sup> MCI ran several versions of this advertisement. A longer version of the ad is available at <http://criticalcommons.org/Members/JLipshin/clips/Anthem.mp4/view>. A shorter version is available at <http://vimeo.com/2445340>. The script transcribed here combines the two, which differ slightly.

<sup>238</sup> Chun 2006, 140.

<sup>239</sup> Ibid., 143

<sup>240</sup> Almost all Internet promotional advertisements in the U.S. displayed indicators of difference until the dot-com bust limited advertising to white male images, presumably in an effort to signal stability and experience (Chun 2006, 131).

to note that MCI was a private corporation selling a product for profit, it was not an altruistic organization seeking to erase inequality and empower human beings, despite what the ads might imply. MCI and other telecommunications firms actively exploited and fostered a growing historical amnesia by implicitly asking users to disregard the real discrimination they faced. Telecommunications corporations were in effect privatizing civil rights and offering consumers the “rights” and “freedoms” that states had failed to honor and protect for them as citizens.<sup>242</sup>

Ironically, the same year the MCI ad ran, a U.S. government report revealed that the digital divide between white and minority households remained enormous. Yet rather than hurting business, telecommunications companies were able to exploit these statistics by asserting that the only solution to the disparity between “potential and actual empowerment” via technology was for more users to purchase their products and services. They effectively gave themselves an “unending mandate” by defining “technologically produced...equality as the ideal,” which could only be reached on a global scale only by increased adoption of their technology.<sup>243</sup>

While the Internet no longer needs to be “sold” to consumers as it did in the 1990s, ICT corporations continue to market the Internet as a utopian realm devoid of the problems and inequities faced in the “real world.” In 2011, Google ran a television commercial featuring the pop star Lady Gaga as part of the marketing campaign promoting its web browser, Chrome. The commercial alternates between images of the singer running through New York City and videos that Lady Gaga fans have posted on

---

<sup>241</sup> Internet World Stats: Usage and Population Statistics, last updated April 30, 2012. <http://www.internetworldstats.com/emarketing.htm> (accessed May 15, 2012).

<sup>242</sup> Chun 2006, 144

<sup>243</sup> Ibid., 147.

YouTube (a subsidiary of Google) of them singing along with and dancing to her music. In the background, Lady Gaga's song "Edge of Glory" proclaims "there a'int no reason you and I should be alone...I'm on the edge of glory, and I'm hanging on a moment with you." The singer is then seen typing a message to her fans, telling them that they are all "superstars" and that *they* inspire *her*. Lady Gaga concludes her message with a brief, yet comforting sentiment: "This is our moment...Stay strong..." As the image fades, Chrome's tagline appears on the screen: "the web is what you make of it."<sup>244</sup>

The ad confronts a sense of isolation and loneliness that is common amongst Lady Gaga fans, or "little monsters," as she adoringly calls them.<sup>245</sup> Google presents the audience with a "virtual" community where everyone is welcome and where celebrity and fan stand as equals; fans can both be inspired by and inspire their pop heroes and pop stars can communicate directly with their audience. The music serves as an object of commonality that brings together people from all walks of life; the Internet serves as the vehicle that allows this to happen.

Twenty years after MCI ran the "Anthem" commercial, private companies are still trying to package and sell the Internet as a utopian sphere, apart from the "real world." Like the MCI ad, the Chrome commercial presents a world of equality, freedom, and endless possibility assessable solely through the use of ICT, particularly in this case, Google products. In this way, telecommunications corporations have helped define, and continue to shape, the parameters of debates concerning ICT and cyberspace. In

---

<sup>244</sup> "Google Chrome: Lady Gaga," YouTube video of television commercial, posted by "googlechrome" on May 20, 2011, <http://www.youtube.com/watch?v=sDPJ-o1leAw> (accessed May 10, 2012).

<sup>245</sup> Lady Gaga has become a pop-culture hero for many people who do not conform to the prevailing societal norms of behavior. She is especially popular in the LGBTQ community for her acceptance of non-traditional lifestyles (although her status as a "gay icon" is not without criticism), most prominently displayed in the song "Born this Way."

advancing the Connectivity Doctrine, governmental bodies, NGOs, and private companies present “cyberspace” as an existing, utopian realm, an improved alternative to the “real world.” In so doing, they effectively depoliticize individual agency and existing inequalities; users need not spend time negotiating identity or fighting for justice, for the Connected are all equal in the network.

## Chapter VII: Conclusion

The purpose of this analysis is not to argue for or against global ICT proliferation, nor is it to measure the merits of unfettered access to information against the sovereign right to determine what content should or should not be made available for public consumption. Rather, the purpose of this inquiry is to illustrate how epistemic violence often renders such debate irrelevant. Through calculated rhetoric and strategic framing of policy, the creative navigation of diplomatic channels, and by taking advantage of influential positions in global institutions and governing bodies, proponents of the Connectivity Doctrine have advanced a one-size-fits-all vision of the Internet as just, moral, and progressive. In so doing, they have effectively sidelined debates concerning the contingent history, optimal architecture, and present and future governance structure of information and communication technology.<sup>246</sup> Through the Connectivity Doctrine, proponents have advanced a Western understanding of individual rights and liberal sovereignty as superior to notions of cultural or communal rights. Likewise, Western (or in this case, distinctly U.S.) definitions of free speech and intellectual property rights are presented as universal rights and norms that trump a state's right to determine what is best for its own security and economic well being.

This paper serves as a contribution to what I feel is an all too often neglected, yet incredibly important aspect of ICT analyses. While I agree with Robert McChesney's contention that modern ICT present "an unprecedented opportunity...to build a communication system that will be a powerful impetus to a dramatically more egalitarian, humane, sustainable, and creative society,"<sup>247</sup> I believe that such a system can only

---

<sup>246</sup> McCarthy 2011, 89.

<sup>247</sup> McChesney 2007, xiii.

succeed if it is built on a solid foundation that embraces and fosters these end goals. If a new global communication system is quickly forced into the existing framework without the necessary debate and planning simply to replace the old, it risks becoming nothing more than “Status Quo 2.0.” If the end goals of the Connectivity Doctrine are truly freedom of speech, universal access to information, and democratic debate and dialogue (as the rhetoric suggests), then these principles must guide the entire process.

I fear this “unprecedented opportunity” could be squandered if policy makers, and those who influence them, become too enamored by the easy answers and romantic promises of the Connectivity Doctrine. The Connectivity Doctrine’s leading proponents are Western governments, institutions, and corporations, who are all driven by motives beyond human rights and free speech. By forcibly inserting neoliberal values into the policies that shape the global ICT infrastructure (for example, promoting the privatization of ICT-related companies and the deregulation of the ICT industry), the Doctrine’s advocates appear disingenuous; the policy simply does not match the rhetoric. The prevailing models and policies concerning ICT architecture and governance are all well suited for expanding neoliberalism abroad, but the same cannot be said for promoting free speech and universal access to information.

This disconnect between the purported goals and benefits of the Connectivity Doctrine and its actual implementation illustrates the need for further scrutiny of existing and future policies that effect global ICT. Whether or not the Connectivity Doctrine represents a modern form of virtual imperialism or not, serious consideration should be given to the costs and benefits associated with applying policies that have such profound implications. In the present case, the question must be asked: would the universal

application of the Connectivity Doctrine (a singular, Western model of ICT adoption and governance) do more harm than good to the people it is supposed to help?

Such an inquiry is extremely important and the answer has broad reaching and long lasting consequences. Still, this topic is rarely addressed as such. Contemporary debates in academia and international governing bodies about ICT and cyberspace are concerned primarily with issues such as how to diminish the digital divide, how to protect sensitive users from explicit material, how to prevent identity theft, how to combat online piracy and protect intellectual property, etc. The Internet's architecture, organizational structure, and governance are not debated nearly as much and are often assumed to be fixed, neutral, or secondary concerns. As such, ICT debates are almost always premised on the Connectivity Doctrine's broad assumptions: that a singular Internet exists; that the dominant Internet structure and governing norms are universally applicable; and that increased access to this specific version of the Internet is universally beneficial.

Ultimately, my personal opinion is that the Internet's architecture should reflect the 1990s notion of the "information super highway," and its content should be free and accessible to all. Because information and communication is such a vital and fundamental component of any functioning democracy, and because digital infrastructures are relatively inexpensive to build and maintain, it seems reasonable that the Internet should be universally available, free of charge, as a public service. Obviously this would require substantial planning and costs initially in terms of infrastructure construction, education, and other logistical demands, but this is no different than the publicly funded highway system or the National Parks in terms of long-term costs and benefits. This is not to say that the government should provide every citizen with a computer or any other device

with which to connect to the Internet (although I would argue for increased access points via libraries and other public institutions), but access to the World Wide Web should be free and readily available; it should not be guarded and administered by private corporations whose actions are unabashedly guided by profits over people.

In terms of content, I think the Internet should resemble a public library, where people are not charged for access, but are instead provided information and resources free of charge, regardless of race, class, or social status. The fundamental differences between physical commodities and digital productions demand a reexamination of the existing intellectual property laws. Likewise, the conveniently ambiguous approval of “legitimate” censorship in the name of security, which I believe should be categorically dismissed as an abuse of state power, merits substantial public debate.

While I strongly believe in a truly free and open Internet, I recognize that my opinion is absolutely influenced by my residence within the United States and my association with a Western, private, liberal arts university. Using the same logic that I employ in this thesis to question the legitimacy of the US and its allies to prescribe the global adoption of the Connectivity Doctrine, I admit that I am in no way qualified to suggest an alternative ICT policy that is universally appropriate. ICT policy should be crafted in a manner that respects religious and cultural values as well as political and economic needs. It should not be used as a “carrot” or a “stick” to influence or punish those with political and economic systems that differ from the hegemonic model. Such a task will certainly be difficult and will require extensive debate and cooperation on a global scale. Still, it is essential that policy makers put forth the necessary time, energy,

and resources if we are ever to enjoy a communication system that will indeed foster a “dramatically more egalitarian, humane, sustainable, and creative society,”<sup>248</sup>

---

<sup>248</sup> McChesney 2007, xiii.

## Bibliography

- Barlow, John Perry. "A Declaration of the Independence of Cyberspace," 8 February 1996, <https://projects.eff.org/~barlow/Declaration-Final.html>. Accessed 23 February 2012.
- Barnett, Thomas P.M. *Great Powers: America and the World After Bush*. New York: Putnam, 2009.
- Bhuiyan, A.J.M Shafiul Alam. "Peripheral View: Conceptualizing the Information Society as a PostColonial Subject." *International Communication Gazette* 70 (2008): 99-116.
- Brockling, Ulrich, Susanne Krasmann, and Thomas Lemke, eds. *Governmentality: Current Issues and Future Challenges*. New York: Routledge, 2011.
- "Bush Doctrine." *Chambers Dictionary of World History*. London: Chambers Harrap, 2005. *Credo Reference*. Accessed 2 May 2012.  
[http://www.credoreference.com.ezproxy2.lib.depaul.edu/entry/chambdictwh/bush\\_doctrine](http://www.credoreference.com.ezproxy2.lib.depaul.edu/entry/chambdictwh/bush_doctrine).
- "Bush Doctrine." *Greenwood Encyclopedia of International Relations*. Santa Barbara: ABC-CLIO, 2002. *Credo Reference*. Accessed 2 May 2012.  
[http://www.credoreference.com.ezproxy2.lib.depaul.edu/entry/abcintrel/bush\\_doctrine\\_2001](http://www.credoreference.com.ezproxy2.lib.depaul.edu/entry/abcintrel/bush_doctrine_2001).
- Carr, Nicholas. *The Shallows: What the Internet is Doing to Our Brains*. New York: W. W. Norton & Company, 2010.
- Castells, Manuel. *The Rise of the Network Society*. Malden, Ma: Polity Press, 2000.
- Castells, Manuel. *Communication Power*. Oxford: Oxford University Press, 2009.
- Chun, Wendy Hui Kyong. *Control and Freedom: Power and Paranoia in the Age of Fiber Optics*. Cambridge MA: The MIT Press, 2006.
- Clinton, Hillary. "Remarks on Internet Freedom." Speech at The Newseum, Washington D.C., 21 January 2010. Transcript available at <http://www.state.gov/secretary/rm/2010/01/135519.htm> (accessed 2 April 2012).
- Clinton, Hillary. "Internet Rights and Wrongs: Choices and Challenges in a Networked World." Speech at George Washington University, Washington D.C., 15 February 2011. Transcript available at <http://www.state.gov/secretary/rm/2011/02/156619.htm> (accessed 2 April 2012).
- Dean, Jodi. *Blog Theory: Feedback and Capture in the Circuits of Drive*. Malden, MA: Polity Press, 2010.

- Dean, Mitchell. *Governmentality: Power and Rule in Modern Society*. London: SAGE Publications Ltd, 2010.
- Deibert, Ronald and Rafal Rohozinski. "Liberation VS. Control: The Future of Cyberspace." *Journal of Democracy*. Vol. 21, Number 4 (October 2010): 43 – 57.
- Diamond, Larry. "Liberation Technology." *Journal of Democracy* Vol. 21, Number 3 (July 2010): 69-83.
- Dobson, William J. "Needles in a Haystack," *Newsweek*, August 6, 2010. Accessed 15 April 2011. <http://www.newsweek.com/2010/08/06/needles-in-a-haystack.print.html>
- Executive Office of the President and the National Security Council (U.S.). *International Strategy for Cyberspace: Prosperity, Security, and Openness in a Networked World*. May 16, 2011. [http://www.whitehouse.gov/sites/default/files/rss\\_viewer/international\\_strategy\\_for\\_cyberspace.pdf](http://www.whitehouse.gov/sites/default/files/rss_viewer/international_strategy_for_cyberspace.pdf). Accessed 21 May 2012.
- Foster, John Bellamy and Robert W. McChesney. "The Internet's Unholy Marriage to Capitalism." *Monthly Review*, (March 2011): 1-30.
- Foucault, Michel. "Truth and Power." In *Power/Knowledge: Selected Interviews and Other Writings 1972-1977*, edited by Colin Gordon, 109-33. New York: Pantheon Books, 1980.
- Foucault, Michel, Graham Burchell, Colin Gordon, and Peter Miller. *The Foucault Effect: Studies in Governmentality: with Two Lectures by and an Interview with Michel Foucault*. Chicago: University of Chicago Press, 1991.
- Gaouette, Nicole, and Brendan Greely. "U.S. Funds help Democracy Activists Evade Internet Crackdowns." *Bloomberg News*, April 19, 2011. Accessed 21 April 2012. <http://www.bloomberg.com/news/2011-04-20/u-s-funds-help-democracy-activists-evade-internet-crackdowns.html>.
- Golkar, Saeid. "Liberation or Suppression Technologies? The Internet, the Green Movement and the Regime in Iran." *International Journal of Emerging Technologies and Society* ol. 9, no.1 (2011): 50-70.
- "Google Chrome: Lady Gaga." YouTube video of television commercial. Posted by "googlechrome" on May 20, 2011. <http://www.youtube.com/watch?v=sDPJ-01leAw>
- Hardt, Michael and Antonio Negri. *Empire*. Cambridge, Ma: Harvard University Press, 2000.

- Hassan, Robert. *The Information Society: Cyber Dreams and Digital Nightmares*. Malden, Ma: Polity Press, 2008.
- Hindman, Matthew. *The Myth of Digital Democracy*. Princeton, NJ: Princeton University Press, 2009.
- Hobsbawm, Eric. *On Empire: America, War, and Global Supremacy*. New York: The New Press, 2008.
- Internet World Stats. "Internet Growth Statistics." Accessed 18 February 2012.  
<http://www.internetworldstats.com/emarketing.htm>
- Katz, Jon. "The Digital Citizen." *Wired* 5.2 (December 1997). Accessed January 29, 2012. [http://www.wired.com/wired/archive/5.12/netizen\\_pr.html](http://www.wired.com/wired/archive/5.12/netizen_pr.html)
- Krotoski, Aleks. "MediaGuardian Innovation Awards: Austin Heap V Iran's Censors." *The Guardian*, 28 March 2010. Accessed 2 April 2012.  
<http://www.guardian.co.uk/media/2010/mar/29/austin-heap-megas-innovator-award>.
- Lemke, Thomas. *Foucault, Governmentality, and Critique*. Boulder, Co: Paradigm Publishers, 2011.
- Lemke, Thomas. *Bio-Politics: An Advanced Introduction*. New York: New York University Press, 2011.
- Lemke, Thomas. "The birth of bio-politics': Michel Foucault's lecture at the College de France on neo-liberal governmentality," *Economy and Society* Volume 30 number 2 (May 2001): 190-207.
- Li, Tania Murray. *The Will to Improve*. Durham, NC: Duke University Press, 2007.
- Lynn III, William J. "Defending a New Domain." *Foreign Affairs* 89, no. 5 (September 2010): 97-108.
- MacKinnon, Rebecca. *Consent of the Networked: The Worldwide Struggle for Internet Freedom*. New York: Basic Books, 2012.
- Manjikian, Mary McEvoy. "From Global Village to Virtual Battlespace: The Colonization of the Internet and the Extension of Realpolitik." *International Studies Quarterly* 54 (2010): 381-401.
- Markwick, Michael. "The Unlawful Freedom of Communication." Oxford Internet Institute, September 2010. Accessed May 20, 2012.  
[http://microsites.oii.ox.ac.uk/ipp2010/system/files/IPP2010\\_Markwick\\_Paper.pdf](http://microsites.oii.ox.ac.uk/ipp2010/system/files/IPP2010_Markwick_Paper.pdf)

- Marlin-Bennett, Renee. "I Hear America Tweeting and Other Themes for a Virtual Polis: Rethinking Democracy in the Global InfoTech Age." *Journal of Information Technology & Politics* 8 (2011): 129-145.
- McCarthy, Daniel R. "Open Networks and the Open Door: American Foreign Policy and the Narration of the Internet." *Foreign Policy Analysis* 7 (2011): 89-111.
- McChesney, Robert. *Communication Revolution: Critical Junctures and the Future of Media*. New York: The New Press, 2007.
- MCI. "Anthem." Commercial video clip. Accessed 21 April 2012. Critical Commons. <http://criticalcommons.org/Members/JLipshin/clips/Anthem.mp4/view>.
- MCI. "Anthem." Commercial video clip. Accessed 21 April 2012. <http://vimeo.com/2445340>.
- Middle East Online. "Cables: US funded Egyptian pro-democracy movement." 28 January 2011. Accessed 2 February 2012. <http://www.middle-east-online.com/english/?id=43952>.
- Mitchell, Timothy. *Colonizing Egypt*. Cambridge: Cambridge University Press, 1988.
- "Monroe Doctrine." *The Columbia Encyclopedia*. New York: Columbia University Press, 2008. *Credo Reference*. Accessed 2 May 2012. [http://www.credoreference.com.ezproxy1.lib.depaul.edu/entry/columency/monroe\\_doctrine](http://www.credoreference.com.ezproxy1.lib.depaul.edu/entry/columency/monroe_doctrine).
- Morozov, Evgeny. "The Great Internet Freedom Fraud: How Haystack Endangered the Iranian Dissidents it was Supposed to Protect." *Slate*, September 26, 2010. Accessed 30 March 2011. <http://www.slate.com/id/2267262>.
- Morozov, Evgeny. *The Net Delusion: The Dark Side of Internet Freedom*. New York: Public Affairs, 2011.
- Murray, Tania. *The Will to Improve*. Durham, NC: Duke University Press, 2007.
- Nadesan, Majia Holmer. *Governmentality, Biopower, and Everyday Life*. New York: Routledge, 2008.
- Nealon, Jeffrey T. *Foucault Beyond Foucault: Power and Its Intensifications Since 1984*. Stanford: Stanford University Press, 2008.
- Norris, John. "Interactive Map: Foreign Aid Analysis Made Easy." *Center for American Progress*. February 7, 2011. Accessed May 12, 2012. <http://www.americanprogress.org/issues/2011/02/foreignaid.html>.
- Pariser, Eli. *The Filter Bubble: What the Internet is Hiding From You*. New York: The

- Penguin Press, 2011.
- Penenberg, Adam L. "The Evolution of Amazon." *Fast Company* 137 (July/August 2009): 66-74.
- Poster, Mark. "The Information Empire." *Comparative Literature Studies* Vol. 41, No. 3 (2004): 317-334.
- Poster, Mark. "Postcolonial Theory in the Age of Planetary Communications." *Quarterly Review of Film and Video* 24 (2007): 379-393.
- Postigo, Hector. "Questioning the Web 2.0 Discourse: Social Roles, Production, Values, and the Case of the Human Rights Portal." *The Information Society* 27 (2011): 181-193.
- Raley, Rita. "eEmpires." *Cultural Critique* 57 (Spring 2004): 111-150.
- Reid, Julian. "Politicizing Connectivity: Beyond the Biopolitics of Information Technology in International Relations." *Cambridge Review of International Affairs* 22, no. 4 (December 2009): 607-623.
- Reporters Without Borders, *Enemies of the Internet Report 2012*. 12 March 2012. Accessed May 15, 2012. <http://en.rsf.org/beset-by-online-surveillance-and-13-03-2012,42061.html>.
- Rohozinski, Rafal. "Bullets to Bytes: Reflections on ICTs and 'Local' Conflict." In *Bombs and Bandwidth: The Emerging Relationship Between Information Technology and Security*, edited by Robert Latham, 215-234. New York: The New Press, 2003.
- Scobey, Margaret. "President Mubarak's Visit to Washington." 19 May 2009. WikiLeaks. WikiLeaks cable: 09CAIRO874. Accessed May 25, 2012. <http://www.wikileaks.ch/cable/2009/05/09CAIRO874.html#>
- Shirky, Clay. "The Political Power of Social Media: Technology, the Public Sphere, and Political Change." *Foreign Affairs* (January/February 2011): 28-41.
- Spivak, Gayatri Chakravorty. "Can the Subaltern Speak." In *Marxism and the Interpretation of Culture*. ed. Nelson and Grossber. Chicago: University of Chicago Press, 1998, 271-313.
- Stross, Randall. *Planet Google: One Company's Audacious Plan to Organize Everything we Know*. New York: Free Press, 2008.
- "Timeline: The Changing U.S. Reaction to Egypt's Crisis." AlertNet. Last Modified February 11, 2011. Accessed May 25, 2012.

<http://www.trust.org/alertnet/news/timeline-the-changing-us-reaction-to-egypts-crisis/>.

Turkle, Sherry. *Alone Together: Why We Expect More From Technology and Less From Each Other*. New York: Basic Books, 2011.

Wallerstein, Immanuel. *European Universalism: The Rhetoric of Power*. New York: The New Press, 2006.

Watts, Michael. "Development and Governmentality." *Singapore Journal of Tropical Geography* 24 (2003): 6-34.

Zureik, Elia, L. Lynda Harling Stalker, and Emily Smith. *Surveillance, Privacy, and the Globalization of Personal Information: International Comparisons*. Montreal: McGill-Queen's University Press, 2010.

Zysman, John, and Abraham Newman, eds. *How Revolutionary Was the Digital Revolution? National Responses, Market Transitions, and Global Technology*. Stanford, CA: Stanford University Press, 2006.