

## **2008 Hayek Essay Contest Entry**

**David Seymour [seymourd@fcpp.org](mailto:seymourd@fcpp.org)**

*In The Constitution of Liberty Hayek says that "we are probably only at the threshold of an age in which the technological possibilities of mind control are likely to grow rapidly and what may appear at first as innocuous or beneficial powers over the personality of the individual will be at the disposal of government. The greatest threats to human freedom probably still lie in the future."<sup>1</sup>*

*Has Hayek's gloomy warning been borne out by events, or has technology become more a force for liberating people from government?*

### **Introduction**

Technological development in the fifty years since Hayek penned *The Constitution of Liberty* has occurred amidst a longer period of unprecedented exponential growth. This acceleration in growth in the novel possibilities that technology generates for human interaction has outpaced the development of governments and civil society, which has hitherto been a slower, more organic process. For Hayekian liberty, this acceleration has had mixed ramifications. Transport and communication advances since 1960 have been so profound that they have created markets which are geographically larger than governments had evolved to control. In this area, inter-jurisdictional competition driven by the allure of larger effective market size for consumers and producers has created a safety valve that protects individuals from coercion. Communication advances have decentralized the ability to publish and communicate to the point where any internet user with attractive content can compete for readership on the scale of a small newspaper. This decentralization has dramatically amplified the challenges faced by governments who would seek to suppress information for coercive purposes. However rapid technological development has shifted the balance between government coercion and individual liberty in other ways. The efficiency of processing and storing information digitally has amplified the extent to which a single mind or group of minds can hope to control a population, and governments now have a much greater ability to carry out social engineering than ever before. Advances in pharmacology and genetics have

created a new avenue for those who would like to believe that individuals cannot be responsible, but rather are the artifacts of pre-determined biological phenomena. Such advances threaten to undermine the very boundaries of the individual by reviving old arguments for violating the 'private spheres' in which individuals practice liberty in order to correct newly perceived biological imbalances.

In Hayek's words, "If we are to succeed... we must first of all know what we believe."<sup>1</sup> This essay will examine the relationship between technology developed (that has become practically useful) from 1960 to the present day, and individual liberty. More specifically, how have (i) the inherent characteristics of that technology, and (ii) the ways in which it has been utilized, enhanced either the ability of government to limit liberty, or the ability of individuals to protect their liberty from government coercion or even increase it?

It will also address the potential for genetic technology that is existent but not developed fully in 2008 to shift that same balance between individual liberty and government coercion in the future. Such developments, set to occur in the future if at all, could be judged as outside the scope of the question 'has [past tense] technology become more a force for liberating people for government?' However I feel that evaluating history is only useful to the extent that it can tell us something about what to expect from the future.

We will not, however, seek to comment on the general fortunes of liberty in the period 1960-2008. There is much from this period for believers in Hayekian liberty to celebrate, from the near total collapse of Communist regimes to the widespread separation of executive government from monetary policy. There is also much to lament, from the almost inexorable increases in proportional government spending across the west, to the authoritarian approach to the war on terror taken by some Western governments.

---

<sup>1</sup> Hayek, F, *The Constitution of Liberty*, Chicago University Press, 1978, p. 2 (Paperback edition)

Important as all of these developments may be, they only concern us here if they are the direct results of the new possibilities brought forward by technology and its use since 1960.

### **Understanding Liberty**

We will seek to understand the liberty that technology is harming or enhancing in terms of its definition and its underlying support structure. It is necessary to understand the definition of liberty so that its breaches and advances can be identified. Understanding the cultural values and the institutions that underpin liberty give insight into *how* technology has enhanced or undermined liberty so far, and how either trend might proceed in the future.

In his simplest formulation, Hayek defines liberty as “that condition of men in which coercion of some by others is reduced as much as is possible in society.”<sup>2</sup> While this definition allows us to talk interchangeably about liberty and the absence of coercion, it really only shifts the task of definition from the former to the latter. We will thus require a definition of coercion, but first we follow Hayek’s lead of removing any confusion about liberty by confronting some other popular interpretations of the word liberty and its equivalent, freedom. Liberty should not be understood as Roosevelt’s ‘Freedom from want,’ (a ‘freedom’ that can only satisfy the wants of one party upsetting the natural distribution of wealth through coercion of another). Nor should it be the ‘political freedom’ to a certain level of participation in a political system, because no level of participation is sufficient to ensure freedom in an illiberal regime.<sup>3</sup>

Nor should liberty be defined as “the extent to which a person is guided in his actions by his own considered will... rather than by momentary impulse.”<sup>4</sup> This ‘inner freedom’ can only be pursued if the individual allows some other entity to intervene and decide which

---

<sup>2</sup> *op cit.* p11

<sup>3</sup> *ibid.* p13-15

<sup>4</sup> *ibid.* p15

of his thoughts are valid, a practice that effectively legitimates coercion and raises the unanswerable question of why the intervener's thoughts are more valid.

Different to these other common definitions, liberty as the absence of coercion, which "...eliminates an individual as a thinking and valuing person and makes him a bare tool in the achievement of the ends of another."<sup>5</sup> This understanding of coercion can be developed further by identifying the characteristics of a culture and its institutions that help to minimize it.

An individual will be better placed to act as a 'thinking and valuing person' if he or she is able to anticipate the future conditions of engagement with others, including government authorities, and make informed choices about future terms of engagement. This anticipation is aided by equality and consistency of the law that "[enables] an individual to secure for himself a private sphere where he is protected against [coercion]"<sup>6</sup> Equal and consistent law makes no reference to the identity of any individual or any concrete aims of the time. Otherwise lawmakers will likely be incentivised to pursue objectives in a way that the individual is less able to anticipate.

Coercion is more easily avoided in cultures that refrain from a practice Sir Karl Popper liked to call utopian social engineering.<sup>7</sup> In Hayek's description, 'utopian social engineers' regard "human reason [as] standing outside nature and possessed of knowledge and reasoning capacity independent of experience"<sup>8</sup> When the cultural belief prevails that a culture is self created and can be reengineered at will, it is very difficult for any individual to defend a private sphere against demands from modern day 'philosopher kings' that their blueprint for a reengineered society must rule.

---

<sup>5</sup> *ibid.* p21

<sup>6</sup> *ibid.* p139

<sup>7</sup> See Popper, K *The Open Society and Its Enemies, Volume One*

<sup>8</sup> *op cit.* p24

Hayek also argues that dispersed power, most extensively expounded in *the Road to Serfdom*,<sup>9</sup> forms the mechanism of a minimal-coercion society. In *The Constitution of Liberty*, Hayek observes that “To turn the whole of society into a single organization... would be to extinguish the very forces that shaped the individual human minds that formed it.”<sup>10</sup> Some technological developments have assisted individuals in protecting their ‘private sphere’ against such incursions, while others have presented new ways for governments to violate it.

Aside from general and abstract law, the absence of utopian social engineering, and dispersed power, “A free society [requires] that each individual occupy the position that results from his action and accept it as due to his own actions.”<sup>11</sup> If this requirement is not met then the exercise of liberty is unsustainable, because as one individual seeks to offload the consequences of his actions onto another, the ‘private sphere’ of the latter is compromised by the consequences of the former’s actions, actions he cannot control without resorting to coercion.

### **Exponential Technology Growth and Traditional Cultural Evolution**

In *The Constitution of Liberty* Hayek gives sparse indication of exactly what technology he has in mind when he says “technological change... constantly creates new threats to liberty...”<sup>12</sup> His only material references are to “drugs or psychological techniques”<sup>13</sup> being used to control the minds of individuals. More generally he appears concerned that technologies threaten to debase an individual’s autonomy at an internal level; “the problem of free control over one’s body is no longer a matter of protection against physical restraint”<sup>14</sup> Traditional physical restraint is still a threat to liberty too, and

---

<sup>9</sup> See Chapter 7, ‘Economic Control and Totalitarianism’ in Hayek, F *The Road to Serfdom* University of Chicago Press, 1994, pp97-111 (Fiftieth Anniversary Edition)

<sup>10</sup> *op cit.* p37

<sup>11</sup> *ibid.* p71

<sup>12</sup> *ibid.* p216

<sup>13</sup> *ibid.*

<sup>14</sup> *ibid.*

Hayek's mention of passport control<sup>15</sup> will be taken for our purposes as an allusion to the powers of tracking that computer power has offered to authorities through databases.

With Hayek's references so scant, we must make our own review of what the technological advances of the last fifty years have been. The end of the twentieth century handily produced a swath of publications aiming to list, rank, and evaluate the technological advances of that century.<sup>16</sup> The broad consensus of these resources is that the areas of technological advance that have had the greatest impact on the way people live over the past fifty years are transportation, communication, the ability of computers to store and process data, medicine, and genetics.

The striking thing about these advances is their exponential rate of increase. That is literally exponential in the case of computer power, as Gordon Moore's famous law has predicted with uncanny accuracy.<sup>17</sup> More broadly, there was little technology in use in 1700 that had not existed for the preceding millennium. But today very little of the technology of 1700 is still used in any recognizable form. As Hayek observes "There is probably no single factor that has contributed more to the prosperity of the West than the relative certainty of the law that has prevailed here"<sup>18</sup> and it is probably true that the cultural climate of secure property rights and the rule of law has driven this exponential growth where people are able to reap continual and steady growth on a growing base of wealth.

---

<sup>15</sup> *ibid.*

<sup>16</sup> See, for example, Williams, T *Science: A history of discovery in the twentieth Century* (1990) Equinox, (Oxford). Sherman, W and Koontz, T *Science and Society in the Twentieth Century* (2004) Greenwood Press, London and 'Greatest Engineering Achievements of the 20<sup>th</sup> Century' by the National Academy of Engineering available online: <http://www.greatestachievements.org>

<sup>17</sup> 'Moore's Law' is based on a legendary prediction by Gordon Moore in 1965 that the number of transistors on a microchip would double approximately every two years. The law has held until this day.

<sup>18</sup> Hayek, F, *The Constitution of Liberty*, Chicago University Press, 1978, p. 208 (Paperback edition)

The pace of change is radically different to the traditional pace of human cultural development, a practice Hayek describes as lying between 'instinct and reason.'<sup>19</sup> If our culture and institutions of government have evolved by a process of imitation learning over generations of almost static technological development, then the acceleration in the possibilities delivered by technology stands to violently outstrip both. From here we assess the impact of different technological developments on the balance between individual liberty and government coercion.

### **The Exponential Growth of Computer Power Assists Government Coercion.**

The exponential increase in computer power has enabled people to trade and communicate in ways that governments struggle to contain, but it has also dramatically lowered the cost to governments of monitoring individuals. This trend challenges liberty from government coercion because it lowers the cost of enforcing coercive laws. The ability to observe individual's movements, record their financial transactions and match data from different engagements an individual may have has increased in proportion to the exponentially increasing power of computers to record, store and process data.

Some figures from Great Britain bring the scale of what is technologically possible brings this phenomenon into focus. Between June 2005 and March 2006 440,000 authorizations were given for legal interception of citizen's communications. The same country of less than 60 million people also maintains 4.2 million surveillance cameras and holds 3.9 million DNA samples.<sup>20</sup> Any of this is theoretically possible with any level of technology, but over the past 50 years electronic storage has lowered the real cost of these activities, probably by several orders of magnitude.<sup>21</sup>

---

<sup>19</sup> Hayek, F; Bartley W (ed) *The Fatal Conceit: The Errors of Socialism* (1998) The University of Chicago Press, Chicago.

<sup>20</sup> Crossman, G 'Overlooked: Surveillance and Personal Privacy in Modern Britain' (2007) *Liberty* Available online: <http://www.liberty-human-rights.org.uk/issues/3-privacy/pdfs/liberty-privacy-report.pdf>

<sup>21</sup> Consider that computer power as predicted by Moore's law has increased by a factor of 440 since 1965.

The potential use of information on this scale runs to “[creating] a grand database capable of providing a comprehensive profile of any ...citizen, including such information as email, telephone calling records, credit card purchases and other financial information, travel itineraries, and medical histories.”<sup>22</sup> This is exactly what the United States Defense Department attempted to do with its ‘Total Information Awareness’ project.

Storage requirements aside, the ability to search and match data in an electronic database enables governments to enforce coercive policies, for example high levels of taxation, at a lower cost than through previous manual techniques. Traditionally high taxes have been self defeating because they improve the ratio of risk to reward for tax evasion. This has been used as part of the rationale for reducing ‘narrow-base high-rate’ taxes across the world. However by lowering the cost of enforcement, the chances of getting caught rise and the incentives for evasion fall. The same case could be made for any coercive law that individuals would like to evade. To the extent that technology has lowered enforcement costs for governments by providing more information about individual activities, increased computer power in the hands of government has damaged liberty.

### **The New Medicine, Biological Determinism, and Blurring the Boundaries of Individual Responsibility**

We now turn to developments closer to Hayek’s warning that ‘the possibilities of mind control’ might debase the individual’s ability to choose and take responsibility for his or her own actions. The advent of psychological drugs and greater understanding of how physically observable genetic characteristics define who we are has shifted the analysis of behavior from being a reflection of individual choice towards being a consequence of predetermined physical phenomena.

---

<sup>22</sup> Summer, A “Big Brother Bush is Watching, Listening and Buying Information About You” Reason Foundation (2006). Available online: [http://www.reason.org/commentaries/summers\\_20060530.shtml](http://www.reason.org/commentaries/summers_20060530.shtml)

A case in point is the rapidly increasing number of children and even adults diagnosed with Attention Deficit Disorder and prescribed Ritalin, a drug whose production in the US increased by 700% in the 1990's.<sup>23</sup> Creativity expert Sir Ken Robinson passionately argues that blaming behavioral difficulties on the chemistry of the child's brain has been used to exonerate poor education systems of their failings.

He offers the counterfactual scenario of choreographer Gillian Lynne who was at one point diagnosed with behavioral problems but was offered more suitable education at a dance school rather than having her behavior attributed to brain chemistry. "She was eventually auditioned for the Royal Ballet... she's been responsible for some of the most successful musical and theatre productions in history, she's given pleasure to millions and she's a multi millionaire. Somebody else would have put her on medication and told her to calm down."<sup>24</sup> Blaming educational failure on children's brains where it might have otherwise been up to the parties involved to seek better outcomes as individuals invokes Hayek's warning that "The very magnitude of power over men's minds that a highly centralized and government-dominated system of education places in the hands of authorities ought to make one hesitate before accepting it too readily."<sup>25</sup> However if psychological drugs like Ritalin<sup>26</sup> blur the boundaries of responsibility between an individual and an education system, our growing understanding of the human genome contains the potential for much greater compromise of individual liberty and responsibility at a deeper biological level.

Our understanding of how many of the characteristics of individuals are linked to certain genetic structures in an empirically testable way may yield a new era of belief in biological determinism. Taking IQ as an example characteristic, research on twins separated at birth has found that "the genetic component of IQ is unlikely to be smaller

---

<sup>23</sup> Diller, L *Running on Ritalin* (1998) Bantam Books

<sup>24</sup> Robinson, K 'Do Schools Kill Creativity?' (2006) Technology, Entertainment, Design Available online: <http://www.ted.com/index.php/talks/view/id/66>

<sup>25</sup> Hayek, F, *The Constitution of Liberty*, Chicago University Press, 1978, p. 379 (Paperback edition)

<sup>26</sup> Prozac could give rise to similar arguments.

than 40% or higher than 80%.”<sup>27</sup> While the Human Genome Project is progressing towards an understanding of precisely which genes affect which characteristics of an individual and how to manipulate those characteristics at a genetic level.<sup>28</sup> The emergent possibilities are best summarized as: “Ultimately we may elect to rewrite our genetic text, changing ourselves and the way we experience the world.”<sup>29</sup> The difficulty for liberty arises from the combination of these advances in knowledge with the goals of those with aims of utopian social engineering.

The following quote summarizes a common collectivist argument. “...because people are morally equal, and because the distribution of talents and capacities is largely a matter of luck (and therefore morally arbitrary), the community as a whole has a responsibility to embrace a political and economic system that reflects this.”<sup>30</sup> Juxtaposing this argument with the belief that: “IQ is substantially heritable [and] because economic success depends in part on the talents revealed by IQ tests, and because social standing depends in part on economic success, it follows that social standing is bound to be based to some extent on the inherited differences,”<sup>31</sup> it is not difficult to see how advocates of collectivism would attempt to debase the concept of individual responsibility.

The danger for the future is that increased understanding of how our genetic makeup affects our life outcomes will lead to a growing view that individual choice and responsibility is secondary to biological determinism, and so it is right to counteract the ‘arbitrary distribution of talents and capacities’ with government action. If more and

---

<sup>27</sup> Herrnstein, R; and Murray, C; *The Bell Curve –Intelligence and Class Structure in American Life* (2004) The Free Press, NY p105 It is worth noting that Herrnstein and Murray themselves argue that collectivist policies are exacerbating the differences created by genetics, however as committed libertarians, they are rare for making this argument.

<sup>28</sup> Sherman, W and Koontz, T *Science and Society in the Twentieth Century* (2004) Greenwood Press, London. p312

<sup>29</sup> Shapiro, R in Brockman, J (ed.) *The Greatest Inventions of the past 2,000 Years* (2000), Simon and Schuster NY. p49

<sup>30</sup> Carter, J ‘A Missing Element: Never them and us...only us’ 04/06/07 *Just Left* (Blog) Available online: [http://jtc.blogs.com/just\\_left/2007/06/a\\_missing\\_eleme.html](http://jtc.blogs.com/just_left/2007/06/a_missing_eleme.html)

<sup>31</sup> Herrnstein, R; and Murray, C; *The Bell Curve –Intelligence and Class Structure in American Life* (2004) The Free Press, NY p10

more human failings come to be seen as consequences not of individual choice and action but rather a part of the physical world beyond the control of any individual, Hayek's claim that "Liberty... means that [the individual] must bear the consequences of his actions and must will receive praise or blame for them. Liberty and responsibility are inseparable."<sup>32</sup> will become more difficult to defend. Such arguments will not invalidate the Hayekian arguments that no single mind or arbitrary group could possess sufficient knowledge to stand outside. They may, however, enhance the attraction of the 'fatal conceit' that our society reflects the product of reasoned design, and that we can and should correct it based on our understanding of genetics.

### **The Global Village: Transport and Communication bring Inter-Jurisdictional Competition**

In order for governments to make the individual a 'bare tool in the achievement in the ends of another,' it is necessary that the individual cannot circumvent the coercive mechanisms of the state. Traditionally, the geography of most states has meant that government can circumscribe most of the possibilities for human interaction because those with whom most of their citizens would interact are also under their jurisdiction. However very rapid advances in transportation and communication technology have made traditional jurisdictional boundaries less relevant to the possibilities of work, trade and travel faced by most citizens.

A personal anecdote of the author illustrates how dramatically recent advances in transport and communication have reduces geographic barriers. In 2006 I worked as an electrical engineer in Whangarei, New Zealand, designing the electrical systems of a ship being constructed in Connecticut, NY. New Zealand, with its extreme geographical isolation (it has been said that a 2,000 kilometre radius around that country takes in four million people, 40 million sheep, and a stupendous number of seagulls) is perhaps the

---

<sup>32</sup> Hayek, F *The Constitution of Liberty*, Chicago University Press, 1978, p. 71 (Paperback edition)

best example of a jurisdiction where government is able to geographically circumscribe its citizen's activities. Let us look at the technology that has made such trade possible.

Arranging a contract required representatives of both companies to meet, despite being based almost as close to opposite sides of the world as is possible. In the first half of the twentieth century this meeting would have been implausible. At best it would have required a round trip of several months navigated by sea. However the advent of the jet age has made it possible for a person to move between cities in a matter of hours and hemispheres within a day.

Completing the contract required continued collaboration. If transport technology has reduced the cost of personal collaboration, telecommunication has reduced remote collaboration costs even more efficiently. "Until about a hundred and fifty years ago, it was impossible to communicate with someone in real time unless that person was in the same room... [today] many people spend more time dealing with people remotely than they do face to face"<sup>33</sup>

Complex documents (including legally binding faxes) were able to be shared in a matter of seconds at zero marginal cost, while before the advent of email they would have required weeks of postal time. In 1956, it is highly unlikely that it would have been viable to use the telephony that enabled the project in 2006. At that time major US phone company AT&T charged \$12 (1956 dollars) for three minutes of transatlantic conversation on one of its 36 transatlantic lines.<sup>34</sup> Today, proprietary Voice over Internet Protocol systems deliver long distance calls at zero marginal cost. The standardization of even the most esoteric design software in a global marketplace allowed sharing of complex calculations in universally understood formats.

---

<sup>33</sup> *op cit.* p23

<sup>34</sup> Milestones in AT&T History accessed online: <http://www.corp.att.com/history/milestones.html> Note that in 1960 US GDP per capita was \$2,793, so this three minute call was comparable to half a day's earnings.

Finally, some components of the finished ship were manufactured in New Zealand. Containerization of shipping, a phenomenon growing out of the mid 1950's has been called the "true driver of globalization"<sup>35</sup> due to the massive logistical efficiencies that it delivers to the movement of goods. The effect is such that a '1% of total value' rule can now be applied to the costs of shipping goods from food to electronics.<sup>36</sup> Projects like this that would have been difficult if not unviable at the time *The Constitution of Liberty* was penned.

Enabled by these technological developments, world trade volumes for merchandise in constant US dollars were fourteen times greater in 2007 than in 1960.<sup>37</sup> The anecdote is more a rule than an exception, and other broader anecdotes, from the immense manufacturing and export of tangible goods that has led to China being known as the 'world's factory,' to the intangible exports of call-centre and Information Technology work to the world from India help confirm the thesis that the world has seen a vast increase in the 'effective market size' faced by most individuals. Not only are business activities mobile, so are people. Former World Trade Organisation head Mike Moore notes that migrant numbers now make that group the equivalent of the world's tenth largest nation.<sup>38</sup> It still remains, however, to identify mechanisms linking these developments to increased liberty.

One basic measure of the level of coercion indulged in by governments is the level of taxation they are able to levy as a proportion of the local economy. The thesis at hand implies that increases in inter-jurisdictional competition would force governments to reduce the overall tax burden as they seek to attract workers and capital from other

---

<sup>35</sup> McShane, O 'Followers of Leaders' available online:  
[http://www.fcpp.org/main/publication\\_detail.php?PubID=1898](http://www.fcpp.org/main/publication_detail.php?PubID=1898) accessed: 13/04/08

<sup>36</sup> Campbell, D 'Breakfast on the Frontier' A Trade & Transport Vision for the Canadian Prairies Available online: [http://www.fcpp.org/main/media\\_file\\_detail.php?StreamID=784](http://www.fcpp.org/main/media_file_detail.php?StreamID=784) Accessed 25/04/08

<sup>37</sup> World Trade Organisation Statistics, Time Series of World Aggregate Imports and Exports, Calculations by Author.

<sup>38</sup> Moore, M 'Nothing More Vital than World's Food,' *The New Zealand Herald* 28-04-08

jurisdictions by offering a lower tax burden, and empirical evidence has strengthened this case.<sup>39</sup> Indeed, over the past two decades capital and labour mobility has increased while taxes have generally fallen. From 1986 to 2000, the OECD average company tax rate fell from 41% to 32% and the average top income tax rate fell from 55% to 41%.<sup>40</sup> The fact that governments (particularly in Western Europe) wishing to retain high taxation have responded by attempting to cartelize their 'business' with 'harmonization' agreements and restrictions on capital and labour mobility is a cynical confirmation that inter-jurisdictional tax competition and government coercion are antagonistic opposites.

While taxation is a conveniently numerical proxy for measuring levels of government coercion, inter-jurisdictional competition has had positive benefits for the level of coercion practiced by government in the area of regulation too. Across the world, free trade agreements demand that governments reduce the levels of arbitrary coercion they inflict on their people in order to remove tariff and subsidy style barriers to trade and harmonize the regulations faced by traders, investors and laborers doing business in other jurisdictions. Such agreements including the North American Free Trade Agreement (NAFTA), and Closer Economic Relations (Between Australia and New Zealand) have affected most of the western world.<sup>41</sup> In theory such agreements could entail increasing coercion, aiming to level the terms of trade by ensuring that all jurisdictions host laws with equal levels of coercion. However in practice the logic of free trade agreements has followed that their chief benefit is a greater effective market size for both the inputs and the outputs of a jurisdiction's business activity, and free trade agreements are only useful to the extent that they reduce political and legal barriers of inter-jurisdictional trade. For example the Trade Investment and Labour Mobility

---

<sup>39</sup> Edwards, C and de Rugy, V 'International Tax Competition –A 21<sup>st</sup> Century Restraint on Government' Policy Analysis No. 431 (2002) The Cato Institute. pp7-9 Available online:

<http://www.cato.org/pubs/pas/pa431.pdf>

<sup>40</sup> *ibid.* pp10-11

<sup>41</sup> A glaring omission here is the single market of the European Union. It is omitted because unlike the agreements concerning trade that are mentioned, the European Union has broader powers of competence that just trade. For this reason its formation has been able to reduce inter-jurisdictional competition by cartelizing taxation and regulation. See Bolkenstein, F; and Berken, L 'The EU Single Market –Free Markets, Protectionism and Excessive Regulation' from *Centrum fur Europaishe Politik*

Agreement (TILMA) in Western Canada entitles organizations doing business in other jurisdictions to sue a host provincial government when they can prove that regulation by that government has disadvantaged them as an outside competitor.

It is new business opportunities enabled by technological advances that have made such agreements attractive. To the extent that doing business with those outside the traditional jurisdictional boundaries has been made more viable by technology, the increased benefits of doing business in an enlarged market have become a more powerful argument for trade liberalization. Proponents of the recent TILMA agreement in Western Canada were able to draw on macro-economic calculations of the increased wealth that the agreement would bring through increased trading possibilities.<sup>42</sup>

While most governments evolved on such a scale that they were able to exercise coercion over most of a citizen's activities, that is less and less the case with every technological advance that enables the individual's opportunities outgrows the traditional geography. Growing opportunities for work trade and investment beyond traditional borders has presented an opportunity cost for submitting to coercion in any jurisdiction. The result has been a shift in the equilibrium of how much coercion individuals will tolerate; the opportunity to do business elsewhere has effectively become a safety valve of government coercion.

### **Information technology and the decentralization of publishing**

In *The Road to Serfdom*, Hayek observes that "Our freedom of choice in a competitive society rests on the fact that, if one person refuses to satisfy our wishes, we can turn to another"<sup>43</sup> Applied to information, the inference is that the more competition there is amongst providers of information, the better able individuals will be to inform

---

<sup>42</sup> Howe, E 'The Economic Impact of the Trade, Investment, and Labour Agreement (TILMA) on Saskatchewan' The University of Saskatoon pp7-9

<sup>43</sup> Hayek, F *The Road to Serfdom* University of Chicago Press, Chicago (1944) p102 (Fiftieth Anniversary Edition).

themselves, and the less able governments will be to control the channels of information through censorship.

One effect that the technologies of computers, communication and the internet have had has been to decentralize publishing to the point where every internet user is also a publisher at some level. The decentralization of content provision on the internet is illustrated by the fact that its major players of the past decade have succeeded by riding the wave of increasingly decentralized content provision.<sup>44</sup> Google succeeded yahoo because it organized a larger number of sites better and Facebook has grown exponentially as it has allowed all users to become content providers of “news, photos, events, and groups but also music, videos, books, movies, causes, [and] political campaigns”<sup>45</sup> to the same extent that they are also content recipients. The same can be said of websites like Youtube, where all users are invited to share videos, and Wikipedia. The latter is an online encyclopedia which is strikingly Hayekian in the way it functions. Instead of assuming one mind or central group of minds are qualified to define wisdom on a given topic, all users are eligible to edit articles.

Perhaps the greatest battle between the state and the ‘new media’ is occurring on Mainland China. On one side is the state, which has employed an estimated 30,000 people<sup>46</sup> and severe punishments in an attempt to control the internet and remove content the government would prefer individuals not to access.<sup>47</sup> This attempt has had considerable success with notable players in the internet world capitulating to the demands of the Chinese government and helping it to censor material on demand.<sup>48</sup> Nevertheless, even the most determined government is struggling to maintain the level of censorship it has applied to traditional media on the internet. Considering the theme

---

<sup>44</sup> Sacks, D ‘The New Portals’ on *Techcrunch* Accessed online: <http://www.techcrunch.com/2007/05/31/the-new-portals-its-the-bread-not-the-peanut-butter/>

<sup>45</sup> *ibid.*

<sup>46</sup> Internet Censorship in the People’s Republic of China *Wikipedia –The Free Encyclopedia* Accessed online: 25/04/08

<sup>47</sup> *ibid.*

<sup>48</sup> For example, Google entered the Chinese market on the understanding that sites would be excluded from its search results at the demand of the Chinese government.

of decentralized content provision, it is possible for literally millions of people to become involved in the 'crime' of distributing censored material at the click of a button.<sup>49</sup>

Aside from the challenge governments face in censoring growing numbers of potential content providers, the nature of the internet is such that infinite possibilities exist for evasion of authority at a technical level. It is a case of every 'better mousetrap' being met by a 'better mouse.' Chinese censorship has been met with entire research papers into the technical possibilities of evading it.<sup>50</sup>

However the decentralization that has occurred within the confines of the internet is not the entire story of the past fifty years. The entry costs to almost every medium have fallen dramatically. The only exception is the print media, whose market share is falling. While Hayek's warning about the centralized control of media pointed to a clear and (at that time) present danger, decentralized media have become beyond the practical control of the state.

In summary, to the extent that technology has lowered the barriers to entry for information providers through new and cheaper communication, it has decentralized the media and made the task of governments who would seek to limit the information individuals can access all the more difficult. Aside from freer access to information being an end in itself, it has enhanced liberty more generally by requiring governments to either openly coerce individuals, or work much harder to hide information that reveals oppression.

---

<sup>49</sup> See, for example, the case of newspaper editor Li Datong's letter decrying censorship of his newspaper. The letter was distributed so rapidly and widely by electronic means that authorities were unable to prevent it from being read by hundreds of thousands of people. The state was forced to back down on its treatment of the newspaper. 'The Click that Broke a Government's Grip' Pan, P *Washington Post* 19/02/06 Available online: <http://www.washingtonpost.com/wp-dyn/content/article/2006/02/18/AR2006021801389.html>

<sup>50</sup> Clayton, R; Murdoch, S; and Watson, R *Ignoring the Great Firewall of China* University of Cambridge. Accessible online: <http://www.cl.cam.ac.uk/~rnc1/ignoring.pdf> This technical paper is but one example of the infinite possibilities that exist for individuals to create new ways of evading the internet censorship of authorities.

**Conclusion**

Altogether the technological developments of the past five decades have been a boon for individuals seeking to protect and enhance their liberty in spite of governments who would sooner coerce them. Because of the (often exponential) rate at which technology has delivered individuals new options for trade, travel, and communication; governments attempting to limit their options through coercion have struggled to keep up. However the exponential increase in the ability to electronically monitor the activities of individuals and then store and process information about them has brought closer the Orwellian specter of a single mind or group of minds seeking to control aspects or even the entirety of individuals' lives. Meanwhile developments in the fields of medicine may pose a great threat to human liberty in the future. The use of psychological drugs has shifted the assessment of behavior away from individual choice and responsibility and toward biological determinism. As understanding of our genetic makeup develops the potential for further developments in the same direction will only grow. Ultimately there is no definitive answer to whether the possibilities created by technologies inherent properties have increased the ability of governments to coerce or have become a force for liberating people from government. It is impossible to quantify and compare the net effect of the trends described. The cause of liberty will ultimately remain tied to the extent that popular prevailing beliefs demand restraint on the technological uses that are corrosive to liberty and continue to permit those that enhance it.