

# WTO RAMIFICATIONS OF INTERNET CENSORSHIP: THE GOOGLE-CHINA CONTROVERSY

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*On January 12, 2010, Google threatened to quit China over internet censorship demands. The incident was triggered by a 'highly sophisticated' cyber attack that was allegedly launched by the Chinese government on Google's website. This controversy has unleashed a raging debate on the issue of internet freedom versus regulation of internet by states. Another interesting dimension of this hotly contested issue is whether censorship of the internet is in violation of the norms of international trade law. In light of the Google-China controversy, this paper seeks to examine the potential and implications of a WTO dispute against China that would challenge its internet censorship regime and also aims to simultaneously look into the viable alternatives to a WTO challenge.*

## I. INTRODUCTION

The internet has grown significantly from merely being a network of four computers developed by the US Defence Department in 1969<sup>1</sup> to a global communication medium with approximately 1.73 billion users today.<sup>2</sup> The internet flourished rapidly in the four decades of its existence and because of the opportunities offered by it, the internet soon came to be described as a 'new economy'<sup>3</sup> 'the most participatory form of mass speech'<sup>4</sup> and even a 'threat to sovereignty'.<sup>5</sup> This transcendent nature of communication offered by the internet can be attributed to four aspects of internet technology.<sup>6</sup> First, the internet presents a very low barrier to entry: anyone with access to a computer terminal, a modem and a telephone cable can access the internet, presenting a very low investment for high returns. Second, these barriers to entry are identical for both speakers and listeners. This means that anyone with internet access can be the entertainer

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<sup>1</sup> Edward L. Rubin, *Computer Languages as Networks and Power Structures: Governing the Development of XML*, 53 S.M.U. L. REV. 1447 (2000).

<sup>2</sup> Miniwatts Marketing Group, *Internet World Statistics*, September 9, 2009, available at <http://www.internetworldstats.com/stats.htm> (Last visited on August 15, 2010).

<sup>3</sup> Clement Mok, *On Record*, January 3, 2001, available at <http://www.clementmok.com/onrecord/article.asp?ArticleID=5&d=> (Last visited on August 15, 2010).

<sup>4</sup> *ACLU v. Reno*, 929 F. Supp. 824 (E.D. Pa.) (1996).

<sup>5</sup> Henry H. Perrit, Jr., *The Internet as a Threat to Sovereignty? Thoughts on the Internet's Role in Strengthening National and Global Governance*, 5 IND. J. GLOBAL LEGAL STUD. 423 (1997-1998).

<sup>6</sup> *Supra* note 4.

and the audience or the entrepreneur and the customer. 'E-commerce' exploits this by allowing for new distribution models in terms of e-auctions, shopping portals for the entrepreneur and a more customised shopping experience for the customer.<sup>7</sup> Third, following from the above two, highly diverse and specialised content is available on the internet. Fourth, the internet provides significant access to all who wish to speak in the medium, and even creates a relative parity among speakers. This lends a democratic character to the internet.<sup>8</sup>

With the proliferation of new forms of online social interaction such as e-mail, blogs, social networks and bulletin board services, the internet has become an indispensable tool of social life. Further, the internet has also become an important medium for the expression of political opinions, leading to the coinage of the term 'netizen' to refer to the politically conscious or politically active user of the internet.<sup>9</sup> The political significance of the internet was demonstrated during the protests against the 2009 Iran election results where protesters evaded the heavily-censored print media by directing and spreading protest through social networking sites like Facebook and Twitter, which the Government later was forced to block.<sup>10</sup> The use of the internet as a political tool works both ways: election campaigns such as those for the 2008 American presidential election used the internet to raise support and awareness.<sup>11</sup> The internet 'phenomenon' is not restricted only to affluent Western nations but is spreading fast in third-world countries as well. There has been a sharp fall in the cost of fixed broadband internet in developing countries, with the rise of per-capita income and the relative de-regulation of the telecommunications market, making internet access universally more accessible and affordable.<sup>12</sup> In 2008, China which overtook the United States as the largest fixed broadband market in the world.<sup>13</sup> internet usage has also surged in India, and now exceeds 45 million users.<sup>14</sup>

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<sup>7</sup> See A. Ranchhod & C. Gurāu, *Internet-enabled Distribution Strategies*, 14(4) J. INFORM. TECHNOL 333 (1999); Rolf Auf der Maur, *Internet-Enabled Distribution Models*, 27 INT'L BUS. LAW 264 (1999).

<sup>8</sup> *Supra* note 4; see generally Graham Longford & Steve Patten, *Democracy in the Age of the Internet*, 56 U.N.B.L.J. 5 (2007) (which discusses the role of the internet in making the public sphere more democratic).

<sup>9</sup> CNN News, *The rise of the online citizen*, March 22, 2004, available at <http://edition.cnn.com/2004/ALLPOLITICS/03/17/polls/> (Last visited on August 15, 2010).

<sup>10</sup> See *infra* Section II A on Iran's INTERNET censorship policy.

<sup>11</sup> The Pew Research Center for the People & the Press, *Internet's Broader Role in Campaign 2008: Summary of Findings*, January 11, 2008, available at <http://people-press.org/report/384/internets-broader-role-in-campaign-2008> (Last visited on August 15, 2010).

<sup>12</sup> The International Telecommunication Union, *Measuring the Information Society 2010*, February 23, 2010, available at [http://www.itu.int/ITU-D/ict/publications/idi/2010/Material/MIS\\_2010\\_Summary\\_E.pdf](http://www.itu.int/ITU-D/ict/publications/idi/2010/Material/MIS_2010_Summary_E.pdf) (Last visited on August 15, 2010).

<sup>13</sup> *Id.*

<sup>14</sup> IMRB International, *45 Million Internet Users in India*, September 2008, available at <http://www.imrbint.com/media/45..pdf> (Last visited on August 15, 2010); Internet World Stats, *India Internet Usage Stats and Telecommunications Market Report*, June 23, 2010, available at <http://www.internetworldstats.com/asia/in.htm> (Last visited on August 15, 2010).

The growing importance and power of the internet as a medium of expression is accompanied with the mounting political regulation of the internet by governments who recognise the dangers of an unrestricted internet. A 2009 study conducted by the OpenNet Initiative<sup>15</sup> estimates that 32% of all internet users were accessing a filtered version of the internet.<sup>16</sup>

A large majority of the services that are provided on the internet are commercial services. This coupled with the fact that the government regulatory agencies who censor the internet and the internet service providers, operate in different jurisdictions, the immediate repercussion of internet censorship is that it hampers international trade by restricting trade in online services.<sup>17</sup> Therefore, the emergence of the internet as the ‘new economy’ of the 21<sup>st</sup> century and the creation of the World Trade Organisation (WTO) as a successful global authority on world trade law have tainted internet censorship with the colour of trade disruptive activity. Consequently, the language of the censorship debate is shifting from charges of ‘disruptive of free speech’ to ‘disruptive of free trade’ and allegations of ‘online protectionism’ are replacing allegations of authoritarianism and totalitarianism.

During the course of the paper, a comparative study of internet censorship laws across different regions and jurisdictions, highlighting the legal issues generally involved in Internet censorship globally will be undertaken; this will be covered in Section II. Section III will provide a general overview of the WTO framework and discuss the applicability of international trade law rules to a dispute challenging internet censorship regimes of states. Section IV will deal with the Google-China controversy in detail, presenting the events leading up to the controversy in context, exploring the legal arguments that could be involved if the issue reached the Dispute Settlement Body of the WTO, and the effectiveness and feasibility of this course of action in light of other possible solutions to the controversy.

## II. INTERNET CENSORSHIP REGIMES AROUND THE WORLD

As the internet grew in scale and influence as a medium of communication, most governments extended the regulations which were previously governing print and televised media to now cover the internet. Internet traffic is

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<sup>15</sup> The OpenNet Initiative is a collaborative partnership between three leading academic institutions: the Citizen Lab at the Munk Centre for International Studies, University of Toronto, Berkman Center for Internet & Society at Harvard Law School, and the Advanced Network Research Group at the Cambridge Security Programme at the University of Cambridge.

<sup>16</sup> OpenNet Initiative, *The Year in Review*, February 3, 2010, available at <http://opennet.net/about-filtering/2009yearinreview/> (Last visited on August 15, 2010).

<sup>17</sup> *Internet Censorship: Past, Present and Future, Potential WTO challenge of Internet censorship*, November 8, 2009, available at <http://netcens.blogspot.com/2009/11/potential-wto-challenge-of-internet.html> (Last visited on August 15, 2010).

rigorously monitored and filtered in many countries, prominent among them being Saudi Arabia, Burma, China, Cuba, Egypt, Iran, North Korea, Syria, Tunisia, Turkmenistan, Uzbekistan and Vietnam.<sup>18</sup> States regulate the internet primarily through two means – public law and private parties.<sup>19</sup> Public laws create a barrier at physical locations where internet transmissions enter the particular country, creating paradoxically, a ‘local’ internet<sup>20</sup> or an ‘intranet’.<sup>21</sup> Private parties regulate the internet by ‘self-censorship’, filtering websites under the threat of being denied market access or sanctions, becoming ‘quasi-filters’ of the government.<sup>22</sup> Justifications for regulating the internet commonly advanced by states are preservation of public order and national security, preservation of public morals or community interests. This section will undertake a cross-jurisdictional analysis of the policy, mechanisms and justifications for censorship and surveillance measures that have been adopted the world over.

### A. THE MIDDLE EAST

The Middle East region is considered to operate one of the most restrictive internet censorship regimes, with censorship imposed on websites which have anti-Islamic, secularist, women’s rights, human rights, as well as politically damaging content.<sup>23</sup> The internet in the Islamic Republic of Iran is largely representative of the general policy of Middle Eastern nations towards the internet. Therefore, this section will primarily analyse the censorship policies of Iran.

The internet was introduced in Iran in 1993. Since then, it has seen the fastest growth rate in the Middle East.<sup>24</sup> It now has the largest number of users in

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<sup>18</sup> Reporters Without Borders, *12 Enemies of the Internet*, March 12, 2009, available at [http://www.rsf.org/IMG/pdf/Internet\\_enemies\\_2009\\_2\\_-3.pdf](http://www.rsf.org/IMG/pdf/Internet_enemies_2009_2_-3.pdf) (Last visited on August 15, 2010).

<sup>19</sup> The OpenNet Initiative, *A Starting Point: Legal Implications Of Internet Filtering*, September 2004, available at [http://opennet.net/docs/Legal\\_Implications.pdf](http://opennet.net/docs/Legal_Implications.pdf) (Last visited on August 15, 2010).

<sup>20</sup> See Columbia Law School Press Release, *Google-China Showdown Highlights Links between Web Freedom and World Trade, Says Professor Tim Wu*, January 20, 2010, available at [http://www.law.columbia.edu/media\\_inquiries/news\\_events/2010/january2010/google-wu](http://www.law.columbia.edu/media_inquiries/news_events/2010/january2010/google-wu) (Last visited on August 15, 2010) (Prof. Tim Wu: “I think that we are seeing the world moving away from the global Internet to a series of national networks. When you’re in China, you’re basically on the Chinese Internet. It is a matter of choice how global or un-global the internet is, and how interconnected it is. Countries do have the power to choose, and do it generally through the law.”) [Tim Wu is a professor at Columbia Law School and is considered an authority on law concerning internet filtering].

<sup>21</sup> Intranet is defined as “A restricted computer network; a private network created using World Wide Web software”. See Princeton University Wordnet entry on ‘Intranet’, available at <http://wordnetweb.princeton.edu/perl/webwn?s=intranet> (Last visited on August 15, 2010).

<sup>22</sup> *Supra* note 20.

<sup>23</sup> OpenNet Initiative, *Internet Filtering in the Middle East and North Africa*, 2009, available at <http://opennet.net/research/regions/mena> (Last visited on August 15, 2010).

<sup>24</sup> OpenNet Initiative, *Internet Filtering in Iran*, June 16, 2009, available at <http://opennet.net/research/profiles/iran> (Last visited on August 15, 2010).

the Middle East, second only to Israel.<sup>25</sup> Censorship in Iran finds its legal basis in its Constitution which provides that, “[t]he media should be used as a forum for healthy encounter of different ideas, but they must strictly refrain from diffusion and propagation of destructive and anti-Islamic practices”.<sup>26</sup> It focuses on censorship of pornography, websites of human rights, women’s rights, political organisations, and religious websites and anti-filtration websites.<sup>27</sup>

The Iranian internet was a largely unregulated medium which served as a haven for banned press<sup>28</sup> and was actively promoted and used by the State until 2001,<sup>29</sup> when the government attempted to impose restrictions on the internet similar to those imposed on the press. In 2003, the government issued a decree by which a committee was set up to determine and notify unauthorized websites to the Ministry of Information and Communication Technology ( ICT).<sup>30</sup> Websites notified to the Ministry of ICT by the committee are added to the list of the websites that are subject to censorship.<sup>31</sup> In 2006, Iran’s Ministry of ICT issued an order which prevented internet service providers ( ISPs) from allowing connectivity to households and public internet access points at speeds greater than 128 kilobytes per second, becoming the first country to impose such an explicit threshold to internet speed in households.<sup>32</sup> The harshest instance of state censorship however was seen recently in reaction to the protests challenging the 2009 Iranian presidential elections in which websites such as YouTube, Twitter and Facebook, and news organisations like the BBC and the Guardian were blocked.<sup>33</sup> On the day of the declaration of results, Iran first shut off all internet traffic for about 45 minutes, and then permitted access, but at a much lower speed.<sup>34</sup>

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<sup>25</sup> OpenNet Initiative, *supra* note 24.

<sup>26</sup> Constitution of the Islamic Republic of Iran, available at [http://www.servat.unibe.ch/icl/ir00000\\_.html](http://www.servat.unibe.ch/icl/ir00000_.html) (Last visited on August 15, 2010).

<sup>27</sup> Iran CSOs Training & Research Center, *A Report on the Status of the Internet in Iran*, available at [http://www.genderit.org/upload/ad6d215b74e2a8613f0cf5416c9f3865/A\\_Report\\_on\\_Internet\\_Access\\_in\\_Iran\\_2\\_.pdf](http://www.genderit.org/upload/ad6d215b74e2a8613f0cf5416c9f3865/A_Report_on_Internet_Access_in_Iran_2_.pdf) (Last visited on August 15, 2010).

<sup>28</sup> BBC NEWS, *Iran’s banned press turns to the Net*, August 9, 2002, available at [http://news.bbc.co.uk/2/hi/not\\_in\\_website/syndication/monitoring/media\\_reports/2183573.stm](http://news.bbc.co.uk/2/hi/not_in_website/syndication/monitoring/media_reports/2183573.stm) (Last visited on August 15, 2010).

<sup>29</sup> Babak Rahimr, *Cyberdissent: The Internet In Revolutionary Iran*, 7 MERIA JOURNAL 3 (2003).

<sup>30</sup> Decree on the Constitution of the Committee in charge of Determination of Unauthorized Websites (Official Gazette no. 16877).

<sup>31</sup> *Id.*

<sup>32</sup> The Guardian, *Iran bans fast Internet to cut West’s influence*, October 18, 2006, available at <http://www.guardian.co.uk/technology/2006/oct/18/news.iran> (Last visited on August 15, 2010).

<sup>33</sup> Counter Punch, *Iran: Networked Dissent?*, July 2, 2009, available at <http://www.counterpunch.org/christensen07022009.html> (Last visited on August 15, 2010).

<sup>34</sup> The Boston Globe, *Finding a way around Iranian censorship*, June 19, 2009, available at [http://www.boston.com/business/technology/articles/2009/06/19/activists\\_utilizing\\_twitter\\_web\\_proxies\\_to\\_sidestep\\_iranian\\_censorship/?page=1](http://www.boston.com/business/technology/articles/2009/06/19/activists_utilizing_twitter_web_proxies_to_sidestep_iranian_censorship/?page=1) (Last visited on August 15, 2010).

## B. GERMANY

In Europe, many countries practice censorship as an extension of their policies regarding the press and hate-speech, targeting internet content which promotes racial hatred or superiority such as Nazi content.<sup>35</sup> Signatories to the Council of Europe Convention on Cybercrime covenant to criminalise “any written material, any image or any other representation of ideas or theories, which advocates, promotes or incites hatred, discrimination or violence, against any individual or group of individuals, based on race, colour, descent or national or ethnic origin, as well as religion if used as pretext for any of these factors” and “material which denies, minimises, approves of or justifies crimes of genocide or crimes against humanity.”<sup>36</sup>

In Germany, sanctions are imposed for hate speech, including jail time for promoting pro-Nazi material.<sup>37</sup> In 1997, Germany passed the Information and Communications Services Act, requiring the censorship of pornography, violence, and Neo-Nazi propaganda on the Internet, which placed onus on ISPs to regulate content.<sup>38</sup> Under German law, censorship is permissible irrespective of where it is hosted. Therefore, in 2002, the district of Düsseldorf in Germany was able to order 78 ISPs to block access to two US-hosted Nazi websites.<sup>39</sup>

## C. FRANCE

In 2000, two French groups – *La Ligue Contre Ic Racisme e L'Antisemitisme* (LICRA-League Against Racism and Anti-Semitism) and *L'Union des Erudians Juif de France* (UEJF-Union of French Jewish Students) filed a suit accusing Yahoo! Inc. and Yahoo! France of violating the anti-Nazi laws of France.<sup>40</sup>

<sup>35</sup> OpenNet Initiative, *Internet Filtering in Europe*, available at <http://opennet.net/research/regions/europe> (Last visited on August 15, 2010).

<sup>36</sup> Additional Protocol to the Convention On Cybercrime, Concerning the Criminalisation of Acts of a Racist and Xenophobic Nature Committed Through Computer Systems, January 28th 2003, available at <http://conventions.coe.int/Treaty/en/Treaties/Html/189.htm>. (Last visited on August 15, 2010); see also Ian Brown, *Internet Filtering - Be Careful What You Ask For*, in *FREEDOM AND PREJUDICE: APPROACHES TO MEDIA AND CULTURE*, 74-91 (S. Kirca & L. Hanson eds., 2008).

<sup>37</sup> §86(1)(4) Strafgesetzbuch (StGB), 1998 (German Penal Code), English translation by Federal Ministry of Justice available at <http://www.iuscomp.org/gla/statutes/StGB.htm#86a> (Last visited on August 15, 2010).

<sup>38</sup> Kriszina M. Reed, *From the Great Firewall of China to the Berlin Firewall: The Cost of Content Regulation on Internet Commerce*, 13 *THE TRANSNATIONAL LAWYER* 451 (2000).

<sup>39</sup> Privacy International, *Silenced: An International report on Censorship and Control of the Internet*, 2003, available at <http://www.privacyinternational.org/survey/censorship/silenced.pdf> (Last visited on August 15, 2010).

<sup>40</sup> BBC News, *France bans internet Nazi auctions*, May 23, 2000, available at <http://news.bbc.co.uk/2/hi/europe/760782.stm> (Last visited on August 15, 2010); See also Sakura Mizuno, *When Free Speech And The Internet Collide: Yahoo!-Nazi-Paraphernalia Case*, 10 *CURRENTS INT'L TRADE L. J.* 57 (2001).

They alleged violation of § R.645-1 of the French Penal Code (which prohibits the exhibition of Nazi objects for purposes of sale) because it allowed access to an auction offering numerous Nazi objects for sale through the French site. The Court ruled that although Yahoo! Inc. hosted their servers on American soil, the French Court had jurisdiction and that they had broken the law of France by providing French internet users access to the auction. However, Yahoo later obtained a decree from a court in California rendering the judgment non-enforceable against it.<sup>41</sup>

#### D. MEXICO

In Mexico, the incumbent monopoly telecommunications company, *Teléfonos de México* (Telmex), whose revenue was threatened when companies like Skype introduced free Voice over Internet Protocol (VoIP) services, prevented access to the Skype website and downgraded the bandwidth for people it identified as using Skype.<sup>42</sup> This incident raised questions of validity of this censorship with respect to trade law, specifically to the reference paper on telecommunication services,<sup>43</sup> which was intended to prevent major suppliers of any particular sector from engaging in anti-competitive activities.<sup>44</sup> When referred to by the US, the Dispute Settlement Body (DSB) of the WTO in *Mexico – Measures Affecting Telecommunications Services*<sup>45</sup> found that Mexico was violating its commitments under Article I<sup>46</sup> of General Agreement on Trade and Tariffs (GATS) and the terms of this reference paper, and therefore, struck down this measure.<sup>47</sup> There were also

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<sup>41</sup> CNET News, *Court shields Yahoo from French laws*, November 8, 2001, available at <http://news.cnet.com/2100-1017-275564.html> (Last visited on August 15, 2010).

<sup>42</sup> CNET News, *Mexico Telephone Operator Under VoIP Fire*, April 25, 2005, available at [http://news.com.com/Mexico+telephone+operator+under+VoIP+fire/2100-7352\\_3-5681542.html](http://news.com.com/Mexico+telephone+operator+under+VoIP+fire/2100-7352_3-5681542.html) (Last visited on August 15, 2010).

<sup>43</sup> World Trade Organisation, *Telecommunication Services: Reference Paper*, available at <[http://www.wto.org/english/tratop\\_e/serv\\_e/telecom\\_e/tel23\\_e.htm](http://www.wto.org/english/tratop_e/serv_e/telecom_e/tel23_e.htm)> (Last visited on August 15, 2010).

<sup>44</sup> *Telecommunication Services: Reference Paper*, Article 1.1: “Appropriate measures shall be maintained for the purpose of preventing suppliers who, alone or together, are a major supplier from engaging in or continuing anti-competitive practices.”

<sup>45</sup> Panel Report, *Mexico–Measures Affecting Telecommunications Services*, (United States of America) WT/DS 204/R (April 2, 2004).

<sup>46</sup> GATT, Article I: “Most favoured Nation Treatment- With respect to customs duties and charges of any kind imposed on or in connection with importation or exportation or imposed on the international transfer of payments for imports or exports, and with respect to the method of levying such duties and charges, and with respect to all rules and formalities in connection with importation and exportation, and with respect to all matters referred to in paragraphs 2 and 4 of Article III, any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties.”

<sup>47</sup> *Supra* note 45.

similar cases concerning VoIP services, such as *Deutsche Telekom* in Germany and some companies in UK, France and China.<sup>48</sup>

### E. SOUTH EAST ASIA

Instances of unjust regulation of internet content are also found in abundance in South East Asia. In India, for instance, in 2004, the Indian Ministry of Communications & Information Technology ordered Indian ISPs to block a specific Yahoo! group. In response, many ISPs blocked access to the entire *groups.yahoo.com* domain, resulting in the collateral blocking of thousands of newsgroups.<sup>49</sup> Similarly, in 2006, the Government imposed a blanket censorship on sites that hosted blogs including the popular blogspot.com, shutting down thousands of blogs irrespective of their content.<sup>50</sup> Also, India's neighbour, Pakistan imposed a blanket ban on YouTube, the popular video-sharing site, in 2008, because it allegedly hosted an anti-Muslim video.<sup>51</sup>

### F. CHINA

From the very beginning, the Chinese government understood the power, opportunity as well as the threat that the internet could pose for the government, and has since tried to strike a balance between the tremendous economic benefits of the internet and its political risks as a medium of dissent. When the internet revolution reached China, after the economic marvels it wrought in America and Europe, the ruling party quickly recognised and reaped the commercial benefits that the internet had to offer. Chinese web companies on NASDAQ raised more than \$400 million between July 1999 and July 2000.<sup>52</sup> Telecommunications revenues, which increased by more than 20 times in the 1990s, flowed almost exclusively to the state.<sup>53</sup> Further, China's 'Enterprise Online' initiative, launched in July 2000, aimed to put seven million Chinese businesses, including many state-owned enterprises on the web and launched

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<sup>48</sup> European Centre for International Political Economy, *Protectionism Online: Internet Censorship and International Trade Law*, (Working Paper No. 12/2009), available at <http://www.ecipe.org/protectionism-online-internet-censorship-and-international-trade-law/PDF> (Last visited on August 15, 2010).

<sup>49</sup> OpenNet Initiative, *Internet Content Filtering in India: Variations in Compliance and Accuracy*, May 27, 2004, available at <http://www.opennet.net/bulletins/003/> (Last visited on August 15, 2010).

<sup>50</sup> New York Times, *You Won't Read It Here First: India Curtails Access to Blogs*, July 19, 2006, available at <http://www.nytimes.com/2006/07/19/world/asia/19india.html> (Last visited on August 15, 2010).

<sup>51</sup> New York Times, *Pakistan Cuts Access to YouTube Worldwide*, February 26, 2008, available at <http://www.nytimes.com/2008/02/26/technology/26tube.html> (Last visited on August 15, 2010).

<sup>52</sup> Nina Hachigian, *China's Cyber-Strategy*, 80(2) FOREIGN AFFAIRS 118-133 (2001).

<sup>53</sup> *Id.*



thirteen ‘Golden Projects’ which used the internet to improve the government’s administrative infrastructure for banks, customs and tax bureaus etc.<sup>54</sup>

On the other hand, in 2000, China’s Ministry of Public Service unveiled the ‘Golden Shield’ project (dubbed the ‘Great Firewall of China’), whose self-proclaimed goal was “the adoption of advanced information and communication technology to strengthen central police control, responsiveness, and crime combating capacity to improve the efficiency and effectiveness of police”.<sup>55</sup> The Shield allows for comprehensive surveillance of net-users’ activities as well as censorship of content using technology such as IP blocking, DNS filtering and redirection and URL filtering.<sup>56</sup> Further, China’s censorship lacks transparency because the government does not distribute a list of censored topics and prohibits not only dissemination of pornographic and defamatory content, but also political and religious content, under broad and vague prohibitions on information such as harming the honour or interests of the nation, disrupting the solidarity of peoples, disrupting national policies on religion and spreading rumours.<sup>57</sup>

The WTO has already intervened successfully once in China’s internet policy. In 2003, China required all Wi-Fi devices to incorporate WLAN Authentication and Privacy Infrastructure (WAPI) technology, which would force every user of a wireless network to register with a centralized authentication point and that for foreign firms to gain access to WAPI technology, they would need to partner with one of two-dozen Chinese firms designated by the Chinese government. However, under pressure from the WTO and the international community, China ultimately abandoned this attempt to create and control the underlying standards governing internet access. Further in *China - Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products*<sup>58</sup> (China-Audiovisuals), the DSB of the WTO found that the censorship of foreign websites that distributed audiovisual products was against its obligations under the WTO.<sup>59</sup>

Also, internet censorship is often used by non-state actors to protect their trade interests. In China, a local diary producer, Sanlu, was rumoured to have paid Baidu, which has the largest stake in the Chinese

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<sup>54</sup> Nina Hachigian, *supra* note 52.

<sup>55</sup> *Id.*

<sup>56</sup> Jonathan Zittrain & Benjamin Edelman, *Empirical Analysis of Internet Filtering in China*, BERKMAN CENTER FOR INTERNET & SOCIETY, available at <http://cyber.law.harvard.edu/filtering/china/appendix-tech.html#implementation> (Last visited on August 23, 2010).

<sup>57</sup> Measures for the Administration of Internet Information Services, 2000, Article 15.

<sup>58</sup> Appellate Body Report, *China - Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products* (United States of America), WT/DS363/AB/R, (December 21, 2009).

<sup>59</sup> Zia K. Cromer, *China’s WAPI Policy: Security Measure Or Trade Protectionism*, 2005 DUKE L. & TECH. REV. 0018.

search engine market, \$250,000 to block search results related to melamine contamination of Sanlu's milk products.<sup>60</sup>

### *G. OTHER COUNTRIES*

Other countries like Cuba and North Korea practice internet censorship by denying access to the internet itself. In Cuba, use of the internet has only been permitted since 2008, but the number of access points is few and the cost to use the internet is considerable.<sup>61</sup> North Korea's internet operates like China's intranet system and very few North Korean civilians are allowed to use the unfiltered net.<sup>62</sup>

## III. INTERNATIONAL TRADE LAW AND ITS APPLICABILITY TO INTERNET CENSORSHIP

### *A. THE WORLD TRADE ORGANISATION*

The WTO is an international organisation for the regulation of trade between nations. It was created in 1995 under the Marrakesh Agreement which succeeded the erstwhile General Agreement on Trade and Tariffs, 1947. It serves as an important forum for negotiating trade agreements and settling trade disputes with the primary purpose of facilitating international trade in a free and fair manner. It is a rule-based system in which the rules are determined by the various agreements negotiated between countries. The current body of trade agreements comprising the WTO consists of 16 different multilateral agreements (to which all WTO members are parties) and two different plurilateral agreements (to which only some WTO members are parties).<sup>63</sup> An important part of the WTO system is the dispute-settlement mechanism which operates through Panels and the Appellate Bodies which perform the task of legal interpretation of the WTO agreements resulting in the development of the WTO jurisprudence.<sup>64</sup>

### *B. GATS FRAMEWORK*

In the past, trade had always been considered to be synonymous with exchange of goods. However, increasing globalisation and technological advancement have made services the most dynamic segment of international trade. In fact since 1980, the pace of the growth of world services trade has been faster than merchandise flows. Given this continued momentum of world services

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<sup>60</sup> *Supra* note 52.

<sup>61</sup> *Supra* note 19.

<sup>62</sup> *Id.*

<sup>63</sup> World Trade Organisation Official Website, available at <http://www.wto.org/> (Last visited on August 15, 2010).

<sup>64</sup> *Id.*

trade, the need for internationally recognized rules governing trade in services became increasingly pressing.<sup>65</sup> Recognising this need, the General Agreement on Trade in Services (GATS) was created as the first multilateral trade agreement to cover trade in services.

Members' obligations with reference to anti-discrimination and market access constitute the cornerstone principles of the GATS. Anti-discrimination principles are of two types: (1) one that prohibits discrimination between different service-exporting countries Most favoured Nation Treatment (MFN)); (2) another that prohibits discrimination between foreign and local service providers (National Treatment (NT)). With respect to market access commitments, GATS creates a framework for allowing service providers access to the domestic market. These GATS obligations can be classified as: General obligations and Specific obligations. While the former (including MFN and transparency related obligations) has a direct and immediate application to all Members and services sectors, the latter (including NT and market access commitments) is laid down in individual country schedules which allows countries to individually agree on different degrees of NT and market access obligations in an ongoing, sector-by-sector basis.<sup>66</sup>

## 1. What are 'services' for the purpose of the GATS?

As per the text of the GATS, 'service' includes "any service in any sector except services supplied in the exercise of governmental authority."<sup>67</sup> Further, services in exercise of governmental authority have been defined as those services which are supplied "neither on a commercial basis nor in competition with other suppliers." Thus, in principle, the GATS would be applicable to all kinds of services as long as they are commercial in nature.<sup>68</sup> However, unlike the

<sup>65</sup> World Trade Organisation, *The General Agreement on Trade in Services (GATS): objectives, coverage and disciplines*, available at [http://www.wto.org/english/tratop\\_e/serv\\_e/gatsqa\\_e.htm](http://www.wto.org/english/tratop_e/serv_e/gatsqa_e.htm) (Last visited on August 15, 2010).

<sup>66</sup> Tim Wu, *Legal Implications of A Rising China*, 7 CHN. J. INT'L L. 263, 264 (2006).

<sup>67</sup> GATS, Article I, ¶3(b); The Annex on Air Transport Services also exempts from coverage measures affecting air traffic rights and services directly related to the exercise of such rights.

<sup>68</sup> The WTO Secretariat has divided all services into the following 12 sectors:

1. Business services (including professional and computer services)
2. Communication services.
3. Construction and Engineering services
4. Distribution services (e.g. Commission agents, wholesale & retail trade and franchising)
5. Education services
6. Environment services
7. Finance (including insurance and banking) services
8. Health services
9. Tourism and Travel services
10. Recreation, Cultural and Sporting Services
11. Transportation Services, and
12. Other services not elsewhere classified.

These 12 areas are further divided into 161 sub-sectors.

GATT where there is a presumption that all goods are covered by it unless they have been expressly exempted, the GATS works through ‘positive’ lists in which each individual member state makes specific commitments, which forms an integral part of the agreement.<sup>69</sup> This implies that each WTO Member is required to have a Schedule of Specific Commitments which identifies the service areas for which market access and national treatment are guaranteed and also spells out any limitations or conditions that the Member may want to attach to the specific commitment.<sup>70</sup> Thus, for example, a Member might accept GATS obligations in relation to financial services, but make no similar commitments in relation to legal services.

Further, pursuant to Article I:2, the GATS covers services supplied:

- (a) from the territory of one Member into the territory of any other Member (Mode 1 – Cross-border trade);
- (b) in the territory of one Member to the service consumer of any other Member (Mode 2 – Consumption abroad);
- (c) by a service supplier of one Member, through commercial presence, in the territory of any other Member (Mode 3 – Commercial presence); and
- (d) by a service supplier of one Member, through the presence of natural persons of a Member in the territory of any other Member (Mode 4 – Presence of natural persons).<sup>71</sup>

Therefore, under the GATS, countries not only commit to national treatment and market access obligations on sector-by-sector basis but also on a Mode-by-Mode basis. For instance, a country could liberalize one of the modes of delivering a service while denying accessibility to the same service through a different Mode. In the case of banking services, customers could be permitted to reach foreign banks via Internet (Mode 1) but at the same time the bank could be denied the permission to open locally (Mode III).<sup>72</sup>

## 2. Are internet-based services covered by the GATS?

Ideally, going by the aforesaid definition of services, any internet service which is available commercially will be capable of being subjected to the provisions of the GATS, based on a country’s specific sectoral and modal commitments enshrined in the country’s respective schedules. However, in reality, the answer to this question is not straightforward as this issue is wrought with ambiguity. For instance, scholars such as Tim Wu are of the view that with respect

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<sup>69</sup> *Supra* note 48, 8.

<sup>70</sup> *Supra* note 63.

<sup>71</sup> Tim Wu, *The World Trade Law of Censorship and Internet Filtering*, available at <http://ssrn.com/abstract=882459> (Last visited on August 13, 2010) 8, 9.

<sup>72</sup> *Id.* 10, 11.

to the internet, the ‘threshold question’ surrounds the applicability of the GATT vis-à-vis the GATS, thereby necessitating a clear differentiation between goods and services.<sup>73</sup> He argues that goods which are ordered online but require physical delivery attract the provisions of the GATT; for example, the purchase of medicines over the internet. On the other hand, online services such as the use of search engines which do not involve either downloaded or stored goods are clear-cut examples of services.<sup>74</sup> According to him, the ambiguity therefore is mainly around the position of conventional goods that are downloaded and stored in digital versions, for instance e-newspapers, e-books, songs etc.<sup>75</sup> Thus, there may be a case under GATT which covers trade in digital content products, but search engines and social networking services will certainly be subject to the GATS. This view has also been strengthened by the US–Gambling dispute which applied the provisions of the GATS to online gambling.<sup>76</sup> Thus for the purpose of internet censorship discussed in this paper, the relevant rules of international trade law that would be applicable are the GATS provisions.

Since countries commit to liberalising trade in services on sector-by-sector basis, it creates an interpretative problem for internet-based services.<sup>77</sup> This is owing to the fact that the sectoral commitments were made by most member states prior to the emergence of several new-age service types, particularly internet based services. The dilemma that then arises is whether to interpret the text as was envisioned by the drafters or to incorporate the technological changes in the interpretative process. For example, “do the terms like ‘online information retrieval’, or ‘data processing services’, drafted in the early 1990s, include search engines like Google or Yahoo?” According to Article 31 of the Vienna Convention on the Law of treaties, interpretation should be based on a textual understanding aided by some supplemental materials. However, Article 31 does not provide any guidance with regard to situations when the meaning of a word undergoes change. The problem was finally resolved in the Shrimp-Turtle dispute where the Appellate Body concluded that the text must be read by a treaty interpreter “in the light of contemporary concerns of the community of nations.”<sup>78</sup> Therefore, in the US–Gambling dispute, ‘recreational services’, was interpreted to include online gambling even though the same was not in existence during the stage of drafting.<sup>79</sup>

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<sup>73</sup> Tim Wu, *supra* note 72, 5,7.

<sup>74</sup> *Id.*

<sup>75</sup> *Id.*, 8-10. While the WTO has yet to rule on the issues, or its members to agree, the better position is that the digital versions of goods remain goods subject to GATT. Holding otherwise creates a potential to evade bound tariffs for a good as it takes on a new form, which represents backsliding from the commitment to liberalize trade in that good.

<sup>76</sup> Sacha Wunsch-Vincent, *The Internet, cross-border trade in services, and the GATS: lessons from US–Gambling*, 5 *WORLD TRADE REVIEW* 319 (2006).

<sup>77</sup> *Supra* note 48.

<sup>78</sup> Appellate Body Report, *United States - Import Prohibition of Certain Shrimp and Shrimp Products*, (India, Malaysia, Pakistan, Thailand) ¶ 129, WT/DS58/AB/R, November 6, 1998.

<sup>79</sup> *Id.*

### 3. Which Mode of service would internet-based services fall under?

WTO Members have had difficulties in determining whether the electronic cross-border delivery of a service is a service supplied over GATS Mode 1 or over Mode 2. The fundamental question that needs to be answered is whether the service is produced abroad and sent across borders to a foreign consumer or whether it is the consumer who ‘travels’ abroad to consume a service. This answer is particularly important because the level of liberalization varies broadly depending on which Mode applies. Generally, concessions that are available under Mode 2 are more liberal than those under Mode 1.<sup>80</sup>

### 4. Would online censorship amount to a restriction that violates the GATS?

To answer the above question, let us assume that a given WTO member has made NT and market access commitments in a certain sector which happens to be relevant to a certain internet based service that the member state has censored through a ban. Now as long as the given censorship applies to both foreign and domestic internet service providers equally, the NT obligation of the member state does not get violated. With respect to market access commitments, under Article XVI of the GATS, member states are prohibited from imposing quantitative restrictions such as limits on the ‘number of service suppliers’, the ‘total value of service transactions’, or ‘limits on the percentage of foreign ownership’ in areas where they have undertaken such commitments.<sup>81</sup> The question that then arises is whether censorship of that internet service can be regarded as a restriction that is proscribed under the Article XVI of the GATS. The answer to this question can be found in the WTO ruling in the dispute concerning *Measures Affecting the Cross-Border Supply of Gambling and Betting Service* ( US-Gambling).<sup>82</sup>

In this case Antigua and Barbuda brought a complaint against the United States on the ground that U.S. federal and state laws made it unlawful for suppliers located outside the US to supply online gambling and betting services to its consumers over the internet, thus violating Article XVI:1 of the GATS. The US argued that Article XVI only struck at specific quantitative restrictions on market access and a total ban would not fall within its scope. Both, the Panel and the Appellate Body disagreed with this argument and instead held that a total ban on the online gambling service was a quota restriction set at the limit of zero and

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<sup>80</sup> *Supra* note 48, 8.

<sup>81</sup> GATS, Article XVI.

<sup>82</sup> See Panel Report, *United States - Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, (Antigua and Barbuda ) WT/DS285/R, November 10, 2004 and Appellate Body Report, *United States - Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, (Antigua and Barbuda) WT/DS285/AB/R, (April 7, 2005) (This case marked the first WTO Dispute Settlement Body’s judgment directly relating to the Internet and only the second case which centred exclusively on the GATS.)

therefore constituted a violation of the market access commitment of the US.<sup>83</sup> Therefore, it can be concluded that censorship constitutes a quantitative restriction under Article XVI that will be in violation of the GATS in cases where a country has undertaken relevant sectoral market-access obligations.<sup>84</sup>

## 5. General Exceptions to GATS commitments<sup>85</sup>

The GATS obligations of member states may sometimes conflict with competing public interests and values. To address this issue, Article XIV provides a list of exceptions to the general obligations contained in the GATS. These exceptions serve as an effective tool of defence for member states who adopt GATS inconsistent measures so as to pursue legitimate public policy goals such as public order, health, environmental protection, etc. This Article is of particular relevance to internet censorship regimes as it offers them the last resort to protect their measure after it has been found to be inconsistent with the substantive obligations. To prevent the abuse of this Article, it contains a ‘chapeau’ that limits the use of the exceptions to situations where the laws in question “are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where like conditions prevail, or a disguised restriction on trade in services”. Therefore, to raise a defence under Article XIV, a two-tier test must be applied: first, the challenged measure must meet the criteria of one of the Article XIV exceptions, and second, the measure must meet the requirements of the *chapeau*.<sup>86</sup>

### a. Public Morals

Among the various exceptions mentioned under Article XIV, the one that has the largest potential of being invoked in cases of internet censorship is Article XIV(a) that allows member states to adopt GATS inconsistent measures that are “necessary to protect public morals or to maintain public order.”

First, to apply the public morals exception, it needs to be determined whether the issue in question falls within the scope of ‘public morality’. As discussed before, internet censorship is practised by states for political reasons, on moral

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<sup>83</sup> Panel Report, *United States - Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, *supra* note 82, ¶¶213-265.

<sup>84</sup> *Supra* note 48.

<sup>85</sup> GATS includes exceptions, *inter alia*, for measures “necessary to protect public morals or to maintain public order,” “necessary to protect human, animal or plant life and health,” and “necessary to secure compliance with [otherwise GATS-consistent] laws or regulations.” GATT Article XX includes ten general exceptions, dealing with, *inter alia*, measures “necessary to protect public morals,” “necessary to protect human, animal or plant life or health,” and “relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.”

<sup>86</sup> Appellate Body Report, *United States - Standards for Reformulated and Conventional Gasoline* (Venezuela), WT/DS2/AB/R (April 29, 1996).

grounds or to pursue commercial interest. Irrespective of the reason for which internet is censored, it is fairly easy for member states to try and justify the motive behind their measure as a matter of public morality. This is because of the subjective nature and lack of unanimity over what constitutes ‘public morals’ which makes the public morals exception clause easily open to misuse. Amongst the various WTO member states, ‘public morals’ could mean anything “from religious views on drinking alcohol or eating certain foods to cultural attitudes toward pornography, free expression, human rights, labour norms, women’s rights, or general cultural judgments about education or social welfare. What one society defines as public morals may have little relevance for another”.<sup>87</sup> Thus, a broad public morals exception could be used by member states as a disguised tool of online protectionism.

With respect to the ‘public order’ exception, footnote 5 of the GATS document states that, “the public order exception may be invoked only where a genuine and sufficiently serious threat is posed to one of the fundamental interests of society”. Once again the difficulty with this exception is that it is coined in very broad terms. Interests that are fundamental to each society vary greatly. Further, when internet censorship is conducted for political or commercial reasons, to decide whether the interest being protected is fundamental to the society or merely to the ruling party or a local company, often becomes a controversial issue. The next requirement that must be met to invoke this exception is that the internet based service must pose a ‘sufficiently serious threat’ to the interest in concern. Even though the power, reach and influence of the internet are unquestionable, it is difficult to gauge “how imminent and serious are the threats on society from blogs or songs on a webpage, which could be removed within a few days, if not hours?”<sup>88</sup>

## b. Necessity

Assuming that the issue is established to be a matter of public morality/order, the next question that needs to be asked is whether the measure is ‘necessary’ to protect public morals. A disputed measure is ‘necessary’ under Article XIV(a) provided that no other alternative less inconsistent with the provisions of the GATS is reasonably available.<sup>89</sup> The determination of necessity involves application of a weighing and balancing test<sup>90</sup> considering the societal value pursued by the

<sup>87</sup> HENRIK HORN & PETROS C. MAVROIDIS, *THE WTO CASE LAW OF 2004-2005: LEGAL AND ECONOMIC ANALYSIS*, 88, (2008), available at [http://books.google.co.in/books?id=bKWczVSN\\_\\_UC&pg=PA88&lpg=PA88&dq=zero+quota+principle+wto&source=bl&ots=HgEw46DgsB&sig=sYlfV\\_GmUpFegYBiRhWny3OFbNk&hl=en&ei=7QqaS-rAEIGyrAel5eD RCw&sa=X&oi=book\\_result&ct=result&resnum=10&ved=0CDIQ6AEwCQ#v=onepage&q=zero%20quota%20principle%20wto&f=false](http://books.google.co.in/books?id=bKWczVSN__UC&pg=PA88&lpg=PA88&dq=zero+quota+principle+wto&source=bl&ots=HgEw46DgsB&sig=sYlfV_GmUpFegYBiRhWny3OFbNk&hl=en&ei=7QqaS-rAEIGyrAel5eD RCw&sa=X&oi=book_result&ct=result&resnum=10&ved=0CDIQ6AEwCQ#v=onepage&q=zero%20quota%20principle%20wto&f=false) (Last visited on August 23, 2010).

<sup>88</sup> *Supra* note 48, 13.

<sup>89</sup> Report of the Panel, *Thailand - Restrictions on importation of and internal taxes on cigarettes*, (U.S.), ¶ 75, DS10/R, (November 7, 1990), GATT B.I.S.D. 37S/200.

<sup>90</sup> Appellate Body Report, *Korea—Measures Affecting Imports of Fresh, Chilled and Frozen Beef*, (United States) ¶162, WT/DS 169/AB/R, (December 11, 2000) (*hereinafter* “Korea-Beef” dispute); Appellate Body Report, *Brazil - Measures Affecting Imports of Retreaded Tyres*, (European Communities), ¶156, WT/DS 332/AB/R, (December 3, 2007).



measure at issue, the extent to which the measure contributes to the protection of that value and the trade restrictiveness of the measure. This test was first laid down in the Korea-Beef dispute with respect measures that are necessary to protect plant, animal or human life. It was also subsequently employed by both the Panel as well as the Appellate Body in the US-Gambling case in the context of the public morals exception clause.

With respect to internet filtering, a reasonably available, less trade restrictive alternative to permanent bans on websites would be active filtering of search results.<sup>91</sup> This is because the latter option would be able to achieve the same level of protection while still leaving some scope for safeguarding the commercial interest of the service supplier.

### c. Chapeau

The chapeau of GATS Article XIV is a preamble to the Article that strives to strike a balance “between the right of a Member to invoke an exception under Article XX and the rights of the other Members under varying substantive provisions.”<sup>92</sup> It sets forth the requirement that any GATS inconsistent measure that is otherwise justifiable under any of the General Exceptions must not be applied in a manner that would constitute arbitrary or unjustifiable discrimination in countries where the same conditions prevail. The capricious, inflexible or inconsistent application of a measure results in arbitrary discrimination.<sup>93</sup> Permanent censorship that impose rigid bans on online services are therefore more prone to be found to be against the spirit of the chapeau as opposed to selective filtering which is more flexible in its application.

Since the chapeau deals with the manner in which a measure is applied, a question of conformity with the chapeau would largely be fact specific. Nevertheless, the chapeau requirement is very important as it can completely reverse the outcome of the case. In fact it formed the basis of the ruling of the Appellate Body in the US-Gambling dispute wherein the Appellate Body noted that the Interstate Horseracing Act permitted interstate wagers to be accepted by an off-track betting system via telephone or other Modes of electronic communication while US Federal laws such as the Wire Act, Travel Act, and Illegal Gambling Business Act denied similar opportunities to foreign entities, thus resulting in arbitrary discrimination.<sup>94</sup>

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<sup>91</sup> *Supra* note 48, 13.

<sup>92</sup> Appellate Body Report, *United States - Import Prohibition of Certain Shrimp and Shrimp Products*, (India, Malaysia, Pakistan, Thailand) WT/DS58/AB/R, (November 6, 1998) (*hereinafter* US-Shrimp). *See also* US-Gambling, *supra* note 82, ¶ 6.571.

<sup>93</sup> *Id.*, ¶ 5.124

<sup>94</sup> US-Gambling, *supra* note 82, ¶ 348.

#### IV. THE GOOGLE-CHINA CONTROVERSY

“In mid-December, we detected a highly sophisticated and targeted attack on our corporate infrastructure originating from China that resulted in the theft of intellectual property from Google... We have evidence to suggest that the primary goal of the attackers was accessing the Gmail accounts of Chinese human rights activists.”<sup>95</sup>

These are the words on the official Google blog outlining the cause behind the recent Google-China dispute. In the light of this controversy, Google had announced its intention to withdraw from the Chinese market on January 12, 2010.<sup>96</sup>

Google’s first encounter with the Chinese consumer took place in 2000, when it launched a Chinese interface for its search engine.<sup>97</sup> A Chinese user would access the google.com website and automatically be redirected to the Chinese interface. However, Google operated and stored its data outside the Chinese jurisdiction and so, as with all internet traffic coming from outside China, it too was regulated by the ‘Great Firewall of China’. The firewall slowed down the traffic that was coming into the country from the world outside irrespective of whether it was censored or not. About 15% of the time, Google remained simply unavailable in China because of the high volume of Internet traffic<sup>98</sup> and where the Firewall did actually censor a result, it would appear as if Google’s site was unavailable and not that it was censored. With an aim to solve these problems and tap into the vast Chinese internet market, Google finally launched Google.cn on January 25, 2006.<sup>99</sup> With this move, it established its first office in China, making itself immune to the Great Firewall, and instead subjecting itself to China’s more stringent self-censorship regime.

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<sup>95</sup> The Official Google Blog, *A new approach to China*, December 1, 2010, available at <http://googleblog.blogspot.com/2010/01/new-approach-to-china.html> (Last visited on August 15 2010).

<sup>96</sup> On the same day, Baidu, Google’s dominant rival in China, saw its NASDAQ stock shoot up by 16.6 percent. China’s third and fourth-place search engines, Sina and Sohu, witnessed their stocks increase 4.9 percent and 6.2 percent, respectively. See Jordan Calinoff, *Beijing’s Foreign Internet Purge*, FOREIGN POLICY, January 15, 2010, available at [http://www.foreignpolicy.com/articles/2010/01/14/chinas\\_foreign\\_internet\\_purge](http://www.foreignpolicy.com/articles/2010/01/14/chinas_foreign_internet_purge) (Last visited on August 15, 2010).

<sup>97</sup> *Google’s China Problem (and China’s Google Problem)*, THE NEW YORK TIMES MAGAZINE, April 23, 2006, available at <http://www.nytimes.com/2006/04/23/magazine/23google.html?pagewanted=1&ei=5090&en=972002761056363f&ex=1303444800> (Last visited on August 23, 2010).

<sup>98</sup> *Id.*

<sup>99</sup> *Here Be Dragons: Google Enters Chinese Market, Practicing Enlightened Self-Censorship*, THE ECONOMIST, January 28, 2006, 59.

In the past few years, Google has faced various kinds of cyber attacks launched against it by Chinese internet watchdogs. The most controversial among them was the 2002 attack in which users trying to access Google's website were routed to the domestic search engine, Baidu.cn. The economic consequences of such attacks were reflected in the radical change in the respective market shares of these two leading search engines in China. From 2002 to 2008, Google's share in the Chinese market for search engines dropped from 25% to less than 19%, whereas the local search engine Baidu occupied 65% of the Chinese market in 2008 as opposed to the mere 3% it had back in 2002. In light of this and similar issues with other American Internet companies, China's internet censorship regime has been condemned as being a protectionist measure that is aimed at driving out foreign competition and promoting the local companies which are more submissive to the Chinese government.<sup>100</sup>

If Google decides to exit the China, it will be a serious financial risk for the company because by pulling out of the Chinese market, it is estimated that Google could lose about \$600 million in annual revenues besides access to the largest Internet market in the world.<sup>101</sup> With such high stakes, Google will try and ensure that it leaves no stone unturned; Google recently urged the US government to consider a WTO challenge to the Chinese internet policy on the ground that it was using the Internet in a manner that favours domestic internet companies, thus going against basic international trade tenets.<sup>102</sup>

This section will analyse China's specific commitments under the GATS and based on that, discuss the possibility of a successful WTO challenge to China's internet censorship policy. The authors will also briefly provide a critical analysis of the proposed Global Online Freedom Act of 2009 so as to see if it offers a better alternative for dealing with this issue.

## *A. POSSIBLE ATTACKS AGAINST CHINA AND DEFENCE AVAILABLE TO IT UNDER THE GATS*

### 1. Whether China has undertaken GATS commitments for the various internet based services, particularly search engines such as Google.

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<sup>100</sup> Jordan Calinoff, *Beijing's Foreign Internet Purge*, FOREIGN POLICY, January 15 2010, available at [http://www.foreignpolicy.com/articles/2010/01/14/chinas\\_foreign\\_internet\\_purge](http://www.foreignpolicy.com/articles/2010/01/14/chinas_foreign_internet_purge) (Last visited on August 15, 2010).

<sup>101</sup> Robert Hsu, *The Google-China Controversy—Here's How to Profit*, January 19, 2010, available at [http://asia.investorplace.com/asia-insider/archive/global\\_investing\\_100119.html](http://asia.investorplace.com/asia-insider/archive/global_investing_100119.html) (Last visited on August 15, 2010).

<sup>102</sup> Mark Drajem, *Google Wants U.S. to Weigh WTO Challenge to China Censorship*, March 2, 2010, <http://www.businessweek.com/news/2010-03-02/google-wants-u-s-to-weigh-wto-challenge-to-china-censorship.html> (Last visited on August 15, 2010).

China undertook one of the most radical liberalization of services through its GATS commitments ever to be taken in the history of the WTO.<sup>103</sup> From being one of the most closed services markets at one point of time, China committed itself to even more services liberalization than the medium developed or high-income country.<sup>104</sup> Interestingly, China has particularly agreed to “fairly extensive, full liberalization of Mode 1 (Internet) services, including the following: legal services; accounting, auditing and bookkeeping services; integrated engineering services; data processing services; audiovisual services like videos, including entertainment software and distribution; sound recording distribution services; translation and interpretation services; wholesale or retail trade services away from a fixed location and travel agency services”.<sup>105</sup> Therefore, the biggest challenge in a WTO dispute against China will be the determination of the exact scope of China’s GATS commitments.

The applicability of GATS to online services such as Google’s search engine is a complicated issue, as China’s commitments were formulated on the basis of a classification of services which was drafted at a time when the internet was still in its infancy. Scholars such as Tim Wu are of the opinion that when China agreed to open the supply of ‘data processing services’ through Mode 1, it also allowed unrestricted access for search engines such as Google and MSN.<sup>106</sup> Another paper by ECIPE also similarly suggests that one “possible habitat for search engines will be data/online processing services where for example China has no restrictions for either Mode 1 and 3.”<sup>107</sup>

There seems to be a *prima facie* assumption that going by the ordinary meaning of *online processing services* under Article 31 of the Vienna Convention on the Law of Treaties (VCLT), they would include search engines and most Internet services. Pursuant to Article 32 of the VCLT, a treaty interpreter may have recourse to supplementary means of interpretation “in order to confirm the meaning resulting from the application of Article 31, or to determine the meaning when the interpretation according to Article 31 leaves the meaning ambiguous or obscure or leads to a result which is manifestly absurd or unreasonable.” In the context of looking at “supplementary means of interpretation”, the Panel in the *China-Audiovisuals* case<sup>108</sup> case considered “the circumstances of the conclusion of

<sup>103</sup> Li Xuan, *Interactive Role Of Gats Commitment And Dynamics Of Chinese Economic Reform In The Context Of Banking Liberalization*, World Trade Institute, available at [http://www.wti.org/images/stories/MILE/MILE\\_Theses/Interactive\\_Role\\_of\\_GATS\\_Commitment\\_and\\_Dynamics\\_of\\_Chinese\\_Economic\\_Reform.pdf](http://www.wti.org/images/stories/MILE/MILE_Theses/Interactive_Role_of_GATS_Commitment_and_Dynamics_of_Chinese_Economic_Reform.pdf) (Last visited on August 15, 2010).

<sup>104</sup> See Aaditya Mattoo, *China’s Accession to the WTO: The Services Dimension*, 6 J. OF INTL. ECON. L. 299, 300 (2003).

<sup>105</sup> *Supra* note 71, 24.

<sup>106</sup> *Id.*

<sup>107</sup> *Supra* note 48, 10.

<sup>108</sup> Panel Report, *China — Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products*, (U.S.), WT/DS363/R, (August 12, 2009).

China's Protocol of Accession annexing China's Schedule to the GATS, in particular evidence of the existence at that time of distribution of sound recordings in non-physical form"<sup>109</sup>, as relevant. Therefore, the "technical feasibility" or "commercial reality" of a service at the time of the service commitment would constitute circumstances relevant to the interpretation under Article 32 of the Vienna Convention.<sup>110</sup> Thus, another strand of argument runs thus that since online services such as search engines existed and were commonly known at the time of China's accession in 2001, China was aware and had the freedom to exclude such services from its specific commitments; and unless it did so, they would be included within its commitments on data processing service. Further, even irrespective of China's knowledge or awareness of this fact in 2001, its obligations under GATS will remain unaltered as the Appellate Body in US-Gambling has ruled that the intent of the parties with respect to the schedules is irrelevant.<sup>111</sup>

Assuming that China has made commitments towards liberalising trade in sectors which would cover the various internet based services such as Google's search engine, through the following questions, we will examine the specific grounds under which its policies can be potentially disputed at the WTO.

## 2. Whether China's censorship measures at issue constitute a violation of GATS Article III.

Article III of the GATS requires all member states to maintain transparency and publish promptly, "all relevant measures of general application which pertain to or affect the operation of this Agreement."<sup>112</sup> In the case of China, most of the internet filtering measures are not accessible to the public.<sup>113</sup> For instance, the Government of China maintains a list of Internet Protocol (IP), Domain Name Service (DNS), and Universal Resource Locator (URL) addresses which are blocked either regularly or during special occasions.<sup>114</sup> Similarly, advanced software at the router level uses a list of proscribed terms and phrases to "determine whether U.S. websites may be accessed by persons within China and whether electronic goods and services maybe delivered into China".<sup>115</sup> However, these lists have neither been published nor are they available anywhere in the public domain. Thus, China's internet censorship measures are largely 'opaque', and in

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<sup>109</sup> *Id.* ¶ 7.1235-¶ 7.1240; see also International Economic Law and Policy Blog, *Technological change and timing of GATS schedules*, October 7, 2009, available at [http://worldtradelaw.typepad.com/ielpblog/trade\\_in\\_services/](http://worldtradelaw.typepad.com/ielpblog/trade_in_services/) (Last visited on August 15, 2010).

<sup>110</sup> *Supra* note 108, ¶ 7.1237.

<sup>111</sup> *Supra* note 48, 9.

<sup>112</sup> GATS, Article III.

<sup>113</sup> California First Amendment Coalition Briefing paper, *China's Internet Measures Violate its WTO Obligations*, November 19, 2007, available at [www.firstamendmentcoalition.org/wp-content/.../CFACBriefing.pdf](http://www.firstamendmentcoalition.org/wp-content/.../CFACBriefing.pdf) (Last visited on August 15, 2010).

<sup>114</sup> *Id.*

<sup>115</sup> *Id.*

the absence of either government cooperation or admission with regard to the measures, Article III could be invoked to induce China to be more transparent with regard to the rationale behind blocking of certain websites.<sup>116</sup>

### 3. Whether China's censorship measures at issue constitute a violation of GATS Article VI.

Under Article VI of the GATS, Members must ensure that, with respect to the services for which they have entered into specific commitments, all measures are administered in a reasonable, objective and impartial manner. However, due to lack of transparency with respect to censorship measures, there are valid doubts as to whether censorship is undertaken on the basis of objective and unbiased criteria.<sup>117</sup>

### 4. Whether the measures at issue are inconsistent with China's national treatment commitments under GATS Article XVII.

Article XVII of the GATS which deals with the national treatment obligation of the Member nations mandates that the treatment accorded by members to services and service suppliers of other Members must not be less favourable than what it provides to like services and service suppliers in the domestic market. Though on the face of it, it seems that Chinese suppliers of online services are subjected to the same filtering and content monitoring requirements as their foreign counterparts, what holds relevance under the GATS is the de facto effect of these measures. In the case of China, foreign websites such as Google are affected differently as compared to domestic counterparts such as Baidu, for example, by being slowed down by filtering at the link between the Chinese internet and the outside world, or as in the case of Facebook, by being subjected to an absolute ban even though similar domestic websites such as Ren Ren Wang are permitted to operate.<sup>118</sup> Therefore, violation of Article XVII of the GATS maybe claimed based on the contention that China has modified 'the conditions of competition' in favour of domestic services suppliers.<sup>119</sup>

### 5. Whether the measures at issue can be defended under Article XIV.

Article XIV provides general exceptions to the specific GATS obligations. A threshold requirement for invoking these exceptions is that the measures should not constitute a means of arbitrary discrimination, one aspect of which would be the requirement of proportionality. Proportionality has assumed greater significance today considering the fact that hardware and software can

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<sup>116</sup> Columbia Science and Technology Review Blog, *Could the WTO bring down the Great Firewall of China?*, January 26, 2010, available at <http://www.stlr.org/2010/01/could-the-wto-bring-down-the-great-firewall-of-china/> (Last visited on August 15, 2010).

<sup>117</sup> *Id.*

<sup>118</sup> *Supra* note 113.

<sup>119</sup> *Supra* note 116.

be subjected to much finer discrimination, as against the erstwhile possibility of imposing only absolute bans on the domain. For example, Thailand blocks only certain pages of the Amazon website which have content insulting the country's king, whereas countries like China have been known to block entire businesses from operating in the country, without providing a valid reason or giving them the right of appeal.<sup>120</sup> It has been argued that a strong case can be made against disproportionate censorship on the ground that it interferes with commercial activities in ways which are more than necessary to achieve the objectives of the censoring government.<sup>121</sup> Selective filtering rather than arbitrary and entire blockages or permanent bans is clearly more desirable as it would result in proportionate censorship and therefore be compatible with the WTO philosophy.

However, unless the exact nature of China's censorship regime is revealed, debates surrounding China's potential violations of GATS provisions will continue to be marred by grey areas. In the words of Gary Horlick, an eminent international trade lawyer, "[w]e will have to know a lot more about the facts, especially what the [Chinese] government is doing, but the GATS has a lot of unexplored obligations which might protect Google."<sup>122</sup>

### *B. FOLLOW-ON OF A FAVOURABLE WTO RULING: COMPLIANCE OR WITHDRAWAL?*

The discussion above seems to indicate that there is a reasonable potential for a successful WTO challenge against the use of online censorship as an effective barrier to international trade. However, assuming that a WTO challenge to China's internet censorship measures is found to be GATS inconsistent by the WTO DSB, the ultimate question will eventually boil down to compliance. Usually, the fear of facing retaliatory trade measures by other WTO members results in compliance. However, a careful analysis of the past WTO dispute settlement rulings indicates that defiance towards the findings of the dispute is not an unknown phenomenon.<sup>123</sup>

Another alternative available to China will be withdrawal from its specific commitments under Article XXI of the GATS.<sup>124</sup> This Article allows Members to withdraw any commitment in its Schedule, at any time after three

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<sup>120</sup> *Supra* note 48, 6.

<sup>121</sup> *Id.*

<sup>122</sup> International Economic Law and Policy Blog, *Google, China and the WTO*, January 13, 2010, available at <http://worldtradelaw.typepad.com/ielpblog/2010/01/google-china-and-the-wto.html> (Last visited on August 15, 2010).

<sup>123</sup> *Id.*

<sup>124</sup> This Article of the GATS came into the public eye during the US-Gambling case, wherein, after receiving an adverse ruling, the US Trade Representative decided to withdraw from its commitments on "other recreational services" as it was in direct conflict with US Federal laws.

years have elapsed from the date on which that commitment entered into force, as long as the withdrawal is notified at least three months in advance. In case China invokes this Article, all affected countries such the US will be allowed to lodge claims. However the acceptance or rejection of a particular claim will be left to the discretion of the withdrawing party, i.e. China. In the event that the disputing parties fail to reach a consensus, a provision for arbitration is available under GATS Article XXI3(a). Finally, even if China withdraws its commitments in disregard of the findings of arbitration, Article XXI3(b) once again provides for the usual WTO remedy of retaliation by withdrawal of equivalent concessions, thus making recourse to Article XXIa futile exercise, as disputing parties return to where they had begun.

### *C. ALTERNATIVE COURSE- THE GLOBAL ONLINE FREEDOM ACT*

The Global Online Freedom Act (GOFA) is a 2009 bill that was introduced in the House of Representatives of the United States. Its objectives are: “[t]o prevent United States businesses from cooperating with repressive governments in transforming the internet into a tool of censorship and surveillance, to fulfil the responsibility of the United States Government to promote freedom of expression on the internet, to restore public confidence in the integrity of United States businesses, and for other purposes.”<sup>125</sup> The rationale for such an enactment was to prevent private collaboration with the Chinese regime after Microsoft, Google and Cisco entered the Chinese market in 2006 and acquiesced to self-censorship following the Chinese government’s cues.<sup>126</sup> The provisions of the Bill aim at preventing American Internet companies to store ‘personally identifiable information’,<sup>127</sup> within the jurisdiction of a country practising internet censorship. This is to ensure that sensitive data cannot be used by that state for surveillance or against any individual using services such as search engines.<sup>128</sup> A country is designated as one practising such censorship or as an “Internet-Restricting Country” by the Secretary of State.<sup>129</sup> The Bill also makes it mandatory to report in detail to the US government all requests for, and replies to censorship by such an internet restricting country<sup>130</sup> and imposes a fine of up to \$2,000,000 and a criminal penalty extending up to five years for non-compliance with the provisions of the Bill.<sup>131</sup>

<sup>125</sup> Global Online Freedom Act of 2009, (U.S.), available at [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111\\_cong\\_bills&docid=f:h2271ih.txt.pdf](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_bills&docid=f:h2271ih.txt.pdf) (Last visited on August 15, 2010).

<sup>126</sup> Technology Review, *Search Engines’ Chinese Self-Censorship*, June 30, 2008, available at [http://www.technologyreview.com/read\\_article.aspx?id=21016&ch=specialsections&sc=search&pg=2](http://www.technologyreview.com/read_article.aspx?id=21016&ch=specialsections&sc=search&pg=2) (Last visited on August 15, 2010).

<sup>127</sup> Global Online Freedom Act, 2009 (U.S.), §3. (12).

<sup>128</sup> *Id.*, §3. (9).

<sup>129</sup> *Id.* §3. (5), §105. (a).

<sup>130</sup> *Id.*, §201. (c).

<sup>131</sup> Global Online Freedom Act, 2009 (U.S.), §206.



The future of this Bill is important from the point of view of this discussion because it represents a potential unilateral measure against private parties co-operating with oppressive censorship regimes, by imposing sanctions on the private parties directly for such cooperation.<sup>132</sup> With American companies dominating the e-commerce world, and given their substantial market share in the search engine service area, the Bill assumes particular significance commercially as most of the popular internet applications would be covered under its provisions.<sup>133</sup> The question therefore is whether this Bill presents an effective solution to the problem of censorship? The Bill represents US's attempt to play the 'carrot and the stick' game of Chinese internet censorship. Through its censorship policy, China threatens punishment by denying or restricting access to the vast Chinese Internet market to companies that are not practising censorship. Beijing therefore engages itself in a 'delicate dance' between attracting foreign investment from internet companies and retaining control over the internet.<sup>134</sup> The 2009 Bill would add another dimension to this system, adding the threat of sanctions to cooperation with the Chinese regime. The Bill has been praised by various human rights and anti-filtering organisations.<sup>135</sup> The Bill would thwart China's attempts to use data obtained from Internet companies against political dissidents as had been seen in the case of Shi Tao. He was a journalist who was sentenced to ten years of imprisonment for divulging state secrets, when information from his e-mail account was supplied to the Chinese government by Yahoo!.<sup>136</sup> The company defended itself by stating that they had to follow Chinese law due to the threat of legal sanctions.<sup>137</sup> By making companies liable under the Bill, it would create the same effect, except that it would operate to safeguard dissenters.

On the other hand, considerable concern and criticism has been raised over different parts of the Bill. One of the problems of the Bill is the definition of a "United States Business" which actually determines the scope and extent of the Bill. According to this definition, any company listed on any of the U.S.

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<sup>132</sup> Stephen O'Connor, *The Global Internet Freedom Act: Can a Proactive United States' Internet Freedom Law Forestall China's One Internet, Two System Policy*, 2 INT'L J. CIV. SOC'Y L. 27 (2004).

<sup>133</sup> See Search Engine Watch, *Global Search Market Share, July 2009 vs. July 2008*, September 1, 2009, available at <http://searchenginewatch.com/3634922> (Last visited on March 8, 2010).

<sup>134</sup> Charlene Barshefsky, *Trade Policy for a Networked World*, 80 No. 2 FOREIGN AFFAIRS, 134 (2001). Similarly, China's policy was also described as keeping "one hand on the wheel and the other hand on the plug" in John H. Taylor III, *The Internet In China: Embarking on the "Information Superhighway" With One Hand on the Wheel and the Other Hand on the Plug*, 15 DICK. J. INT'L L. 621 (1996-1997).

<sup>135</sup> Reporters without Borders, *NGOs Joint Statement in support of H.R. 275, the Global Online Freedom Act of 2008*, March 12, 2008, available at: <http://chris-smith.house.gov/UploadedFiles/080312HumanRightsProGOF0001.pdf> (Last visited on August 15, 2010).

<sup>136</sup> BBC News, *Yahoo 'helped jail China writer'*, September 7, 2005, available at <http://news.bbc.co.uk/2/hi/4221538.stm> (Last visited on August 15, 2010).

<sup>137</sup> *Id.*

security exchanges would be liable for any violation of the law in a U.S. court. For example, Baidu.com, the leading Chinese search engine, is listed on the NASDAQ exchange and could face U.S. lawsuits if the Bill is enacted. Faced with the choice of breaking either local laws or U.S. laws, these companies would simply de-list themselves from NASDAQ, thus injuring US economy.<sup>138</sup> Also, companies like Yahoo! would not be liable under the GOFA because although Yahoo.cn is a subsidiary of Yahoo!, Chinese company Alibaba.com owns sixty percent of that subsidiary. Since Alibaba is not listed on a U.S. securities exchange and has a controlling interest in the company, both it and Yahoo! would escape liability.<sup>139</sup> Also, the Bill forces US companies to report any content they have been asked to block or remove from their servers, thereby obtaining kind of personal information about Internet users that it would work to prevent other countries from gathering.

## V. CONCLUSION

China's conduct with respect to internet censorship has opened difficult questions about the regulation of content on the internet and its repercussions on international trade: Where does one draw the line between legitimate domestic regulation and how much is a barrier to trade and a breach of promises made to other members of the WTO? Given the vehemence with which China pursues censorship, the chance of real success of a WTO challenge to China's internet censorship regime in the form of enforcement of the ruling of the DSB is fairly limited. This is because even if China's internet censorship regime is declared to be in conflict with its specific GATS commitments, it may still continue to pursue active internet filtering at the cost of facing trade retaliation or simply decide to withdraw from its relevant obligations through compensation.<sup>140</sup> A US official has also admitted that the arguments about taking China to the WTO over online censorship are "complex and far-reaching".<sup>141</sup> Also, the real practical possibility of launch of such a case is doubtful as it could take several years to reach a solution given the WTO system of hearings and appeals. There is no 'police force' within the WTO mechanism that can compel China to obey world trade fulfil its international trade law obligations.<sup>142</sup> Perhaps, the most significant

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<sup>138</sup> Lindsay Eastwood, "Don't Be Evil": Google Faces the Chinese Internet Market and the Global Online Freedom Act of 2007, 9(1) MINN. J.L. SCI. & TECH. 287 (2008), 309.

<sup>139</sup> Forbes, *Proposed 'Online Freedom Act' may hurt US and US-listed China firms*, February 16, 2006, available at <http://www.forbes.com/feeds/afx/2006/02/16/afx2531410.html> (Last visited on August 15, 2010).

<sup>140</sup> *Supra* note 48.

<sup>141</sup> The Economic Times, *Is there a WTO case against Chinese Internet censorship?*, available at <http://economictimes.indiatimes.com/Infotech/Internet/Is-there-a-WTO-case-against-Chinese-Internet-censorship/articleshow/5666776.cms?curpg=2> (Last visited on August 15, 2010).

<sup>142</sup> *Id.*

use that a WTO challenge can have is to act as a “negotiating pawn”.<sup>143</sup> This means that the threat of a potential challenge could provide US a better bargaining position thus enabling it to seek concessions from China.<sup>144</sup> Hence, a WTO dispute could “have the potential to discipline the clumsier manifestations of censorship: outright blockages by a government that is capable of enforcing selective filtering, for example, and will persuade governments to use more selective and less trade-disruptive means.”<sup>145</sup>

International relations rather than direct coercion will be a dominant factor in determining the launch of a case against China.<sup>146</sup> It is certain that a WTO dispute would compel China to divulge confidential details about its political policies, and China would not take kindly to such an open and direct challenge to its sovereignty, thus potentially straining the US-China relationship.<sup>147</sup> Therefore, in light of diplomatic concerns, dialogue and negotiations, though not the most effective, seem to offer the most appropriate course that may be adopted to resolve this problem.

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<sup>143</sup> Chris Buckley, *Q+A: Is there a WTO case against Chinese Internet censorship?*, REUTERS, March 10, 2010, available at <http://www.reuters.com/article/idUSTRE6290T120100310> (Last visited on August 15, 2010).

<sup>144</sup> *Id.*

<sup>145</sup> *Supra* note 141.

<sup>146</sup> *Supra* note 71.

<sup>147</sup> *Supra* note 116.

