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**USING INTERNET “BORDERS” TO COERCE OR  
PUNISH: THE DPRK AS AN EXAMPLE OF  
THE POTENTIAL UTILITY OF  
INTERNET SANCTIONS**

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INTRODUCTION

*Speech is civilization itself. The word. . . preserves contact—it is silence which isolates.*

- Thomas Mann<sup>1</sup>

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<sup>1</sup> THOMAS MANN, *THE MAGIC MOUNTAIN* (1924) *quoted in* CHARLES R. BURGER & JAMES J. BRADAC, *LANGUAGE AND SOCIAL KNOWLEDGE* 112 (Edward Arnold Publishers Ltd. 1982).

*New evils require new remedies. . . new sanctions to defend and vindicate the eternal principles of right and wrong.*

- The London *Times*, on the Nuremberg Trials<sup>2</sup>

The prevailing ideology of the 1990's reflected widespread dissatisfaction with the inadequacy and negative humanitarian consequences of broad multilateral economic sanctions.<sup>3</sup> This in turn provoked a search on the part of NGO's, states, UN agencies and academic institutions for an alternative sanctions approach that would remove the significant burden traditional economic sanctions placed on vulnerable segments of society while accomplishing the objectives for which they were imposed.<sup>4</sup> The result of these cooperative efforts - the conceptualization and implementation of "smart" sanctions over the next decade - reformed the multilateral sanctions regime in fundamental ways. The agencies and procedures collectively instituted in the late 1990's effectively penalized those individuals specifically responsible for the violation of international norms, avoided many of the detrimental widespread humanitarian crises' sanctions can cause and achieved the desired goals with growing frequency.<sup>5</sup>

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<sup>2</sup> Quoted in DAVID MORRELL, *THE LEAGUE OF NIGHT AND FOG* 3 (Warner Books ed., 1987).

<sup>3</sup> For a discussion of the humanitarian impact of sanctions see generally Claudia von Braunmühl and Manfred Kulesa, *The Impact of UN Sanctions on Humanitarian Assistance Activities*, Report on a Study Commissioned by the United Nations Department of Humanitarian Affairs (Berlin: Gesellschaft für Communication Management Interkultur Training, December 1995); THOMAS WEISS ET. AL. (EDS.), *POLITICAL GAIN AND CIVILIAN PAIN: THE HUMANITARIAN IMPACTS OF ECONOMIC SANCTIONS* (1997); David Cortright & George A. Lopez, eds. *Economic Sanctions: Panacea or Peacebuilding in a Post-Cold War World* (Westview Press ed., 1995); David Cortright & George A. Lopez, *Economic Sanctions and Human Rights: Part of the Problem or Part of the Solution?*, 1 INT'L J. OF HUM. RTS. 1 (1997); Larry Minear et al., *Toward More Humane and Effective Sanction Management: Enhancing the Capacity of the United Nations System*, Occasional Paper #31 (1998), <http://www.reliefweb.int/rw/lib.nsf/db900SID/LGEL-5R8BSY?OpenDocument>.

<sup>4</sup> In Former Secretary General Kofi Annan's 1997 *Report on the Work of the United Nations* he encouraged the General Assembly and the Security Council to craft "less blunt and more effective" sanctions for the purpose of minimizing negative humanitarian consequences. The Secretary-General, *Report of the Secretary-General on the Work of the Organization*, U.N. GAOR, 52d Sess., Supp. No. 1, (PAR) 89, U.N. Doc. A/52/1 (1997). In response, state actors cooperated with respective domestic institutions and began a trans-national dialogue on sanction reform. These efforts culminated in the reports generated through the Interlaken Process, the Bonn/Berlin Process and the Stockholm Process, which have been chief among the ideological sources relied upon by the Security Council when imposing sanctions. "About the Stockholm Process," Sept. 27, 2004, <http://www.smart-sanctions.se/>.

<sup>5</sup> See generally David Cortright et al., *Targeted Financial Sanctions: Developing Sanctions that Do Work*, in SMART SANCTIONS: TOWARD EFFECTIVE AND HUMANE

At least one author has acknowledged that as the Internet becomes increasingly 'bordered' through the expanding use of content filtering at the national level, the capacity and potential for its use a tool of international policy and law enforcement concomitantly expands.<sup>6</sup> This recognition, combined with the realization that in certain instances Internet sanctions - the elimination of Internet access to computers within a specific geographic area - can inherently involve the same benefits of other "smart" and "targeted" sanctions, could only lead one to conclude that eventually their use will be considered as part of a multi-lateral sanctions regime.

Without a doubt the range of legal and policy questions the use of Internet sanctions implicates are legion. It is not the purpose of this note to attempt to address or resolve *all* of these associated questions; rather, it is merely to begin the dialogue on some of the most fundamental issues relating to the potentiality that internet 'borders' will be exploited as enforcement mechanisms.

To that end the concept of Internet sanctions will be examined in light of their potential application to a country where their use could be effective and desired; the Democratic People's Republic of Korea (the DPRK or North Korea). The DPRK's history of brinkmanship and comparatively few telecommunications links increases the feasibility that measures which restrict users Internet within that country would be necessary and employable. To provide context for this eventuality this Note in Section II will present information on the most recent global crises involving the DPRK and the DPRK's relationship with the Internet. Section III will then briefly describe the UN's sanctions regime, explain the gravitation towards "smart" sanctions, and provide an example of an instance where multilateral telecommunications sanction implementation was required by the United Nations Security Council (UNSC). Finally, Section IV will evaluate some potential utilities and costs of imposing Internet sanctions, and address certain general policy concerns regarding their use.<sup>7</sup>

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SANCTIONS REFORM, (Rowman & Littlefield, 2002); Richard W. Conroy, *The UN Experience with Travel Sanctions: Selected Cases and Conclusions*, in SMART SANCTIONS, TARGETING ECONOMIC STATECRAFT 243 (Rowman & Littlefield, 2002); Kimberly Ann Elliott, *Analyzing the Effects of Targeted Sanctions*, in SMART SANCTIONS, TARGETING ECONOMIC STATECRAFT (Rowman & Littlefield, 2002).

<sup>6</sup> Joel Reidenberg writes that "The enforcement of policies and rules through the re-engineering of the internet and through online intermediaries show that technological instruments may also offer extremely powerful tools for states to sanction internet actors." Joel R. Reidenberg, *States and Internet Enforcement*, 1 U. OTTAWA L. & TECH. J. 213, 226 (2003-2004).

<sup>7</sup> It is worth specifying that restrictions on telephone, fax, postal, or additional data communication methods will not be discussed in this note, except to the extent necessary to show that the idea of sanctions as information-blocking mechanisms is not new. Though comparable in some ways to Internet sanctions, the potential for

## I. BACKGROUND INFORMATION

The Korean War (1950-1953) ended with the establishment of a demilitarized zone (DMZ) separating the DPRK from South Korea at the 38th parallel.<sup>8</sup> South Korea did not sign the Armistice Agreement that ended the war and the two nations are still technically at war.<sup>9</sup>

From 1953 to approximately 1974 the DPRK's economic output outpaced that of its southern neighbor and during this period North Korea engaged in several hostile acts, most of them directed at South Korea.<sup>10</sup> In the mid 1970's the DPRK suffered an economic downturn from which it never fully recovered and in the subsequent fifteen years flagging economic indicators reflected a stagnant economy. The eventual collapse of the Soviet Union, the DPRK's then largest trading partner, exacerbated the situation; since that time the DPRK's interstate relations have been dominated by its need for food and energy.<sup>11</sup> The United States, China, Japan and South Korea have provided significant humanitarian aid to the country over the last decades with about a quarter of the DPRK's food needs being met by outside assistance.<sup>12</sup>

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these alternative communications sanctions - at least in the case of the DPRK - to result in extensive negative humanitarian costs is higher than if one were to employ Internet sanctions. To consider these broader sanction measures in this Note would necessitate conflating issues between different types of communications sanctions that deserve to be treated distinctly.

<sup>8</sup> See MAX HASTINGS, *THE KOREAN WAR* 25-26 (1987); See also Michael Hickey, *The Korean War: An Overview*, BBC ONLINE, Aug. 1, 2001, [http://www.bbc.co.uk/history/worldwars/coldwar/korea\\_hickey\\_03.shtml](http://www.bbc.co.uk/history/worldwars/coldwar/korea_hickey_03.shtml); HENRY CHUNG, *KOREA AND THE UNITED STATES THROUGH WAR AND PEACE*, 43-85 (2000). The document establishing the DMZ is the Armistice Agreement, signed on July 27, 1953. It was a military document with no national signatories. Korean War Armistice, U.S.-N Korea, July 27, 1953, 4 U.S.T. 235, available at <http://www.state.gov/t/ac/rls/or/2004/31006.htm>.

<sup>9</sup> *N. Korea in Armistice Threat*, CNN, Feb. 18, 2003, <http://www.cnn.com/2003/WORLD/asiapcf/east/02/17/nkorea.nuclear/index.html>; *North-South Korea to talk despite deadly clash*, CNN NEWS, June 18, 1999, <http://www.cnn.com/WORLD/asiapcf/9906/18/korea.ships/>.

<sup>10</sup> NICHOLAS EBERSTADT, *THE END OF NORTH KOREA* (American Enterprise Institute Press DATE?) ) Chap. 1, available at <http://www.nytimes.com/books/first/e/eberstadt-korea.html>. See also Jang C. Jin, *Openness and Growth in North Korea: Evidence from Time-Series Data*, 11 REV. INT'L ECO. 18 (2003); Dick K. Nanto, Congressional Research Service, *North Korea: Chronology of Provocations, 1950-2003* (2003), available at <http://www.fas.org/man/crs/RL30004.pdf>.

<sup>11</sup> See Stephen Gowans, *Understanding North Korea*, Nov. 12, 2006 <http://www.globalresearch.ca/index.php?context=ViewArticle&code=GOW20061112&articleId=3818>; *North Korea: a political history*, BBC NEWS, Sept. 8, 1998, [http://news.bbc.co.uk/2/hi/special\\_report/1998/09/98/korea\\_at\\_50/166409.stm](http://news.bbc.co.uk/2/hi/special_report/1998/09/98/korea_at_50/166409.stm).

<sup>12</sup> State Department spokesman Sean McCormack said that United States had concerns regarding "the ability to monitor whether these humanitarian food shipments in fact get to those who are most in need would lead to the suspension of

### A. Escalation

While the beginning of regional and international escalations with the DPRK has its roots in events that occurred nearly 60 years ago, the DPRK's tendency to use or threaten the use of advanced weapons technology and then pledge or offer disarmament in order to extract a better deal at the bargaining table in the ensuing crises increasingly manifested in the years leading up to the start of the 21st century.<sup>13</sup> Additionally, the DPRK has been selective in its enforcement of treaty obligations relating to nuclear matters. In 1985 the DPRK signed the Nuclear Non-Proliferation Treaty (NPT), which requires that member states enter into a "safeguard agreement" requiring the disclosure of all nuclear programs and permitting inspections of those programs by the International Atomic Energy Association (IAEA).<sup>14</sup> In April 1993, citing inconsistencies between the inspections and North Korea's self-reports, the IAEA Board of Governors concluded that North Korea was in non-compliance with its commitments under the Safeguards Agreement and referred North Korea to the United Nations Security Council. The events that followed are well documented elsewhere; needless to say the crises resulted in a DPRK that was no longer a member of the IAEA (though it did remain signatory to the NPT) and the signing of a US-brokered 1994 "Agreed Framework" under which North Korea would freeze its nuclear program and allow IAEA inspectors to return to the DPRK in exchange for several energy and trade related concessions from the US.<sup>15</sup> The Framework

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US participation in the aid program in 2006". Kirit Radia, *North Korea Food Aid Revived Without US*, ABC NEWS, May 1, 2006, <http://abcnews.go.com/International/story?id=1952301&page=1>; See also *North Korea faces 'looming' food crisis*, BBC NEWS, Apr. 10, 2002, <http://news.bbc.co.uk/2/hi/asia-pacific/1921634.stm>; Jay Solomon, *US Has Put Food Aid for North Korea on Hold*, WALL STREET JOURNAL ONLINE, May 20, 2005, [http://www.globalpolicy.org/soecon/hunger/relief/2005/0520n\\_korea.htm](http://www.globalpolicy.org/soecon/hunger/relief/2005/0520n_korea.htm). Though food aid continues to come from other countries, the program has been significantly scaled back since the U.S. pulled out. Radia, *supra* note 12.

<sup>13</sup> *North Korea's Threat*, WASH. POST, Feb. 12, 2005, at A18, <http://www.washingtonpost.com/wp-dyn/articles/A17611-2005Feb11.html>; Justin McCurry, *Kim Jong Il's wine, women and bombs*, THE OBSERVER-TOKYO, Jul. 17, 2006, at 9, <http://www.taipeitimes.com/News/editorials/archives/2006/07/17/2003319224>.

<sup>14</sup> Jane Morse, *U.N. Nuclear Watchdog Urges North Korea To Implement Safeguards*, Sept. 22, 2006, USINFO, <http://usinfo.state.gov/xarchives/display.html?p=washfile-english&y=2006&m=September&x=20060922163236ajesrom0.6723596>; Dr. C. Kenneth Quinones, *Korean Reconciliation - Halfway There*, in KYUNG-AE PARK & DALCHOONG KIM, EDS., *KOREAN SECURITY DYNAMICS IN TRANSITION* (St. Martin's Press, May 2001), available at [http://www.vuw.ac.nz/~caplabtb/dprk/half\\_way.html](http://www.vuw.ac.nz/~caplabtb/dprk/half_way.html).

<sup>15</sup> For an excellent summary of the events preceding and superceding the DPRK's IAEA pullout, see Daniel B. Poneman, *The History of the 1994 Agreed Framework*, The Forum for International Policy, March 7, 2003, available at <http://www.ffip.com/infobriefs030703.htm>; see also *Chronology of U.S.-North Korean Nuclear and Missile Diplomacy*, June 2003, <http://www.armscontrol.org/factsheets/dprkchron.asp>; 1994

lasted for 8 years, until in October 2002 when the US announced that North Korea had disclosed its “program to enrich uranium for nuclear weapons.”<sup>16</sup> The announcement prompted a series of attempts by the IAEA to gather information on the program and meet with DPRK officials to discuss safeguards and economic sanctions in the form of suspended heavy oil imports by the Korean Peninsula Energy Development Organization (KEDO) and the suspension of the light-water nuclear power project envisioned in the Framework Agreement.<sup>17</sup> In response to the sanctions the DPRK declared the Agreed Framework void, expelled all IAEA inspectors and eventually withdrew from the NPT.<sup>18</sup>

Concurrent to the nuclear crises but no less dramatic and unnerving in nature were the events following the North’s ballistic missile tests of August 31, 1998 involving the launch of a three-stage Taepodong-1 rocket over Japan. Though North Korean news agencies stated that the test were part of the Dark’s (successful) attempts to place a satellite in orbit,<sup>19</sup> the launch was widely regarded as an effort to develop North Korea’s intercontinental WMD delivery capacity.<sup>20</sup> Though the rocket failed in the final stage, U.S. intelligence estimates concluded that a successful

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Agreed Framework between the USA and the DPRK, USA-DPRK, Oct. 21, 1994, 34 I.L.M. 603, available at <http://www.state.gov/t/acr/rls/or/2004/31009.htm>.

<sup>16</sup> International Atomic Energy Agency [hereinafter IAEA], *In Focus: IAEA and DPRK*, [http://www.iaea.org/NewsCenter/Focus/IaeaDprk/fact\\_sheet\\_may2003.shtml](http://www.iaea.org/NewsCenter/Focus/IaeaDprk/fact_sheet_may2003.shtml). There is evidence that the US at least knew of the DPRK’s nuclear weapons ambitions as early as 1998. In a report to congress the Director of National Intelligence wrote “. . . North Korea has produced enough plutonium for at least one, possibly two, nuclear weapons.” Director of Central Intelligence, *Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions*, Jan. 1, 1998, [https://www.cia.gov/cia/reports/721\\_reports/jan\\_jun1998.html](https://www.cia.gov/cia/reports/721_reports/jan_jun1998.html).

<sup>17</sup> IAEA, *supra* note 16. Center for Nonproliferation Studies [hereinafter CNS], *Inventory of International Nonproliferation Organizations and Regimes - KEDO* (2004), at [http://www.thenti.com/e\\_research/official\\_docs/inventory/pdfs/kedo.pdf](http://www.thenti.com/e_research/official_docs/inventory/pdfs/kedo.pdf).

<sup>18</sup> In January 2003 the DPRK declared “an automatic and immediate effectuation of its withdrawal from the NPT.” IAEA, *supra* note 16; CNS, *supra* note 17, at 2.

<sup>19</sup> *Successful launch of first satellite in DPRK*, KOREAN CENTRAL NEWS AGENCY (PYONGYANG), Sept. 4, 1998, <http://www.kcna.co.jp/index-e.htm>.

<sup>20</sup> US Space Command, an organization capable of tracking an object the size of a baseball, was unable to verify any communications between the DPRK and an object in orbit, leading the US to conclude that “. . . the launch was simply the first test of one of two new ballistic missile systems under development in North Korea.” *U.S.: Satellite attempt was part of N. Korea missile launch*, CNN NEWS, Sept. 7, 1998, <http://www.cnn.com/WORLD/asiapcf/9809/07/nkorea.satellite/>; See also David Fulghum, *US Doubts Korean Space Launch Claim*, Aviation Week and Space Technology 58, Sept. 14, 1998; Bill Gertz, *N. Korean Missile Seen Posing Risk to US*, WASHINGTON TIMES, Sept. 16, 1998, at 1.

launch of a Taepodong-1 rocket would place Alaska, Guam, and the Northern Marianas Commonwealth at risk.<sup>21</sup>

The US held several rounds of talks though 1998 and 1999 with the DPRK in an attempt to constrain the DPRK's development and export of ballistic missiles. The North was hoping to obtain normalized US-DPRK political relations, economic assistance and the lifting of the US, South Korean and Japanese sanctions and the US was hoping to extract commitments to restrict the export and arrest further development of the weapons technology.<sup>22</sup> In June of 1999 US envoy Charles Kartman invited North Korean Vice Foreign Minister Kim Gye-gwan to engage in an additional round of talks. Ninety minutes into those negotiations dialogue broke down when DPRK officials insisted they receive an apology for the sinking of a gunboat in the Yellow Sea the week before.<sup>23</sup> Both sides retreated from the bargaining table, and later that month Pyongyang announced its development of the Taepodong-3, a missile theoretically capable of reaching anywhere in the United States.<sup>24</sup>

In September 1999 talks beginning in a secret meeting in Berlin resulted in a private - the DPRK initially made no public announcements of its obligations - moratorium on missile testing to last for the duration of high level talks on improving US-DPRK relations (a crucial component of which was the lifting of US sanctions).<sup>25</sup> Though DPRK officials did eventually make public declarations of their intention to hold a moratorium on missile launches, several times during the following year rescission of that obligation was threatened.<sup>26</sup> Though no additional test

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<sup>21</sup> Larry A. Niksch, *North Korea's Nuclear Weapons Program*, CONGRESSIONAL RESEARCH SERVICE, Aug. 27, 2003, at 7, <http://fas.org/spp/starwars/crs/IB91141.pdf>.

<sup>22</sup> See *DPRK on 4th DPRK-U.S. Missile Negotiations*, KOREAN CENTRAL NEWS AGENCY (PYONGYANG), Mar. 31, 1999, <http://www.kcna.co.jp>; Son Key-young, *Perry's 4-Day NK Visit Focuses on Peace Initiatives*, KOREA TIMES (SEOUL), May 21, 1999, [http://search.hankooki.com/times/times\\_view.php?term=north+korea+perry+peace+initiatives++&path=hankooki1/14\\_1/199905/t4151271.htm&media=kt](http://search.hankooki.com/times/times_view.php?term=north+korea+perry+peace+initiatives++&path=hankooki1/14_1/199905/t4151271.htm&media=kt). Jun Kwan-woo, *U.S., North Korea May Resume Talks on Missile Nonproliferation in July*, KOREA HERALD (SEOUL), June 28, 1999, <http://www.koreaherald.co.kr/>.

<sup>23</sup> *North Korea meets with U.S., to meet with South Korea*, CNN NEWS, June 24, 1999, <http://www.cnn.com/WORLD/asiapcf/9906/24/korea.talks.01/>; *Talks between North, South Korea adjourn with no headway*, CNN NEWS, June 22, 1999, <http://www.cnn.com/WORLD/asiapcf/9906/22/korea.03/>.

<sup>24</sup> See generally *North Korea*, 150 AVIATION WEEK AND SPACE TECHNOLOGY 20 (June 1999).

<sup>25</sup> James P. Rubin, Daily Press Briefing, US Department of State, Sept. 13 1999, cited in Center for Nonproliferation Studies, *CNS Special Report on North Korean Ballistic Missile Capabilities*, Mar. 26, 2006, at 6 available at <http://cns.miis.edu/pubs/week/pdf/060321.pdf>; Philip Shenon, *North Korea Said to Agree to End Missile Tests*, N.Y. TIMES, Sept. 13, 1999, at A7.

<sup>26</sup> *Ivanov Seen Responsible for DPRK Missile Non-Launch*, IZVESTIA (MOSCOW), FBIS Document CEP2000217000222, Feb. 17 2000.

launches occurred, the North continued to build its launch capabilities with engine tests and the construction and expansion of its missile launch sites.<sup>27</sup> The election of President Bush in the United States changed little in the rhetoric of the DPRK; its officials continued to vacillate between promising to extend the moratorium and making that obligations dependent on the policy of the new administration,<sup>28</sup> though between 2000 and 2001 there was much less dialogue between the two governments than under the Clinton administration. The Bush administration eventually explored the possibility of negotiations with the DPRK, attempting to expand the negotiation agenda to include issues of conventional forces and humanitarian aid,<sup>29</sup> however concerns about increasing amounts of missile and missile technology sales to Pakistan and Iran eventually led to the imposition of US sanctions on a DPRK technology firm.<sup>30</sup> The need to impose sanctions in conjunction with growing US and international apprehension of a DPRK nuclear program essentially halted talks and led to the US classification of the DPRK as a state sponsor of terrorism and a member of the “axis of evil.”<sup>31</sup>

In October 2003 the DPRK claimed to have completed the reprocessing of spent nuclear fuel rods (the process by which weapons-grade plutonium is extracted) as part of a “nuclear deterrent.”<sup>32</sup> This

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<sup>27</sup> See generally James Cotton, *North Korea Nuclear and Missile Nonproliferation and Regional Security*, Australia and Security Cooperation in the Asia Pacific (AUS-CSCAP) Newsletter No. 9, Feb. 2000, available at <http://aus-cscap.anu.edu.au>; *Japan's North Korean Missiles Likely*, BBC NEWS, May 9, 2000, <http://news2.thls.bbc.co.uk>; David C. Isby, *North Korea Updates Taepo-Dong [sic] Launch Pad*, 5 JANE'S MISSILES & ROCKETS 2 (July 2001); *North Korea Working to Improve Missile's Range*, JOONGANG ILBO, Feb. 6, 2002, <http://joongangdaily.joins.com/article/view.asp?aid=1900245>.

<sup>28</sup> John Pomfret, *North Korea Said to Warn of New Missile Tests*, WASH. POST, June 4, 2001, at A15; Elisabeth Rosenthal, *North Korea Threatens to Pull Out of Missile Pacts*, N.Y. TIMES, June 5, 2001.

<sup>29</sup> Alex Wagner, *Bush Outlines Resuming Talks with North Korea*, ARMS CONTROL TODAY, July/August 2001, at 23, 25; *Bush Wants 'Serious' Talks with N. Korea on Missiles*, KYODO NEWS SERVICE, June 6, 2001, FBIS Document ID JPP20010606000167.

<sup>30</sup> The US imposed sanctions against North Korea's Ch'anggwang Shinyong Company for selling missile technology. Imposition of Nonproliferation Measures Against a North Korean Entity, Including Ban on U.S. Government Procurement, 66 Fed. Reg. 4050-4051 (Jan. 17, 2001); Imposition of Nonproliferation Measures Against a North Korean Entity, Including a Ban on U.S. Government Procurement, 66 Fed. Reg. 33988-33989 (June 26, 2001).

<sup>31</sup> Elizabeth Olson, *U.S. Warns of Arms Threat, Citing North Korea and Iraq*, N.Y. TIMES, Jan. 26, 2002, at 4; The President's State of the Union Address, 38 WEEKLY COMP. PRES. DOC. 135 (Jan. 29, 2002) available at <http://www.whitehouse.gov/news/releases/2002/09/20020912-1.html>.

<sup>32</sup> *North Korea says Fuel Rods Processed for Nuclear Bombs*, PBS, Oct. 2, 2003, [http://www.pbs.org/newshour/updates/northkorea\\_10-02-03.html](http://www.pbs.org/newshour/updates/northkorea_10-02-03.html).



announcement precipitated a volley of negotiations intended to resolve security and regional stability concerns; the Republic of Korea (ROK/South Korea), China, Japan, and Russia and the US participated in what has come to be known as the Six Party Talks. These negotiations stalled briefly in June 2004, resumed in 2005,<sup>33</sup> and eventually resulted in the 'joint statement of principles' declaration that committed the DPRK to "abandoning all nuclear weapons and existing nuclear programs and returning, at an early date, to the Treaty on the Non-Proliferation of Nuclear Weapons and to IAEA safeguards."<sup>34</sup> The nuclear stalemate looked to be resolved, however, disputes over the sequencing of DPRK denuclearization and a perceived lack of commitment on the part of the DPRK to the process immediately undermined the 'joint statement' assurances.<sup>35</sup> The subsequent characterization of the 'joint statement' by US policy makers as a "guide for future discussions, not an implementable agreement" indicates that policy makers suffer no illusion that the 'joint statement' spells out the end to the nuclear challenges the DPRK presents.<sup>36</sup>

The six party talks and security situation generally remained at a stalemate until in 2006 the DPRK conducted a series of conventional military exercises that included, for the first time since the self-imposed moratorium on missile testing, the launch of short, medium and long-range missiles.<sup>37</sup> In response the UNSC condemned the tests and adopted Resolution 1695 which required all member states to refrain from purchasing North Korean missiles or missile-related items and to prevent the export of such items or missile-related resources to North Korea.<sup>38</sup> In the wake of the missile launches the United States,<sup>39</sup> South Korea,<sup>40</sup>

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<sup>33</sup> Don Oberdorfer, *North Korea: Six-Party Talks Continue*, WASH. POST, July 28, 2005, <http://www.washingtonpost.com/wp-dyn/content/discussion/2005/.html>.

<sup>34</sup> *Full text: N Korea nuclear agreement*, BBC NEWS, Sept. 19, 2005, <http://news.bbc.co.uk/2/hi/asia-pacific/4259176.stm>; Sean McCormack, US Dept. of State, "Joint Statement of the Fourth Round of the Six-Party Talks Beijing," Sept. 19, 2005 available at <http://www.state.gov/r/pa/prs/ps/2005/53490.htm>.

<sup>35</sup> See Statement by Rep. James A. Leach, *The Six-Party Talks and the North Korean Nuclear Issue*, U.S. Department of State, Oct. 6, 2005, available at <http://perth.usconsulate.gov/hyper/2005/1006/epf405.htm>.

<sup>36</sup> *Joint Statement Only a Guide for Korea Talks, U.S. Lawmaker Says*, Oct. 6, 2005, available at <http://usinfo.state.gov/eap/Archive/2005/Oct/07-54025.html>.

<sup>37</sup> *North Korea test-fires 7th missile*, CNN NEWS, July 5, 2006, <http://www.cnn.com/2006/WORLD/asiapcf/07/05/korea.missile/index.html>

<sup>38</sup> S.C. Res. 1695, U.N. Doc. S/RES/1695 (July 15, 2006).

<sup>39</sup> The US took action against 12 companies and 1 individual. *Key stances on N Korea sanctions*, BBC NEWS, Oct. 16, 2006, <http://news.bbc.co.uk/2/hi/asia-pacific/6043610.stm>; Imposition of Nonproliferation Measures against Foreign Entities, Including a ban on U.S. Government Procurement, 71 Fed. Reg. (Aug. 4, 2006).

<sup>40</sup> South Korea cut off regular humanitarian aid. *Key Stances, supra* note 39.

Japan<sup>41</sup> and Australia<sup>42</sup> imposed various trade and financial sanctions on a large number of entities accused of aiding North Korea in its pursuit of weapons technology.

Despite a warning from the Security Council that detonation of a nuclear device would draw “universal condemnation,”<sup>43</sup> and a tentative agreement to abandon its nuclear programs in exchange for security guarantees and normalized relations,<sup>44</sup> on October 9, 2006 Pyongyang conducted a nuclear test.<sup>45</sup> In light of the other events of 2006, the test has been described as an attempt to escalate regional and international tensions.<sup>46</sup> News reports have quoted government officials in the US, Japan and South Korea as suggesting that another nuclear test may be underway, though there has been no official announcement of an additional experiment.<sup>47</sup>

Between October 2006 and February 2007 the six-party talks resumed for three “sessions” and eventually concluded with the drafting of a ‘Joint Statement’ and concurrent ‘Action Plan,’ which outlines the initial actions to be undertaken by the Parties as they work to “. . .increase

<sup>41</sup> Japanese sanctions targeted a suspected “. . .North Korean arms dealer and 15 North Korean companies and organizations, including the Pyongyang Information Center and Ponghwa Hospital in Pyongyang.” *Japan, Australia Slap N. Korea With Financial Sanctions*, CHOSUN ILBO, Sept. 19, 2006, <http://english.chosun.com/w21data/html/news/200609/200609190019.html>.

<sup>42</sup> Australian sanctions targeted “. . .11 Pyongyang-headquartered companies, one Swiss company and a Swiss-based businessperson under suspicion of financing North Korea’s development of nuclear weapons and weapons of mass destruction.” *id.*; Australian Ministry of Foreign Affairs, Countering North Korean Proliferation Finance Activities, Media Release FA105, Sept. 19, 2006, [http://www.foreignminister.gov.au/releases/2006/fa105\\_06.html](http://www.foreignminister.gov.au/releases/2006/fa105_06.html).

<sup>43</sup> Judy Aita, *Unanimous Security Council Warns North Korea*, Oct. 6, 2006, <http://usinfo.state.gov/xarchives/display.html?p=washfile-english&y=2006&m=October&x=20061006173424eaifas6.316775e-02>.

<sup>44</sup> Joint Statement of the Fourth Round of the Six-Party Talks,” Sept. 19, 2005, <http://www.state.gov/r/pa/prs/ps/2005/53490.htm>. The DPRK pulled out of the deal when the US sanctioned Banco Delta Asia for laundering money for the Kim Jong Il regime. Council on Foreign Relations, *Tentative Deal on N. Korea Nukes*, Feb. 14, 2007, [http://www.cfr.org/publication/12561/korean\\_sixparty\\_hopes.html](http://www.cfr.org/publication/12561/korean_sixparty_hopes.html).

<sup>45</sup> *Testing times for the Koreans*, THE ECONOMIST, Oct. 26, 2006, [http://www.economist.com/world/asia/PrinterFriendly.cfm?story\\_id=8086794](http://www.economist.com/world/asia/PrinterFriendly.cfm?story_id=8086794). There is some evidence that the nuclear test went wrong and yielded a smaller explosion than expected. *North Korean test ‘went wrong,’ U.S. official says*, CNN NEWS, Oct. 11, 2006, <http://www.cnn.com/2006/WORLD/asiapcf/10/10/korea.nuclear.test/index.html>.

<sup>46</sup> *Rice: ‘N Korea escalating crisis,’* BBC NEWS, Oct. 21, 2006, <http://news.bbc.co.uk/2/hi/asia-pacific/6072072.stm>.

<sup>47</sup> *US backs allies against NK threat*, BBC NEWS, Oct. 15, 2006, <http://news.bbc.co.uk/2/hi/asia-pacific/6059240.stm>.

mutual trust, and will make joint efforts for lasting peace and stability in Northeast Asia.”<sup>48</sup>

The ‘Joint Statement’ has been criticized for everything from its exclusive focus on plutonium related programs (leaving the question of Uranium based weapons programs presumably for a later date)<sup>49</sup> to its contradiction of “fundamental premises of the president’s policy he’s been following for the past six years.”<sup>50</sup> Whatever its merits or shortcomings, this author finds it doubtful that the ‘Joint Statement’ will be more than a pyrrhic victory and will provide a definitive conclusion to the brinkmanship behaviors and escalating tensions that distinguish dealings with the DPRK. Targeted sanctions have been the primary tool used by the international community to respond to an unpredictable DPRK and will likely have to continue to be used to enforce international norms and obligations.

### B. *The Internet in North Korea*

There can be no shame in acknowledging that the information in this note on the technical sophistication, intent and capabilities of the DPRK leaders and citizens in relation to the Internet is incomplete at best; such

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<sup>48</sup> In the ‘Action Plan’ the Parties agreed to take the following actions during the ‘Initial Phase’: “The DPRK will shut down and seal for the purpose of eventual abandonment the Yongbyon nuclear facility, including the reprocessing facility and invite back IAEA personnel to conduct all necessary monitoring and verifications as agreed between IAEA and the DPRK. The DPRK will discuss with other parties a list of all its nuclear programs as described in the Joint Statement, including plutonium extracted from used fuel rods, that would be abandoned pursuant to the Joint Statement. The DPRK and the US will start bilateral talks aimed at resolving pending bilateral issues and moving toward full diplomatic relations. The US will begin the process of removing the designation of the DPRK as a state-sponsor of terrorism and advance the process of terminating the application of the Trading with the Enemy Act with respect to the DPRK. The DPRK and Japan will start bilateral talks aimed at taking steps to normalize their relations in accordance with the Pyongyang Declaration, on the basis of the settlement of unfortunate past and the outstanding issues of concern. Recalling Section 1 and 3 of the Joint Statement of 19 September 2005, the Parties agreed to cooperate in economic, energy and humanitarian assistance to the DPRK. In this regard, the Parties agreed to the provision of emergency energy assistance to the DPRK in the initial phase. The initial shipment of emergency energy assistance equivalent to 50,000 tons of heavy fuel oil (HFO) will commence within next 60 days.” North Korea - Denuclearization Action Plan, US State Department, Feb. 13, 2007, <http://www.state.gov/r/pa/prs/ps/2007/february/80479.htm>.

<sup>49</sup> Donald Kirk, *North Korea accord: Now for the hard part*, ASIAN TIMES, Feb. 14, 2007, <http://www.atimes.com/atimes/Korea/IB14Dg01.html>.

<sup>50</sup> Edward Cody, *Tentative Nuclear Deal Struck With North Korea*, WASH. POST FOREIGN SERVICE, Feb. 13, 2007 at A01, available at [http://www.washingtonpost.com/wp-dyn/content/article/2007/02/12/AR2007021200086\\_pf.html](http://www.washingtonpost.com/wp-dyn/content/article/2007/02/12/AR2007021200086_pf.html) quoting former U.N. ambassador John R. Bolton.

is the fate of the work of all researchers who attempt to scrutinize a regime as suspicious and controlling as Kim Jong Il's. The lack of online 'presence' and strict controls over the flow of information that permeates the countries borders have largely resulted in a global community that is blind to events that transpire in the digital DPRK; where reliable information on the DPRK's interactions with the Internet is available it is frequently contradicted by other equally reliable sources. The information in this note therefore, while it endeavors to be as accurate as possible, should be subject to reconsideration whenever newer and more comprehensive information emerges.

In 2005 Reporters Without Borders dubbed North Korea "an internet black hole"<sup>51</sup> and according to a U.S. State Department report on human rights the regime "sought to control virtually all information" online by providing internet access only to a handful of high ranking officials with a "need to know" (though other news sources claim that the number fitting into this category is in the "thousands.")<sup>52</sup> At least one source implies that North Korean universities have increasing access to the Internet, though access is limited to select students and filtered (probably using the same technology used by the PRC<sup>53</sup>) to include only academic resources or email accounts.<sup>54</sup> Internet access is obviously further limited mainly to

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<sup>51</sup> *North Korea remains worst internet black hole in the world*, SYDNEY MORNING HERALD, Nov. 8, 2006, <http://www.smh.com.au/news/web/north-korea-remains-worst-internet-black-hole-in-the-world/2006/11/08/1162661736624.html>.

<sup>52</sup> Bureau of Democracy, Human Rights, and Labor, *Country Reports on Human Rights - 2004*, Feb. 28, 2005, available at <http://www.state.gov/g/drl/rls/hrrpt/2004/41646.htm> [hereinafter BDHRL Report- 2004]; See generally BDHRL, *Country Reports on Human Rights Practices - 2005*, Mar. 8, 2006 available at <http://www.state.gov/g/drl/rls/hrrpt/2005/61612.htm>; Freedom House, Excerpts from Freedom House's "Freedom in the World 2006" and "Freedom of the Press 2006" Reports available at <http://www.nkfreedomhouse.org/resources/north-korea/state-of-affairs/>; Tom Zeller Jr., *In North Korea, the Internet is only for a few*, INTERNATIONAL HERALD TRIBUNE, Oct. 24, 2006, <http://www.ihrt.com/articles/2006/10/22/business/won.php>.

<sup>53</sup> See generally Rebecca MacKinnon and John Palfrey, *Opinion: Censorship Inc.*, NEWSWEEK, Feb. 27, 2006, <http://www.msnbc.msn.com/id/11437139/site/newsweek/>; Institute for Security Technology Studies at Dartmouth College *Cyber warfare; An Analysis of the Means and Motivations of Selected Nation States*, Nov. 2004, at 92-93 available at <http://www.ists.dartmouth.edu/directors-office/cyberwarfare.pdf> [hereinafter ISTS]; Stephen C. Mercado, *Hermit Surfers of Pyongyang*, 48 STUDIES IN INTELLIGENCE at n. 14 (2004) available at <https://www.cia.gov/csi/studies/vol48no1/article04.html#rfn13>. For an excellent analysis of the technologies employed to create Internet 'borders' by China see *Internet Filtering in China in 2004-2005: A Country Study*, Apr. 14, 2005, available at [http://www.opennetinitiative.net/studies/china/ONI\\_China\\_Country\\_Study.pdf](http://www.opennetinitiative.net/studies/china/ONI_China_Country_Study.pdf).

<sup>54</sup> The BDHRL Report of 2004 seems to indicate that the Internet can be accessed through school and University connections. BDHRL, *Report - 2004*, *supra* note 52; More reliable information however refutes this and clarifies that only the DPRK's Intranet can be connected to using school and university resources. See AAAS, *The*

those with access to a personal computer which costs between US \$90 and \$1000.<sup>55</sup> In a country where an average salary for urban factory workers is US \$1 a month, their high cost means personal computers are available only to the most affluent North Koreans.<sup>56</sup>

Kim Jong Il has said that individuals who are computer illiterate are one of the three main fools of the 21st century<sup>57</sup> and in 2000 he, in a much publicized interaction, asked former Secretary General Madeline Albright for her email address.<sup>58</sup> It's commonly reported that Kim Jong Il has three computers in his office and assiduously follows international events through South Korean news and intelligence websites.<sup>59</sup> Additionally, his eldest son is rumored to be very computer savvy.<sup>60</sup>

The senior leadership of the DPRK, Kim Jong Il included, has increasingly promoted investment and training in communications technologies.<sup>61</sup> As part of this program, several joint ventures with foreign Chinese, South Korean, Japanese, and United States firms and universities have been established.<sup>62</sup> The purpose of these partnerships are ostensibly to work on issues of "computer and security," however some agreements seem to envision a larger partnership that includes training of DPRK personnel in the design of advanced communications technologies, the communication with different electronic mediums and the development of software for use in the DPRK.<sup>63</sup> To that end increasing

*Ultimate, Exclusive LAN*, 305 SCIENCE 1701 (Sept. 17, 2004) available at <http://www.sciencemag.org/cgi/reprint/305/5691/1701.pdf>.

<sup>55</sup> Associated Press, *North Korea is Going Digital*, MIT TECHNOLOGY REVIEW, May 20, 2006.

<sup>56</sup> *id.*; Barbara Demick, *DPRK Reinstates Controls on Grain Sales*, L.A. TIMES, Oct. 3 2005, <http://www.cankor.ca/issues/224.htm>; See ISTS, *supra* note 53 at 84.

<sup>57</sup> The other two fools are people who smoke and people who don't like music. Reporters Without Borders, *North Korea*, [http://www.rsf.org/article.php3?id\\_article=10798](http://www.rsf.org/article.php3?id_article=10798) [hereinafter RWB].

<sup>58</sup> Jane Perlez, *Albright Reports Progress In Talks With North Korea*, N.Y. TIMES, Oct. 25, 2000 at Sec. A, P. 1, Clmn. 3; *The Last Emperor*, THE N.Y. TIMES MAGAZINE, Oct. 19, 2003, available at <http://www.petermaass.com/core.cfm?p=1&mag=111&magtype=1>

<sup>59</sup> *North Korea develops Internet*, COMPUTERWEEKLY, July 28, 2003, <http://www.computerweekly.com/Articles/2003/07/28/196241/NorthKoreadevelopsinternet.htm>; *Last Emperor*, *supra* note 58.

<sup>60</sup> *Last Emperor*, *supra* note 58.

<sup>61</sup> ISTS, *supra* note 53, at 82 citing *DPRK Cabinet Paper Urges Raising Information Industry to World Class Level*, FBIS Translation of North Korean news organ, Dec. 18, 2002.

<sup>62</sup> For a partial list of joint venture companies created with various states see ISTS, *supra* note 53, at 91-96.

<sup>63</sup> See Jung Sun Hahn, *ICT Use in Education*, UNESCO Meta-survey on the Use of Technologies in Education 87 (2003) available at [http://www.unescobkk.org/fileadmin/user\\_upload/ict/Metasurvey/DKOREA.PDF](http://www.unescobkk.org/fileadmin/user_upload/ict/Metasurvey/DKOREA.PDF) [hereinafter ICT Use]; Aidan Foster-Carter, *North Korea's tentative telecoms*, ASIA TIMES, July 6, 2002, <http://www>.

numbers of North Korean's have been graduating from DPRK universities with experience in IT and working in South Korean communications firms.<sup>64</sup>

The North has also sought to grow its domestic industry by utilizing the Internet to sell and promote DPRK products or businesses. For example:

- In 2002 DPRKlotto.com went online.<sup>65</sup> Though blocked by South Korea, the website continues to function.<sup>66</sup>

- In June 2004 a South Korean entrepreneur contracted with three DPRK companies to maintain lists and prices of purchasable agricultural equipment online.<sup>67</sup> The venture represented the first time South Korean consumers had direct access to DPRK suppliers.<sup>68</sup>

- In November 2004 Korea Pugang Corp, a DPRK company working in diverse areas (pharmaceutical manufacturing, chemical manufacturing and mining to name a few) began to promote and sell its services online.<sup>69</sup>

- In 2005 a contract was signed between South Korea's KT and the DPRK's Samcholli General Corp. to develop telecom software.<sup>70</sup>

- In March 2006 the DPRK's BH Partners began selling Korean word processing software for computers and cell phones via its website.<sup>71</sup>

These businesses in turn function as an important source of revenue for the perpetually cash strapped Kim Jong Il regime.<sup>72</sup>

atimes.com/atimes/Korea/DG06Dg02.html; Aidan Foster-Carter, *Whither the Web?*, ASIA TIMES, March 1, 2001, available at <http://www.atimes.com/koreas/CC01Dg01.html>.

<sup>64</sup> See RWB, *supra* note 57.

<sup>65</sup> South Korean entrepreneur Kim Beom Hoon of Hoonnet Co., Ltd developed the website, which has been called the DPRK's "most sophisticated." Christopher Brown, *Developing a Reliable Methodology for Assessing the Computer Network Operations Threat of North Korea*, Naval Postgraduate School, Sept. 2004, at 9 available at <http://www.fas.org/irp/eprint/cno-dprk.pdf>. *People's lottery: Pyongyang's first Web site*, CNN NEWS, Mar. 31, 2002, <http://archives.cnn.com/2002/WORLD/asiapcf/east/03/28/nkorea.lottery/index.html>.

<sup>66</sup> *North Korea Gambling Web Site Blocked*, CASINO CITY TIMES, Jan. 26, 2004, <http://www.casinocitytimes.com/news/article.cfm?contentId=140559>.

<sup>67</sup> *South Korean Entrepreneur Brings E-commerce to North Korea*, ASIAPULSE NEWS, May, 31, 2004, [goliath.ecnext.com/coms2/gi\\_0199-400926/SOUTH-KOREAN-ENTREPRENEUR-BRINGS-E.html](http://goliath.ecnext.com/coms2/gi_0199-400926/SOUTH-KOREAN-ENTREPRENEUR-BRINGS-E.html).

<sup>68</sup> *Id.*

<sup>69</sup> *North Korean Company Launches Cyber-marketing*, Nov. 2004, [http://www.vuw.ac.nz/~caplabtb/dprk/NK\\_S&T.htm](http://www.vuw.ac.nz/~caplabtb/dprk/NK_S&T.htm).

<sup>70</sup> Kim Tae-gyu, *KT Employs NK Agency to Develop Software*, THE KOREA TIMES, Apr. 8, 2005, <http://times.hankooki.com/lpage/biz/200504/kt2005042818532511910.htm>.

<sup>71</sup> Kim Tae-gyu, *NK's Software Hits Seoul*, THE KOREA TIMES, Mar. 17, 2006, <http://times.hankooki.com/lpage/200603/kt2006031717395153460.htm>.

<sup>72</sup> While the DPRK does not publish reliable data on its (estimated) 25 billion dollar GDP, it is reasonable to assume from reports that the DPRK is increasingly home to technology-driven enterprises and that IT related enterprises are an

Pyongyang in recent years has also attempted to “create an environment in which foreigners can invest and do business freely in Shinuiju” (a province of the DPRK).<sup>73</sup> Certainly part of that initiative is making it convenient for businesses to exchange and organize information online, and its not unimaginable that improved and increasing (though undoubtedly filtered) access to the internet is in the works for “special economic zones.”

In 1998 the DPRK connected 36 cities and counties to the intranet using fiber optic cables.<sup>74</sup> In 1997 the Kwangmyong (Bright Star) Intranet network was developed and brought online by the Central Scientific and Technological Information Agency (CSTIA).<sup>75</sup> The Intranet content is available to central committees and organizational organs, select research universities, newspapers, a few cafes, and the few individuals with a personal pc and permission within the DPRK.<sup>76</sup> The Intranet has its own email, search, messaging programs, language translation service, chat room,<sup>77</sup> medical database,<sup>78</sup> weather forecasting service,<sup>79</sup> and

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increasing and important source of revenue for the regime. *Global Market Brief: Mild Economic Aftershocks from North Korea's Test*, STRATFOR, Oct. 12, 2006, available at [http://www.stratfor.com/products/premium/read\\_article.php?id=277773&selected=analyses](http://www.stratfor.com/products/premium/read_article.php?id=277773&selected=analyses); See also Paul Tjia, *North Korea: an upcoming software destination*, Oct. 10, 2006, [http://www.gpic.nl/IT\\_in\\_NKorea.pdf](http://www.gpic.nl/IT_in_NKorea.pdf); SUNG-WOOK NAM, *The Strategy of IT Industry Development and Building of Strong State in North Korea* (Seoul: Hanul Academy, 2002); *ICT Use*, *supra* note 63; Office of the National Counterintelligence Executive, *North Korea: Channeling Foreign Information Technology, Information to Regime Goals*, Dec. 2003, [http://www.ncix.gov/archives/docs/NORTH\\_KOREA\\_AND\\_FOREIGN\\_IT.pdf](http://www.ncix.gov/archives/docs/NORTH_KOREA_AND_FOREIGN_IT.pdf) (which suggests that “. . . DPRK policies for promoting a domestic IT industry reflect the nation's lack of capital, dearth of natural resources, and relative abundance of technical talent.”)

<sup>73</sup> *North Korea Aims to Attract Foreign Gamblers*, CASINO CITY TIMES, Oct. 11, 2002, <http://www.casinocitytimes.com/news/article.cfm?contentId=121066>.

<sup>74</sup> ISTS, *supra* note 53, at 89 citing Asian Technology Information Program, *Information Technology in Korea—South and North*, 1997, <http://atip.org/ATIP/public/atip.reports.97/atip97.060r.html>.

<sup>75</sup> Foster-Carter, *supra* note 63; Tim Beal, *Digital Divide on the Korean Peninsula: Constructive Engagement Offers Solutions*, Institute for Corean-American Studies, Inc., June 7, 2002, available at <http://www.icasinc.org/lectures/beal1.html>.

<sup>76</sup> Charles Whelan, *North Korea Embraces IT, Shackles Internet*, Oct. 21, 2005, <http://cooltech.iafrica.com/features/506903.htm>; Lee Kyo Kwan, *DPRK Nearly Ready to Access Internet*, CHOSUN ILBO, Sept. 13, 2001, <http://english.chosun.com/w21data/html/news/200109/200109130208.html>.

<sup>77</sup> *Inquiring Netizens in Pyongyang Have Online Debate in Chatting Room; New Generation Deepen Their Contacts Through Expanding Computer Networks*, Apr. 7, 2004, *pasted at* [http://www1.korea-np.co.jp/pk/202nd\\_issue/2004032701.htm](http://www1.korea-np.co.jp/pk/202nd_issue/2004032701.htm); *North Korea's Homegrown Web for Elite Only*, REUTERS IN BEIJING, Mar. 24, 2001, available at [http://www.tomcoyner.com/north\\_korea\\_homegrown\\_web.htm](http://www.tomcoyner.com/north_korea_homegrown_web.htm).

<sup>78</sup> *Health Homepage “Jangsaeng” Draws Social Attention*, KCNA, June 23, 2006, <http://www.kcna.co.jp/item/2006/200606/news06/24.htm#14>.

data transmission system, and reportedly has over 30 million documents posted, most of them technical or scientific in nature.<sup>80</sup>

In 2001 a diagram appeared in "Science World," a DPRK scientific publication that illustrated a system for connecting the Intranet to the Internet through a firewall that would control information flow between the two.<sup>81</sup> The firewall was tested by the Pyongyang Information Center (PIC), reportedly in anticipation of connecting the two networks.<sup>82</sup> Tests were also performed to study the feasibility of encrypting information to prevent hacking once the networks are linked using an internet link provided by South Korea's Gigalink Ltd.<sup>83</sup>

The Intranet is managed by the Korea Computer Center (KCC), which was established in 1990 (at a cost of approx. US\$500 million)<sup>84</sup> in Pyongyang and employs around 800 individuals.<sup>85</sup> Kim Jong Nam, Kim Jong Il's eldest son (who also heads North Korea's intelligence service), heads the KCC.<sup>86</sup> Its 800 employees are primarily charged with maintaining the Intranet and developing software for domestic use and export, though some sources claim that it is the government branch wherein most covert and cyber-warfare technologies development activities occur. According to one account:

The KCC, which used to be understood merely as a research institute developing software, is confirmed to have carried out, under Kim Jong Nam's initiatives, functions of a 'clandestine overseas information command center' under the jurisdiction of the SSA.<sup>87</sup>

It has been difficult to substantiate these claims, though evidence supporting these assertions is mounting. The National Intelligence Service (NIS) of South Korea revealed that in 2004 two hundred and seventy eight ROK computers in ten government organizations including the Korea Atomic Energy Research Institute, the Korea Institute for Defense Analysis, the Agency for Defense Development, were hacked by North

<sup>79</sup> *Weather Information Dissemination Room Opens*, KCNA, May 11, 2006, <http://www.kcna.co.jp/item/2006/200605/news05/12.htm#9>.

<sup>80</sup> Brown, *supra* note 65, at 26.

<sup>81</sup> Lee Kyo Kwan, *DPRK Nearly Ready*, *supra* note 76.

<sup>82</sup> Brown, *supra* note 65, at 11.

<sup>83</sup> *Id.*; ISTS, *supra* note 53, at 89.

<sup>84</sup> Lee Kyo Kwan, *True Aspects of Korea Computer Center*, CHOSUN.COM, 2001, <http://www.chosun.com/w21data/html/news/200105/200105130132.html>.

<sup>85</sup> Brown, *supra* note 65 at 47; It also appears to be the agency responsible for regulating contact between the Bright Start network and the Internet. Canada DPRK Korea E-Clipping Service, July 31, 2001, CanKor #47 *ROK Firm To Set Up Satellite For DPRK*, ASIA PULSE, June 27, 2001, available at <http://www.cankor.ca/issues/cankor47.pdf>; ISTS, *supra* note 53 at 82.

<sup>86</sup> Brown, *supra* note 65, at 47.

<sup>87</sup> Lee Kyo Kwan, *True Aspects*, *supra* note 84.



Korea nationals.<sup>88</sup> An unclassified Canadian Intelligence Service publication, in reference to American Military and congressional reports, states “North Korea. . .has some IO capabilities.”<sup>89</sup> Other professionals significantly oppose with these reports and maintain that the South Korean government is exaggerating the North Korean threat.<sup>90</sup>

The Internet Corporation for Assigned Names and Numbers (ICANN) has authorized the domain name “.kp” for the DPRK, though it remains unused.<sup>91</sup> The DPRK’s presence on the Internet is limited to roughly 30 websites dedicated to delivering “sweet nothings” about the DPRK and its leader hosted by servers in Japan, China, Germany and Australia.<sup>92</sup> The Korean Central News Agency (KCNA) reported in May 2003 that the Academy of Sciences established a website using the .kp suffix hosted on servers in Pyongyang,<sup>93</sup> however the website remains unavailable at the time of this writing.<sup>94</sup>

A joint venture between Hoonnet, a Seoul based software company, and the North’s Jangsaeng General Trade Company created the DPRK’s first “Internet” café.<sup>95</sup> Opened in Pyongyang in May 2002, access to a

<sup>88</sup> Park Song-wu, *GNP Suspects NK in Cyber Attacks*, KOREA TIMES, July 16, 2004, <http://times.hankooki.com/lpage/nation/200407/kt2004071621134611990.htm>; Park Song-wu, *NK Hands Suspected in Cyberattacks*, KOREA TIMES, July 15, 2004, <http://times.hankooki.com/lpage/200407/kt2004071517051510440.htm>; *North Korea's Information Technology Advances and Asymmetric Warfare*, WMD INSIGHTS, April 2006, available at [http://www.wmdinsights.org/I4/EA1\\_NorthKoreaInfoTech.htm](http://www.wmdinsights.org/I4/EA1_NorthKoreaInfoTech.htm).

<sup>89</sup> Canadian Security Intelligence Service, *Information Operations*, May 6, 2002, [http://www.csis-scrs.gc.ca/eng/misdocs/200111\\_e.htm](http://www.csis-scrs.gc.ca/eng/misdocs/200111_e.htm).

<sup>90</sup> Dmitri Kramarenko, *Hackers or cyber-soldiers?*, Computer Crime Research Center, Sept. 24, 2004, <http://www.crime-research.org/interviews/hacker0904/>; Park Song-wu and Reuben Staines, *Is South Korea Exaggerating NK Hacking Threat?*, KOREA TIMES, June 3, 2004, <http://times.hankooki.com/lpage/200406/kt2004060318393353460.htm>.

<sup>91</sup> Internet Assigned Numbers Authority, *.kp - Korea, Democratic People's Republic*, <http://www.iana.org/root-whois/kp.htm> (last updated Sept. 15, 2006); Zeller Jr., *supra* note 52.

<sup>92</sup> For example, <http://www.korea-dpr.com/> and <http://www.dprkorea.com/>. ISTS, *supra* note 53 at 89; Zeller Jr., *supra* note 52; Lawrence J. Ho, *Recent Developments in the Information Technology Sector in North Korea: an NGO Perspective*, BYTES AND BULLETS IN KOREA 123, 129 (2002) available at <http://www.apcss.org/Publications/Edited%20Volumes/BytesAndBullets/CH6.pdf>.

<sup>93</sup> ISTS, *supra* note 53, at 90.

<sup>94</sup> The website supposedly can be accessed at <http://www.stic.ac.kp>. *North Korea develops internet*, COMPUTER WEEKLY, July 28, 2003, <http://www.computerweekly.com/Articles/2003/07/28/196241/NorthKoreadevelopsinternet.htm>; Brown, *supra* note 65, at 9.

<sup>95</sup> Ho, *supra* note 92; *First Internet Cafe Opens in P'yang*, NK CHOSUN, May 27, 2002, [http://nk.chosun.com/english/news/news.html?ACT=detail&cat=2&res\\_id=6246](http://nk.chosun.com/english/news/news.html?ACT=detail&cat=2&res_id=6246); There is some dispute in the literature as to whether the cafes operated in the DPRK allow an individual to access the Internet and not merely the Bright Star network

computer originally cost US \$100 per hour, though prices eventually were lowered to \$3 - roughly 1/6 of an average workers monthly salary.<sup>96</sup> In the several years since its opening, six other "Internet" cafes have opened in the DPRK's capital; by some accounts, North Korean youths flock to these locations despite the high costs. By others, the services these cafes provide are mostly utilized by foreign businessmen, tourists and diplomatic personnel.<sup>97</sup>

As of this writing, there are only two email gates to the DPRK and each cost about \$2 per minute.<sup>98</sup> In 2001 Silibank began offering email services to North Korean businesses. Users are charged based on the amount of data sent, and must pay a US \$100 registration fee and monthly service charge.<sup>99</sup> Silibank is based in the Chinese city of Shenyang and claims to have a 10Mbps internet link, though this is not verified.<sup>100</sup> The Silibank e-mail service is available only to registered users and relies on two e-mail servers, one located in the northeastern Chinese city of Shenyang and the other in Pyongyang, connected via a 10Mbit per second leased line.<sup>101</sup> In 2002 Hoonnet, the ROK business responsible for DPRKlotto.com and the first cyber-café, announced that the North's Chosun International Communications Center had contracted with China Telecom to provide email services (and possibly full internet access to the PIC) through a fiber optic cable that connects Pyongyang and Sinuiju with the Chinese cities of Dandong, Beijing, and Shanghai.<sup>102</sup>

In 2001 Cho Hyun Jung, President of Bit Computer Co. Ltd., announced plans to exclusively supply satellite-based Internet connections to North Korea.<sup>103</sup> That deal fell through, and in 2003 Jan

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(modified to accommodate transnational emails) *See* Zeller jr., *supra* note 52; ISTS, *supra* note 53, at 9.

<sup>96</sup> *Internet Cafes Popular Among NK Youths*, THE KOREA TIMES, Nov. 14, 2004, <http://times.hankooki.com/lpage/nation/200411/kt2004111414463810610.htm>.

<sup>97</sup> *Id.*; ONCE, *supra* note 72, at 3; Brown, *supra* note 65, at 9; Ho, *supra* note 92, at 129.

<sup>98</sup> Lucy Jones, *Foreign Investors Brave North Korea*, BBC NEWS, Apr. 13 2004, <http://news.bbc.co.uk/2/hi/business/3558283.stm>.

<sup>99</sup> *North Korea opens doors to e-mail*, Nov. 6, 2001, <http://www.itworld.com/Tech/2987/IDG011106northkorea/>; ONCE, *supra* note 72, at 3; ISTS *supra* note 53, at 90.

<sup>100</sup> *North Korea opens doors*, *supra* note 99; Martyn Williams, *Report: North Korean e-mail service launched*, COMPUTERWORLD, Feb. 13, 2003, <http://www.computerworld.com.au/index.php?id=1558791036&eid=-135>.

<sup>101</sup> Martyn Williams, *Report: North Korean e-mail Service Launched*, COMPUTERWORLD, Feb 12, 2003, <http://www.computerworld.com.au/index.php?id=1558791036&eid=-135>.

<sup>102</sup> ISTS, *supra* note 53, at 90; Kwan, *DPRK Nearly Ready*, *supra* note 76.

<sup>103</sup> Summer Lemon, *North Korea opens doors to e-mail*, CNN NEWS, Nov. 7, 2001, <http://archives.cnn.com/2001/TECH/internet/11/07/north.korea.email.idg/index.html>; Ron Gluckman, *The Third Fool*, NEWSWEEK, Oct. 11, 2006, available at <http://www.msnbc.msn.com/id/6160820/site/newsweek/>; Brown, *supra* note 65, at 35.

Holtermann and Gunter Unterbeck founded KCC Europe and landed a deal to partner with the KCC and exclusively provide Internet access to the DPRK beginning February 16, 2004 (Kim Jong Il's birthday).<sup>104</sup> The service is provided through a link between the KCC<sup>105</sup> and Holtermann's servers in Berlin, and is intended to aid in ". . .data transmission and software development [and]. . .to take orders and sell products to the German and European market."<sup>106</sup> To get around laws banning the transfer of sensitive technology to the DPRK all data is kept on servers in Germany, and in 2004 one of those servers was used to open the North's first web portal.<sup>107</sup> Naenera ("my country" in Korean) is maintained by KCC-Europe and includes links to information on DPRK politics, tourism and trade, an online shopping mall that gives consumers access to "stylish dresses of fine workmanship" and real-time music and movies.<sup>108</sup> In a 2004 interview Holtermann stated that he hoped his customers would number 2000 by the end of the year, though as of 2006 the DPRK had failed to throw the proverbial "switch" that would allow public access in the DPRK.<sup>109</sup>

## II. SANCTIONS

Sanctions have been generally defined as "The use or threat of use of economic [or diplomatic] capacity by one international actor, or group of such actors against another international actor or group of actors, with the intention of (a) punishing the latter for its breach of a certain rule or (b) preventing it from infringing a rule which the party applying sanctions deem important."<sup>110</sup> Sanctions can be applied to achieve a broad variety

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<sup>104</sup> Mercado, *supra* note 53, at n14; Gluckman, *supra* note 103; ISTS, *supra* note 53, at 83; European Business Association, *KCC Europe*, <http://www.eba-pyongyang.org/index.php?kcc-europe>; *German entrepreneur plans to bring internet to North Korea*, SOUTH CHINA MORNING POST, Dec. 29, 2003, <http://www.asiamedia.ucla.edu/article-eastasia.asp?parentid=5833>.

<sup>105</sup> There seems to be some confusion regarding with whom the KCC is partnered, the EBA claiming it is the KCC and the CIA claiming it is the Ministry of Posts and Telecommunications. Mercado, *supra* note 104; EBA, *supra* note 104.

<sup>106</sup> *Pyongyang Goes Online, with Help from a German Investor*, Dec. 28, 2003, <http://unpan1.un.org/intradoc/groups/public/documents/apcity/unpan014577.htm#4ea009>.

<sup>107</sup> RWB, *supra* note 57; *see also North Korea Launches Pilot Web Portal but Problems Linger*, RADIO FREE ASIA, July 14, 2004, <http://www.rfa.org/english/news/technology/2004/07/14/141058/>.

<sup>108</sup> *North Korea opens pilot web portal, glitches remain*, REUTERS, July 15, 2004, <http://www.smh.com.au/articles/2004/07/15/1089694459444.html?from=storyrhs>; *See also Democratic Peoples Republic of Korea at* <http://www.kcckp.net/en/>.

<sup>109</sup> Gluckman, *supra* note 103; Jones, *supra* note 98.

<sup>110</sup> Items in [ ] added by author. Sofie Heine-Ellison. *The Impact and Effectiveness of Multilateral Economic Sanctions; A Comparative Study*, 5 INT'L J. HUM. RIGHTS 81, 83 (2001). An alternate definition is relied on by Jason C. Nelson, who writes that

of internal and external objectives, among them ending egregious human rights violations, securing compliance with international law or obtaining troop withdrawals from occupied territory.<sup>111</sup>

If there were a Top 10 List of topics most scrutinized by the international academic community, the issues of apposite objectives and justifications, not to mention the effectiveness, impact and suitable method of analysis of sanctions would probably turn up and occupy several spaces.<sup>112</sup> Though it is important to acknowledge the significant academic literature that exists on these subjects, the purpose of this paper must necessarily restrict itself to how Internet sanctions can fit into the modern UNSC “smart” or “targeted” sanctions regime. Issues of utility and impact will therefore be among those primarily discussed, with the hope that future authors can take up the relationship between these important issues and Internet sanctions in the future.

### A. General Information

The United Nations Charter establishes the legal framework within which multilateral sanctions may operate. Article 1(1) gives the UNSC the right and duty to employ “effective collective measures” to “maintain international peace and security.”<sup>113</sup> In the event of a “threat to the peace, breach of the peace, or act of aggression” the UNSC may use its Article 41 powers which include the “complete or partial interruption of economic relations,” and other actions “not involving the use of armed force,” including “complete or partial interruption of economic relations and of rail, sea, air, postal, telegraphic, radio, and other means of communication, and the severance of diplomatic relations.”<sup>114</sup> Article 42 authorizes the UNSC to take “such action by air, sea, or land forces as may be

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sanctions are “. . . a tool for coercing a target to change a course of action or forgo some future course of action by altering the cost-benefit calculus of a decision-maker to favor the preferred policy of the sender. Jason C. Nelson, *The United Nations and the employment of sanctions as a tool of international statecraft: social power theory as a predictor of threat theory utility*. 29 *Law & Psychol. Rev.* 105, 111 (2005).

<sup>111</sup> Nelson, *supra* note 110, at 111.

<sup>112</sup> See e.g., Valerie L. Schwebach, *Sanctions as Signals: A Line in the Sand or a Lack of Resolve?*, in *SANCTIONS AS ECONOMIC STATECRAFT* 187 (Steve Chan & A. Cooper Drury eds., 2000); Fredrick Hoffman, *The Functions of Economic Sanctions: A Comparative Analysis*, 4 *J. PEACE RES.* 140 (1967); Peter Wallenstein, *Characteristics of Economic Sanctions*, 5 *J. PEACE RES.* 247 (1968); Margaret P. Doxey, *International Sanctions: A Framework for Analysis with Special Reference to the U.N. and Southern Africa*, 26 *INT'L. ORG.* 527 (1972); Klaus Knorr, *International Economic Leverage and Its Uses*, in *ECONOMIC ISSUES AND NATIONAL SECURITY* 99 (Klaus Knorr & Frank N. Trager eds., 1977); MARGARET P. DOXEY, *INTERNATIONAL SANCTIONS IN CONTEMPORARY PERSPECTIVE* (1987).

<sup>113</sup> U.N. Charter art. 1, para 1.

<sup>114</sup> U.N. Charter art. 41.

necessary to maintain or restore international peace and security”<sup>115</sup> should measures taken under Article 41 prove inadequate. Articles 25 and 48 obligate all member governments to implement UNSC decisions; compliance is required and non-consensual.<sup>116</sup> Finally Article 103 declares that the Charter is supreme in cases of conflict with other international agreements.<sup>117</sup>

Prior to the August 1990 embargo of Iraq the Security Council was able to pass sanctions only twice.<sup>118</sup> The end of the Cold War however saw the ascendance of sanctions to a position of prominence among international norm enforcement efforts; since 1992 the UNSC imposed Chapter VII sanctions on Afghanistan, Angola, Cote d’Ivoire, the Democratic Republic of the Congo, the DPRK, Ethiopia and Eritrea, Haiti, Iran, Iraq, Liberia, Libya, Rwanda, Sierra Leone, Somalia, Sudan and the former Yugoslavia.<sup>119</sup>

Sanctions in the early nineties were conceived of as tools that would “choke off a target economy” and force desired political change.<sup>120</sup> When applied however, comprehensive economic sanctions were generally ineffective and plagued with undesirable side humanitarian side effects.<sup>121</sup> The academic community, NGO’s, states and the UN itself searched for an alternative and eventually began applying “smart sanctions;” targeted sanctions consisting of measures that impacted a regime, individual, coterie, or other persons without the widespread negative humanitarian effects of comprehensive sanctions.<sup>122</sup> These second generation sanctions pressured government leaders through financial sanctions that froze individual or government assets held by foreign banks,<sup>123</sup> com-

<sup>115</sup> U.N. Charter art. 42.

<sup>116</sup> U.N. Charter art. 25; U.N. Charter art. 48.

<sup>117</sup> U.N. Charter art. 103.

<sup>118</sup> KIMBERLY ANN ELLIOTT & GARY CLYDE HUFBAUER, *THE CONCISE ENCYCLOPEDIA OF ECONOMICS*, The Library of Economics and Liberty, <http://www.econlib.org/LIBRARY/Enc/Sanctions.html>; Heine-Ellison, *supra* note 110, at 81.

<sup>119</sup> Office of the Spokesman for the Secretary-General, *Use of Sanctions Under Chapter VII of the UN Charter*, Jan. 2006, <http://www.un.org/News/oss/sanction.htm>.

<sup>120</sup> DAVID CORTRIGHT & GEORGE A LOPEZ, *SANCTIONS AND THE SEARCH FOR SECURITY 3* (Lynne Rienner Publishers, 2002) (discussing the sea change in sanctions since the imposition of Security Council Resolution 661).

<sup>121</sup> Koenraad Van Brabant, *Can Sanctions be Smarter? The Current Debate Report of a conference held in London 16–17 December 1998*. The Humanitarian Policy Group and the Relief and Rehabilitation Network at the Overseas Development Institute (May 1999) at 2, available at <http://www.odihpn.org/documents/sanconf.pdf>.

<sup>122</sup> Nelson, *supra* note 110, at 117; Brabant, *supra* note 121, at 16.

<sup>123</sup> See e.g., CORTRIGHT & LOPEZ, *SANCTIONS AND THE SEARCH*, *supra* note 120 at 202; *Report of the Workshop on UN Sanctions Reform 2-3 May 2003*, Watson Institute for International Studies, Brown University (2003) at 8 available at [http://www.watsoninstitute.org/pub/Report\\_Workshop\\_Sanctions\\_Reform\\_2003May.pdf](http://www.watsoninstitute.org/pub/Report_Workshop_Sanctions_Reform_2003May.pdf) [hereinafter Report].

modity-specific sanctions designed to maximize damage to economies while minimizing damage to populations,<sup>124</sup> restrictions on lending, travel,<sup>125</sup> and diplomatic activities<sup>126</sup> and improved implementation of sanctions through the creation of successful nongovernmental monitoring and enforcement groups.<sup>127</sup>

Sanction reform has not ended with the mere creation and implementation of smart sanctions; ongoing efforts to refine the multilateral sanctions regime focus on developing model definitions of sanctions related terms so that common understandings of the “scope” of sanctions can be reached, ensuring member states have the legal capacity to fulfill their UN obligations and strengthening the enforcement capacity at the state and international level.<sup>128</sup>

### B. *Telecommunications Sanctions Already Considered*

The UN Charter allows for the possibility that a country be ‘totally’ cut off from the international system, but it is only rarely that the international community has considered using telecommunications sanctions. Before the advent of “smart” sanctions the most concentrated effort at telecommunications restrictions manifested during the crisis spawned by the 1965 unilateral declaration of independence of the Smith regime in Southern Rhodesia. Comprehensive sanctions were first initiated by Great Britain, and subsequently recommended to the UNSC where they became mandatory.<sup>129</sup> Though within a few years twenty-four countries had cut communication links with Rhodesia<sup>130</sup> and the United States had passed legislation establishing its willingness to enforce communications

<sup>124</sup> See e.g., CORTRIGHT & LOPEZ, *SANCTIONS AND THE SEARCH*, *supra* note 120, at 203.

<sup>125</sup> See e.g., CORTRIGHT & LOPEZ, *SANCTIONS AND THE SEARCH*, *supra* note 120, at 133; Report, *supra* note 123, at 13.

<sup>126</sup> State Secretariat for Economic Affairs, Economic Cooperation and Development Division, <http://www.seco.admin.ch/themen/00513/00620/00639/index.html?lang=en>.

<sup>127</sup> See Brabant, *supra* note 121, at 16–17; *Id.* at 207.

<sup>128</sup> For a detailed discussion of the legal and regulatory differences in implementing and enforcing targeted financial sanctions across major currency countries see Watson Institute for International Studies, Targeted Financial Sanctions, Brown University available at <http://www.watsoninstitute.org/TFS/execsum.cfm>. See also CORTRIGHT & LOPEZ, *SANCTIONS AND THE SEARCH*, *supra* note 120 at 219; Report, *supra* note 123 at 4.

<sup>129</sup> Peter Wallensteen, *A Century of Economic Sanctions: A Field Revisited*, Uppsala Peace Research Papers No. 1 (2000) at 2, available at [http://www.pcr.uu.se/publications/UPRP\\_pdf/UPRP\\_No\\_1.pdf](http://www.pcr.uu.se/publications/UPRP_pdf/UPRP_No_1.pdf).

<sup>130</sup> Mostly African, Arab, and communist countries severed communications links. DEON GELDEHOYS, *ISOLATED STATES; A COMPARATIVE ANALYSIS* 70 (Cambridge University Press, 1991); Johan Galtung, *On the Effects of International Economic Sanctions*, 19 *WORLD POL.* 378, 382 (1967).

sanctions pending a UNSC directive,<sup>131</sup> telecommunications sanctions were never made part of the international multilateral sanctions regime, and in fact have been criticized as “remarkably underutilized” during this incident.<sup>132</sup>

Resolution 1221, which established sanctions against Angola, is the singular case where a telecommunications prohibition was considered by the UNSC as a “smart” sanction. Resolution 1221 expressed the international communities readiness to “take steps to reinforce the implementation of [Resolutions 864, 1127 and 1173] and to consider the imposition of additional measures, including in the area of telecommunications, on the basis of a report to be prepared by the Committee established pursuant to resolution 864 (1993) by 15 February 1999 drawing on the expertise of relevant bodies and organizations, including the International Telecommunication Union.”<sup>133</sup> The necessary report was not written in time and in April 2000 the UNSC adopted Resolution 1295. This measure stated in paragraph 6 that the UNSC will consider “. . .the application of additional measures against UNITA under Article 41 of the Charter of the United Nations and the development of additional tools to render the existing measures imposed against UNITA more effective.”<sup>134</sup> Paragraph 6 was relied on by the Angolan government in its October 2001 letter to the President of the Security Council, in which the additional “. . .restrictive measures against UNITA’s military wing, namely in the area of telecommunications. . .” was requested.<sup>135</sup> Sanctions against Angola ended in December 2002<sup>136</sup> without the explicit passage of telecommunications sanctions. Certainly the UNSC was aware of the ongoing necessity for such a measure; an October 2001 report of the Monitoring Mechanism noted that “. . .Email is [a] tool that UNITA has been able to exploit.

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<sup>131</sup> “. . .the President may, to the extent necessary to apply such measures, through any agency which he may designate, and under such orders, rules, and regulations as may be prescribed by him, investigate, regulate, or prohibit, in whole or in part, economic relations or rail, sea, air, postal, telegraphic, radio, and other means of communication between any foreign country or any national thereof or any person therein and the United States or any person subject to the jurisdiction thereof, or involving any property subject to the jurisdiction of the United States.” United Nations Participation Act, 22 USCS § 287c (1977) available at <http://www.treas.gov/offices/enforcement/ofac/legal/statutes/unpa.pdf>

<sup>132</sup> Galtung, *supra* note 130.

<sup>133</sup> S.C. Res. 1211, ¶ 8, U.N. Doc. S/RES/1221 (Jan. 12, 1999) available at [http://www.essex.ac.uk/armedcon/story\\_id/000361.pdf](http://www.essex.ac.uk/armedcon/story_id/000361.pdf).

<sup>134</sup> S.C. Res. 1295, ¶ 6, U.N. Doc. S/RES/1295 (Apr. 18, 2000) available at <http://www.mineaction.org/downloads/S.RES.1295%20E.pdf>.

<sup>135</sup> Letter from João Bernardo de Miranda, Minister for External Relations of the Republic of Angola, to the President of the Security Council (Oct. 8, 2001) (<http://www.un.org/Docs/sc/committees/Angola/958e.pdf>).

<sup>136</sup> S.C. Res. 1448, U.N. Doc. S/RES/1448 (Dec. 9, 2002) available at <http://www.globalpolicy.org/security////////sanction/angola/2002/resolution1448.pdf>

Through this medium, it has been able to target a wide spectrum of decision makers on a daily basis, including high government officials, parliamentarians and members of the Media.” and “. . . [Kwacha.org] provides UNITA with still another global platform for the rebels to express political diatribes against the Security Council and its efforts to restore the peace process in war-torn Angola.”<sup>137</sup> Its important to notethat these suggestions were made despite a liberal interpretation of Resolution 1127 (which required “. . . the immediate and complete closure of all UNITA offices in [member] territories. . . .”)<sup>138</sup> relied upon by the Irish government in their 1999 shut down of a UNITA website (Kwacha.com) operating out of their jurisdiction and described as “one of the last remaining means of communication.”<sup>139</sup>

It was perhaps countervailing considerations involving the potential necessity to engage quickly in communication with UNITA so as to arrange rescue missions of UN personnel that influenced the UNSC in their choice not endorse an all out telecommunication ban.<sup>140</sup> Perhaps too it was the fact that UNITA websites were being operated by individuals outside the jurisdiction of Angola, implicating broad free speech and domestic compliance concerns. It may have been that, in the contract between the web site operators and those who hosted the websites, the contractual terms included provisions restricting “export” of technical

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<sup>137</sup> Supplementary Report of the Monitoring Mechanism on Sanctions against UNITA in Letter from Richard Ryan, Chairman of the Security Council Committee established pursuant to resolution 864, ¶ 65-67 (Oct. 12, 2001)(<http://www.un.org/Docs/sc/committees/Angola/966e.pdf>).

<sup>138</sup> S.C. Res. 1227, ¶ 4(c), U.N. Doc. S/RES/1227 (Aug, 29, 1997) available at <http://www.globalpolicy.org/security/sanction/recommendations/2000/scres1227.pdf>

<sup>139</sup> Voice of America, *Correspondent Report*, Nov. 10, 1999, [www.globalsecurity.org/military/library/news/1999/11/991110-angola1.htm](http://www.globalsecurity.org/military/library/news/1999/11/991110-angola1.htm); Justifications for shutting down the website varied; UN officials stated that the UNITA website violated no specific Resolution, but rather offended the “spirit” of previous measures, whereas Irish authorities were careful to explain that they would not tolerate the presence of “a formal office of the rebel movement” in violation of Res. 1127 and would shut the website down due to its violation of international law. *Id.*; Voice of America, *Correspondent Report*, Nov. 1, 1999, <http://www.globalsecurity.org/military/library/news/1999/11/991101-angola1.htm>

<sup>140</sup> In 1999 two UN planes were attack and downed in Angola. Former Secretary General Kofi Annan stated, after an attack downed a UN cargo plane, that “There can be no excuse for any delay on any side in disclosing all relevant information about the fate of the passengers and crews of the two U.N. aircraft.” *Annan ‘outraged’ after second UN plane downed in Angola*, CNN NEWS, Jan. 2, 1999, <http://www.cnn.com/WORLD/africa/9901/02/angola.plane.02/index.html>; See also Press Release SC/6625, *Security Council Reiterates Demand that UNITA Leader Cooperate Immediately in Search for Survivors of Recent Plane Crashes* (Jan. 12 1999) available at <http://www.un.org/News/Press/docs/1999/19990112.sc6625.html>; Peter Burleigh, *Explanation of United State Vote*, S/RES/1221, Jan 12, 1999, <http://www.scienceblog.com/community/older/archives/L/1999/A/un990016.html>.



data or software to UNITA; clauses sufficient to address the primary concerns of the UNSC.<sup>141</sup> Finally, it may have been the failure to establish consensus on the issue of telecommunications in the year before sanctions were lifted. Whatever the reason, the UNITA sanctions represent a bold first attempt to confront issues associated with Internet communication and craft meaningful solutions to a telecommunications problem.

### C. *Multilateral Sanctions In Place Against the DPRK*

Within days of the DPRK's October 9, 2006 nuclear test, the UNSC passed Resolution 1718. The resolution includes several "typical" smart sanction provisions, including a prohibition on the export of military goods, technological materials and luxury items to the DPRK, a grant of power to member nations to inspect all cargo entering or leaving the DPRK, and restrictions on the travel of persons and assets of those "designated by the Committee or by the Security Council as being responsible for, including through supporting or promoting, DPRK policies in relation to the DPRK's nuclear-related, ballistic missile-related and other weapons of mass destruction-related programs, together with their family members."<sup>142</sup>

## III. THE UTILITY OF INTERNET SANCTIONS

The utility of sanctions can be determined through analysis the proceeds along several vectors; the likelihood of obtaining the desired result, the benefits and costs of some particular sanction and consideration of how the proposed sanction supplements, *vel non*, other policies. The remainder of this note will be devoted to considering Internet sanctions in light of these indicia and will be informed by realities of the DPRK relationship with the international community.

### A. *Obtaining a desired result through the imposition of Internet sanctions*

In *Smart Sanctions*, Newcomb asks several questions when deciding whether targeted financial sanctions will achieve a desired result; consideration of these same questions is equally helpful in determining the potential effectiveness of Internet Sanctions. These questions are:

- "How do the [proposed] sanctions fit within the broader multilateral strategy to deal with the recalcitrant state or target?"
- "Is the target vulnerable to [the proposed] sanctions?"<sup>143</sup>

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<sup>141</sup> Supplementary Report of the Monitoring Mechanism, *supra* note 137, at ¶ 69.

<sup>142</sup> See generally S. C. Res. 1718, U.N. Doc. S/RES/1718 (Oct. 14, 2006) available at <http://www.globalpolicy.org/security/sanction/nkorea/2006/1014reso1718.pdf>

<sup>143</sup> Items in [ ] added by author. R. Richard Newcomb, *Targeted Financial Sanctions: The US Model*, 41, 48-49 in SMART SANCTIONS, TARGETING ECONOMIC STATECRAFT, *supra* note 5.

- "Are conditions favorable to effective implementation?"

The current multilateral approach to dealing with the DPRK, as evidenced by the global response to the DPRK's recent nuclear brinkmanship activities, is to impose conventional smart sanctions; a series of financial, travel, and item-oriented sanctions against specific individuals in Kim Jong Il's regime in an effort to coerce the DPRK leadership to return to the six party talks and craft a solution with requirements that will be adhered to on both sides.<sup>144</sup> Internet sanctions could be conceptualized as a restriction on a "luxury" item, and in this sense would fit well within the framework of the current multilateral policy.<sup>145</sup> The average citizen in North Korea still has little, if any, contact with the Internet. Restricting its use by those privileged enough to have access to it *de facto* targets only those individuals whom the international community is attempting to coerce or intimidate. To the extent that an average DPRK citizen uses messaging programs, email services, weather updates and all the other trappings of an information superhighway on the domestic Bright Star network, access would remain unaffected by the multilateral actions.<sup>146</sup>

Internet sanctions might also be conceived of as targeted economic sanctions intended to retard the development of Internet-relying businesses in the DPRK. In this sense, Internet sanctions probably could not be considered "on par" with the Resolution 1718, which focuses on military and luxury goods and the finances of select individuals.<sup>147</sup> However, had Resolution 1718 been met with continued obduracy, the UNSC would probably have broadened the scope of sanctions to include and target specific economic sectors.<sup>148</sup> In other words, were the interna-

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<sup>144</sup> See Sec. Res. 1718, *supra* note 142.

<sup>145</sup> There is no definition of "luxury" item provided by the UNSC in Resolution 1718. As recently as December 2006 the concept was (unilaterally) thought by the US State Department to include items as diverse as cognac, Rolex watches, cigarettes, artwork, certain cars, Jet Skis, iPods, plasma TV's and cigars. Ted Bridis, *US Bans Luxury Goods - Including iPods - From North Korea*, MACWORLDNEWS, Nov. 30, 2006, <http://www.macnewsworld.com/story/54493.html>; Elizabeth Williamson, *Hitting Kim Jong Il Right in the Cognac*, WASH. POST., Nov.30, 2006, at A01. These sanctions have been called the ". . .United States' first-ever effort to use trade sanctions to the personal aggravation of a foreign president." *No 'toys': US denies Kim iPods and plasma TVs*, THE TIMES - INDIA, Nov. 20, 2006, <http://timesofindia.indiatimes.com/articleshow/644435.cms>. The US ban followed a Japanese interpretation which banned the export of, among other things, caviar, tuna fillets, gems, fountain pens and motorcycles to the North. *US Bans Luxury Goods*, *supra* note 145.

<sup>146</sup> See Zeller Jr., *supra* note 52.

<sup>147</sup> See Sec. Res. 1718, *supra* note 142.

<sup>148</sup> Immediately after the Oct. 9th announcement of a successful nuclear test ". . .Bush administration officials were holding conference calls to discuss ways. . . to cut off the trade and oil supplies that have been Mr. Kim's lifeline."David E. Sanger, *North Koreans Say They Tested Nuclear Device*, N.Y. TIMES, Oct. 9, 2006, available at

tional community in need of and additional method to push its multilateral agenda of compliance the next Resolution would likely involve economic sanctions targeted against specific industries. Because IT businesses are an area of great excitement for and investment by the DPRK leaders and Internet sanctions would result in (1) increased inconvenience for foreign firms attempting to conduct business with firms in the DPRK and (2) harm to the DPRK's nascent IT industry caused by restricted access to relevant information,<sup>149</sup> Internet sanctions could fit in well alongside targeted economic sanctions.

For multilateral strategies to be effective participating states must have the political will to create and enforce sanctions. It is, of course, impossible to predict exactly what the international will for enforcement of Internet or other sanctions will be in the future, however by examining how the world responded to the October 9 nuclear tests it is possible to see how a serious threat from a 'rogue' country can unify others to act quickly, decisively, and meaningfully.

U.S. President George W. Bush condemned Pyongyang's nuclear test as "a threat to international peace and security" and a "provocative act," and went on to vow that the "international community will respond."<sup>150</sup> French Minister of France M. Philippe Douste-Blazy called for "a firm response to Pyongyang."<sup>151</sup> South Korean President Roh Moo-hyun called the nuclear test an "intolerable" and "grave threat" to the Korean peninsula and Northeast Asia.<sup>152</sup> Russian President Vladimir Putin announced "Without question, Russia condemns the test conducted by the Democratic People's Republic of Korea."<sup>153</sup> Japanese Prime Minister

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<http://www.nytimes.com/2006/10/09/world/asia/09korea.html?ex=1318046400&en=05b5994b8a07334a&ei=5088&partner=rssnyt&emc=rss>. If additional sanctions were necessary, cutting off these supplies and limiting the resources of the DPRK businesses that depend on them would probably represent the steps next taken. Consider parallels to the historical development of sanctions in Sierra Leone, a situation which involved a sector-specific economic sanction. Initially, sanctions consisted of an arms and oil embargo, and a travel ban. Eventually the sanctions regime included a ban on Sierra Leone's exports of diamonds, the SC created panel of experts overseeing sanctions enforcement stating that "diamonds have become an important resource for Sierra Leone's RUF in sustaining and advancing its military ambitions." CORTRIGHT & LOPEZ, *SANCTIONS AND THE SEARCH*, *supra* note 120, at 81.

<sup>149</sup> See *supra* Part I(B).

<sup>150</sup> Center for Nonproliferation Studies, *North Korea Conducts Nuclear Test*, Oct. 10, 2006, at 3, available at [http://www.cns.miis.edu/pubs/week/pdf/061010\\_dprktest.pdf](http://www.cns.miis.edu/pubs/week/pdf/061010_dprktest.pdf) [hereinafter CNS].

<sup>151</sup> Statement made by M. Philippe Douste-Blazy concerning the north korean nuclear test (Oct. 9, 2006) available at [http://www.ambafrance-ca.org/article.php3?id\\_article=1363](http://www.ambafrance-ca.org/article.php3?id_article=1363).

<sup>152</sup> CNS, *supra* note 150, at 6.

<sup>153</sup> *Id.* at 8.

Shinzo Abe stated that “[the nuclear test] is a challenge against the security and peace of our nation and of the whole region” and called for “strict sanctions” to be instituted.<sup>154</sup> China reacted by issuing what is generally regarded as the strongest rebuke made by that country toward the DPRK in decades, referring to the tests as “flagrant and brazen” violation of international opinion and warning Pyongyang to “stop any actions that will make the situation worse.”<sup>155</sup>

The drafting of Resolution 1718 reflected international political will to come down hard on the DPRK’s leaders, and indicates that ‘tough talk’ made by individual nations can manifest in UNSC Resolutions. It does not seem inappropriate to conclude that were a severe threat to international peace and security to manifest, the global community would manifest the political will to administer whatever sanctions were necessary, including Internet sanctions.

The vulnerability of a nation to Internet sanctions can be considered in light of its technical capabilities, its economic circumstances and the role of the Internet among leaders and in popular culture. By these measures the DPRK serves as an excellent example of a state that would be extremely vulnerable to Internet sanctions. As already mentioned, the Internet is not yet widely available to DPRK citizens;<sup>156</sup> its lack would therefore be largely businesses investing in reliance of future reliable, cheap, near instant data transmission and regime leaders. In the last five years North Korea has sought to overcome its perceived investment risks and portray itself as prepared to open its economy and welcome foreign investment by increasing focus on the Rajin-Sonbong “free economic and trade zone,” training a cheap but quality labor force, publicizing plans to open investment promotion offices within its embassies in Singapore and Malaysia, revising its foreign investment laws to relax market entrance conditions, foreign investment requirements and permit full foreign ownership of some ventures, strengthen its intellectual property rights laws and approval of visas for foreign buyers to enter the joint North-South industrial park at Gaeseong, the offering of bonuses to ROK employees who bring in foreign dollars, and investment in IT infrastructure and business ventures.<sup>157</sup> Foreign trade<sup>158</sup> and investment<sup>159</sup> have grown in recent

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<sup>154</sup> *Japan’s Response to North Korea’s Underground Nuclear Test*, FOREIGN PRESS CENTER JAPAN, Oct. 11, 2006, [http://www.fpcj.jp/e/mres/japanbrief/jb\\_677.html](http://www.fpcj.jp/e/mres/japanbrief/jb_677.html)

<sup>155</sup> Joseph Kahn, *North’s Test Seen as Failure For Korea Policy China Followed*, N.Y. TIMES, Oct. 9, 2006, at Sec. A, P. 6, Clmn. 6.

<sup>156</sup> The most recent article on the subject of Internet use in the DPRK seems to confirm that only the Intranet is available to average citizens. *Online dating in Pyongyang? Surely not*, THE ECONOMIST, Feb 1, 2007, available at [http://www.economist.com/world/asia/displaystory.cfm?story\\_id=8640881](http://www.economist.com/world/asia/displaystory.cfm?story_id=8640881).

<sup>157</sup> The DPRK has been described as “. . . a regime that appears increasingly prepared to support foreign investment and open its economy.” Donald Greenlees, *Investors show new interest in North Korea*, INTERNATIONAL HERALD TRIBUNE, Aug. 12, 2005, <http://www.iht.com/articles/2005/08/11/business/invest.php>; See generally

years, presumably in reliance on these DPRK measures and continued market access. If internet sanctions were imposed (1) DPRK exporters relying on the internet to market their goods would have no practical way of making their items available to transnational consumers - by extension whatever contribution those businesses make to the GDP and pay in taxes to the Kim Jong Il regime will be lost - and (2) the inconvenience of having to transfer information via older delivery systems could disenfranchise (or *continue* to disenfranchise) prospective foreign investment, especially IT firms, potentially resulting in the waste of all the efforts to promote the economy.

Additionally, Kim Jong Il (among others) would no longer be able to conveniently retrieve global news reports about the DPRK, transfer money online, or follow emerging internet pop culture trends from South Korea.<sup>160</sup> This may seem trivial at first glance, but many authors assert that the psychological impact of sanctions is an important aspect of their use that should not be discounted. Strack concluded that “[p]olitical, diplomatic, and psychological isolation of Rhodesia was more important than the effect of economic sanctions.”<sup>161</sup> Cortright and Lopez assert that “. . .the threat of sanctions is often more powerful than the sanctions themselves” and identify seven cases in which this held true.<sup>162</sup> On the

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Jonathan Watts, *How North Korea is embracing capitalism by any other name*, THE GUARDIAN, Dec, 3, 2003, <http://www.guardian.co.uk/korea/article/0,2763,1098533,00.html>; Institute of Developing Economies-Japan External Trade Organization, *No.7 Kim Jong Il's North Korea-An Arduous March*-, at ¶ 11, available at <http://www.ide.go.jp/English/Publish/Spot/07.html>; Bertil Lintner, *Shop Till You Drop*, ASIAN PACIFIC MEDIA SERVICES, May 13, 2003, [http://www.asiapacificms.com/articles/north\\_korea\\_market\\_economy/](http://www.asiapacificms.com/articles/north_korea_market_economy/); James Brooke, *Tentatively, North Korea Solicits Foreign Investment and Tourism*, N.Y. TIMES, Feb. 19, 2002, <http://query.nytimes.com/gst/fullpage.html?sec=travel&res=9800E5DA1F3FF93AA25751C0A9649C8B63>; Howard W. French, *North Korea to Let Capitalism Loose in Investment Zone*, N.Y. TIMES, Sept. 25, 2002, <http://query.nytimes.com/gst/fullpage.html?sec=travel&res=9407E0D91239F936A1575AC0A9649C8B63>; Lee Ho-jeong, *ROK reaches out to DPRK on agriculture and animation*, JOONG ANG DAILY, Sept. 26, 2006, <http://www.nkeconwatch.com/2006/09/26/rok-reaches-out-to-dprk-on-agriculture-and-animation/>; Andrei Lankov, *Dollarization of NK Economy*, KOREA TIMES, Sept. 25, 2006, <http://www.nkeconwatch.com/2006/09/25/dollarization-of-nk-economy/>.

<sup>158</sup> The Associated Press, *North Korea's newest profession: Foreign entrepreneur*, INTERNATIONAL HERALD TRIBUNE, Nov. 4, 2006, [http://www.iht.com/articles/ap/2006/11/05/business/AS\\_FIN\\_NKorea\\_Strictly\\_Business.php](http://www.iht.com/articles/ap/2006/11/05/business/AS_FIN_NKorea_Strictly_Business.php)

<sup>159</sup> John Chan, *China joins US in freezing North Korean bank accounts*, Aug. 19, 2006, <http://www.wsws.org/articles/2006/aug2006/kore-a19.shtml>

<sup>160</sup> See *supra* Part I(B).

<sup>161</sup> DAVID A. BALDWIN, *ECONOMIC STATECRAFT* 202 (Princeton University Press, 1985) citing HARRY R. STRACK, *SANCTIONS; THE CASE OF RHODESIA* 247 (Syracuse University Press, 1978).

<sup>162</sup> CORTRIGHT & LOPEZ, *SANCTIONS AND THE SEARCH*, *supra* note 120 at 13.

topic of International participation restrictions - travel and cultural participation bans - Lopez writes:

“ . . . more than any other form of smart sanctions, these constraining devices have been under-investigated and not fully maximized regarding their coercive potential. In particular, those nations . . . which have suffered under such bans in the past . . . have noted the sense of psychological isolation, the denial of legitimacy, and damaged national pride which accompanies such bans. Such realities can take their toll.”<sup>163</sup>

Even Sun Tzu acknowledged the goal of personalizing coercive attempts in what has become the paragon of military treatises, *The Art of War*, writing “If your opponent is of choleric temper, irritate him.”<sup>164</sup> From these sources it seems that there is a strong argument to be made that Internet sanctions, as constraints on behavior, can make regime members feel exposed, isolated and frustrated.

Vulnerability is also dependent on feasibility; a mere decade ago it would have been unfathomable that a state could be isolated from the Internet. Today however, a country can be isolated from the global community along digital ‘borders’ that exist co-extensive with the margins of the target state. The physical structure that underlies the Internet and the increasing accuracy and application of geolocation technologies make this viable.

To understand how recreating borders is possible, it is necessary to understand how a computer connects to the Internet. The first step is usually contracting with an ISP (Internet Service Provider), who assigns your computer a unique Internet Protocol address (IP).<sup>165</sup> Internet addresses are in the form nnn.nnn.nnn.nnn where nnn must be a number from 0 - 255.<sup>166</sup> To ‘talk’ to other computers, each computer’s operating system is programmed with a ‘protocol stack.’ The protocol stack used on the Internet is referred to as the TCP/IP protocol stack, which refers to

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<sup>163</sup> George A. Lopez, *Economic Sanctions and Failed States: Too Little, Too Late and Sometimes Too Much?*, A paper prepared for the Purdue Conference on Failed States, April 8 - 11, 1999 available at [http://www.comm.ucsb.edu/research/mstohl/failed\\_states/1999/papers/Lopez.html](http://www.comm.ucsb.edu/research/mstohl/failed_states/1999/papers/Lopez.html). In regards to the sanctions imposed on Libya, “Some outside observers, however, regard the primary impact of the sanctions as ‘psychological.’” W. Michael Reisman & Douglas L. Stevick, *The Applicability of International Law Standards to United Nations Economic Sanctions Programmes*, available at <http://www.ejil.org/journal/Vol9/No1/art4.pdf>.

<sup>164</sup> SUN TZU, *THE ART OF WAR* (1910)(trans. by Lionel Giles, MA) available at <http://www.chinapage.com/sunzi-e.html>.

<sup>165</sup> Jeff Tyson, *A Hierarchy of Networks*, <http://computer.howstuffworks.com/internet-infrastructure1.htm>.

<sup>166</sup> Jeff Tyson, *Internet Protocol; IP Addresses*, <http://computer.howstuffworks.com/internet-infrastructure5.htm>.

the two major communication protocols used.<sup>167</sup> The information sent to and from computers is broken down into small pieces, referred to as 'packet' data, and sent through routers controlled by ISP's, who maintain the link between an individual computer or network and the Internet.<sup>168</sup> For customers who access their ISP by dialing in, the ISP maintains a series of modems, managed by a dedicated computer, that controls data flow from the modem pool to the ISP's backbone or backbone the ISP buys bandwidth from.<sup>169</sup> This setup may be referred to as a port server, as it 'serves' access to the network.<sup>170</sup> From there, your information makes its way to a server, which directs your computer to a website maintained on that server.<sup>171</sup>

Generally, authorities have agreed that there are two 'levels' that could function to condition Internet access; the physical structure that allows computers to connect to each other, and the path of data as it traverses the global network.

On the topic of structural control, Goldsmith and Wu state:

"Underneath the mists and magic of the Internet lies an ugly physical transport infrastructure: copper wires, fiber-optic cables, and the specialized routers and switches that direct information from place to place. The physical structure is an asset owned by phone companies, cable companies, and other Internet Service Providers that are already some of the most regulated companies on earth. This makes ISPs the most important and obvious focal points for control."<sup>172</sup>

A UNSC Resolution could require that computers in the DPRK be denied access to the infrastructure of the Internet. This could be accomplished through either physical severance of links (a measure possibly more appropriate if broad telecommunications sanctions rather than only Internet sanctions are being applied), through denial of service to computer attempting to connect through those lines; a "shut down" of cables if you will, and through prohibitions or legal and tax disincentives to contracting with any DPRK ISP's attempting to gain access to the larger network. This would not be entirely unprecedented; the US embargo on Cuba is widely blamed as responsible for that countries electronic isolation, as it effectively denies Cuba access to the most convenient physical

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<sup>167</sup> Rus Shuler, *How Does the Internet Work?*, 2002, [http://www.theshulers.com/whitepapers/internet\\_whitepaper.html](http://www.theshulers.com/whitepapers/internet_whitepaper.html)

<sup>168</sup> Jeff Tyson, *Bridging the Divide*, <http://computer.howstuffworks.com/internet-infrastructure3.htm>; Shuler, *supra* note 167.

<sup>169</sup> Jeff Tyson, *Clients and Servers*, <http://computer.howstuffworks.com/internet-infrastructure9.htm>; Shuler, *supra* note 167.

<sup>170</sup> Billing and usage information is usually collected here. Shuler, *supra* note 167.

<sup>171</sup> *Id.*

<sup>172</sup> Jack Goldsmith & Timothy Wu, *Digital Borders*, 2006-FEB LEG. AFF. 40, 44 (2006).

infrastructure necessary to “log on.”<sup>173</sup> The fact that so few companies provide transnational Internet (or merely email services) links to the DPRK makes it a second excellent example of how a UNSC Resolution and the domestic laws implementing it could remove access to the Internet to an entire country.

A UNSC Resolution mandating restricted access to the Internet could also be enforced through domestic legislation creating regulatory systems overseeing servers, hosting services, or major switching hubs and ensuring that requests from computers located in the DPRK are denied. Gerlach has identified two places where the flow of data into a country can be controlled, and these locations could also be used as the locations from which requests for web-page access by a computer in the DPRK could be denied; “. . . a central server, which the government controls, and through which all Internet access in the country flows. Since all internet traffic is routed through the central server it is easy to control and monitor all traffic into the nation.” and “[f]or countries that already have a established network with multiple access points granting access to the rest of the world, having ISP’s do the filtering might be more practical.”<sup>174</sup>

This approach would make geolocation software - software designed to determine the physical location of a computer based on its IP address - a backbone of the Internet. Geolocation software works on a very simple premise. Information about all the IP addresses in use and the locations associated with those addresses is first gathered and stored

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<sup>173</sup> “Since 1996, Cuba has used a relatively low-capacity satellite link to connect to the outside world because the United States has blocked it from connecting to nearby fiber-optic networks that run to the U.S. or through U.S.-administered Puerto Rico.” John Rice, *Cuban official calls for controlling ‘wild colt of new technologies,’* ASSOCIATED PRESS, Feb.13, 2007, <http://go.sosd.com/servlet/nrp?cmd=sty&cid=RIM&pgn=1&ino=983375&cat=Technology&lno=1>; See also *Cable line to expand Cuba’s Web capacity*, CNN MONEY, Feb.15, 2007, <http://money.cnn.com/news/newsfeeds/articles/newstex/AFX-0013-14565098.htm>; Reporters Without Borders, *Minister blames US embargo for low number of Cubans online*, Feb. 13, 2007, [http://www.rsf.org/article.php3?id\\_article=20999](http://www.rsf.org/article.php3?id_article=20999). Additionally, consider how the 7.1 magnitude earthquake centered in the southwest coast of Taiwan severed most of the undersea cables - the infrastructure - that allowed Taiwan, China, Hong Kong and Singapore to connect to America and from there, access to certain websites. Patrick Egan, *Offshore Multi-site Development after a 7.1 Earthquake in Taiwan*, Feb.1, 2007, <http://www.cmcrossroads.com/content/view/7638/166/>; *China’s internet “basically restored” after Taiwan earthquake*, PEOPLES DAILY ONLINE, Jan 30, 2007, [http://english.people.com.cn/200701/30/eng20070130\\_346146.html](http://english.people.com.cn/200701/30/eng20070130_346146.html); *As Effects of Taiwan Earthquake Continue to Disrupt Internet Communications, Companies Find Business Continuity With Akamai*, Feb. 1, 2007, [http://sourcewire.com/releases/rel\\_display.php?relid=29364&hilitte=](http://sourcewire.com/releases/rel_display.php?relid=29364&hilitte=); Weiai Xu, *Earthquake Disrupts Internet Access in China*, Dec. 28, 2006, [http://english.ohmynews.com/ArticleView/article\\_view.asp?no=337110&rel\\_no=1](http://english.ohmynews.com/ArticleView/article_view.asp?no=337110&rel_no=1).

<sup>174</sup> Tim Gerlich, *Using Internet Content filters to Create E-Borders to Aid in International Choice of Law and Jurisdiction*, 26 WHITTIER L. REV. 899, 914 (2005).



by a company providing geo-location software. When a user enters a URL (www.bu.edu/law), an access-request is sent to a sever that hosts the requested website. The server responds by forwarding the IP address to the provider of the of the geo-location service, which compares the IP address to information in its database and forwards information regarding the users location to the server. The web server then either grants the access-seekers request to proceed to a given URL, or denies the request based on physical location.<sup>175</sup>

In recent years geolocation software has received increasing attention from academics and professionals.<sup>176</sup> Providers of geolocation software are obviously quick to brag about the accuracy of their services in order to attract business; Infosplit maintains that its technology can identify the country of a user with 98.5% accuracy,<sup>177</sup> Digital Envoy claims its product NetAcuity provides accuracy rates of over 99% at a country level,<sup>178</sup> Quova claims that its GeoPoint software maintains 98% accuracy.<sup>179</sup> In reality, independent studies have verified that the technology can identify the location of users at the state level approximately 70-80% of the time.<sup>180</sup>

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<sup>175</sup> Dan Jerker B. Svantesson, *Geo-location Technologies and Other Means of Placing Borders on the 'Borderless' Internet*, 23 J. MARSHALL J. COMPUTER & INFO. L. 101, 110 (2004).

<sup>176</sup> A slightly dated survey revealed from 2004 that a large number of companies attempted to identify the location of those who visit their website. Michael Geist, et al., *Global Internet Jurisdiction: The ABA/ICC Survey* (April 2004), <http://www.mgblog.com/resc/Global%20Internet%20Survey.pdf>.

<sup>177</sup> Peter S. Jenkins, *Leafleting and Picketing on the "Cydewalk" - Four Models of the Role of the Internet in Labor Disputes*, 2003 UCLA J.L. & TECH. 1 (2003), available at [http://www.lawtechjournal.com/articles/2003/01\\_030601\\_jenkins.php](http://www.lawtechjournal.com/articles/2003/01_030601_jenkins.php); Michael Geist & Denis T. Rice, *Is There a There There? Toward Greater Certainty for Internet Jurisdiction*, 661 PLI/PAT 561, 613 (2001).

<sup>178</sup> Svantesson, *Geo-location Technologies*, *supra* note 175, at 111; Geist & Rice, *supra* note 177, at 614-615.

<sup>179</sup> Geist & Rice, *supra* note 177, at 615

<sup>180</sup> Ariana Eunjung Cha, *Rise of Internet 'Borders' Prompts Fears for Webs Future*, WASH. POST., Jan 4, 2002, at E01; The French Court's decision in the Yahoo! case concluded that users located in France could be successfully prevented from accessing prohibited material based on geol-location software with a 70% success rate. Int'l League against Racism & Anti-Semitism (LICRA) v. Yahoo! Inc., Superior Court of Paris, Nov. 20, 2000 (Fr.) available at <http://www.gigalaw.co/library/france-yahoo-2000-11-20-lapres.html>. It should also be noted that there is at least one geolocation method that does not rely on IP-address lookup; in 2005 the NSA patented (but licensed for industry use) its Network Geo-Location Technology, which determines the location of a computer based on the time lag between networked computers as they exchange data (or 'latency'). ALR May 9, 2006; Declan McCullagh, *NSA granted Net location-tracking patent*, Sept. 21, 2005, [http://news.com.com/NSA+granted+Net+location-tracking+patent/2100-7348\\_3-5875953.html](http://news.com.com/NSA+granted+Net+location-tracking+patent/2100-7348_3-5875953.html); United States Patent - Method

States like China and Saudi Arabia that have established online ‘borders’ by employing widespread filtering technology at government controlled data entry-points and requiring domestic ISP’s do the same would not have a hard time meeting this requirement - certainly geolocation capabilities could be added to these “firewalls” that deny access to individuals attempting entry with an IP address from the North.<sup>181</sup> Democracies with traditionally more internationally accessible data entry points and less experience in regulating Internet traffic would have a harder time ensuring selectively restricting access while preserving the generally free exchange of information, though a host of recent litigation and legislation that makes access to content contingent on physical location implies that the international community increasingly must confront these conflicts even without a UNSC action forcing the issue.<sup>182</sup>

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for geolocating logical network addresses, Sept. 5, 2005, available at <http://cryptome.org/nsa-6947978.htm>.

<sup>181</sup> “In Saudi Arabia, all Internet traffic in the country is routed through a proxy server at the country’s Internet Services Unit, [acting] both to apply filtering criteria promulgated by the state and on specific filtering requests from individual state agencies.” Jonathan Zittrain, *Be Careful What You Ask for: Reconciling a Global Internet and Local Law*, Research Publication No. 2003-03 (2003), <http://cyber.law.harvard.edu/home/uploads/204/2003-03.pdf>.

<sup>182</sup> In *LICRA v. Yahoo!*, France brought suit against Yahoo! (a U.S. Internet portal) for violating a French law against the selling of Nazi paraphernalia. Yahoo! argued, among other things, that location is a meaningless concept on the Internet. The Court didn’t agree, and concluded that the use of IP numbers, as a reliable means of geolocation, could identify users (70% of the time) as being located in France and block access to the Nazi paraphernalia accordingly. See *LICRA supra* note 180; Andreas Manolopoulos, *Raising ‘Cyber-Borders’: The Interaction Between Law and Technology*, 11 INT’L J.L. & INFO. TECH. 40, 41 (2003).

*Twentieth Century Fox Film Corporation, v. iCraveTV* involved a web service that rebroadcast American television shows on the Internet (legal in Canada but not in the United States). *iCraveTV* defended by arguing, that there was no intention of broadcasting to viewers in the United States, and that the retransmission off “freely available over-the-air television stations—that anyone can pick up with a regular antenna.” The Court noted that intention was irrelevant and examined the IP numbers in the log of the *iCraveTV* server. Geolocation was used to find that 45 percent of viewers were in the United States and the Court found for the plaintiffs, writing that “defendants are unlawfully publicly performing plaintiffs’ copyrighted works in the United States.” *Twentieth Century Fox Film Corporation, V. iCraveTV*, 2000 WL 255989, ¶ 22 (W.D.Pa.); John Borland, *iCraveTV.com exec discusses his start-up’s short life*, Feb. 29, 2000, [http://news.com.com/iCraveTV.com+exec+discusses+his+start-ups+short+life/2100-1033\\_3-237450.html](http://news.com.com/iCraveTV.com+exec+discusses+his+start-ups+short+life/2100-1033_3-237450.html). The case was settled out of court, and the site was shut down. John Townley, *iCraveTV Settlement Shuts Down Site*, Feb. 29, 2000, <http://www.internetnews.com/bus-news/article.php/312161>.

A consumer in Germany will be denied access to comparison-shopping sites because German law prohibits side-by-side price comparisons in advertising. ISP’s in Germany and search engines operating within the country must filter out this content.

Circumvention problems are an obvious drawback to reliance on geolocation technologies. As one recent report put it, “[n]o . . . known method for Internet geolocation is *robust* - i.e., works for all IP address, all software and network configurations, and against all adversarial end-users.”<sup>183</sup> The use of dial-out services, utilization of remote proxy servers and engagement in remote sessions are all typical methods of evading geolocation.<sup>184</sup> While ISP’s can tell when users are using some of the above methods,<sup>185</sup> and in some cases, can be defeated by other location determining mechanisms, circumvention tools run the risk of making geolocation a “cat and mouse” chase with the authorities.<sup>186</sup> The

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Lisa Guernsey, *Welcome to the World Wide Web. Passport, Please?*, N.Y. TIMES, Mar. 15, 2001, [http://www.quova.com/page.php?id=33&coverage\\_id=86](http://www.quova.com/page.php?id=33&coverage_id=86).

The Dutch Supreme Court recently found that a foreign online gambling site should restrict the access of Dutch nationals using IP geo-location, *Dutch Supreme Court Pushes Geolocation*, Feb. 21, 2005, <http://constitutionalcode.blogspot.com/2005/02/dutch-supreme-court-pushes-geolocation.html>; Bradley Vallerius, *De Lotto Prevails over Ladbrokes in Dutch Supreme Court*, Feb. 19, 2005, <http://www.igamingnews.com/index.cfm?page=artlisting&tid=5687>. More generally, content providers have begun to electively filter content based on the physical location of a user. Google, PBS, NBC, BBC and the New York Times for example employ filtering technology to prevent user access in certain areas. Associated Press, *New York Times blocks article in U.K.*, Aug. 30, 2006, <http://www.cbc.ca/news/story/2006/08/30/tech-block.html>; *Olympic filtering*, Aug. 17, 2004, <http://ice.citizenlab.org/archives/000040.html>; *PBS Geolocation*, Jan. 31, 2006, <http://www.opennetinitiative.net/blog/?p=86>; Christina M. Delucia *Google Found Censoring Extremist Websites*, THE HARVARD CRIMSON, Oct. 28, 2002, <http://www.thecrimson.com/article.aspx?ref=254884>.

<sup>183</sup> James Muir & P.C. van Oorschot, *Internet geolocation and Evasion*, School of Computer Science, Carleton University 20 (Apr. 10, 2006) available at <http://www.ccs.carleton.ca/~jamuir/papers/TR-06-05.pdf>.

<sup>184</sup> *Id.* at 13-14; Dan Svantesson, *Geo-location Technologies – A Brief Overview* at 3, available at [www.svantesson.org/svantesson20040906.doc](http://www.svantesson.org/svantesson20040906.doc)

<sup>185</sup> Dan Svantesson, “*Imagine There’s No Countries. . .*” - *Geo-location, the Law, and the Not-So-Borderless Internet*, 10 J. INTERNET L. 1, 4 (2007) (noting that “the producers of IP based geo-location technologies are working to identify the servers providing the anonymising services.”). See also Phil Muncaster, *Geolocation Gets Smarter; Specialist Quova Launches New Capabilities which Could Help Firms’ Fraud Prevention Efforts*, IT WEEK, Jun. 13, 2007, available at <http://www.itweek.co.uk/itweek/news/2192025/geolocation-gets-smarter>.

<sup>186</sup> Even if this is true, its important to keep in mind that “. . . [filtering] is far from perfect, but it can drastically increase a Net surfer’s burden to getting to desired information” and, as Goldsmith and Wu wrote, a “law need not be completely effective to be adequately effective. All the law aims to do is raise the costs of the activity in order to limit that activity to acceptable levels.” Goldsmith & Wu, *supra* note 172, at 45. Jonathan Zittrain, *Be Careful What You Ask For: Reconciling a Global Internet and Local Law*, Research Publication No. 2003-031, 13 (2003) available at <http://cyber.law.harvard.edu/home/uploads/204/2003-03.pdf>. All sanctions regimes have had to deal with some form of non-compliance, black market supply or loopholes in Resolution language - yet sanctions continue to be treated as a valuable

software would almost certainly have to be used in conjunction with the ‘infrastructure’ measures already discussed in order to increase the chances that when a DPRK leader attempts to access news from South Korea, a “server unavailable” message is received.

Additionally, a UNSC Resolution imposing Internet sanctions might be just the impetus needed to foster the development of “next generation” geolocation products and take it out of the “early adaptors” phase. Reidenberg wrote, in reference to *Center for Democracy & Technology v. Pappert* (a constitutional challenge to the Pennsylvania statute that required children’s access to pornography be blocked through web filtering), that “[t]echnology is dynamic and reacts to legal jurisdictional claims. Had the courts imposed responsibility on Internet service providers, those providers would have had a strong incentive to rapidly develop technologies that would allow more refined filtering. . . .”<sup>187</sup> It may not be unreasonable to believe that strong support for the use of geolocation technology by governments, ISP’s and content providers in the present will manifest in stronger geolocation technologies in the immediate future.<sup>188</sup>

### B. *The Benefits and Costs of Imposing Internet Sanctions*

It is difficult to imagine that Internet sanctions would secure compliance with international will or deter future behavior unless they were part of a larger sanctions regime. There are, after all, other ways of getting information. That said, Internet sanctions have some significant potential benefits associated with their use. In addition to the psychological and business investment deterrent purposes which have already been mentioned, Internet sanctions *can* be “targeted” against regime leaders, and

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tool of the international community. It should be remembered that a crucial goal of Internet sanctions is to *isolate*. Certainly a sanction with less than 100% effectiveness can still isolate a regime from the larger international community.

<sup>187</sup> Joel R. Reidenberg, *Technology and Internet Jurisdiction*, 153 U. PENN. L. REV. 1951, 1974 (2005) ; Reidenberg expressed essentially the same sentiment in an earlier paper, stating that “. . . regulators may compel developers of technology to build policy-enforcing designs into their products.” Reidenberg, *States and Internet Enforcement*, *supra* note 6, at 218.

<sup>188</sup> There may be developments that occur concomitant to those in the geolocation software industry that effect the accuracy of the technology as well. It has been noted that the gradual shift to Internet Protocol Version 6 (IPv6) will increase user traceability. *Innovation may lower Net users’ privacy*, INTERNATIONAL HERALD TRIBUNE, Mar. 20, 2006, <http://www.iht.com/articles/2006/03/19/business/chinet20.php>. “IPv6 allows for many new possibilities, including a new geolocation system that lines up IPv6 addresses with squares or hexagons across the earth’s surface, in a new and novel latitude and longitude system that can be scaled down to nearly microscopic granularity, potentially.” *What is IPv6?*, [http://www.usipv6.com/what\\_is\\_ipv6.php](http://www.usipv6.com/what_is_ipv6.php); *contra* Svantesson, *Geo-location Technologies – A Brief Overview*, *supra* note 184 for a counter perspective on the limitations of the shift to IPv6.

thus used with low social or humanitarian cost to the target state. This allows the UNSC to keep its moral legitimacy and provides little fuel for “rally around the flag” activities.<sup>189</sup> This benefit is obviously restricted to countries like the DPRK where the Internet has little or no social penetration. Internet sanctions would also include a significant symbolic benefit, as they deprive targeted individuals from their freedom of online movement and the resultant prestige.

The costs associated with the imposition of Internet sanctions would be difficult to measure, and include what I will refer to as ‘process costs’ (legal or Internet systems reform, impact monitoring, planning, implementation, coalition- and consensus-building), lost income to domestic businesses, and possible design of an administrative body overseeing compliance and enforcement.<sup>190</sup> If used in conjunction with targeted financial sanctions, certain costs associated with enforcement and monitoring could be offset by using the frozen assets of the DPRK, similar to what was done in Iraq.<sup>191</sup>

There is no doubt that the Internet is a physically and legally complicated system; obviously the resources and expertise necessary to ensure compliance will be extensive. Process costs could be lowered, however, by encouraging domestic bodies to develop and reform the various Internet-associated legal, social, and physical infrastructures before Internet sanctions had to be used. UN proposed generic ‘models’ that national governments could use as a guide to implementing UNSC resolutions calling for Internet sanctions would lower the administrative costs of domestic implementation, as it decreases the volume of human resources necessary to establish domestic compliance. Further, its worth considering that once the ‘system’ for implementing, managing, and enforcing Internet sanctions were established at the international and domestic level and used once, the associated ‘process costs’ could drop considerably. By the second use of Internet sanctions, the measures necessary to make them effective would be already be in place and would not need to be re-reformed to accommodate UNSC requirements.

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<sup>189</sup> See generally Ivan Eland, *Economic Sanctions as Tools of Foreign Policy*, in CORTRIGHT & LOPEZ, EDs., *ECONOMIC SANCTIONS: PANACEA OR PEACEBUILDING IN A POST-COLD WAR WORLD* 29-42 (Westview Press, 1995).

<sup>190</sup> This list is not intended to be exhaustive, it is merely provided to illustrate some of the many high cost obligations that will have to undertaken in order for Internet sanctions to work effectively.

<sup>191</sup> In 1992 the UN used frozen Iraqi assets to pay for UNSCOM (created to unveil and eliminate Iraq’s weapons of mass destruction) and compensate Kuwaiti victims of the Iraqi invasion. JEAN E. KRASNO & JAMES S. SUTTERLIN, *THE UNITED NATIONS AND IRAQ: DEFANGING THE VIPER*, 26 (Praeger/Greenwood, 2003); Paul Lewis, *UN Council Votes to Use Iraqi Frozen Assets Abroad*, N.Y. TIMES, Oct. 3, 1992.

### C. *General Concerns Associated with the Use of Internet Sanctions*

Questions associated with the use of Internet sanctions do not turn merely on technical capacity, cost and coercive ability. Issues of human rights and the broader effects that sanctions have on targeted state populations have been standard considerations for the UNSC for the last decade. These issues of course are implicated in the Internet sanctions discussion.

#### 1. International Human Rights

Since 1945 a vast and impressive body of international law has codified fundamental human rights. The Universal Declaration of Human Rights (1948), the International Covenants on Economic, Social and Cultural Rights (1966) and on Civil and Political Rights (1966) and regional instruments like the European Convention for the Protection of Human Rights (1950), Charter of Fundamental Rights of the European Union (2000), the American Convention on Human Rights (1969) and its Additional Protocol in the Area of Economic, Social and Cultural Rights (1988) and the African Charter on Human and Peoples' Rights (1981) are all part of the international human rights framework.

Like all punishments or injunctions Internet sanctions have the potential to infringe on the rights expressed in these agreements and on international *jus cogens* norms. This, taken in the context of the significant number of legal challenges against domestic legislation implementing UNSC Resolutions that impose "targeted" sanctions increases the likelihood that legal challenges to the legitimacy of Internet sanctions will occur.<sup>192</sup> A serious consideration of how Internet sanctions fit in with broader human rights norms and laws is therefore necessary; it is easy to see, for example, how constraints on Internet presence and 'travel' implicate an individual's right to freedom of movement,<sup>193</sup> freedom from interference (privacy),<sup>194</sup> free expression<sup>195</sup> or right to life<sup>196</sup> (to name but a

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<sup>192</sup> There are 15 cases of individuals and organizations targeted by UN sanctions challenging the national implementation of UN directives in domestic and regional courts. These cases generally focus on the lack of adequate remedy in the UN system, notification issues, and claims of 'wrongful listing.' The Watson Institute for International Studies, *Strengthening UN Targeted Sanctions Through Fair and Clear Procedures*, Mar. 2006, at 10, available at [http://watsoninstitute.org/pub/Strengthening\\_Targeted\\_Sanctions.pdf](http://watsoninstitute.org/pub/Strengthening_Targeted_Sanctions.pdf).

<sup>193</sup> "Everyone shall be free to leave any country, including his own." International Covenant on Civil and Political Rights art. 12, Mar. 23, 1976, 999 U.N.T.S. 171 [hereinafter ICCPR].

<sup>194</sup> "No one shall be subjected to arbitrary or unlawful interference with his privacy, family, home or correspondence, nor to unlawful attacks on his honour and reputation." *Id.* at art. 17 ¶ 1. The information available to an individual capable of tracking an IP is more than one might think. Etc etc. At the same time, the knowledge required to launch effective financial sanctions that freeze personal and

few concerns, and depending on how broadly those provisions can each be read in the various treaties in which they are codified).

As was the case when “smart” sanctions were first conceived, to attempt to answer the questions raised by the interaction between transnational human rights and Internet sanctions will require an entire body of research and much academic gnashing of teeth. As the scholarship on this topic grows, there is no doubt that the “free expression” arguments will be among the most virulent; advocates of the free expression ideal no doubt pointing to a series of privileges Internet access once provided (or was perceived to have provided) that will be lost and opponents emphasizing the importance of having another global enforcement mechanism that no more ‘politicizes’ the Internet than does use of the international banking system to enforce targeted financial measures ‘politicize’ banks.<sup>197</sup> Because of its centrality to the Internet sanctions concept, I will focus on the issues of free expression in this paper, reserving other human rights concerns for later works. Though not addressing the topic of Internet sanctions directly, I believe that the insights of authors who have written about the rise of Internet ‘borders’ provide a useful starting point for framing the debate.

Three years have passed since Dan Svantesson wrote of geo-location technologies that “norms may affect its use, but currently it is difficult to know whether norms will strengthen or weaken [its] regulatory influence.”<sup>198</sup> Since his article, the trend has been one of increasing legislative

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government assets certainly must also be a violation of privacy, a fact that has yet to stop the UNSC from doing just that.

<sup>195</sup> “Everyone shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of his choice.” ICCPR, *id.* at art. 19 ¶ 2; “Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers” Universal Declaration of Human Rights, art. 19, Dec. 10, 1948, GA/RES. 217 (LXIII); “Everyone has the right to freedom of expression. this right shall include freedom to hold opinions and to receive and impart information and ideas without interference by public authority and regardless of frontiers. This article shall not prevent States from requiring the licensing of broadcasting, television or cinema enterprises.” European Convention for the Protection of Human Rights and Fundamental Freedoms, art. 10 ¶ 1, Nov. 1950, 213 U.N.T.S. 221.

<sup>196</sup> It is possible to envision a scenario in which the life of a UN “targeted” individual depends on access to medical information available only through the Internet. ICCPR, *supra* note 193, at art. 6.

<sup>197</sup> This is a very broad way of conceptualizing the positions that can be taken. It also should be recognized that there are significant differences in the arguments that can be made in reference to a UNSC sanction restricting a states access to the Internet versus those that pertain to broader concerns that an increasingly ‘bordered’ internet will stifle free expression generally.

<sup>198</sup> Svantesson, *supra* note 175, at 108.

and judicial reliance on geo-location software to improve or restrict user access to domestically appropriate Internet content.<sup>199</sup> To the degree that this can be taken as a continued mandate by states to impose a “regional” based structure to the Internet that makes access to certain information conditional on compliance with domestic law, there would appear to be a consensus that favoring restricted access to the Internet in appropriate circumstances when such restrictions enforce a domestic agenda.<sup>200</sup>

Jack Goldsmith and Timothy Wu respond to concerns that a ‘bordered’ internet curtails free speech by pointing out that “people who use the Internet in different places read and speak different languages, and they have different interests and values that content providers want to satisfy.”<sup>201</sup> Their argument is essentially that even democracies can disagree over which speech is protected, and it is unlikely that these disagreements in themselves will reverse the trend toward Internet ‘bordering;’ legislating restricted access to content based on geography is simply too important a tool for government officials charged with enforcing domestic laws or advancing domestic agendas.

The Yahoo! case litigation was just one example of how filtering technology is employed in this manner. In South Korea, Internet users are denied access to the 31 or so operational North Korean websites and 3,167 other sites under the ROK’s National Security Law, drafted to protect the country from communist influence and infiltration.<sup>202</sup> In Germany, ISP’s are regularly required to block access to foreign ‘right-wing’ sites or sites containing “racist, xenophobic and Nazi-related materi-

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<sup>199</sup> See *supra* notes 181-182.

<sup>200</sup> The “to the degree” in this sentence is an important qualifier that should be explored. There is certainly a big difference between a policy maker who does not object to a bill permitting only geographically appropriate content to be available to a certain area versus a policy maker who agrees with the use of the Internet as a mechanism for global law and norm enforcement.

<sup>201</sup> Goldsmith & Wu, *Digital Borders*, *supra* note 172, at 45.

<sup>202</sup> “The country was one of the first in the world, in 1995, to pass a law to monitor the posting and reading of online material. The Information Communication Ethics Committee (ICEC) keeps a very close eye on the content of websites and discussion forums and can recommend that access to them be blocked.” “In June 2002, the country’s constitutional court struck down article 53 of the 1995 law, along with article 16 providing for its application, after criticism by the Internet freedom group Jinbonet and Lawyers for a Democratic Society. In November, parliament amended Article 53, replacing the term “dangerous content” with ‘illegal content.’ But the powers of the ICEC and the ministry to monitor and punish were upheld.” Reporters Without Borders, South Korea, 2004, [http://www.rsf.org/article.php3?id\\_article=10774](http://www.rsf.org/article.php3?id_article=10774); OpenNet Initiative, *Bulletin 009*, Jan. 31, 2005, <http://www.opennetinitiative.net/bulletins/009/>.



als.”<sup>203</sup> In the US, China and Italy, gambling laws require that ISP’s restrict access to UKbetting.com.<sup>204</sup> If any individual outside the United States attempts to access Showtimeonline.com their access will be denied, and the following message will appear; “Sorry. We at Showtime online express our apologies; however, these pages are intended for access only within the United States.”<sup>205</sup> What these cases make clear is that mere differences between the speech that states consider acceptable will not stop individual states from advancing their domestic agenda. It would seem to follow that, in appropriate circumstances, free speech concerns in and of themselves would not prevent states from attempting to use the Internet as a multilateral policy tool.

It is also important to remember that the Internet is often used as a tool of repression in authoritarian regimes;<sup>206</sup> by removing access, its possible to conceive of Internet sanctions as *promoting* free speech by damaging a communication mechanism that is used to present only biased and inflammatory information.

## 2. Internet sanctions could harm regime opponents

This is an important concern; that in the process of attempting to (there is an expression that I want to use here but cant remember. Its something like “in the process of burning the barn you kill the chickens” but not nearly as stupid sounding). Whenever multilateral action is taken, it should be done so with an eye toward the future.

The DPRK is a paradigmatic example of a situation where Internet sanctions could be leveled and regime opponents would not be affected. It was not until very recently that there was any credible evidence that the DPRK was home to organized opponent groups. Border incidents in 2006, a series of smuggled videos that depict a defaced portrait of Kim Jong Il, the lifestyle of typical North Koreans and executions carried out

<sup>203</sup> *Seventy-six ISP’s in North Rhine-Westphalia were ordered to block two American sites.* World Future Fund, Internet Censorship, <http://www.worldfuturefund.org/wffmaster/Reading/Censorship/Internet%20Censorship%20Report.htm>,

<sup>204</sup> Ariana Eunjung Cha, *Rise of Internet ‘Borders’ Prompts Fears for Web’s Future*, WASH. POST., Jan. 4 2002, at E01, available at <http://www.4law.co.il/frnet1.pdf>.

<sup>205</sup> Svantesson, *Borders on or Borders Around*, *supra* note 184 at 357, citing The L Word, Guinevere Turner.com, <http://www.sociopranos.com/GTS/thelword.html> and Reason: Hit & Run, A Steaming Pile of Entertainment (Dec. 22, 2003), <http://www.reason.com/hitandrun/2003/12/a-steaming/pile.shtml>.

<sup>206</sup> “Power has not been weakened by the supposedly anarchical Internet, and repression is likely to be enhanced by it, perhaps very significantly.” E.N. Luttwak, *Power Relations in the New Economy*, 44 SURVIVAL 7 (2002). See generally Nina Hachigian, *The Internet and Power in One Party East Asian States*, 25 WASH. QUART. 41 (2002); Shanthy Kalathil, Taylor C. Boas, *The Internet and State Control in Authoritarian Regimes: China, Cuba, and the Counterrevolution*, 21 Working Papers (July 2001), available at <http://www.carnegieendowment.org/files/21KalathilBoas.pdf>; *Caught in the net*, THE ECONOMIST, (Jan. 23 2003).

by military personnel<sup>207</sup> and a recent mass political-prison escape probably organized by regime opponents have been the first signs that systematic resistance to the ROK exists.<sup>208</sup>

Though the videos were posted to a South Korean human rights website, the DPRK resistance smuggled its video footage through activists in China and there is no indication that the Internet, or any telecommunications device, contributed to their ability to perform these operations. The opposition movement has no website, and does not attempt to communicate with the world at large through the Internet. Based on the paucity of Internet contact points and the lack of computer penetration there is a low probability that regular internet access will even become available to an opposition movement anytime soon. Additionally, since Internet sanctions would not affect the DPRK domestic Intranet network, any opposition in the North would still be able to take full advantage of domestic communication infrastructure in their efforts.

3. Internet sanctions could impair the ability of UN operations and NGO's to function within the target country.

This is a realistic concern that will have to be considered by any multi-lateral coalition considering the use of Internet sanctions. Here too, the DPRK provides a useful example for how this issue can be avoided entirely by careful selection of target states.

In September 2005 the North announced that all resident foreigners working in conjunction with the approximately twelve NGO's operating in the DPRK would have to leave the country by the end of the year and asked the UN to end its humanitarian aid efforts.<sup>209</sup> Ostensibly the rationale was the that food crises that precipitated humanitarian assistance a

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<sup>207</sup> Available at <http://www.korealiberator.org/2005/05/24/la-times-on-north-korean-dissent-video/>; See also Michael Sheridan, *Kim tested by rise of armed resistance*, Sunday Times, Oct. 22, 2006, <http://www.timesonline.co.uk/article/0,,2089-2415492,00.html>; *First signs of protest in world's top secret state*, Jan, 15 2005, <http://www.telegraph.co.uk/news/main.jhtml?xml=/news/2005/01/18/wkor18.xml&sSheet=/portal/2005/01/18/ixportal.html>

<sup>208</sup> Report: *120 North Korean political prisoners escape*, CNN NEWS, Feb.7, 2007, <http://www.cnn.com/2007/WORLD/asiapcf/02/07/nkorea.prisoners.ap/>

<sup>209</sup> Certain "development assistance" activities are still be permitted, but these require little or no presence within the DPRK (e.g. transferring food or energy to the DPRK). Mark E. Manyin, *U.S. Assistance to North Korea: Fact Sheet*, CRS Report for Congress, (Jan. 3, 2007) at 3 available at <http://www.nationalaglawcenter.org/assets/crs/RS21834.pdf> citing "Gist of DPRK Vice Foreign Minister's News Conference," *Kyodo Clue II*, September 23,2005, translated by FBIS, JPP20050926004001; International Society for Prosthetics and Orthotics, <http://www.ispo.ws/HTML/Jobs/Belgium-Handicap-InternationalJobs.html>; Daniel Gerster, Project Korea, July 2006, <http://www.vuw.ac.nz/~caplabtd/prk/ReviewKorea05.pdf>; *International aid staff to assess their position*, Sept. 20, 2005, [http://www.concern.net/pressroom/pressroom.ds2?news\\_id=496](http://www.concern.net/pressroom/pressroom.ds2?news_id=496)

decade before was over,<sup>210</sup> however its far more likely that political events necessitated the ejection as Pyongyang used continuing NGO presence as a bargaining chip in negotiations with aid groups.<sup>211</sup>

Even when NGO's had a toehold in the DPRK, communications restrictions hampered their operations. Numerous reports and testimonies from NGO's and IGO's have confirmed that securing a means of international communication was difficult.<sup>212</sup> The costs associated with Internet use through the server in China are "prohibitively" high.<sup>213</sup> Cell phone use was banned in 2004; since then visitors cell phones have been confiscated at the DPRK border and returned only at the time of departure.<sup>214</sup> The use of radio and satellite phones in case of emergency was only recently approved by the DPRK, and their use is limited to members of UN organizations (journalists must still hand over satellite phones).<sup>215</sup> Unsecured calls made through telephone landlines and written reports were the primary means of communication during the period in which NGO's operated in the DPRK. In this environment, it is hard to imagine that restricting Internet access would *further* constrain the ability of foreign organizations to communicate and pass on important information.

#### IV. CONCLUSION

Telecommunications sanctions traditionally have been an underutilized multilateral policy enforcement tool. There is, however, some indication that the international community has begun to take a more active interest in controlling the Internet access and flow of information via the Internet to targeted groups. As this interest converges with the pattern of constant refinement and development of "smart" sanctions and the changes in technology that progressively 'border' the Internet, the possibility of

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<sup>210</sup> Bureau of Democracy, Human Rights, and Labor, *Country Report on Human Rights Practices 2005* (March 2006) available at <http://www.state.gov/g/drl/rls/hrrpt/2005/61612.htm>.

<sup>211</sup> Manyin, *supra* note 209, at 4.

<sup>212</sup> John Powell, Regional Director of the World Food Program, testified before Congress that "Our staff are not allowed to have satellite phones or vehicle-to-vehicle communications or secure international communications arrangements." *North Korea; Human Rights and Humanitarian Concerns: Hearing before the Subcomm. on East Asia and the Pacific of the Comm. On International Relations, 107th Cong.* 59 (2002) available at [http://commdocs.house.gov/committees/intlrel/hfa79392.000/hfa79392\\_0.htm](http://commdocs.house.gov/committees/intlrel/hfa79392.000/hfa79392_0.htm); North Korea impounds cell phones at its airports and restricts access to international telephone lines. Brent Choi, *North is said to cut back phone use*, JOONGANG DAILY, June 8, 2005, [www.vuw.ac.nz/~caplabtb/dprk/choi\\_phone.doc](http://www.vuw.ac.nz/~caplabtb/dprk/choi_phone.doc)

<sup>213</sup> Ho, *supra* note 92, at 128.

<sup>214</sup> Choi, *supra* note 212 .

<sup>215</sup> The Brookings Institution, *North Korea Status Report, What's Next After Round Four of the Six Party Talks*, BROOKINGS BRIEFING 32 (Aug. 11, 2005) available at [www.brookings.edu/comm/events/20050811.pdf](http://www.brookings.edu/comm/events/20050811.pdf); Bureau of Democracy, Human Rights, and Labor, *supra* note 210.

removing a countries access to the Internet will be considered increasingly by policy makers.

In light of these developments, the scholarship needs to develop a disciplined, cogent and sound approach to Internet sanctions as policy makers, and we, adjust to a changing political and technological landscape that necessitates and facilitates the development of new coercive tools. As a preliminary work on this topic, this Note has argued that when appropriately targeted Internet sanctions can function as a form of “smart sanction” capable of circumventing the negative humanitarian consequences of broad economic sanctions and operating with high utility, and discussed the capacity of the international community to enforce Internet sanctions using a mix of infrastructure control and geolocation technologies, the costs and benefits of Internet sanctions and some considerations regarding how Internet sanctions fit with other policy goals.

Internet sanctions have a role in the international effort to promote peace and order. Now is the time for spirited and engaged dialogue on this important issue.