NORTH KOREA'S TRANSNATIONAL MEDIA COMMODITY NETWORK

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Phebe Sunyoung Kim, B.A.

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Phebe Sunyoung Kim, B.A.

Thesis Advisor:  Victor D. Cha, Ph.D.

ABSTRACT

Why are there increasing numbers of North Koreans inside the country willing to consume and share illegal foreign media over the last ten years, despite greater risk of capital punishment due to tighter border controls and harsher government policies to punish those who have been exposed to these goods? This analysis claims that a growing transnational media commodity network, due to grassroots market liberalization during the famine years, creates an "amplifier effect" in which North Koreans are increasingly willing to risk greater access to the outside world, despite the political consequences for doing so. The term "transnational media commodity network" is used to describe the expanded trade of media content and advanced technologies, both of which are commodity goods, sustained by democratic agents like non-governmental organizations or civil society groups in countries like South Korea, Japan, and the U.S. to increase North Koreans' communication with the outside world and orient individuals away from supporting the regime. As media is introduced into the country by outside groups, North Koreans become more aware of their circumstances and more estranged to the regime's policies, which then encourages out-migration and an important influx of information back into the country as these same individuals communicate with loved ones. This "spiraling out" process of increased political awareness and activism is referred to as the "amplifier effect." For this phenomenon to occur, North Koreans must value foreign media highly, and there must be a growing supply of content and technology. Both have taken place.

This study also addresses two challenges. First, the study shows that technology is becoming more available in North Korea's rural areas because of the increasing importance of independent markets, which dispels the concern that wide usage of media in the North is over-exaggerated. Second, it counters the claim that the regime's hard-handed punishments for violators and co-option policies for its elites will effectively reign in the population. Actually, the paper proves that Kim Jong Un's recent May 30th economic reforms are temporary fixes and his attempts to control communicative services and networks are reactionary and unsustainable.
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INTRODUCTION

In the last decade, the people and the government in the Democratic People’s Republic of Korea (DPRK) have become more cosmopolitan, capitalist, and populist. This, in turn, is forcing the regime to change its policies to, at least a superficial level, improve its people's livelihoods. All types of technology are coming into the country, including CDs, DVDs, cell phones, radios, laptops, USBs, and even plasma TVs. Radio Free Asia (RFA) reported that North Korean surveillance groups were rooting out USB ports and remote control functions in plasma TVs since mid-August 2014\(^1\). More essential to North Koreans’ daily lives, though, are cell phones. Orascom, the Egyptian company that operates Koryo Link with Korea Post and Telecommunications Corporation, has reported 2.4 million registered cell phone users\(^2\). North Koreans, especially traders from more rural areas of North Korea, are dependent on cell phones for quick updates on exchange rates and market prices\(^3\). Also, some use cell phones to keep in touch with their defected families and friends, who are living in China or South Korea. In addition to the wide usage of cell phones, surveys interviewing North Korean defectors indicate that more than one million North Koreans listen to illegal foreign radio. Correlated to this, over half of those who defected have been exposed to some form of foreign media.\(^4\) Information about the outside world has now spread throughout North Korea via foreign media trade.

Still, media penetration has not advanced far enough for individuals to use technology to mobilize against the Kim regime. Only those with financial means and political privileges can afford to buy computers and televisions. Also, the punishment for using media to access information from outside the DPRK is severe. Listening to South Korean or other foreign broadcasts, possessing and circulating foreign matter, and "spreading unfounded rumors" can
lead individuals to be sentenced to two years in a labor re-education camp or five years in a prison camp. According to *PBS Frontline: Secret State of North Korea*, Kim Jong-Un has been tightening regulations against the sale and use of foreign media. On November 2013, he ordered the execution of as many as eighty people, some for watching foreign broadcasts. Yet, according to many North Korea experts and grassroots organizations in the field, banned technologies are being sold and shared more widely than ever before. The number of "political crimes", which include defection as well as using and distributing media, has been increasing exponentially since the 2000s. In a country in which selling or watching a South Korean DVD could mean torture or execution, North Koreans' willingness to disobey the regime's policies is a significant marker of their change in attitude toward the leadership.

Why has North Korean demand for illegal foreign media over the last decade increased, despite greater risk of capital punishment due to tighter border controls and harsher government policies to punish those who have been exposed to these goods? A growing transnational media commodity network, due to grassroots market liberalization during the famine years, creates an "amplifier effect" in which North Koreans are increasingly willing to risk greater access to the outside world, despite the political consequences for doing so.

**TRANSMATIONAL MEDIA COMMODITY NETWORK**

What is the transnational media commodity network? First, the term commodity indicates that this system is part of the larger market process that exists in North Korea today, and it being transnational means that the system extends beyond cross-border trade. The introduction of markets in the 1990s and early 2000s had a profound impact in developing the current
transnational media commodity network that exists in North Korea. A combination of bottom-up marketization, cross border movements, corruption, emigration, and ideological erosion as a result of the famine years has led to a system in which media from outside the DPRK is being produced, sold, distributed, and exchanged in the country. This media includes technological goods such as Chinese-made and officially approved phones, televisions, radios, CDs, DVDs, and USBs.

Second, the term network has political implications as well as economic. The introduction of media devices like USBs that contain South Korean audio and video content are the result of concerted efforts by democratic agents like non-governmental organizations or civil society groups in countries like South Korea, Japan, and the U.S. to introduce media content into the North. Working in many of these groups are North Koreans defectors who provide essential knowledge about North Korean society, government, geography, and other factors needed to distribute technological goods. Activists such as Jeong Kwang-II, who smuggles DVDs and USBs into North Korea, Chanyang, who stars in a South Korean broadcast which spreads awareness about North Koreans' difficult situations, Park Jeong-Oh, who raises money to send balloons full of dollars, and Open Radio for North Korea staff are only some examples of a larger network of North Koreans that are actively seeking to send information into the country.

Even those who are not activists are participating in this network. Ordinary defectors that stay in touch with their families and friends in North Korea through illegal Chinese-made mobile phones, provide information about the outside world, while also learning about the conditions in the DPRK. According to the InterMedia Report, a landmark survey interviewing North Korean defectors on media usage within the DPRK, 31 percent of the respondents reported contacting
friends and relatives in North Korea even after leaving the country.\textsuperscript{10} Moreover, 81 percent of these used mobile phones to do so.\textsuperscript{11} In fact, the survey reports that micro-economies have developed around mobile phones, as owners can charge people a fee for using their phones to call abroad.\textsuperscript{12} This indicates that, as technology becomes more widely available in the North, market opportunities to sell services also increase.

Cell phone usage also demonstrates the importance of two-way communication in sustaining this information network. Not only are defectors and other democratic activists bringing in information, North Koreans within the country are bringing information out. The \textit{InterMedia Report}, when referring to mobile phone usage between defectors and family members within the DPRK and China, also shares that "information sharing within North Korean refugee networks in China and within the defector community in South Korea suggests that these personal communications are generally sufficient to keep many North Koreans outside the country informed of internal developments in North Korea."\textsuperscript{13} In fact, there are those that go one-step further and actively use technology to bring awareness to the adverse situation of North Koreans within the country. Jiro Ishimaru is an \textit{Asia Press} journalist that has developed a network of defectors across the country that shoots footage of economic and social conditions within the country to be smuggled out and shared with the international community.\textsuperscript{14} The active participation of North Koreans within and outside of the country indicates that there is a shift in attitude on how North Koreans believe the regime should treat its people.

\textbf{AMPLIFIER EFFECT MODEL}

If the transnational media commodity network described above provides a conceptual
framework for understanding the current market-based system of information exchange in North Korea, the amplifier model is a framework that shows the cognitive process by which North Koreans become more aware about the outside world and shift their opinions about the regime. It also provides an explanation for how North Koreans become empowered to actively work against the regime's information control mechanisms. The *InterMedia Report* states that "discussion of sensitive topics and knowledge of sensitive topics have an amplifying effect on the relationship between outside media exposure and beliefs and attitudes about the outside world." This discussion also has a significant relationship to negative perceptions of the North Korean regime. This implies that there is potential for North Korean media consumption to transition to more of a political movement.

The way in which outside information is rapidly spreading in North Korea is through a "spiraling out process", which the same process, shown in Figure 1, repeats, spins outward, and impacts more people each time. The *InterMedia Report* finds that DVDs have grown to become the most commonly accessed form of foreign media in the DPRK and that many North Koreans are gathering to watch illegal DVDs. It also finds that there is a "direct and significant relationship between exposure to outside media and positive beliefs and attitudes about South Korea and the U.S." As mostly entertainment-based DVDs introduce North Koreans to a different image of the outside world, especially South Korean DVDs that show how prosperous their southern brethren are doing under capitalism, they become interested in gaining even more information. As such, the survey states that DVDs are often a "gateway drug" to accessing other forms of media such as radio, which provides real-time, political news. As North Koreans gain knowledge, they pass this information to secondary non-listening audiences through word-of-
This can lead to others becoming interested in foreign media and repeating the cycle. At the same time, the radio listener, as well as other media content users, actively resist state policies banning foreign media content and consume more. This can lead to them desiring to cross the border or even to defect as they have increasingly negative perceptions about their economic condition in the North. The following defector testimony describes this process: "In North Korea, I once received a very small radio as a gift. Though small, it was what made me desire, and dream of, freedom. The South Korean news and music I would hear every night was everything that I could imagine about the world. That was when I realized that what we learned and heard in North Korea was not really true. This made me angry and suspicious about my environment, and the reality in North Korea."²¹

Of course, the primary desire for most North Koreans to defect is because of economic or social conditions that force them to take up the dangerous task of leaving. However, the impact of increased cross-border movement and defection as a result of suffering from poor economic and social conditions in the country is an increased awareness of the outside world. Another defector states the following: "After seeing the advanced Chinese society and the food, clothes, and living conditions there, [people who travel abroad] compare these things with North Korea and often talk about them with their neighbors when they return home."²²

Those who do defect can act as agents to further inform those within the country about the outside world. As discussed earlier, defectors can both passively and actively participate in the transnational media commodity network, which widens the circle of individuals whom have access to foreign media content and knowledge about events outside the DPRK border.
AMPLIFIER EFFECT ENABLING VARIABLES

For the amplifier effect to occur, two variables must be in place. First, there has to be a high demand for foreign media. This is shown as "Social Value of Foreign Media" in Figure 2. High social value of foreign media means that North Koreans must demonstrate a willingness to buy technological devices like TVs and radios and media goods like DVDs and USBs despite government bands against them. They should increasingly want to buy more goods. On the other hand, low social value means that, not only are North Koreans not willing to risk consuming media content, there is not a market demand for it. They also may not see foreign media as realistic or attractive as state-run media. The second variable is the "Supply of Foreign Media". A high supply of foreign media means that there are more technological devices that can broadcast foreign media as well as media content in general being sold in the markets and shared amongst individuals. A low supply means the opposite. There are four theoretical outcomes that can result from the interaction between these two variables that are explained below:

QUADRANT I: LOW SOCIAL VALUE OF FOREIGN MEDIA + LOW SUPPLY = AUTHORITARIAN CONTROL AND NO CHANGE

In this case, if a society cannot readily access outside information due to strong regime control mechanisms that limit the inflow of information and technological devices that allow for communication and there is a low demand to access outside information because of belief in the state and its policies, this indicates that the state apparatus is strong and there is no change in society.

This describes North Korea during the 1960s to early-1980s when the economy was prosperous and information control was installed. At the time, the DPRK regime and economy
was strong. In fact, North Korea had higher industrialization and per capita income than South Korea until the early 1970s. The public distribution system (PDS) functioned well and most food and consumption goods were distributed rather than sold. As the state controlled the economy, there was little opportunity for banned foreign goods to be introduced. Also, citizens had to apply for special travel permits in order to go outside their native town or county, meaning that the North Korean police apparatus functioned very well in regulating any movements within or outside the country. Since the DPRK economy was doing well at the time and people had enough to eat, many people could buy into state propaganda that portrayed South Korea as an impoverished U.S. colony. In the words of one defector, "Things are different these days, but in the past, there was no way for us to know anything beyond what the North Korean government showed us. This was true not only for propaganda or broadcast news, but also for education. Trying to learn beyond what is taught was prohibited. Because of North Korea’s brainwashing policies, we were not able to see beyond the false propaganda that was shown to us and did not have the freedom to imagine beyond it."

**QUADRANT II: LOW SOCIAL VALUE OF FOREIGN MEDIA + HIGH SUPPLY = APATHY**

This scenario is one in which foreign media is highly available to the populace, although it does not readily seek it. This indicates that society is apathetic towards foreign media in that they may see it as undesirable in comparison to their state-run media.

There is little evidence of this dynamic occurring in North Korea. Since the 1940s, the Kim regime sought to establish surveillance mechanisms and social policies that would ensure obedience to it. Three security agencies were established with Soviet assistance in the mid to late
1940s. The first is the State Security Department (SSD) or Ministry of State Security (MSS), and it is charged to carry out a diversity of domestic and overseas counterintelligence and security functions, including managing political prisons. The Ministry of People's Security (MPS), which is one of the most powerful government agencies, is focused on internal security, social control, and basic police operations. The last agency, the Military Security Command (MSC), is the investigative unit of the armed forces that monitors the Korean People's Army (KPA) with the General Political Bureau and provides personal protection for the Kim leader.

Soon after the Korean War ended in the early 1950s, Kim Il-Sung took Stalin's example and paid close attention to limiting information networks and avenues for individuals to protest through the creation of invasive government agencies and local surveillance mechanisms. While installing infiltration mechanisms to control for civil disobedience, Kim Il-Sung also created a personality cult and an ultra-nationalist, anti-foreign doctrine of "self-reliance" with the declaration of Juche in 1955. As a Korean independence fighter during Japanese colonization, he posed as the ultimate Korean and embodiment of Juche, which toted that Koreans could prosper without the influence of external powers. By playing on Korean national sentiments and memories of colonization, he gained popular support and was able to "engineer a society in which organized dissent was both dangerous and difficult". Even then, the state required radios and TVs to only receive state-run stations and possessing South Korean newspapers and magazines was considered a crime that violated the principles of Juche. As such, the supply of and demand for foreign media was low for at least two decades.

Combined with these national agencies, the regime instituted the In-min-ban system, in which every North Korean is required to belong to a group of 30 to 40 households and the head
of the group would report to the agencies on a regular basis.\textsuperscript{35} This design helped to ensure that people would not be able to develop networks of genuine communication or trust. Hence, this insulated the regime from the threat of popular protest. In case there were those who refused to follow the regime, Kim Il-Sung created the \textit{Yeon-jwa-je} policy or "guilt-by-association" law soon after, which imprisons families up to three generations if some member is suspected of "wrong-doing, wrong-knowledge, wrong-association, or wrong-class-background".\textsuperscript{36}

When there was an increase in the availability of communication tools during grassroots market liberalization in the late 1980s to early 2000s, the North Korean populace demonstrated an increasing desire to obtain greater access to market opportunities through cross-border migration and the proliferation of media devices sold within the country. However, if North Koreans hypothetically were apathetic to an increased supply of technology, one could surmise that the state apparatus would still be strong since citizens would prefer to obey the government's ban on foreign media despite having great access to it.

\textbf{QUADRANT III: HIGH SOCIAL VALUE OF FOREIGN MEDIA + LOW SUPPLY = HUNGER}

If the social value for foreign media is high, this indicates that authoritarian control may be weakened since citizens are willing to disobey government bans against accessing outside information. A low supply of foreign media means that either technological goods are not as accessible by market methods and/or that the state still has some control over regulating the supply of goods that can enter the country. The combination of both variables results in a populace that is hungry for more information about the outside world via media and is increasingly willing to go against central control to attain it.
This situation describes the DPRK in the late 1990s to 2000s when state regulation of the economy failed and markets proliferated. Market activities escalated in early 1990s and were a permanent fixture in North Korean society by 2000s. They arose during a very precarious time for the DPRK regime. Throughout the 1960s to 1970s, North Koreans enjoyed great prosperity under Kim Il-Sung. Trade was booming and food was plentiful. However, by the late 1980s, it was clear that the economy was going south - literally. Due to misallocation of Soviet aid to heavy industry, economic decisions based on ideology rather than practicality, heavy borrowing practices, investiture in pointless megaprojects, and Soviet disinterest in investment, the North Korean economy plummeted, while South Korea, which enacted a number of economic and political reforms, plunged ahead. These five bad decisions, as outlined by Victor Cha, a leading scholar on North Korea, led the country into massive debt and famine in the 1990s and early-2000s. Known as the Arduous March, the famine killed as many as one million, roughly 5 percent of the population. From 1994 to 2002, state-run industry collapsed, the rationing system did not function, and market activity became most citizens' source of income.

Due to individuals' desperation to survive, state regulations became largely unenforceable and many lower-level officials accepted bribes or ignored their duties. Huge markets outside of North Korean cities that had retail activities as well as private enterprises such as private inns, eateries, video rooms, and bus companies developed in the mid-1990s. This grassroots capitalism was a major threat to the regime since it indicated that the people did not trust the government for the provision of goods. Moreover, it contradicted the core of the self-reliance principle. Indeed, one defector states, "After the Arduous March, people [began] to realize that the government was no longer able to provide for them, let alone rescue them from the terrible
chain of events. So, there [are now] a growing number of people who think TV news is not always true, and they have begun to realize that it is all propaganda. He went on to state that life for North Koreans would not get better unless they decided to engage in market activities and make profits for themselves.

The DPRK government did not miss this “de-Stalinization from below” and decided to address this emerging threat by introducing the 7.1 measures in 2002. The economic policies were meant to appease the populace by raising consumer prices, increasing the independence of company managers, and establishing "general markets" or chonghap sichang. Though designed to revive the Stalinist system of market control, these measures could do little to stop the flow of grassroots economic transactions taking place. One 2004-2005 survey of North Korean refugees reports that earnings from the informal economy made up 78 percent of these individuals earnings from 1998 to 2008. A former black market dealer even stated, "Most North Koreans do not even know what the 7.1 measures are." It is important to note that the supply and frequency of cross-border transactions and communication technologies increased rapidly during this time.

People that were desperate for food foraged and sold what they could. Many fled to China, selling themselves or whatever wares they had for cash. Also, those who had some funds and connections began to sell commodity goods. Radios were introduced in 1997, televisions and VCRs in 2000, and DVDs in 2004. At this time, 350,000 DVDs were brought to the DPRK alone. Also, nationwide services, provided by the Thai firm Loxley Pacific, became available in 2002. (This was after Lancelot Holdings, a Hong Kong company first introduced limited mobile phone services in Nampo and Pyongyang in 1999.) By December 2003, the number of
subscribers had reached 20,000 and having a cell phone was seen as a major status symbol.\textsuperscript{51} This meant that mostly elites were able to access advanced technology; however, there was also a sudden increase in the number of Chinese-made mobile phone users near the DPRK-China border as China built relay towers there.\textsuperscript{52} This is particularly significant because, while official phones could only be used to make domestic calls, Chinese-made ones had an international SIM card. In May 2004, the state banned the use of mobile phones in response to the Ryongchon disaster, which was rumored to be an assassination attempt through an explosive against Kim Jong-Il that was triggered by a mobile phone. Although the state tried to clamp down on technology use, mobile phone usage is increasing in North Korea, along with other technologies.

Limited access to outside information led people who were literally starving to demand greater opportunities to trade and gain knowledge about the outside world. The regime's inability to control the expansion of markets and the sale of technology enforces this point. The expansion and depth of media sold in North Korean markets in the later 2000s show that high demand for media and an initial low supply of it led to a greater hunger for outside information.

**QUADRANT IV: HIGH SOCIAL VALUE OF FOREIGN MEDIA + HIGH SUPPLY = AMPLIFIER EFFECT**

This last dynamic describes the information expanding mechanism explained earlier in this section. North Koreans have demonstrated that they highly value foreign media as evidenced from increasing media sales and even greater quantities of technology entering the country, despite the increased severity and quantity of state regulations aimed at monitoring this flow. Since Andrei Lankov, another leading scholar on North Korea, identifies 2005 as a turning point for increased government crackdowns on the media trade, this analysis marks 2005 to the current
period as representative of the amplifier effect. After a period of partially successful market reforms, Pyongyang began to attack the market by introducing official caps on market prices in 2007, prohibiting women below fifty from engaging in market trade also in 2007, and issuing Anti-Socialist Group crackdowns. (Anti-Socialism Groups were created in the mid-1990s to monitor and investigate individuals for "violations of law and order". If convicted, individuals will likely be sent to a political prison camp, and it is very difficult to be released.) An important state measure to note is one in which the Central Committee issued a document dealing specifically with the market issue, which mentioned that smuggled South Korean merchandise is widely sold in North Korea and that markets thus helped to nurture and spread dangerous “fantasies about the enemy.” Also, the state created greater mechanisms to curb these threats by commissioning "109 Squads" to stop the spread of illicit South Korean movies and dramas by arresting smugglers and confiscating videos in 2009. Those who are caught can face harsh penalties such as public execution.

Yet, despite an increasing amount of regulations aimed at quelling market expansion and media trade, the distribution of DVDs, radios, and cell phones did not decrease and new, more diverse foreign media content and advanced technologies that could counter regime control efforts entered the market. Ji-Min Kang, an NK News reporter and defector who left North Korea in 2005, describes the “Yellow Wind” or Western culture in the following phases: “At first, it was Western culture which initially swept across Pyongyang and other big cities in North Korea. After that, Chinese and Hong Kong culture was the next to reach the big cities. Then South Korean dramas and music started to arrive, which had a serious effect over the North Korean people. Nowadays, pretty much everyone in North Korea can sing one or two South Korean
songs and remember the lyrics.”\textsuperscript{60} In order to accommodate North Koreans’ appetite for a variety of foreign media, more advanced, innovative technology has entered the domestic market. Laptops became available in 2008 and USBs in 2011.\textsuperscript{61} Also, the involvement of radio services that can broadcast signals as strong as state agency radios in delivering news to North Koreans have increased popular media access. With the introduction of software-defined radio (SDR) technology brought across the Sino-DPRK border on USB devices, there is now even the potential for North Koreans to potentially send text, audio, and video files on radio band frequencies.\textsuperscript{62} This means that this could serve as a tool for citizen reporters to bring information out of the country\textsuperscript{63}. There is already a network of reporters in North Korea and China who are sending reporting streams about the latest news in the DPRK.\textsuperscript{64} Not only does this thwart the regime’s attempts to control information among its populace, it would provide avenues for North Koreans to directly express their opinions about the conditions they live in outside of the country.

Even more importantly than innovative technologies being introduced into the country is the fact that North Koreans are creating their own devices to receive news across the border. Jang Jin-sung, former North Korean psychological warfare officer and poet, claimed at a KEI speaking event that markets were much more developed in the past with many suppliers.\textsuperscript{65} One of the items these suppliers market are homemade radios made with simple materials from a “local underground radio-maker.”\textsuperscript{66} Calling them “North Korean Homemade Radios,” Kim Seung-chul, a representative of North Korea Reform Radio (NKRR), showed one in an NK News interview that he used for the last five years.\textsuperscript{67} They are plated with woodblocks on six sides and weigh about 1.5 kilograms.\textsuperscript{68} Though they may look clunky, they are reported to be able to
It's significant to note that the technology North Koreans sought to remake is the radio since it is also the chief technology through which the regime communicates with its citizens. The fact that North Koreans inside the country are actively seeking greater media access, receiving help from those that have been affected by technologies and defected, and creating new technologies to counter state counter policies shows that this amplifier process is at work.

COUNTER ARGUMENTS

As shown from the models above, despite the tight regulations in place to control information channels, market factors have been set in motion that cannot be easily regulated and are increasing the supply and variety of communication mediums in the DPRK. As a result, North Koreans are becoming more determined to defy state policies and assert their right to trade and access information about the outside world. Still, since North Korea does not have open borders and the regime's activities are still closeted in some ways, there are several counter arguments that can be made. Two are addressed here.

COUNTER ARGUMENT I: DESPITE NEW SURVEY DATA THAT SHOWS NORTH KOREANS, ESPECIALLY IN THE CHINA-DPRK BORDER AREAS AND IN THE CAPITAL, ARE CONSUMING FOREIGN MEDIA AT HIGHER RATES THAN EVER BEFORE, THE FIGURES ARE OVERESTIMATED SINCE THEY CANNOT MEASURE USAGE ACROSS THE COUNTRY. THUS, NORTH KOREAN DEMAND FOR MEDIA AND ITS USE AS A METHOD FOR POLITICAL DEVIANCE AGAINST THE REGIME IS OVER-EXAGGERATED.
This may be true since exact figures of North Korean media usage are hard to access and measure, especially in the North Korean heartland. One defector interviewed by NK News states the following: "In North Korea right now, there are many places to get outside news—especially from people who have left for South Korea, the U.S. or Europe. A lot of people also get outside news through South Korean airborne propaganda (such as balloon drops) and by radio. However, it is only the middle class or the elite that hears these things. The common people have little or no way to hear news from the outside; they do not have electricity or time, as they live hand-to-mouth, day-by-day. Even if they do hear about the outside world, they do not have the opportunity to discuss it and debate about what is wrong with North Korean society today."71

Even in The InterMedia Report, the authors acknowledge that their survey is not "statistically representative of the home population of North Korea and generally contain a disproportionate number of respondents from the provinces bordering China."72 They also state that they did not find "a significant direct relationship between exposure to outside media and beliefs and attitudes about the North Korean regime." Also, exposure to outside media did not appear to be a primary direct determinant of North Koreans' beliefs and attitudes about their own regime.73

Despite the information gap evident in measuring North Korean demand for foreign media across the country, there are plenty of indications that the DPRK regime sees this as a threat and that important sectors of North Korean society are consuming foreign media. Along with intensified punishments for foreign media users and the creation of new agencies specifically designed to curb technology use, DPRK state propaganda openly acknowledges that South Korea is better off, but tries to recover from this admission by stating that the South is
corrupt and is submissive to the U.S.\textsuperscript{74} The fact that regime admits to this change shows that there is a general awareness about the prosperity of the North's neighbors, meaning that outside information has penetrated far enough across the country in a significant way.

**ELITES CONTRIBUTING TO POPULARIZATION AND DISTRIBUTION OF ADVANCED TECHNOLOGY**

Also, as shown in this analysis and in *The InterMedia Report*, there is clear evidence that important centers in the DPRK such as Pyongyang and influential sectors like the elite and the middle class are heavily consuming foreign media. While elites may be overrepresented in surveys about media usage in North Korea, this does not diminish the potential for media networks to spread across the country. Most social movements in history began in urban centers and among the middle-class. The amplifier effect model places these elites as agents that can further spread information about the outside world through word-of-mouth, which is the primary mode of communication in North Korea,\textsuperscript{75} even to non-elites as information networks circulate and become wider. Furthermore, these new class of elites, called the *Jangmadang* Generation, have grown up in an era of marketization and, so, have demonstrated an interest in foreign films, fashion, and music rather than state ideology.\textsuperscript{76} They are pushing the boundaries of state approved behavior more than any other social group and are sharing South Korean music and dramas on USBs and MP3s on their home and school computers.\textsuperscript{77} As such, North Koreans' increasing demand for media and its potential for mobilizing the populace, even from an elite level, should not be underestimated.

Evidence of the *Jangmadang* Generation youth setting a precedent for disregarding regime information control policies is clearly shown through the growth in popularity of foreign
laptops among the growing middle class. The emergence of this class and their hunger for more advanced technologies - even if they are just status symbols - points also to a total shift from a state-centered economy to a market-based economy. As a product of the "booming private economy", there are North Koreans who have become quite rich as big market venders, earning capital estimated as worth hundreds of thousands of U.S. dollars. Others are making a decent living as successful mid-level entrepreneurs, making well above the national average. Often, these individuals spend on "status symbol" goods such as electricity-sucking refrigerators and washing machines and, more significantly, technologies with the potential for cross-border communication like foreign laptops.

Though Japanese-made and increasingly South-Korean-made and American-made laptops are a luxury item, usually sold to elites in Pyongyang and large cities like Rajin or border areas, those in the middle class buy them when they can. Merchants and elites in border areas and major cities have greater choice in the types of foreign-made laptops they can purchase. Daily NK reports that more than 70 percent of Japanese-made or South Korean-made IT devices circulated in North Korea are coming through Sinuiju, where surveillance agencies like the 109 Group are lax in their controls and elites have vested interested in obtaining electronics. Those that do not have access to such variety, though, still are managing to acquire Chinese-made laptops, which are made from imported, used parts. Another Daily NK report claims that a used, smuggled Chinese-made laptop could sell for about 290 U.S. dollars and a new one for about 416 U.S. dollars. For the most part, these laptops seem to be used for educational purposes or entertainment. In 2010, RFA released a report claiming that students used laptops to listen to university lectures, and a recent Daily NK article noticed that electronic dictionaries
were also popular among students.\textsuperscript{83} Outside of school related purposes, computers were to watch DVDs, listen to music, and play video games.\textsuperscript{84}

The popularization of more advanced technology through the elite seems to have affected the distribution rate in the whole country. When asked about her exposure to laptops and desktop computers, Lee, a defector who had lived in the countryside and is now currently working with NK News, replied that, in the past, people could request a laptop from Chinese traders, but, now, she had heard that it could be purchased in the market.\textsuperscript{85} Ji-Min, a defector mentioned earlier in this analysis, also said that, while laptop distribution rates used to be low, the rapid interest in computers has led to the creation of computer centers in North Korea and standardization of additional computer courses in regular schools.\textsuperscript{86} This is one sign that technology is spreading outside of the city and affecting the nation as a whole.

\textbf{INCREASED MARKET FORCES GUARANTEE GREATER TECHNOLOGICAL ACCESS TO PERIPHERY}

With Orascom invested in providing for North Korea's telecommunications, North Koreans has access to a 3G network covering 14 main cities, 74 smaller cities, and 22 roads and highways as of 2012.\textsuperscript{87} North Korea scholar Curtis Melvin stated to NK News that he had identified 125 phone towers in the DPRK.\textsuperscript{88} Though the North is extremely mountainous and the network distribution is only 13.8 percent, it is likely that 92.9 percent of all populated areas can receive signal.\textsuperscript{89} So, even in remote areas of the country, though people may not have laptops, they still have access to cell phones. Having mobile connectivity is more important in the countryside for daily life than in having laptops for leisure in capitals because the jangmadang or markets become more essential for daily life and cell phones are a crucial tool to gauge market
prices and demand. This implies that North Koreans living in remote provinces live more independently from the regime and "are ahead of Pyongyang’s residents in terms of their familiarity with market forces, and are more sensitive to factors such as fluctuations in currency exchange and outside information that affects the prices in the jangmadang." As such, increased marketization in the countryside has led to greater access to outside information, a deepening of the transnational commodity network, and greater weakening of the regime's control over information.

COUNTER ARGUMENT II: AUTHORITARIAN REGIMES' TOOLS OF CONTROL, OUTLINED BY AUTHORS SUCH AS BYMAN AND LIND AND LEVITSKY AND WAY, ARE EFFECTIVE MECHANISMS TO ENSURE REGIME STABILITY AND CHECK NORTH KOREANS' DESIRES TO GAIN GREATER MEDIA ACCESS, DESPITE INCREASED MARKET LIBERALIZATION AND ACCESS TO THE OUTSIDE WORLD.

According to these authors, authoritarian regimes possess strong mechanisms to maintain political control that cannot be easily broken by grassroots demands for increased economic and intellectual rights. Byman and Lind state that the regimes’ brutal use of force suppresses individual disloyalty or popular mobilization. Indeed, Levitsky and Way provide strong evidence that revolutionary regimes are remarkably durable. They state that regimes in Cuba, Iran, North Korea, and Vietnam have posed some of the most enduring challenges to U.S. foreign policy in the late twentieth and early twenty-first centuries and also note that some of these regimes have lasted for more than sixty years. Thus, the DPRK can adapt to the increasing media environment in a way to manipulate market demand for foreign media using its tools of co-option and brutal force.
POLICY OF TOYS AND TERROR NOT WORKING

Information networks such as foreign media trade undermine one of the regime's main tools of political control. As such, the Kim regime has created tight mechanisms to control information inflows and outflows. Like his predecessors, Kim Jung-Un has continued to maintain information control by cracking down on illegal cross-border movements, cooperating with Chinese officials to tighten border security, conducting house-to-house inspections for South Korean CDs and DVDs, and decreeing harsher punishments for those who sell and use foreign media, including hanging, torture, or fire squad.

He has also been trying to co-opt the Jangmadang Generation by gratifying their demand for foreign media and by offering them premium entertainment through the state in exchange for obedience. He seems to be using this approach as he has commissioned the building of some luxury facilities outside of Pyongyang such as the Masik ski resort, Wonsan motorway, and remodeled Songdowon International Children's Camp.93 The government also contracted the Egyptian company Orascom in 2008 to provide mobile services to over 660,000 subscribers by 2011.94 The regime has also been constructing and marketing its own versions of advanced technology - two of which are the Samjiyon tablet and the Pyongyang Touch. Developed by the North Korea's main IT Research and Development Center, Korea Computer Center (KCC), the Samjiyon tablet is Android-based and only available to local citizens due to the regime's concerns that selling to foreigners would mean increased information exchange, specifically reverse engineering or faulty software.95 The Pyongyang Touch, which is designed similar to the I Phone 3, is also Android-based but modified so that callers are unable to dial overseas numbers
and have no Internet connectivity. It is actually a re-branded clone of Chinese cell phone model Uniscope U1201.96

Meanwhile, the regime has also sought to stem the flow of "foreign influences" into the country by putting more restrictions on foreigners who are visiting or working in the DPRK. While, on one hand the DPRK is promoting tourism into the country, it is also seeking to control the information that people from the outside might be bringing in and out of the country. Bradley Babson, a former World Bank official who serves on the Executive Committee for the National Committee for North Korea, called the tourism industry “a low-hanging fruit” for North Korea since it could “earn (foreign currency) fairly easily in a relatively controlled way.”97 However, by opening up a little, the regime has unintentionally enabled foreigners to introduce social networking services and greater access to Wi-Fi networks.

On August 13, 2014, the North Korean State Radio Regulatory Department, citing interests of national security, issued a blanket prohibition on Wi-Fi Internet access by foreign embassies, officials and international NGOs working in country.98 Those who continued to illegally use Wi-Fi could be fined up to 1,500,000 KPW or USD 11,326.55.99 The order seemed to be in reaction to a report by The Diplomat which claimed that price increases in neighboring buildings were being caused by local citizens wishing to access unprotected wireless networks originating from embassies.100 In another article, Reuters reported that foreign owners of Koryo Link SIM cards, technology that can access 3G Internet, were being more tightly controlled in order to prevent North Koreans from using SIM cards that foreign owners left behind for them to use while out of the country.101 In addition to Wi-Fi, the regime has been trying to ban foreigners from using social networking sites like Facebook and Twitter by forcing users to “seek licenses”
from authorities to access satellite internet, which allows foreigners to send data and information at almost no risk of interception from local authorities.\textsuperscript{102} By allowing foreigners into the country but restricting their freedoms, the regime does, as Babson says, try to make a profit while still attempting to control the flow of information into the country.

However, given the fact that the majority of these appeasement efforts are reactionary to the changes already going inside the country, it seems more like the regime is losing more control than it is gaining. North Koreans' willingness to adjust TV dials, purchase illegal Chinese phones, and adjust radios shows that there is active defiance against the regime's policies. Moreover, North Koreans use of these technologies to further deviate from approved market behavior such as using Chinese cell phones to call friends outside the border to determine market prices suggests that disobeying the regime is already entrenched in the social system. The InterMedia Report states that the survival of markets in the face of the determined regime's attempts to curtail them testifies to their resilience and the difficulties the regime faces in enforcing control mechanisms.\textsuperscript{103} Most significantly, market forces and information networks via media have led to increased ties among individuals as they cooperate to run illicit trading networks and meet to discuss information they have gleaned from foreign sources. This runs contrary to the In-min-ban system, which is designed to create an environment in which every person reports on another. Therefore, despite the use of these authoritarian tools to decrease demand for foreign media, North Koreans resolve to access information has endured.

\textbf{CURRENT ECONOMIC REFORMS ARE ONLY A TEMPORARY FIX}
There is one more appeasement tactic that must be addressed to fully understand why the amplifier effect works to undermine the regime. Perhaps the most significant policy changes enacted by the regime leadership in this decade are the May 30th Measures that were introduced soon after Kim Jong Un took over in 2011, codified in 2014, and are now being expanded all across the country. Unlike economic policies in the past, these measures are designed to provide greater freedoms for mid-level managers in the industrial sector and farmers in the agricultural sector. Specifically, they give managers the power to set salaries and hire and fire employees; farmers are given more of stake in out-producing quotas. The goal of these policies is for the government to encourage managers and farmers to “do business creatively and on their own initiative,” according to North Korean economist Ri Ki-song of the Economic Science Section at the Academy of Social Science.

While the regime seems to be enacting more liberal economic policies, it still refuses to acknowledge these measures as reforms. In fact, the word “reform” is forbidden. Moreover, by allowing for greater independence at a managerial level, the regime is sparking reform measures on its own, thereby allowing for changes to occur in a controlled manner. One could argue that this is a very strong coercion technique because it makes it seem that Kim Jong Un’s leadership has allowed for greater independence, prosperity, and modernity in the country, while actually further consolidating control over market sectors. At some level, these measures have seemed to improve the economy. South Korea’s central bank stated the North Korean economy has grown at over 1% in 2012 and 2013. Also, North Korea’s GDP is about USD 30 billion. However, short-term economic improvement is not an indicator of long-term development. Moreover, the
regime’s recent measures can alternatively be interpreted to be calculated reactionary attempts to stem the flow of marketization that it cannot control.

Though the May 30th Measures have given North Koreans greater freedom to determine production capabilities and increased allowance of trade, it does not address long-standing economic issues that are dependent on granting people greater individual rights. Babson states that, in order for the economic improvement to be sustainable, the regime must address issues such as property rights, the development of a financial system, and fostering better conditions to attract foreign investors.110 He went on further to say that the regime’s unwillingness to create financial policies did not address the reality of the emerging market economy in which “people where trading rights for property.”111 Research committee member from the Korea Institute for National Unification Choi Soo Young has also stated that the expansion of North Korea’s trade deficit is linked with this “abnormal marketization.”112 Already, the improvements made as a possible effect of the May 30th policies are shown to be not enough. Marcus Noland of Peterson Institute for International Economics has pointed to rising inequality and corruption, deteriorating health and education services, and chronic malnutrition in the countryside.113 As such, without substantially addressing this informal market system by granting greater property rights and developing better financial mechanisms, the regime cannot sustain total control over the country. Meanwhile, North Korea remains “one of the freest, most unregulated economies in the world” and ordinary people are providing for their own livelihoods and pursuing knowledge about the outside world through engaging in technology trade, regardless of the regime’s attempts to maintain control.
CONCLUSION

Transnational trade and media networks create an "amplifier effect" in which North Korean citizens' demand for greater access to the outside world is supplied through democratic agents and defectors, which is leading North Koreans to reconsider state propaganda that idealizes current economic and political conditions in the country. Though recent evidence of North Korean media usage does not show that North Koreans are willing to organize protests or a military coup against the regime, it does indicate a significant shift in citizens' perceptions of the regime and their increasing resistance against it. As one defector states, "Following increased exposure to the outside world and increasing numbers of people with foreign connections – smugglers, traders, and people with family in South Korea – the faster trust in the North Korean government will fall."

Already defector organizations, radio broadcasts, and other non-governmental humanitarian organizations are sending media content across the border that are meant to facilitate ideas of what democratic values mean and what it is like to live in a liberal, capitalist society. Technological penetration of North Korean society has created an amplifying effect that both states and non-state actors can use to further engage societies in ways that go beyond official government channels. This case demonstrates that cultural mediums have become even more powerful transformative tools in a globalized, technological age.

Through the advent of technology, democratic agents - both state and non-state - are finding new ways to undermine authoritarian regimes and advance their ideologies. During the 2009-2010 Iranian presidential elections, protestors used Twitter and other social networking sites to organize against re-electing President Mahmoud Ahmadinejad, who's far right-wing, anti-American stance and nuclear ambitions led the country to international censure. Though
these protests were met with arrests, militia violence, and press and media censorship, this "Twitter Revolution" or Iranian Green Movement helped lead to the election of President Hassan Rouhani, a moderate with ties to the movement, in 2013. Elsewhere, in Kenya, Mexico, and Afghanistan, technology is being used to regulate election fraud. This has great domestic and regional implications since technology can provide a platform for citizens to demand their rights and express their opinions about state policies, which undermines regime stability and geopolitical dynamics affected by it.

**ENDNOTES**

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APPENDIX A

Figure 1: Amplifier Effect – “Spiraling Out” Process

Note: The cycle can spiral out from any of its component stages. Also, some individuals may skip some of the steps or stop at others, so this model should realistically look more like a series of interconnected webs.

<table>
<thead>
<tr>
<th>Supply of Foreign Media</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Value of Foreign Media</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Low</td>
<td>I. Authoritarian Control, No Change (North Korea in 1960s-1980s)</td>
<td>II. Apathy (No Case)</td>
</tr>
<tr>
<td>High</td>
<td>III. Hunger (North Korea in late 1990s to 2005)</td>
<td>IV. Amplifier Effect (2005-Present)</td>
</tr>
</tbody>
</table>

Figure 2: Amplifier Effect Causal Variables
WORKS CITED


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