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Behind Every Good Lie is a Grain of Truth: Deriving Identity-based Demand for Disinformation in Moldova and Taiwan Using GIS Applications

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BEHIND EVERY GOOD LIE IS A GRAIN OF TRUTH
DERIVING IDENTITY-BASED DEMAND FOR DISINFORMATION IN MOLDOVA AND TAIWAN
USING GIS APPLICATIONS

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MAY 1, 2022



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Introduction

Despite an ecosystem of falsehoods propagated by the People's Republic of China (PRC), Taiwanese citizens re-elected the pro-independence candidate Tsai Ing-wen as their president for a second term on January 11, 2020. Several months later, on November 15, Maia Sandu, a Harvard-educated economist who supports closer ties with the European Union, won Moldova's presidential election against a tapestry of false information favoring pro-Moscow incumbent President Igor Dodon. The proliferation of disinformation in Moldova and Taiwan should cripple to the electoral processes of these young democracies. The victories of President Tsai and President Sandu suggest that there are limits to which targeted foreign disinformation can disrupt, divide, confuse, or otherwise damage political cohesion or a target audience's understanding of reality; signifying that the pre-existing belief systems and social networks can play a pivotal role in constraining the natural flow of disinformation within a society.

While the technological tools have evolved, the use of political disinformation—the purposeful use of misleading or manipulative information to subvert political discourse and confuse, divide, or negatively influence the public—is not a new phenomenon (Woolley & Joseff, 2020). Modern-day states, like China and Russia, have used disinformation campaigns to achieve their strategic objectives. Russian military intelligence materials state, “Psychological warfare has existed as long as man himself” (Kovalev, 2017). During the Cold War, Soviet policy integrated disinformation and malign influence operations, involving the Communist Party and state structure. In 1937, China established the United Front Work Department (UFWD), directing heterodox and hybrid means to conduct influence operations targeting foreign actors and states that oppose the policies and authority of its ruling Chinese Communist Party (CCP) (Bowe, 2018). At present, the UFWD's work enshrines former Chairman Mao Zedong's doctrine: “Anyone wanting to overthrow a political regime must create public opinion and do some preparatory ideological work” (Mao, 1974).

Whether through a computational or traditional flow of communication, every disinformation operation offers a compelling case for its target audience to either adopt or reject its messaging. Through social media channels, such as VKontakte (VK) and Odnoklassniki (OK), the Kremlin amplifies its status as a global leader and welcomes support from its compatriot populations in Central and Eastern Europe (Bradshaw et al., 2020). Similarly, the CCP leverages social networks like YouTube, Line, WeChat, and Twitter to target Chinese diaspora overseas; expanding its normative power abroad and legitimizing its great power status (Roberts, 2020). Russia and China's efforts—to consolidate power by manufacturing allegiances to a normative worldview—do not exist in a vacuum: they influence and are influenced by the supply of and demand for information (Woolley & Joseff, 2020).

The acceleration of technological advancements and emergence of social media platforms have enhanced the reach, speed, volume, and pervasiveness of disinformation over the past few decades. As a result, the supply-side of disinformation—the producers—has captured the attention of academia, journalists, political pundits and the greater public worldwide. Understanding the producers has precipitated unprecedented cross-sector collaboration; civil society, governments and the private sector have come together to design 58 tools and implement over 282 interventions, including 112 media literacy and 144 fact-checking programs, in over 80 countries (Countering Disinfo, 2022). Despite well-

intentioned efforts to improve the quality of content spread across communications networks, demand for fake news and falsehoods continues to undermine the integrity of the information environment (Bradshaw et al., 2020).

Future interventions will be measured by their ability to address both the relationship and interaction between the supply of and demand for disinformation. In this way, it is the demand side—the psychological factors driving disinformation consumption habits—that necessitates further examination. Woolley and Joseff (2020) contend, “curbing the worst effects of disinformation will also require a better understanding of demand.” Linking these complementary approaches maximizes the impact of a country’s national strategy on disinformation consumption by attacking the disinformation economy from both sides.

While academic and political discourse surrounding disinformation operations focuses on how actors deploy disinformation (Zannettou et al., 2019; Silverman, 2016; Serhan, 2018; Kazeem, 2018; Yaron, 2018; Kušen & Strembeck, 2018; Pennycook & Rand, 2019; Ghanem et al., 2019; Rosling et al., 2018; Woolley & Joseff, 2020), less is known about what conditions voters to consume foreign disinformation in the first place. Drawing on the experiences of the 2020 Taiwanese and Moldovan presidential elections, the following analysis examines whether sociodemographic characteristics and voting behavior can explain citizens’ potential demand for foreign disinformation will be the most salient during election cycles.

Using existing literature on demographic segmentation and communications theory, this paper proposes a framework using geographic information system (GIS) applications to identify areas where a constituencies’ willingness to exchange loyalty for disinformation is expected to be salient within the spatially bounded constraints of post-imperial polities. The model derives demand potential from the presence of conglomerate identity groups and vote preference for Russian and Chinese-backed candidates during contentious presidential elections periods. Whereas voting patterns provide tangible examples of committed action, various factors of identity converge in meaningful ways to capture a constituency’s willingness to consistently exchange loyalty for information that “ignores facts and realities if ‘inconvenient’ truths threaten their identity or way of life” (Bjola & Pamment, 2018). It is at the intersection of these dimensions that in-depth disinformation analysis and interventions are warranted.

If we can identify how social space and power geographies permeate to larger dynamics of communications networks and the information disseminated and consumed on them, then we can better inform policymakers where purveyors of disinformation will not only target their messaging, but how they will articulate their narratives for those specific audiences. In the absence of publicly available social media data, this research suggests that spatiotemporal frameworks leveraging GIS methods serve as a viable supplement for evidence-based planning and resource allocation decision-making to build disinformation resilience in small democracies with contentious election cycles.

Deciphering Disinformation

Overview and Definitions

While “misinformation” and “disinformation” are commonly used in place of one another, these terms are not synonyms. Misinformation, “a claim that contradicts or distorts common understandings of verifiable facts” (Guess et al., 2018), is false by definition; distinguishing it conceptually from *rumors* (Shao et al., 2018; Berinsky, 2015) or *conspiracy theories* (Sunstein & Vermeule, 2009), whose definitions are not derived from the truth value of the claims being made. Disinformation, conversely, refers to the purposeful use of erroneous arguments to engender political cynicism, undermine a political ideal or inflame social division (Amazeen & Bucy, 2019; HLEG, 2018; Wardle & Derekshan, 2017; Tucker et al., 2018). The role of disinformation in recent elections has given rise to other distinct, but related, terms like “false” or “fake” news, which is used to describe the production of misleading articles designed to mimic actual articles from established news organizations (Lazer et al., 2018; Zhou and Zafarani, 2018; Vosoughi et al., 2018). Similar to how all good lies have some element of truth, disinformation may contain a blend of credible facts and falsehoods. For this reason, it is often used interchangeably with propaganda, yet the two hold different meanings. The goal of propaganda is not deliberately to deceive, but to use non-rational arguments to either undermine a political ideal or promote a preferred alternative. Propaganda is not necessarily false. With the emergence of new information and communications technologies, computational propaganda, meaning all types of online political manipulation (Woolley & Howard, 2018), has emerged as a complement to its offline form. Disinformation, fake news and state propaganda are utilized in foreign influence operations, or clandestine efforts by foreign state or non-state actors to undermine information systems and manipulate civic discourse (Waltzman, 2017).

From the “Supply” to the “Demand” Side

After major social media companies confirmed their platforms had been co-opted by both foreign and domestic actors following the 2016 U.S. presidential election, “a dedicated corps of researchers, technology integrity teams, governments, and journalists cultivated a comprehensive body of literature exploring the tactics, techniques and technological tools used by malign actors to influence strategic publics on social media” (Bradshaw & Henle, 2018). As a result, the first wave of responses to the challenge of digitized falsehoods addressed the supply-side of disinformation (Woolley & Joseff, 2020), and often relied on an information deficit model (Simis et al., 2016). Such a model assumes that the best way to alleviate public skepticism of scientific topics is to increase the amount and quality of information that is available to the public—in other words, to fill the deficit.

Subsequent interventions focused on people’s misunderstanding of or lack of access to facts, and included: fact-checking, media-literacy campaigns, or proposed policies requiring media giants such as Facebook and YouTube to police content. Fujishiro et al. (2020) contend that simply distributing additional factual information, though well-intentioned, “fails to be effective when fact-checkers and journalists do not grasp the main themes pushed by the disseminators of false content during elections and include them in fact-checking.” Recognizing the primary issues being exploited within specific communications and cultural contexts is therefore integral in deciding what content should be fact-

checked. Just because corrective information is available does not mean that people will engage with it, thus relying solely on the information deficit model ignores the cognitive, social and affective drivers of attitude formation and truth judgements (Fazio et al., 2015; Hornsey & Fielding, 2017; Nisbet et al., 2015).

A second wave of literature focuses on examining what factors motivate the demand for disinformation. According to Matamoros-Fernandez (2017), constructs of identity have a powerful influence on the information individuals believe and consume. Empirical research has found that the belief, consumption and dissemination of fake news may be related to several demographic and socioeconomic variables, including: lower levels of education (Pop & Ene, 2019; Schaewitz et al., 2020; Scherer et al., 2021; Khan & Idris, 2019; Tufekci & Wilson, 2012), male-identifying citizens (Buchanan, 2020; Thoma et al., 2021), political affiliation and ideology (Allcott & Gentzkow, 2017; Uscinski et al., 2016), elementary occupations (Bapaye & Bapaye, 2021), young people (Allcott & Gentzkow, 2017) and those who are aged over 65 years (Bapaye & Bapaye, 2021; Xu, 2022; Loos & Nijenhuis, 2020; Guess et al., 2019). Rampersad and Althiyabi (2020) advance that, of these factors, age has the greatest influence and variance across cultures.

How people contextualize competing cultures within the physical and temporal constraints of their lived experiences is inherent to the way humans make sense of the world. And because these worldviews are crucial for selecting which information to accept or reject, it becomes critical to understand how individuals favor their “in-group” (e.g. race, gender, sexual orientation, religious preference, partisan affiliation, geographic location, etc.) over the “out-group” (Tajfel & Turner, 1979). No matter how hardwired in human evolution the in-group and out-group distinction is, social identities are multiple, dynamic, overlapping and sometimes conflicting (Shen, 2013; Lee et al., 2016). Being Moldovan, for instance, is seen as proof for some as also being Romanian because “all Moldovans are Romanians, but not all Romanians are Moldovans” (Knott, 2015). These dynamics emphasize the contingency of identity relative to political experiences, rather than the continuation of identity meanings and experiences between generations. Individuals can move from one group to another, so that in-group attitudes cannot be taken as the ultimate determinant of political behavior. Rudolph et al. (2021) contend that heuristics can offer an easy, yet overgeneralized, way to give meaning to observations and perceptions of complex demographic differences that we witness via social interactions. This idea is borrowed from social psychological perspectives on the development, formation, and utility of cognitive biases.

On how people interact with disinformation, Woolley and Josef (2019) assert that several biases inform our desire to consume, share, and internalize its content, as well as our ability to evaluate its veracity. These biases are not always a bad thing. The authors suggest that because the consumption and evaluation of information is taxing, “human biases have emerged throughout our evolution to enhance decision making, the formation of social bonds, and group cohesion, among other outcomes” (Woolley & Josef, 2019; Johnson et al., 2013). Core theories associated with cognitive biases, such as attitude polarization (Lord, Ross & Lepper, 1979), confirmation bias (Nickerson, 1998), and illusory correlation (Chapman, 1967), are relevant tools for understanding how humans come to make sense of the world amid an unprecedented proliferation of information.

By and large, the body of research focused on the demand side of disinformation follows a tradition of being located at the crossroads between major disciplines of the social and applied sciences—largely ignoring the interdisciplinary nature of digital deception (Sample et al., 2020). As such, the contribution of this paper is to advance a theoretical framework for thinking about the complex interplay between cognitive and social dynamics, emphasizing further the importance of contextual factors and nuanced cultural differences in identity construction relative to a society’s ever-evolving structures of institutional power.

Conceptualizing the Dynamics of Demand

The use of propaganda in foreign influence operations is older than representative democracy itself (Jackson, 2018). Fifth-century B.C. Chinese military strategist, Sun Tzu, wrote the *Art of War*, which illuminated the notion of a weaponized narrative. In 480 B.C., Persian ruler Xerxes used intimidation tactics to break the will of Greek city-states during the Battle of Thermopylae and Alexander the Great used cultural assimilation to subdue dissent and maintain conquered lands until he died in 323 B.C. As Hyzen (2021) asserts, “propaganda, deployed as ideology, persuasion, and rhetoric, was used in the service of organizing and standardizing societies.” In this way, “propaganda does not presuppose the conditions of modernity,” rather regimes have long understood the value of identity in the production, dissemination and regulation of information (Hyzen, 2021).

The Market for Loyalties

Monroe E. Price’s *market for loyalties* metaphor helps to clearly define this dynamic, where the premise is as follows: each state’s information environment is composed of one or more “markets for loyalties,” where sellers of allegiances—which are classically states, governments, interest groups, businesses and others—use available techniques to “organize a cartel of imagery and identity,” which “yields the collection of myths, ideas, and narratives employed by a dominant group or coalition to maintain power” (Price, 2002). At a rudimentary level, sellers of allegiances are selling information that conveys stories and identities which, in some capacity, reflect an ideological perspective. Audiences (citizens) agree to ‘buy’ what an actor is selling by repeatedly consuming and engaging with the ideational product and, in return, become increasingly loyal to the underlying narrative and its associated community. Loyalty, in this context, can include consistently tuning in, compliance with tax obligations, voting for those in power, obedience to oppressive laws, readiness to fight in armed services, residence within a country, etc.

According to Price (2002), such a marketplace has “existed everywhere and at all times” as a social organizer. Sellers of allegiances have long sought to enact policies analogous to a strategic investment. Foreign actors are interested in shaping the allegiances of audiences abroad to increase the likelihood of a favored political outcome. Fake news and propaganda have always been effective tools introduced by various stakeholders to alter the information environment to their advantage (Price, 2017; Powers, 2014). Domestic governments, as a result, are eager to regulate communications to protect their cartels of imagery and identities from outside influence (Price, 1994). Importantly, however, this is not

analogous to the ‘free-market’ ideology that is increasingly pervasive in political discourse, rather the market for loyalties is a means of conceptualizing how communication technologies, policies, and perceptions interact and shape the context within which pervasive influence, and its alternatives, occur. The following provides an overview of Moldova and Taiwan’s historical foundations and proceeds by applying Price’s market for loyalties theory within their respective media ecosystems.

The Moldovan and Taiwanese Marketplace

Since the Republic of Moldova obtained independence in 1991 and the Republic of China (Taiwan) lifted its martial law in 1987, their respective markets for loyalties experienced a wholesale transformation, where new entrants discredited the old and substituted the new.

Historical Underpinnings Moldova

Moldova is a small, landlocked state situated in Southeastern Europe, between Ukraine and Romania (Figure 3). Moldova’s strategic location made it a historic passageway between Asia and Europe for many centuries until it emerged as an independent state in 1359 A.D. (Kotler, 2017). The Moldova Principality was conquered by the Ottoman Empire in the 16th century and eventually fell into the revolving hands of the Russian Empire (1812–1917), Kingdom of Romania (1918–1940 and 1941–1944), and the Soviet Union (1940–1941 and 1944–1991). In the late 1980s, during the perestroika, the national liberation movements in Moldova began. On August 27, 1991, Moldova declared its independence, sparking a resurgence of Slavic nationalism. The result was the establishment of the Autonomous Territorial Unit of Gagauzia and the *de facto* Russian-backed secessionist region of Transnistria—where about 10% of Moldova’s population resides (CRS, 2021).

Figure 3: Inset Map of Moldova



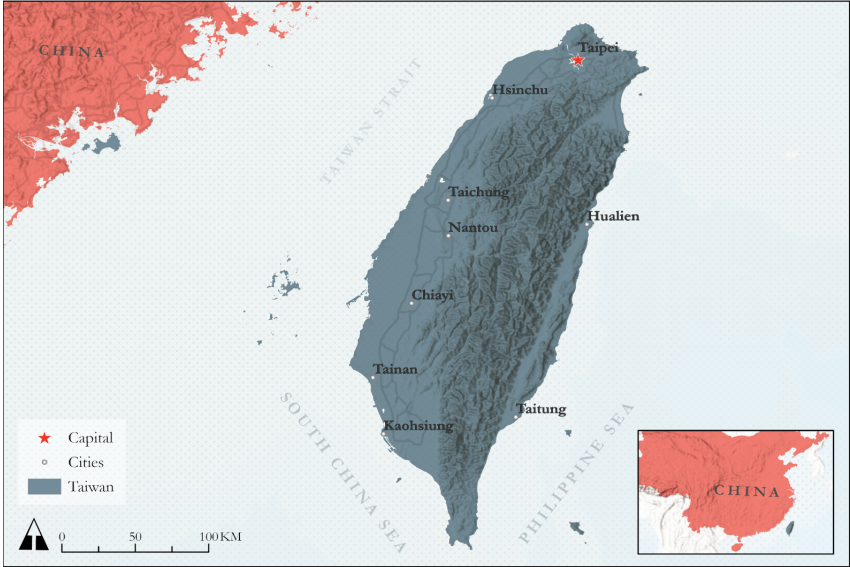
Since leaving the Soviet Union in the early 1990s, Moldova has experienced mass depopulation. The collapse of the collective system precipitated the privatization of the agriculture sector. To find jobs, many Moldovans left their villages—and to find higher salaries, thousands fled the country altogether (Kingsley, 2019).

In addition to a shrinking population, Moldova is highly divided along ethnic lines. According to the most recent census in 2014, Moldova’s total population was estimated to be 2,998,235, of which a 73.7% identify ethnically as Moldovan, followed by Ukrainians (6.5%), Russians (4%), Gagauz (4.5%), Romanians (6.9%), Bulgarians (1.8%) and Roma (0.3%). Moldovans, despite being the titular majority, remain fragmented and uncertain of their collective identity, and the entire society (including the minorities) are deeply divided over attitudes toward history, national symbols, certain values or even the name of the official language. Like other ex-Soviet countries, Moldovan legislators avoid regulating language to prevent a social backlash. At the same time, this has created a situation where most ethnic minorities speak their native language and Russian equally, rather than the state language which, in this case, is Romanian. Furthermore, by choosing not to deal with the issue of promoting minority languages, but rather adopting Russian as a proxy language, the state has led most ethnic minorities to consume media mostly in Russian.

Taiwan

Taiwan, which officially calls itself the Republic of China (ROC), is located across the Taiwan Strait from mainland China between Japan and the Philippines (Figure 4). Similar to Moldova, several regimes have maintained control over Taiwan since Dutch colonization began in 1624, including: the Zheng family, the Qing Empire and the Japanese Empire. After a decisive loss in the Chinese Civil War, Chiang Kai-shek's Kuomintang (KMT) fled to the island in 1949, where it implemented martial law until 1987. Since then, Taiwan’s authorities have categorized the island as a *de jure* sovereign state, and Taiwan’s KMT-drafted constitution continues to recognize China, Mongolia, Taiwan, Tibet, and the South China Sea as part of the ROC (CRS, 2022). Beijing, however, claims Taiwan is bound by an understanding known as the 1992 Consensus, which stipulates that the KMT and the CCP agreed that Taiwan and mainland China are parts of “one China,” without agreeing on what “China” means (CRS, 2022). Furthermore, the mainland has threatened to invade Taipei by force if it resists peaceful reunification indefinitely (CRS, 2022).

Figure 4: Inset Map of Taiwan



Similar to Moldova, Taiwan has also realized a shrinking population since 2015. While it remains less existential than that of Moldova, the island's falling birth rate and the fast-aging citizenry has increased Taiwanese officials' perceived threat of a looming Chinese invasion (Shih, 2020). Mazza (2020) suggests that this could very well be why Beijing has not yet "unified" the island by force.

Although Taiwan's ethnic composition is less crippling than Moldova's, it is no less real. According to Dreyer et al. (2003), Taiwan's political democratization was coupled with a growing consciousness of national identity on the island. In 2021, Taiwan's total population was estimated to be 23,572,052 and is composed mainly of Han Chinese (95%) and Indigenous Malayo-Polynesian peoples (2.3%). Inter- and intra-ethnic divisions between native Taiwanese and those who came from the mainland during the 1940s are reflected in their different historical experiences and preferences for spoken languages (Mandarin vs. Taiwanese) and politics between Taiwan and mainland China (unification vs. independence). While debates surrounding independence-unification assume the two positions are mutually exclusive, "a plurality of Taiwanese is willing to accept either independence or unification under the right conditions" (Dreyer et al., 2003).

Contours of the Cartel Domestic "Sellers"

Moldova's information ecosystem should illustrate a vibrant, multi-ethnic kaleidoscope through which citizens shape their distinct cultural logics of belonging and perceptions of national identity. However, this is far from reality. Similar to other newly independent states of the former Soviet Union, the perceived threat presented by Moldova's new media market was evidenced by the extent to which the titular nation's government attempted to restrain it (Price, 2002). To protect the government's cartel, broadcasting licenses were initially parceled out among dominant political parties to "regulate loyalties, fence out competition, and fabricate or reinforce national identities (Price, 1994). In Moldova, several formal laws and regulations have been implemented on its broadcast media, including the 2006 Broadcasting Code No.260, the 2006 Broadcasting Coordinating Council (BCC) Statute, the 2007 Law on Electronic Communications No.241, and the 2011 Electoral Code No.1381. The Broadcasting Code, in particular, illustrates the national government's intent to protect a cartel of allegiances wherever possible. Articles 11-12 contain provisions to safeguard national culture and European productions. Holding that at least 80% of the programs broadcasted must be a local, national or European production, and at least half of this share must be broadcasted during prime viewing hours. The code stipulates a reserved time for cultural programs during prime viewing hours.

Regardless of these provisions, the BCC does not enforce how the local broadcasters comply. Consequently, four out of the five most popular television stations in Moldova do not operate in accordance with the legal requirements, including the schedules of Primul în Moldova (Pervyi Kanal, Prime TV), RTR Moldova (Rossiya 1), NTV Moldova (NTV), and Channel 2—all of which happen to be widely dominated by Russian programs and television shows (Freedom House, 2020; Gotișan, 2020). In 2010, changes were made to the Broadcasting Code to increase the number of broadcasting licenses that may be owned by a natural person or a legal entity in the territorial area of Moldova. This provision has enabled top television stations to present programs acquired from Russian television

stations as their “own productions” due to their exclusive rights to rebroadcast in the territory of Moldova. This loophole has not been closed by the BCC, and remains widely used to mask foreign media products as nationally produced while promoting the Russian propaganda, or disinformation, agenda. Thus, normalizing the concentration of Moldova’s media regulatory framework (Freedom House, 2020).

Taiwan’s media freedom may rank among the top few nations in Asia (Freedom House, 2022), but its progress to its current state of vibrancy was not without a struggle. During the days of authoritarian rule, two newspaper groups and three terrestrial television stations owned by the KMT enjoyed oligopoly status (Lin, 2017). In the early 1990s, an era of deregulation saw the lifting of a long-standing press ban, the issuance of new radio licenses and the legalization of cable television. By 2006, the trend of digital convergence culminated in the establishment of the National Communications Commission (NCC). The NCC is an ostensibly neutral regulatory body that manages and supervises the commercial media sector, and is analogous to the U.S. Federal Communications Commission (FCC).

To avoid repeating its decades-long history under martial law, the Taiwanese government has been careful to impose strict regulations. However, lack of regulation over commercial competition within Taiwan’s media sector has resulted in the concentration of private ownership. Incomplete legal frameworks, for instance, “have not been able to provide proper regulation for dealing with mergers and acquisitions” (Rawnsley & Feng, 2014). Thus, despite renewed efforts to prohibit foreign governments from funding or directing lobbying efforts, election campaigns, or election-related disinformation in late 2019 (Anti-Infiltration Act, 2020), the ‘China factor’, along with the influence of powerful business leaders, maintains a dark shadow over the Taiwanese news media and their ability to report freely (Lin, 2017).

In Moldova and Taiwan, the story is the same: unable to immediately command loyalty in exchange for their national identities, both governments have imposed “law and regulation to screen out voices that seek to alter the current power structure and especially those that seek to use broadcasting, despite the cartel’s power to force such change” (Price, 1997).

Foreign Competition

Amidst these regulations, foreign governments, including Russia and China, have formed new cartels of popular imagery that have since gained salience by polluting the information environment with false narratives that effectively challenge the project of Western democracy. Within this context, it is important to note that Beijing and Moscow’s narratives extend far beyond its network of media outlets and social media trolls. It is echoed and reinforced through the messaging set forth by political parties, individual politicians, opaque media networks and constellations of civil society organizations situated within the modern-day borders of Taiwan and Moldova.

Political Parties. Beijing and Moscow engage in exclusive relationships with political parties belonging to Moldova’s Left and Taiwan’s pan-Blue coalition.

Moldova's Left consists of the Party of Communists of the Republic of Moldova (PCRM) and the Party of Socialists (PSRM). Distinct from the PCRM's competitive authoritarian structure, the PSRM models itself after the conservative United Russia party—the backbone of Russia's illiberal system (Marandici, 2021). PCRM and PSRM candidates compete against Moldova's center-right Party of Action and Solidarity (PAS) by appropriating ideas from the country's Socialist past. In doing so, their goals are two-fold: First, to accede to power during election periods by exploiting, rather than shaping, public views on the totalitarian era in order; and Second, to gain the benevolence of the Russian Federation, an external patron and known sponsor of Euroskeptical parties in the West (Marandici, 2021; Snegovaya, 2021; Rudolph & Morley, 2020; Cafus, 2020).

Taiwan has been politically separate from mainland China since the arrival of the KMT. Although the KMT has traditionally opposed the CCP's ideological positioning, it has realized a newfound agenda: to promote Cross-Strait economic ties (Embassy of the PRC, 2008). As the dominant party in the Pan-Blue Coalition, the KMT competes with the Democratic Progressive Party (DPP) by catering to independent voters; selling itself as the party that can secure economic favors from the mainland (Huang, 2016).

Individual Politicians. Individual politicians within Moldova's Left and Taiwan's pan-Blue coalition can be considered part of the Russian and Chinese cartels, including former 2020 presidential candidates Igor Dodon in Moldova and Han Kuo-yu in Taiwan.

Igor Dodon joined the PSRM in 2011 and was elected chairman of the party shortly after (Publika.md, 2011). In 2016, he won the Moldovan presidency by capitalizing on a wave of nostalgia for the Soviet era (Marandici, 2021; Hall, 2020), and has since made clear his desire to foster closer relations with Russia (Bucataru, 2016). Dodon has also expressed open admiration for Russian president Vladimir Putin in interviews with Russian media (Bucataru, 2016). While seeking his second presidential term in 2020, Dodon was alleged of receiving monetary support from the Kremlin and Russian intelligence (Publika.md, 2019; RISE Moldova & the Dossier Center, 2020).

Han Kuo-yu was elected to the Legislative Yuan in 1992 and remained in office until 2002, where he served as the KMT caucus leader (Hsu, 1999). Throughout his political career, Han has openly expressed his desire to maintain closer contacts with the CCP and is therefore considered the preferred candidate by the mainland (Horton, 2019). In addition to frequently meeting with PRC politicians on the mainland (Chung & Hetherington, 2019), Han's successful Kaohsiung mayoral primary in 2018 was allegedly supported by a cyber-group from the mainland (Huang, 2019). CCP donations were also supposedly funneled through the KMT in support of Han's 2020 presidential campaign (Spencer, 2020).

These instances demonstrate how Moldovan and Taiwanese politicians, like Dodon and Han, take on the role of retailers and brokers—implementing policies that acknowledge, peddle and preserve Russian and Chinese popular state imagery.

Opaque media networks. The dissemination of messaging by Russian and Chinese cartels is alleviated because local political parties and individual politicians own or heavily influence the media industry in non-transparent ways (Freedom House, 2020; Sullivan & Lee, 2018; Hsu, 2014).

As outlined in Table 1, oligarchic interests play an outsized role within Moldova’s relatively small media market (Freedom House, 2020). For many years, now fugitive Democratic Party (PDM) grandee and Moldovan media tycoon, Vladimir Plahotniuc, owned roughly 70% of Moldova’s media industry (Gogu, 2016). After fleeing the country in June 2019, the PSRM replaced the PDM as the dominant force on the Audiovisual Council (AC), the country’s broadcasting regulator. Since this shift, the AC has exempted PSRM-friendly NTV Moldova and Accent TV from a list of stations monitored for fair coverage of local elections. It also granted one of the four national terrestrial broadcasting licenses to Russian state-owned TV station Channel One in Moldova (Freedom House, 2020; Necsutu, 2020; Pilkington, 2019). PSRM-affiliated TV station Primul în Moldova re-broadcasted Channel One as well, along with other Russian TV channels like RTR, STS, TNT, and NTV (EU vs. Disinfo, 2021; Gotişan, 2020).

Table 1: Index of Media Ownership in Moldova

Network	Owner	Party Affiliation	Alignment
Pro-TV	Petr Kellner & Ronald Lauder	PSRM	Pro-Kremlin
Prime TV	Vladimir Plahotniuc	PSRM	Pro-Kremlin
TV-7	Chiril Luchinschi	PSRM	Pro-Kremlin
TNT Bravo	Chiril Luchinschi	-	Pro-Kremlin
RTR Moldova	Russian companies	-	Pro-Kremlin
Ren TV Moldova	Russian companies	-	Pro-Kremlin
Accent TV	Russian companies	PSRM	Pro-Kremlin
TV6	Ilan Şor	Şor Party	Pro-Kremlin
Moldova 1, 2	Teleradio Moldova	-	Pro-Kremlin
TV Moldova Internațional	Teleradio Moldova	-	Pro-Kremlin
Publika TV	Vladimir Plahotniuc	PDM	Pro-Western
Canal 2, 3	Vladimir Plahotniuc	PDM	Pro-Western

Sources: Gogu (2016), Freedom House (2020)

Since the early 1990s, hundreds of thousands of Taiwanese businesspeople have invested in the PRC (Table 2), facilitating a situation where the CCP is empowered to apply pressure on those who have invested or intend to invest in China—including Taiwanese broadcasters (Hsiu, 2014). To advance their business interests on the Mainland, these media outlets often side with the PRC or self-censor on any issue related to the CCP. China’s efficacy in this strategy is clear from the examples of Want Want, FTV, SET, and ERA. Although FTV and SET initially sided with the DPP on the issue of Taiwanese identity, both eventually surrendered their political posture to Beijing’s wishes to protect their commerce within China (Sullivan & Lee, 2018).

Table 2: Index of Media Ownership in Taiwan

Network	Owner	Party Affiliation	Alignment
TVBS	HTC Corporation	KMT	China friendly
EBC	Mao Tse International	KMT	Pro-China
CTi TV	Want Want Holdings Ltd.	KMT	Pro-China
SETN	Sanlih E-Television	DPP	Pro-China
FTV News	Formosa Television	DPP	Pro-China
Apple Daily	Next Digital	DPP	Taiwan friendly
LTN	Liberty Times Group	DPP	Taiwan friendly
CGTN	China Media Group	KMT	Pro-China
UDN	United Daily News Group	KMT	China friendly
TTV	Feifan Group	KMT	China friendly

Sources: Sullivan & Lee (2018), RTT English (2019), Hsu (2014)

Civil Society. As aspirant great powers, the Russian and Chinese governments have launched parallel campaigns of cultural diplomacy through state-sponsored cultural institutes and other government organized non-governmental organizations (GONGOs) to market their distinctive brands abroad. Registered under Russian and Chinese law as non-profit civil society organizations (CSOs), such groups are financed by and operate in accordance with the state (Kuhn, 2018).

Beijing introduced cultural institutes in 2004, named after the Chinese philosopher, Confucius. Confucius Institutes are established in partnership with educational institutes in foreign countries using a cost-sharing scheme to provide language and cultural instruction at primary, secondary and tertiary educational institutions. Since then, Confucius Institutes have become one of many United Front (UF) activities undertaken by the Chinese Communist Party (CCP) to implement its domestic and foreign policy toolkits. In his testimony before the U.S.-China Security and Economic Review Commission on CCP UF in April 2018, Executive Director of the Global Taiwan Institute Russell Hsiao detailed this “whole-of-society strategy”, which “integrates party-state organizations under CCP-rule in a comprehensive stratagem that aims to control, indoctrinate, and mobilize non-CCP masses—both native and foreign—in service of the Party’s policy objectives.” In addition to Confucius Institutes, Hsiao notes that UF activities are now broadly focused on ten constituencies: grass-roots villages, youth, students, Chinese spouses, Indigenous peoples, pro-China political parties and groups, distant relatives, fishermen’s associations, and retired generals. Chinese authorities also extend their influence through clan and temple associations (Hille, 2018; Hsiao, 2019; Hsiao, 2018; Monaco, Smith & Studdart, 2021). According to Hsiao (2019), at least 30 heads of temples within Taiwan are either members or supporters of the Chinese Unification Promotion Party (CUPP), a fringe pro-China political party in Taiwan.

The Kremlin has developed a similar web of proxy groups dedicated to conceiving a Russian “diaspora empire,” with particular importance placed on the “Russian enclaves” in its “near abroad” (Meister, 2016). According to Lutsevych (2016), “this network of pro-Kremlin groups promotes the Russian World (*Russkiy Mir*), a flexible tool that justifies increasing Russian actions in the post-Soviet space and beyond.” Among the top *Russkiy Mir* host countries, only China and Moldova have a steadily positive view of Russia. In addition to *Russkiy Mir*, other GONGOs include the local offices of Russian-based entities like Russian House (Rossotrudnichestvo) and the Izborsk Club, as well as focused pro-Russian integration groups like the Recognition (“Priznanie”) Foundation in the autonomous region of Gagauzia (Chatham House, 2016). The Kremlin also extends its influence through the Moldovan

Orthodox Church (MOC), which is known for supporting more conservative, pro-Russian parties and candidates (Freedom House, 2020; U.S. DOS OIRF, 2021; BTI, 2021).

The “Buyers”

Russia and China have strategically exploited fractured societies within Taiwan and Moldova’s contemporary borders by posturing their cartels around populations for whom Kremlin- or Beijing-backed disinformation narratives serve as viable substitutes for their own. In line with social psychological perspectives premised on comprehensive cognitive biases (e.g., Nickerson, 1998; Lord et al., 1979; Chapman, 1967), these individuals tend to seek security in groups during times of perceived conflict, social change, or economic hardship (Kaneff & Heintz, 2006). They are increasingly eager to consume information, true or not, that lets them see the world as a conflict putting their righteous ingroup against a nefarious outgroup (Tajfel & Turner, 1979; Brewer, 1979; Sherif et al., 1961). The most powerful story is not necessarily the one that holds the most truth, but the one that holds the most meaning (Watts, 2018). This provides a clue as to why identity-based narratives are prominently featured in Russian and Chinese disinformation campaigns: those who can generate the most attention by playing to the audience’s greatest fears, biases, and ignorance will generate more loyalty in exchange for an identity that is either real or imagined (Watts, 2018). Such is the case for imperial and historical minorities in Moldova and Taiwan.

Imperial Minorities

Imperial minorities can be thought of as groups associated with a past Soviet or Chinese nationalist power who are now deprived of their respective empire’s influence (Peyrouse, 2008). Having enjoyed extensive privileges in the Soviet system, Russian speakers are often considered imperial minorities. As they have become alienated in the newly independent Moldova, a country in which political power is largely controlled by the cultural group previously underrepresented (Marindici, 2021). In the absence of an inclusive definition of nationhood, the idealization of the Soviet past may function as an imagined society for Moldovan imperial minorities. The kind of utopian project described by Boym (2001), in which ethnolinguistic minorities feel secure, free from the need to adapt to the inherent cultural demands of the new state. This is similar in Taiwan, where the nostalgic assessment of Chiang Kaishek’s authoritarian rule prevents the completion of transitional justice policies, including the renaming of the central memorial complex in Taipei. Ethnolinguistic attachments to the greater China once promised by the KMT also mirrors a widening cleavage among the electorate.

For Taiwan and Moldova, the idea of ‘imperial minorities’ extends beyond the ethnolinguistic dimension to include all the economic losers of the transition away from communism or authoritarianism. Both consist predominantly of older, the less educated cohorts and blue-collar workers (Whitefield, 2002). It then creates a situation where the economic winners from change still support economic liberalism, Western involvement, and the breakup of the former Soviet Union or end of martial law. Whereas imperial minorities, usually the losers of change, take the opposite positions (Whitefield & Evans 1998). Powers and Cox (2014) advance this notion; finding that support by imperial minorities for a political party is often based on the ideological assignment of blame rather than on maximizing one’s interests. Issuance of blame by imperial minorities is also present in each country’s

political debate (Powers & Cox, 2014). To engage, it is typical for group members to selectively join polarized clusters of information sharing that occur in both on- and offline spaces (Stewart et al., 2018). More often than not, these opaque communities are thread together not by discontent commoners but by powerful actors who leverage the decentralized nature of these networks to more efficiently develop and coordinate targeted messaging around competing narratives (Velásquez et al., 2021).

Within these clusters, Moscow's stories of Moldova as a dystopia of sexual perversion, dissolved families, gender-confused children, migrant men raping, and plundering—all permitted in the name of tolerance, feminism, and multiculturalism—are intended to reaffirm hate, sow disgust, and elicit moral panics within post-imperial audiences (Cushman & Avramov, 2021). Similarly, Beijing's propagation of stories on polarizing issues, including same-sex marriage, LGBTQ+ rights, pensions reform, nuclear energy, and labor laws within Taiwan's clusters of imperial minorities attempt to plant seeds of discord and doubts (Huang, 2020). Such narratives, disseminated by the Chinese and Russian governments, exaggerate human prejudices and biases, and accentuate their divides to serve their larger ideological and geostrategic ambitions. Indeed, both governments actively draw on these clusters of imperial minority identities to create support for the conservative projects promoted by the Kremlin and Beijing: to cherish the heterosexual family, "traditional" masculinity, and femininity, and Christian or Confucian values, and thus challenge the perceived hegemony of liberal democracy (Keating & Kaczmarzka, 2019; Edenborg, 2020a). In these ways, the ultimate goals for China and Russia are not so much that people believe them but that they are willing to question those things that are demonstrably true.

Historical Minorities

Distinct from imperial minorities, traditional or historical minorities derive their minority status from historical retribution or border changes. Drawn and redrawn by advancing and retreating empires, Moldova and Taiwan's borders have been governed by successive occupations accompanied by legacies of persecution and oppression. Repeatedly, their inhabitants have been "forced to meet the demands of various regimes, languages, and ideologies" (Dumitru, 2008).

Ethnic divisions in Moldova are deep-seated and have long been seen as a point of conjecture for Russian state media. For example, except for a six-day *de facto* independence in the winter of 1906, the Gagauz people, who are primarily Orthodox Turkic-speaking people, have always been ruled by other dominant groups: the Ottoman Empire, the Russian Empire, Romania, the Soviet Union, and Moldova. Among these regimes, Gagauz experienced the least discrimination from the Russian Empire and Soviet Union (Katchanovski, 2010). Gagauz opposed the Soviet breakup and Moldovan independence. As a result, the Gagauz are privy to exchanging loyalty for Russian identity because it is the only hegemon under which they could maintain agency over their own religious and linguistic identities and to achieve a degree of progress (Katchanovski, 2010). This trend is consistent for other ethno-linguistic groups within the historical minority, like Bulgarians, Ukrainians and Roma.

Similar to Moldova, the political identities of Taiwanese Indigenous peoples,¹ are rooted in their historical experiences of oppression and forced assimilation under centuries of revolving regimes (Achen

¹ In order to respect their internal differences, the plural form of people, *peoples*, is used when the whole Indigenous population is mentioned.

& Wang, 2017). Taiwan's Indigenous populations are too few (less than 3% of Taiwan's population) to be an independent political faction on their own, much like Moldova's historical minorities. They have traditionally relied on the KMT for protection partially due to memories of the Hoklo/Hakka land-grab and encroachments by the Japanese colonial government. However, Indigenous youth activists have risen to prominence, largely condemning the PRC's annexation of Taiwan and the KMT's complicity. These actions became omnipresent in the 2014 Sunflower Student Movement against the passing of the Cross-Strait Service Trade Agreement with Beijing. Notwithstanding these developments, the majority of Taiwan's Indigenous population still favors the KMT (Tsai, 2017).

Whether it be Gagauz, Bulgarians, Ukrainians, or Roma in Moldova or the Amis, Atayal, or Bunun in Taiwan, local people use their multiple identities and minority status (and different combinations of these identities) to develop strategies of survival—especially in difficult economic times (Kaneff & Heintz, 2006).

Limitations of Cartel

Emerging technologies, including synthetic media, virtual and augmented reality, and biometric-powered mass surveillance, have enhanced the scope, scale, precision and efficacy of influence campaigns (Bradshaw, 2019b; Bradshaw & Howard, 2018; Hwang & Rosen, 2017). The ubiquity of social networking technologies, combined with the low cost to produce and disseminate content online, presents a qualitatively new landscape of persuasion, manipulation, and hybrid forms of warfare (Lin & Kerr, 2019; Moore, 2018; Rid, 2020; Starbird et al., 2019). New modes of interrupting and influencing communication through computational propaganda have enabled authoritarian regimes to disseminate their ideology *en masse*, selling information that captures their targeted audiences' attention, an "increasingly scarce resource given the saturation of media markets around the world" (Powers, 2014). Thus, as computational propaganda becomes more widely adopted by authorities to establish a situation of "psychological monopoly," the likelihood they are able to achieve the "maximum propaganda effect" is increasingly possible (Lazarsfeld & Merton, 1948, p. 117).

Indeed, China and Russia have used computational propaganda to suppress political dissidents and further buttress political support for their regimes within Taiwan and Moldova's markets for loyalty. Both countries frequently leverage their proxies abroad to extensively astroturf social media platforms with bot accounts and paid trolls in service of this endeavor. According to Monaco et al. (2021), disinformation targeting Taiwan's Central Election Commission was potent across several social media platforms in the months leading up to Taiwan's 2020 presidential election. However, it became more pervasive after Tsai's victory, featuring a network of domestic Taiwanese accounts that alleged several falsehoods including electoral interference by the U.S. Central Intelligence Agency and calling to question the validity of Tsai Ing-wen's PhD. A similar strategy was deployed on- and off-line in the wake of Moldova's 2020 presidential elections. Fake news efforts bolstered claims that Sandu, an unmarried woman without children, intended to privilege LGBTQ rights over traditional institutions of conservative families (Necsutu, 2021). Rumors also alleged the European Union and the U.S. of electoral interference, accusing both powers of organizing the voting process for the Moldovan diaspora (EU vs. Disinfo, 2020).

While the propagation of these falsehoods is not directly attributed to the Russian and Chinese governments, the narratives being disseminated during both events are consistent with each country's respective political objectives and ambitions in the region. And though this overview of election interference is not exhaustive, it makes one point clear. Despite the affordances provided by digital communications and social networking, it appears that disinformation campaigns pursued by China and Russia in these countries are limited in their abilities to achieve a condition where their ideological doctrines proceed unquestioned. Targeted Russian and Chinese disinformation can only succeed if the demand for their respective narratives exists.

Analytical Framework

In this section, I operationalize Price's *market for loyalties* analogy to a framework that examines if identity and voting are indicative of a constituency's willingness to consistently exchange loyalty for information that ignores facts and realities if inconvenient truths threaten their way of life or cultural survival. Demand, in this model, is contingent on two components: (1) the presence of conglomerate identity clusters, which are derived from distinct subgroups of socio-demographic characteristics, and (2) explicit political preferences, which describe a population's demonstrated electoral support for pro-Russian and -Chinese candidates during presidential elections.

Conglomerate Identity Clusters

Identities are multiple, dynamic, overlapping and sometimes conflicting in post-imperial spaces (Kaneff & Heintz, 2006), forming what Laitin (1998) calls *conglomerate identity* groups. According to Laitin (1998), a "conglomerate" identity is defined as a "category of membership that is a common denominator among a set of identity groups that share some characteristics that are distinct from those in the dominant society in which they live." Conglomerate identities, for Moldova and Taiwan, were derived from the following socio-demographic characteristics: age, education level, income status, ethnicity, language marital status, and religion.

Conglomerate identities are the result of compounding systemic and implicit forces. Clusters of conglomerate identities are suspected to be configured by literal (actual geographical) borders and conceptual (sociocultural) boundaries, which Kaneff and Heintz (2006) maintain are complementary processes that can either reinforce or subvert each other. Underlying this focus is the recognition that such places are often areas of contested power (Wilson & Donnan, 1998), where different ethnocultural groups have had different access to resources and power in these regions at different moments in time. Conflicting evaluations of the past, that is distinguishing the oppressor from the oppressed, are what colors elements of the reinvented collective identities of individual worldviews in the present (Marindici, 2021). Table 3 shows the factors of identities used to derive these conglomerate groups.

Table 3: Factors of Identity

Identity Factors	Moldova	Taiwan
Age	15-29 years old	15-29 years old
	30-49 years old	30-49 years old
	50-64 years old	50-64 years old
	65-84 years old	65-84 years old
	85+ years old	85+ years old
Income Status	Underserved since 1992	Underserved since 1992
Religion	Orthodox	Confucius Temples
	Islam	Buddhist Temples
	Judaism	
Marriage	N/A	Married (same sex) Married (opposite sex)
Education	N/A	University Degree High School Diploma Less than a High School Diploma
Ethnicity	Bulgarian	N/A
	Gagauz	
	Moldovan	
	Roma	
	Romanian	
	Russian	
Language (most commonly spoken)	Bulgarian	N/A
	Gagauz	
	Moldovan	
	Roma	
	Romanian	
	Russian	
Language (mother tongue)	Bulgarian	N/A
	Gagauz	
	Moldovan	
	Roma	
	Romanian	
	Russian	
Ukrainian		

People tend to uphold systemic biases through their implicit or unconscious biases. Whereas systemic biases are barriers maintained by institutions, unconscious biases are prejudices, bigotry, or unfairness directed by someone from a privileged group towards individuals from an oppressed or marginalized group (Gordon & Zinga, 2012). However, in cases where competing versions of history are transmitted through selective knowledge and ignorance of the past (Salter & Adams, 2016), it becomes exceedingly difficult to discern the privileged group from that which is marginalized. Social identity theory, proposed by Tajfel and Turner (1986), suggests that amid these contradictions, individuals make sense of their belonging in the world through collective identity based on their membership in a group (e.g., racial, ethnic, gender). This notion encompasses the idea of homophily as well. Homophily, according to the social and geographic sciences, refers to individuals' tendencies to be attracted to areas and people that contain others with similar characteristics, ideologies or even experiences to themselves (Sleight, 1993; Webber & Craig, 1978). As Tufekci (2017) notes, these mechanisms are crucial for cluster formation because it forms “the ties that bind.”

The physical clustering of conglomerate identity groups is by no means an accident. People depend on, seek security in and are bound to communities formed from systemic biases and sustained by implicit biases. While clustering alone is not indicative of foreign disinformation consumption *per se*, it does present optimal conditions under which individuals could consume information that reaffirms their underlying belief systems. Just as a clustered community of imperial or historical minorities are more likely to be surrounded by and therefore subsumed under information that confirms their shared beliefs,

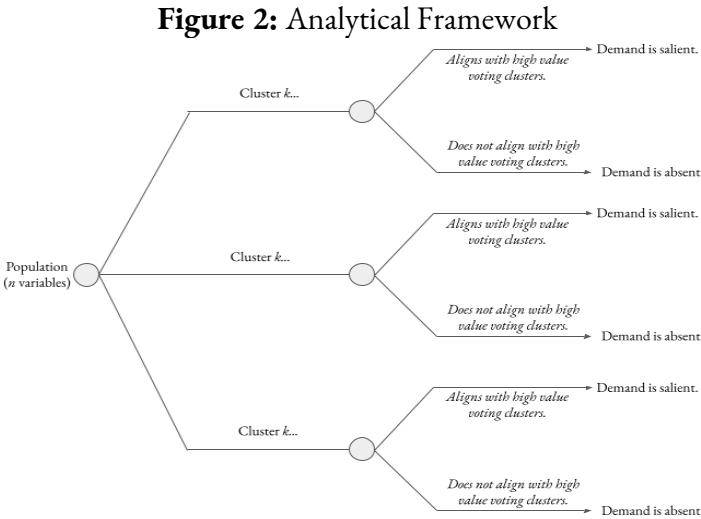
so too are clustered communities belonging to the pro-Romanian or pro-Independence camps (Flaxman et al., 2016; Peterson et al., 2017; Kitchens et al., 2020). Upon this balance rests more potent grounds where partisan polarization takes root. Conglomerate identity clusters have been hypothesized to predict areas where individuals may be the most willing to exchange loyalty for information that reaffirms their beliefs and rejects others (Nguyen & Solomon, 2021).

Explicit Political Preference

Explicit political preferences discern whether or not individuals seek out information or disinformation based on their vote preference. The decision to vote is complex. It is driven by a culmination of individual and social resources (e.g., education, income, political interest, civic memberships, church attendance) that a citizen has obtained over time. To construct a simplified measurement of these complex dynamics, vote choice is interpreted as a product of citizens’ individual interests, which are reflective of their individual-level socio-demographic endowments (Toka & Gosselin, 2010). This framework rests on the assumption that people are more likely to consider their explicit attitudes as a valid basis for judgment (Gawronski & Bodenhausen, 2006); thus, a vote reflects an explicit preference for a specific political preference. For instance, in this paper, a vote for the Taiwan’s Blue Coalition (Han Kuo-you) or the Moldovan Left (Igor Dodon) reflects an explicit preference for narratives representative of Russian and Chinese identities because both candidates have proven to be channels through such Kremlin and Beijing-produced disinformation is purveyed, as explained earlier. Furthermore, when these explicit demonstrations of political preferences cluster, disinformation is expected to be the most pertinent because the constituencies who reside there are highly receptive to and often seek out information that aligns with narratives peddled by the Russian and Chinese government.

Potential Demand for Russian or Chinese Disinformation

The potential demand for disinformation can be identified based on a set of possible explanations that are at the intersection of conglomerate identity group clusters and can be derived from the framework represented in Figure 2.



A conglomerate identity group, represented as ' k ', is derived from several predetermined variables that represent factors of identity. Each identity group can either align or not align with statistically significant clusters of votes in favor of populist candidates like Dodon or Han. The result will be one of two outcomes: in areas where n does align with populist vote clusters, then demand is expected to be salient; in areas where n does not align with populist vote clusters, then demand is expected to be absent.

Analysis

Data Preparation

The following section will apply this analytical framework to analyze the variance of the potential demand for Kremlin-produced media in Moldova and Beijing-produced media in Taiwan. Villages are the spatial unit of analysis. The 2014 Population and Housing Census published by Moldova's National Bureau of Statistics provided demographic data for 1,021 Moldovan villages on individual age, ethnicity, language, and religion. The dataset was joined to first-level administrative boundaries provided by EuroGeographics. Transnistria is not included in this paper's analysis due to insufficient data. Demographic data for 7,761 villages in Taiwan on individual age, ethnicity, marital status, and education level were obtained from Taiwan's Department of Household Registration, within the Ministry of the Interior. The data were joined to third-level administrative boundaries provided by the Taiwanese Data Sharing Platform.

Several proxy indicators were created to supplement missing sociodemographic data. In the absence of village-level data for individual religiosity in Taiwan, geocoded locations were derived from the addresses of active Confucius and Buddhist temples published by the National Religious Information Network within Taiwan's Ministry of the Interior (MOI). Each value represents the percent of total active Confucius and Buddhist temples present in each village, where high values can be interpreted as increased exposure to the temple as well as its subsequent community involvement. It should be noted, however, religion is a proximate measure for where places of worship are located and may not reflect their surrounding audience's actual beliefs. The temples selected also reflect theologies of East Asian origin, and do not include other religions like Christianity or Judaism, which people in Taiwan do indeed practice.

Night-time lights (NTL) were used as a proxy for identifying patterns of regional economic development (Rybnikova, 2022). Using NOAA's DMSP-OLS NTL Time Series, Average Stable Lights, the negative average percent change of luminosity was calculated for villages in Moldova and Taiwan from 1992 to 2013. Since NTL luminosity could positively affect economic development, the inverse was taken as an indicator for those areas where people's well-being may have decreased since the dissolution of the Soviet Union in Moldova or the end of martial law in Taiwan.

Explicit vote preference was derived from electoral outcomes, specifically the portion of total votes garnered by Han Kuo-you and Igor Dodon in Taiwan and Moldova's 2020 presidential elections. Data were obtained from Taiwan's Central Electoral Database (CEC) and Moldova's Central Election Commission (CEC). However, Moldova's CEC only provided data at the polling station level; thus,

inverse distance weighted (IDW) interpolation with a 12-point search radius was used to predict the spatial distribution of the total percentage vote for Igor Dodon in villages across Moldova.

Methodology

ESRI ArcGIS Pro and GeoDa software were used to integrate, manage, and analyze the data. Principal component analysis (PCA) using the singular value decomposition method was employed to both eliminate possible multicollinearity and to create simpler and more interpretable components. In essence, PCA identifies and isolates “site signatures,” or combinations of traits that make neighborhood types unique, since each factor is a condensed and distilled representation of many related variables, and each factor is theoretically independent. The goal of this paper is to carve meaningful and actionable segments of identities from Moldova and Taiwan’s markets for loyalties, thus only the first four components were retained as they succinctly accounted for a sufficient amount of variance within the data—amounting to 54% in Moldova and 66% in Taiwan.

K-means clustering analysis was employed using a first order Queen’s contiguity case weight matrix to derive component scores from the PCA as input variables. As a simple and powerful algorithm, K-means clustering partitions data into k clusters such that data points in the same cluster are similar and data points in the different clusters are farther apart (Anselin, 2018). While several *ad hoc* rules have been suggested for determining the number of clusters (e.g., Rousseeuw, 1987, Halkidi et al., 2001), none are completely satisfactory. Since the objective of this paper is to ultimately identify clusters that are similar to one another and unique from others, the numbers selected were based on the distinct distributions each demonstrated in the results: three clusters in Taiwan and five clusters in Moldova.

The “Local Moran’s I” statistic was then used to calculate the proportion of total votes cast in each village for the PRC-affiliated candidate, Han Kuo-you, in Taiwan and Russian-affiliated incumbent, Igor Dodon, in Moldova to identify local clusters, spatial outliers and their significance (Anselin, 1995, 1996). Briefly, this univariate test determined whether any one component in each village was more similar to surrounding villages than would otherwise be expected by chance. The results of Local Moran’s I calculations can have four possible outcomes: statistically significant clusters of high values (high-high), clusters of low values (low-low), outliers in which a high value is surrounded primarily by low values (high-low), and outliers in which a low value is surrounded primarily by high values (low-high). Statistical significance is set at the 95% confidence level. High-high clusters were then extracted from vote patterns generated by the Moran’s I statistic, and K-means clusters were overlaid on them to derive areas where disinformation demand is expected to be salient.

Results

Principal component analysis (PCA)

Table 4 presents the PCA variable loading results for Taiwan’s 13 socio-demographic variable loadings for the six characteristics measured.

Table 4: PCA Results for Socio-demographic Characteristics in Taiwan

Identity Factors	Variable	Advantaged Youth	Disadvantaged Youth	Historical Minority	Underserved Communities
		TW-PC1	TW-PC2	TW-PC3	TW-PC4
Income Status	Underserved since 1992	-0.00306481	0.247383	0.553838	0.0255148
Religion	Confucius & Buddhist Temples	-0.0407161	-0.0614987	0.0137193	-0.359233
Education	University Degree	0.236565	0.175342	-0.448757	-0.0228912
	High School Diploma	0.066374	-0.639107	0.106213	0.0169224
	Less than a High School Diploma	-0.066374	0.639108	-0.106213	-0.0169225
Age	15-29 years old	0.309455	-0.152894	0.286842	0.0183611
	30-49 years old	0.459932	0.0440111	-0.101553	0.0239129
	50-64 years old	-0.391234	-0.0889047	0.134259	-0.0482989
	65-84 years old	-0.479757	-0.0319418	-0.125088	-0.0135557
	85+ years old	-0.48142	-0.017148	-0.0312107	-0.0140889
Marital Status	Married (opposite sex)	0.0931245	-0.0115157	0.0102067	-0.526964
	Married (same sex)	0.0142619	0.014275	0.017454	-0.766725
Ethnicity	Indigenous peoples	0.0488547	0.229106	0.584367	-0.0047883

The first component (TW-PC1) accounted for approximately 26% of the variance, with high positive loadings of villages where individuals who are well educated (at least university educated) and young (15 to 49 years old) reside. At the same time, TW-PC1 showed significant negative loadings of villages with older cohorts (50 years and older). Variable loadings in TW-PC1 describe villages whose populations are representative of Taiwan’s advantaged youth, a faction of Taiwan’s pro-Independence camp. According to Göbel (2012), young, well-educated individuals “tend to form their own opinions and are not susceptible to persuasion” when it comes to political decision making. Local polls reaffirm this notion, indicating that younger generations tend to have a stronger sense of Taiwanese consciousness than do their older counterparts (Lok-sin, 2015; Taiwan Brain Trust, 2014).

The second component (MD-PC2) accounts for 17% of the variance and is characterized by high positive loadings of under-developed villages where less educated (no high school diploma) and Indigenous people live. Populations in these villages generally lack advanced degrees as well as younger (15-29 years) and older (65-84 years) cohorts but do realize a modest presence of middle-aged individuals (30-49 years old). Variable loadings in TW-PC2 describe villages where the identities of local populations coalesce to form Taiwan’s disadvantaged millennials. Taiwan’s Millennial-age youth (those born since 1980) grew up in the relative affluence precipitated by Taiwan’s period of rapid postwar economic prosperity without experiencing the hardships borne by their parents and grandparents during authoritarian rule (Roy, 2017). However, strong, positive loadings of Indigenous identity and decreased economic development indicate that these populations may be on the opposite end of advantaged youth for they have not realized the full benefits of Taiwan’s economic development.

The third component (TW-PC3) accounts for 16% of the variance. It is distinguished by underserved villages where young adult cohorts (25 to 29 years old) and Indigenous communities live. The results suggest that college educated individuals are largely absent from these villages. TW-PC3 describes villages whose populations’ identities combine to form what appears to be Taiwan’s historical minority. These

areas feature demographics similar to those described by the disadvantaged millennials component, but differ in terms of the provenance of Indigenous identities within the historical minority component.

The variance explained by the fourth component (TW-PC4) was 8%, with villages whose populations are characterized by negative affiliations with traditional institutions like marriage and East Asian religions. Underdevelopment and youth (15-29 years) feature positively in these villages, but only slightly. Taken together, TW-PC4 describes villages where underserved communities live. These areas are where sustained poverty has resulted in institutional backsliding and a diminished capacity for the creation of social structures within them.

PCA for Moldova

The results of PCA for Moldova's 29 socio-demographic variable loadings for the six characteristics measured are presented in Table 5.

Table 5: PCA Results for Socio-Demographic Characteristics in Moldova

Identity Factors	Variable	Imperial Minorities	Pan-Romanianists	Passive Historical Minorities	Active Historical Minorities
		MD-PC1	MD-PC2	MD-PC3	MD-PC4
Age	15-29 years old	-0.151772	0.162273	-0.0456114	0.051002
	30-49 years old	-0.0362865	0.076174	-0.00588376	-0.0841521
	50-64 years old	-0.00449091	0.019674	0.0910407	-0.0500677
	65-84 years old	0.114228	-0.272742	0.0886319	-0.0761261
	85+ years old	0.14831	-0.257512	0.0385133	-0.0234904
Ethnicity	Bulgarian	0.116313	0.235375	0.315433	-0.362194
	Gagauz	0.0913449	0.240869	0.229556	0.402615
	Moldovan	-0.352349	-0.154265	0.0536444	0.0292735
	Roma	0.0509015	-0.00268543	-0.06984	-0.0531718
	Romanian	-0.100432	-0.269327	-0.318208	-0.0628871
	Russian	0.208643	0.0273779	-0.00253316	0.0639097
Language (most commonly spoken)	Ukrainian	0.324814	-0.141509	-0.157238	0.00391076
	Bulgarian	0.0991971	0.223047	0.299714	-0.384604
	Gagauz	0.0572979	0.209129	0.195037	0.418248
	Moldovan	-0.294775	-0.259869	0.194877	0.0258806
	Roma	0.138567	-0.059459	-0.116797	-0.0594857
	Romanian	-0.160299	0.296342	-0.352154	-0.0581368
	Russian	0.273367	0.060879	0.0322284	0.0897886
Language (mother tongue)	Ukrainian	0.289596	-0.157024	-0.168122	-0.013983
	Bulgarian	0.11028	0.231383	0.312724	-0.374198
	Gagauz	0.0793298	0.236477	0.224975	0.412481
	Moldovan	-0.281544	-0.277455	0.203894	0.0382226
	Roma	0.149414	-0.0605282	-0.109507	-0.0628914
	Romanian	-0.156153	0.297662	-0.353674	-0.0586526
	Russian	0.256912	0.0385695	0.00556943	0.0911834
Religion	Ukrainian	0.307068	-0.154523	-0.164241	-0.00880654
	Orthodox	-0.128384	-0.0019354	0.0582859	-0.101639
	Islam	0.0738221	0.0700472	0.0302001	0.00141833
Income Status	Judaism	0.0508876	0.00860414	-0.0377021	-0.000151208
	Underserved since 1992	0.00985099	-0.0803314	0.0415381	0.00133645

The first component (MD-PC1) captures 22% of the variance, and consists of villages with high, positive loadings of populations who identify ethno-linguistically as Ukrainian and Russian. Populations in these villages do not identify ethno-linguistically as Moldovan. MD-PC1 describes villages whose populations form the imperial minority, as they represent the populations who went from being the Ukrainian and Russian majority to the minority following the collapse of the Soviet Union and Moldova's subsequent independence.

The second component (MD-PC2) accounts for 12% of the variance and is characterized by villages where high, positive loadings of populations who identify ethno-linguistically as Romanian reside. People in these villages do not belong to age cohorts over 65 years old or who identify ethno-linguistically as Moldovan. MD-PC2 describes villages where populations' identities align to form the pan-Romanianists, who claim Moldova is an ancient Romanian region where the Moldovan population forms a constituent part of Romania that was united politically in Greater Romania (Knott, 2015).

The third component (MD-PC3) explained about 11% of the variance, with high, positive loadings of villages whose populations identify ethno-linguistically as Bulgarian. Concurrently, groups in these villages do not identify ethno-linguistically as Romanian. MD-PC3 describes populations who are passive historical minorities. Hatlas (2013) contends that these groups prefer the restoration of the Soviet republics but have never had any radical complaints. Bulgarians, for example, have not created a political party which could represent their interests (Hatlas, 2013).

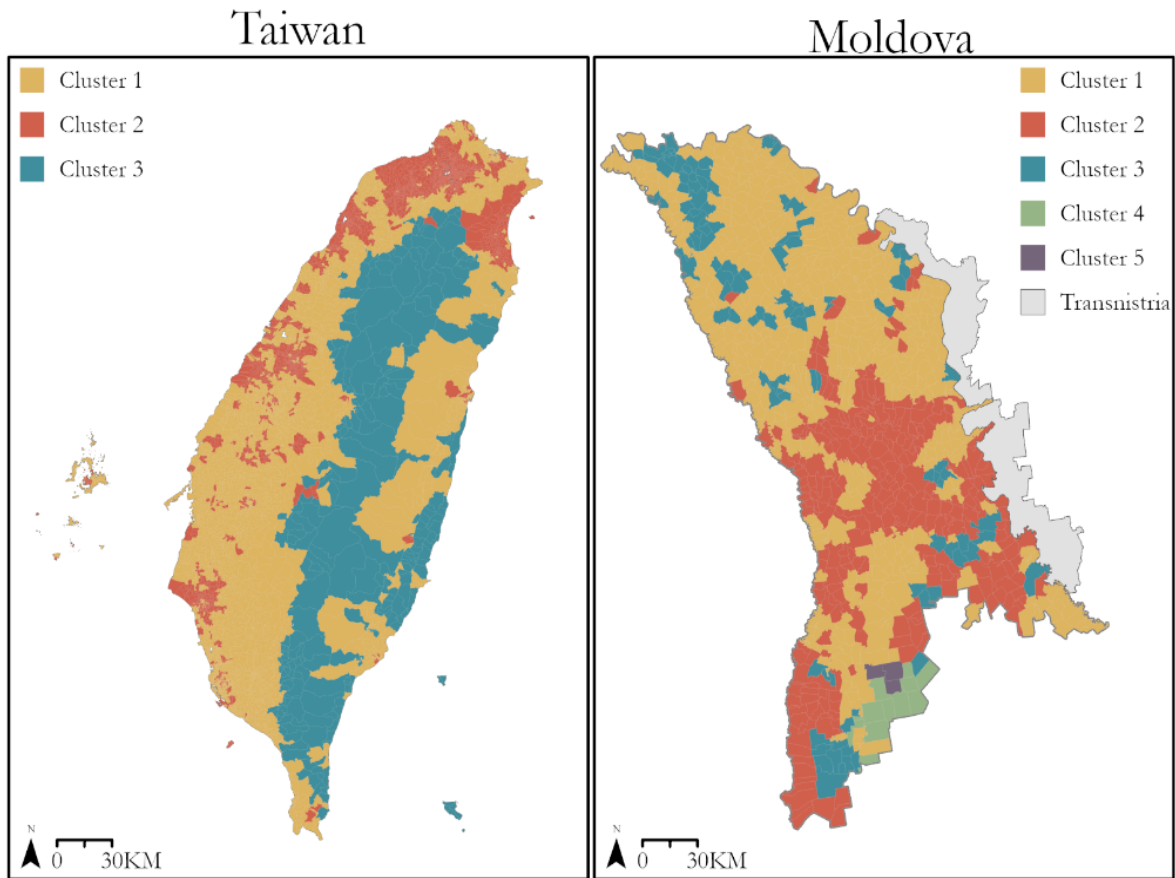
The fourth component (MD-PC4) yielded only 9% of the variance, and maintained high, positive loadings of villages whose populations identify ethno-linguistically as Gagauz. Populations in these villages do not identify ethno-linguistically as Bulgarian. MD-PC4 describes villages whose populations are active historical minorities. These groups are distinct from passive historical minorities because they both prefer and seek out opportunities to actively achieve radical social change (Hatlas, 2013). In addition to forming political groups, the Gagauz have substituted their own state in the form of autonomy.

Spatial Analysis of Socio-Demographic Characteristics

K-means Clustering Analysis

K-means clustering analysis was performed on the component scores derived from Moldova and Taiwan's PCAs to reveal any hidden spatial patterns within Taiwan's 7,761 and Moldova's 1,021 villages (Figures 7).

Figure 7: K-Means Cluster Centers for Taiwan and Moldova



While Figure 7 shows distinct partitions of clusters in Taiwan, these divergences become less clear when considering their mean centers (Table 5). At first glance, it appears that K-means have classified fairly similar village profiles in Taiwan; however, slight distinctions can be made by looking at the cluster centers, which are the mean of each PC for the villages categorized in the cluster (Waller & Gotway, 2004).

Table 5: K-Means Cluster Centers for Taiwan

Clusters Numbers	Advantaged Youth	Disadvantaged Youth	Historical Minorities	Underserved Communities	Total Villages
<i>k</i>	TW-PC1	TW-PC2	TW-PC3	TW-PC4	<i>n</i>
Cluster 1	-0.986915	-0.704999	0.105585	0.0990088	4,023
Cluster 2	1.09758	0.584544	-0.595249	-0.118787	3,400
Cluster 3	0.58	2.93	5.96	0.05	251

Cluster 1 villages maintain a positive presence of historical minorities and underserved communities and a negative presence of advantaged youth and disadvantaged youth. Villages from Cluster 1 dominate most of western Taiwan as well as the eastern coastline. Cluster 2 villages yield positive cluster centers for advantaged youth and disadvantaged youth, but not historical minorities or underserved communities. These villages are located in small pockets along Taiwan’s western coastline as well as in the northeast. Cluster 3 villages are positively associated with every conglomerate identity group, but

historical minorities and disadvantaged youth represent the greatest contributions to this cluster. Cluster 3 villages are positioned across central Taiwan, extending to the island’s southern shores.

Similar to Taiwan, K-means have classified seemingly congruent village profiles in Moldova (Table 6), but there are some cleavages worth addressing.

Table 6: K-Means Cluster Centers for Moldova

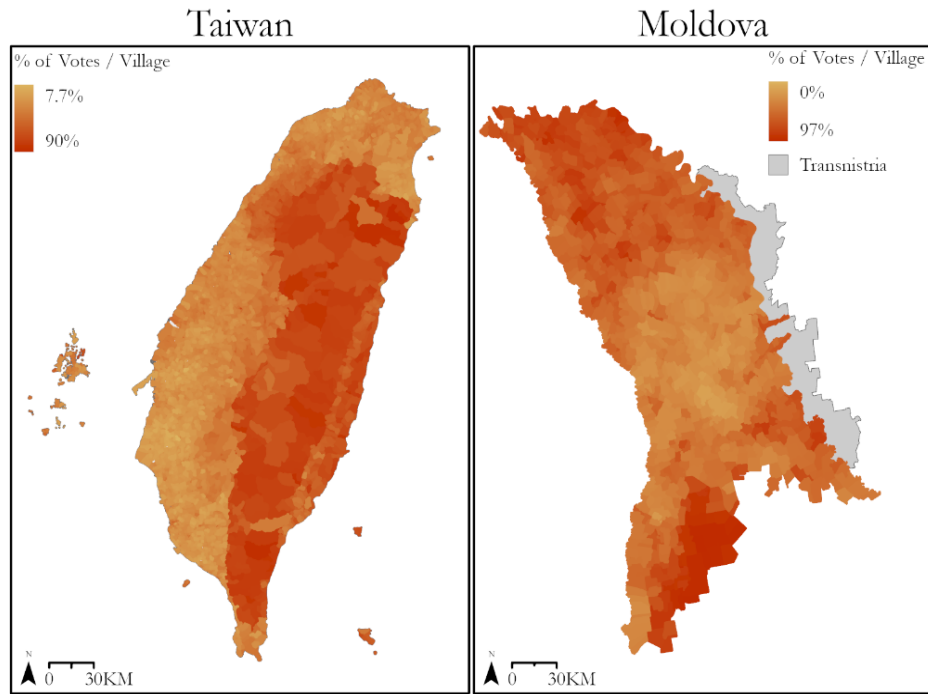
Clusters Numbers	Imperial Minority	Pan-Romanianists	Passive Historical Minorities	Active Historical Minorities	Total Villages
<i>k</i>	MD-PC1	MD-PC2	MD-PC3	MD-PC4	<i>n</i>
Cluster 1	-0.90	-0.79	0.64	0.09	556
Cluster 2	-1.09	1.75	-1.64	-0.23	325
Cluster 3	5.94	-0.66	-0.97	0.44	114
Cluster 4	5.37	6.88	7.97	-8.95	14
Cluster 5	6.39479	13.4551	10.6818	21.2059	3

Cluster 1 represents villages where ethnic Moldovans, Bulgarians, and Gagauz live, as suggested by the positive passive and historical minority values. Negative imperial minority and pan-Romanist values indicate that these areas do not have vast amounts of ethno-linguistic Russian and Ukrainian populations nor ethno-linguistic Romanian populations. Cluster 1 villages are located primarily in northern Moldova, with a small pocket located in the south-central part of the country. Cluster 2, in comparison, represents villages where Romanian is the dominant ethno-linguistic group, as pan-Romanists yield the only positive value in the cluster. Cluster 2 villages are located in and around Moldova’s capital, Chisinau, which is located in the nation’s center. These villages are also present along the country’s southwestern border with Romania. Cluster 3 is dominated by ethno-linguistic Ukrainians and Russians, as indicated by positive imperial minority and active historical minority values. These villages are located in enclaves scattered across Moldova. Conglomerate identities all yielded positive values for Cluster 4, with the exception of active historical minorities. With the exception of one or two villages, most areas belonging to Cluster 4 are located near, but not in, Gagauzia. A similar observation can be made for Cluster 5, where it appears that a mosaic of identities come together across three villages. However, upon closer observation, it becomes clear that active historical minorities outnumber the rest. These three villages are all located in Gagauzia.

Discerning Vote Preference

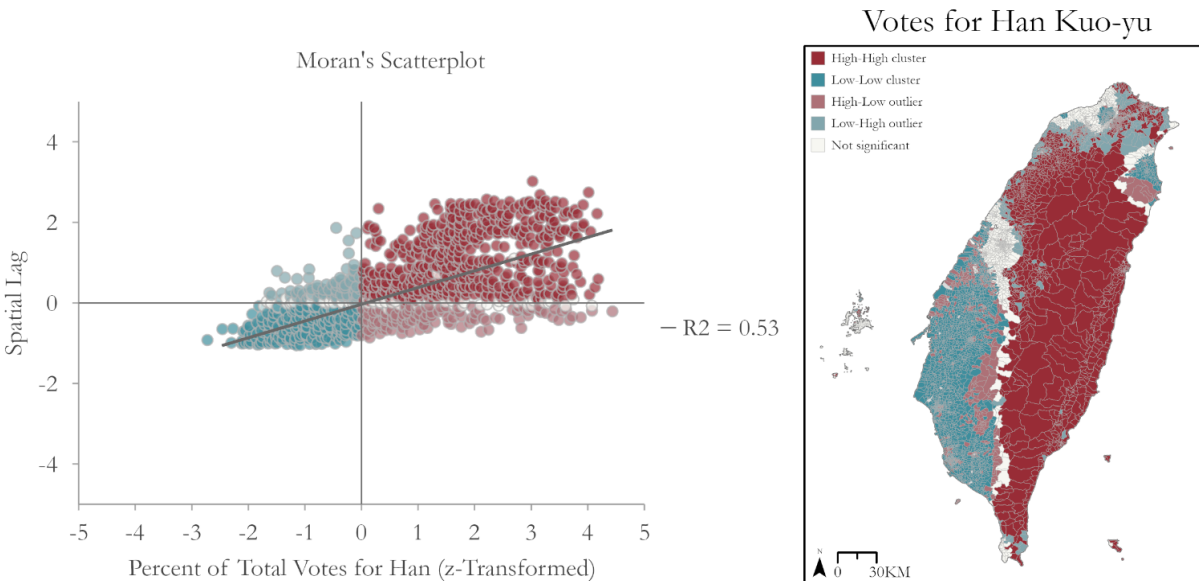
The proportion of total votes cast for pro-Chinese candidate Han Kuo-you and pro-Russian incumbent Igor Dodon are projected onto the maps in Figure 8. At first glance, the maps presented in Figure 8 reveal striking patterns in the proportion of votes garnered by each candidate. Further details are then emphasized in Figures 9 and 10.

Figure 8: 2020 Presidential Voting Patterns



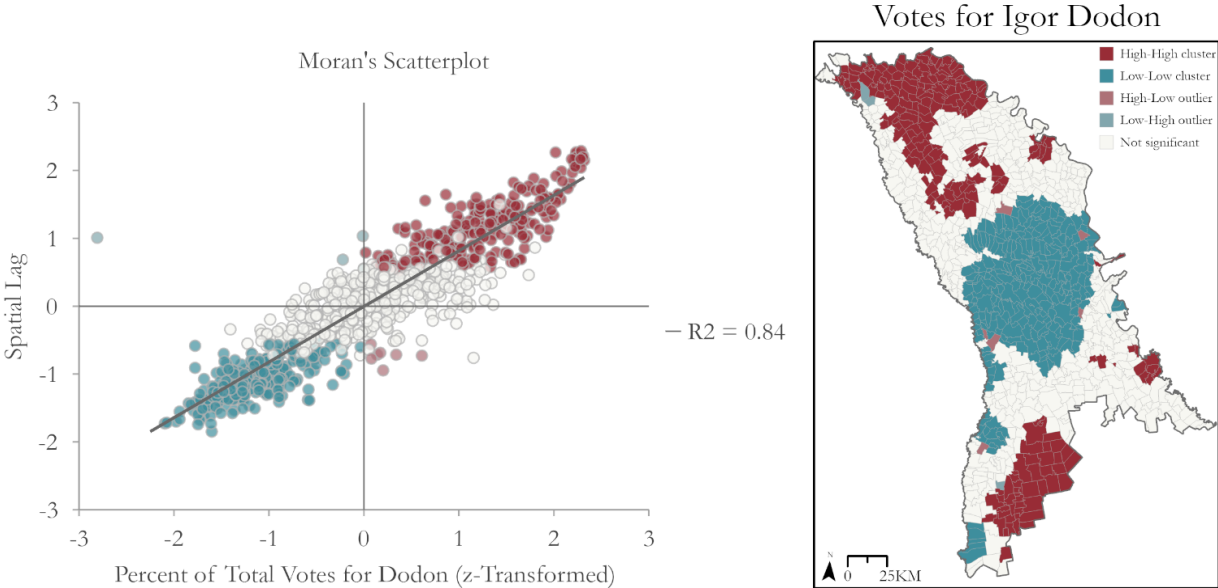
In Taiwan, Han was able to command support primarily from the center of the country and along the eastern coastline. These findings are echoed in Figure 9, where high-high clusters subsume nearly all of eastern Taiwan and low-low clusters almost all of the southwestern coastline. The scatter plot in Figure 9 also indicates the presence of positive autocorrelation (r -squared of 0.53) for Chinese narratives, where the X-axis represents the standardized value for the proportion of votes Han received and the Y-axis represents the mean standardized neighbor value for that same variable. Thus, it can be inferred that positive autocorrelation exists for Chinese narratives, with a majority of points representing high-high clusters and low-low clusters of votes for Han.

Figure 9: Maps Showing Local Moran's I Calculated for Taiwan's 2020 Presidential Election



As for Moldova, Dodon was unable to gain a strong lead in the center of the country but did capture a decisive majority in southern areas surrounding Gagauzia and in areas scattered across northern Moldova. The map in Figure 10 reinforces this finding, where significant high-high clusters are located in Moldova’s northern and southern regions, while low-low clusters are in the center. The scatter plot in Figure 10 further supports these observations, revealing a strong correlation (r-squared of 0.84) between the voting patterns of villages relative to their neighbors. From this it is inferred that positive autocorrelation exists for Russian narratives, with nearly all points representing high-high clusters and low-low clusters of votes for Dodon.

Figure 10: Maps Showing Local Moran’s I Calculated for Moldova’s 2020 Presidential Election



Deriving Potential Disinformation Demand

Figure 11 illustrates the derived K-means clusters for Moldova and Taiwan overlaid on high-high clusters extracted from the local Moran’s I calculations performed on each country’s respective electoral map (see Figures 9 and 10). From these results, 225 villages in Moldova and 2,495 villages in Taiwan were identified as potential areas where disinformation may be salient based on the presence of intersecting conglomerate identity clusters and vote choice.

Figure 11: K-means Clusters Overlaid on High-High Clusters Extracted from Moran’s I Electoral Maps

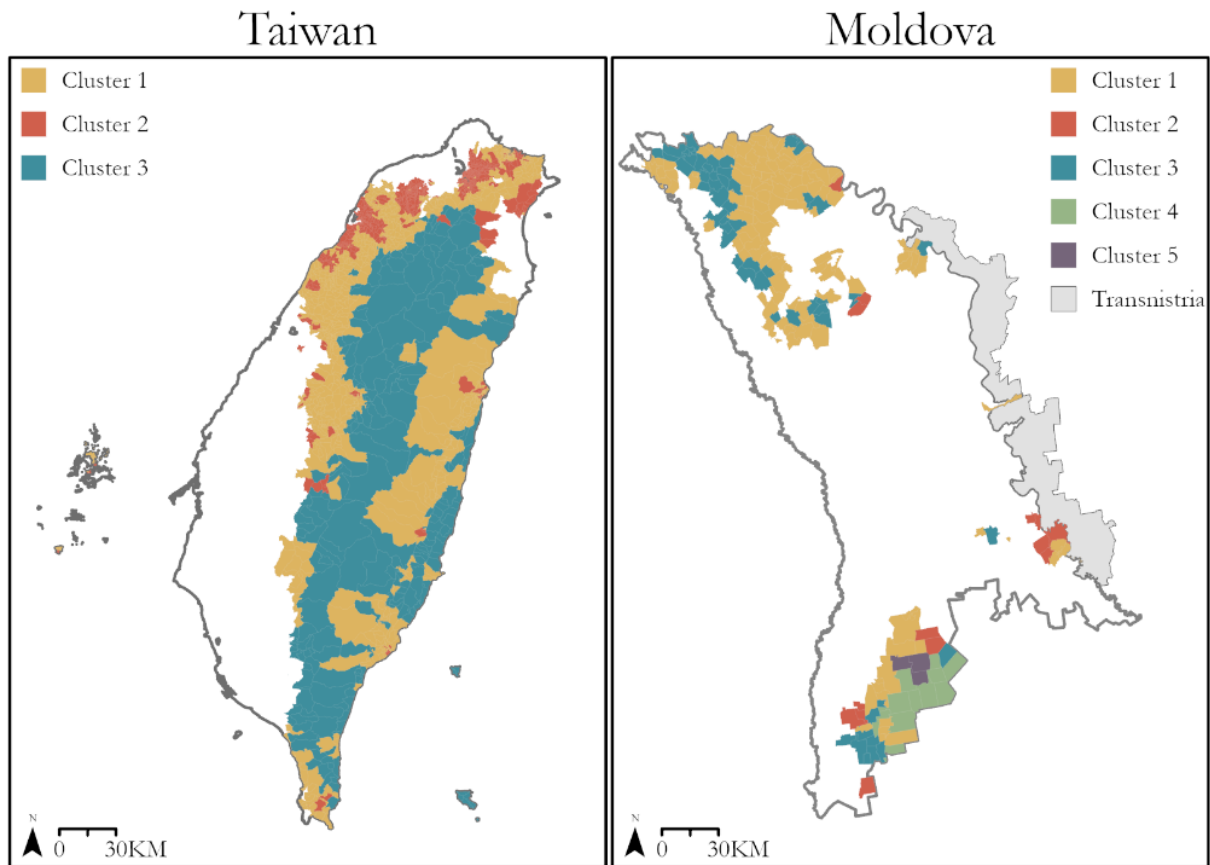


Table 7 shows the number of Taiwanese villages intersecting high-high vote clusters according to their cluster numbers. Of the original 7,761 villages sampled in Taiwan, 1,012 villages in Cluster 1, 1,255 villages in Cluster 2, and 228 villages in Cluster 3 are expected to be areas where disinformation is more salient among individuals based on the derived conglomerate identity clusters.

Table 7: K-Means Clusters Intersecting High-High Vote Clusters in Taiwan

Taiwan			
Clusters Numbers	Total Villages	Intersecting Villages	Percent of Total Villages in Cluster
Cluster 1	4,023	1,012	25.16%
Cluster 2	3,400	1,255	36.91%
Cluster 3	251	228	90.84%

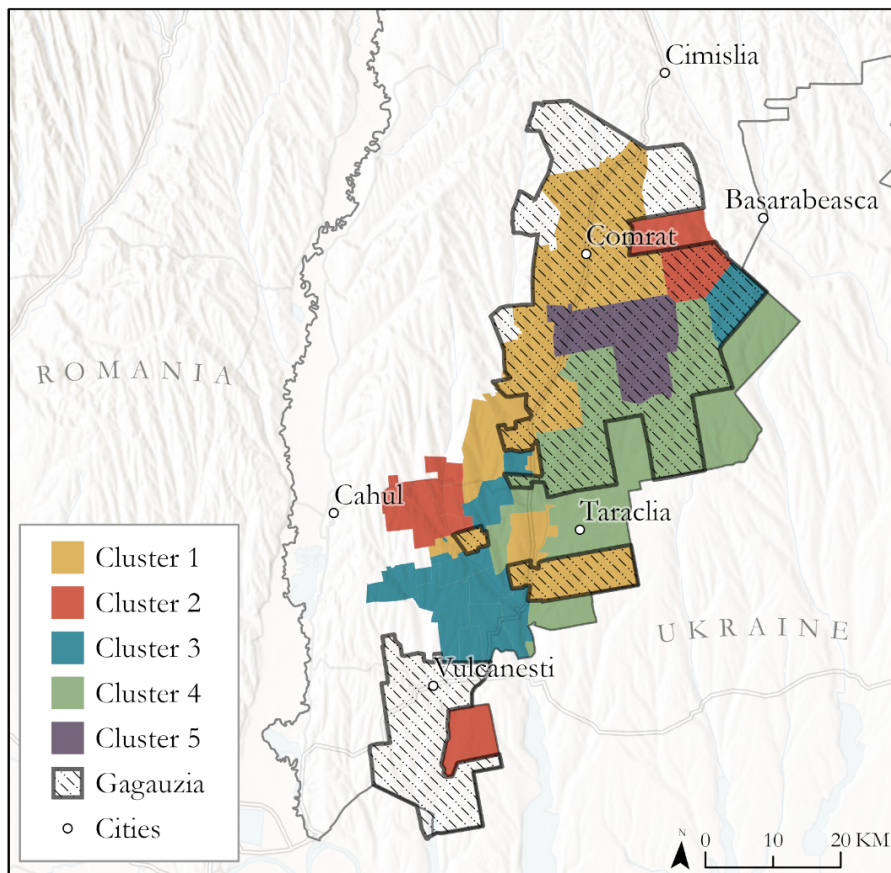
Table 8 shows the number of Moldovan villages intersecting high-high vote clusters according to their cluster numbers. Among the 1,021 villages assessed for Moldova, the demand for disinformation is expected to be salient in: Cluster 1's 135 villages, Cluster 2's 15 villages, Cluster 3's 58 villages, Cluster 4's 14 villages, and Cluster 5's 3 villages. Notably, every single village belonging to Clusters 4 and 5 were identified as having voted within clustered areas where votes for Dodon were expected to be high and statistically significant.

Table 8: K-Means Clusters Intersecting High-High Vote Clusters in Moldova

Moldova			
Clusters Numbers	Total Villages	Intersecting Villages	Percent of Total Villages in Cluster
Cluster 1	556	135	24.28%
Cluster 2	325	15	4.62%
Cluster 3	114	58	50.88%
Cluster 4	14	14	100%
Cluster 5	3	3	100%

The three villages in Cluster 5 are also all located within Gagauzia (Figure 12). This aligns with the composition of principal components contributing to Cluster 5, where it appears that active historical minorities maintain the greatest presence.

Figure 12: K-means Clusters Overlaid on High-High Clusters Extracted from Moran’s I Electoral Maps focused on Southern Moldova



Analysis

Theoretical Implications

This analytical framework bridges the fundamental tenets of Monroe E. Price’s market for loyalties analogy with GIS applications to shed light on whether or not certain aspects of identity drive the demand for Russian or Chinese disinformation in Moldova and Taiwan, respectively. Information

flows and counter-flows abound from a place's geopolitical alignment, foreign policy direction and orientation of the ruling government. What is said and where it is said interact with the specifics of local context; the conditions for unhealthy "multiple realities" along fault-lines emerge where irreconcilable messages overlap (Gentile, 2019). Thus, the preceding analysis carries with it several implications for the future study of disinformation demand.

The prevailing assumption held in literature that falsehoods can be remediated with facts should be reconsidered. It is vital to consider how people, as individuals and as members of groups interpret and measure perceived social and economic insecurities. This study illustrates how variability amongst Taiwan's socio-demographic characteristics showed clear cleavages in age and ethnicity, while Moldova's variance was almost solely a product of ethnicity and language alone. This finding was to be expected, as different ethnic or generational cohorts had different access to resources and power at different moments in time and under different systems of governance; thus, what is meaningful for one identity group seldom holds similar meaning to another. These experiences inform trust in or mistrust of evidence-based political messaging as well as their readiness to accept any promulgated misinformation or disinformation.

Russian and Chinese narratives have been effective because of their ability to microtarget specific demographics with tailored messages. This paper shows where such microtargeting would be the most effective. According to Chifu and Nantoi (2016), Russian propaganda targets the youth, the Soviet nostalgic and the Russian compatriots or sympathizers living in Moldova's Russian language speaking regions, including Gagauzia, Transnistria, Taraclia and in the northern regions of the country. This alleged strategy complements the findings of this paper, which find that these demographic groups do form statistically significant clusters in these areas. Similarly, high saturations of Indigenous people cluster in central Taiwan, as exemplified by Cluster 3. As noted earlier, Indigenous groups are one of the ten Taiwanese constituencies found to be targeted by the CCP's United Front (Hsiao, 2018). The geographic proximity of people who share a common language, ethnicity or generational point of view can be understood as an underlying factor responsible for facilitating the formation of the physical networks that transcend to online spaces.

In this vein, policymakers need to better understand the interplay between technological solutions and broader cultural and social forces. If we consider truth to humans as a socially constructed understanding of reality, then the extent to which individuals consume foreign (dis)information that reflects their worldview is bound to heuristics and, in most cases, further hard-wired by algorithms. Indeed, social media business models further maximize user engagement and enable microtargeting. This is why, for example, regulating online political ad space will not be effective in addressing the issue of foreign disinformation consumption, as these messages will not always take the form of conventional electoral campaign ads. They can target the ideas, hopes and dreams of a given population, compelling them to vote one way and not the other. Everything can be politicized, thus a regulation in this space would need to specifically address the fact that certain audiences can be demographically and geographically targeted to manufacture consent in favor of the regime doing the targeting. This means learning about history and being able to question some of the narratives advanced in the name of politics is just as important as knowing where to get reliable news in the first place.

Findings in this paper also reveal that where certain conglomerate identity groups reside is not an accident: it reflects both the intended and unintended consequences of Taiwanese and Moldovan policies that have shaped where people live, and the opportunities people have in those communities. Further research revealed that principal components in Taiwan, especially advantaged youth, echo a growing North–South divide which has arisen from the disproportionate allocation of political, economic, medical, and educational resources to northern Taiwan (Brading, 2020). Enclaves of Bulgarians and Gagauz in Moldova further exhibited what remains of a socio-linguistic pecking order inherited from Soviet times, whose permanence has been dependent on their relative distance from and collective resistance to Romanian language laws and European integration—as illustrated by the high concentration of votes for Dodon in these same areas. This is also prevalent in Taiwan, where Indigenous people are bound to their historical territories in Eastern parts of the country, areas that also intersected with high voting rates for Han. In these ways, future interventions should take into consideration audiences’ needs when building their resilience to targeted disinformation that aims to create divisions between citizens. Policymakers in Taiwan and Moldova have already started doing this. In addition to providing a fact-checking service in multiple languages, the Taiwanese and Moldovan governments have attempted to expand the provenance of Gagauz and Taiwanese Indigenous voices on air waves, so as to decrease their overall dependence on Russian and Chinese substitutes.

Lastly, since Moldova obtained independence in 1991 and Taiwan lifted its martial law in 1987, an entire cohort of citizens has been heeded by a new generation with no personal memories of life under Chiang Kai-shek or Joseph Stalin’s rule. This study finds that young people, who are mainly associated with pan-Romanists in Moldova’s Cluster 2 and Advantaged Youth in Taiwan’s Cluster 2, do not reside in villages where Han or Dodon garnered a significant number of votes. From this, it could be inferred that although age alone cannot determine what compels a citizen to vote, it is possible that age does coalesce with other factors of identity to drive certain political preferences. For instance, it could be that these young Moldovan and Taiwanese birth cohorts are more disposed toward popular participation in decision-making because it is a reality they have only ever experienced. By building salient frames from their youth, an entire generation now operates under interpretive schematics that differ from and compete with the populist rhetoric peddled by legacy politicians and parties or, more precisely, Putin’s troll farms and Xi’s “50 Cent Army”. If the goal is to win hearts and minds, then China and Russia will only be successful if their narratives are able to compete for the loyalty of future generations abroad.

Limitations

There are a number of limitations in this study. Although significant effort was made to collect the best data possible for input to the model, the analysis is constrained by the data publicly available. Data at the village level is even more difficult to come by, especially since these two nations are small and resource allocation for such services are given a lesser priority. Safety and privacy concerns could also arise from precise measurements at this unit of analysis.

Census data in both Moldova and Taiwan suffer from inadequacies as well. According to Cojocari and Cupcea (2018), Moldova does not participate in the International Social Survey Program, the Survey of Health, Aging and Retirement in Europe, European Union Open Data Portal (SHARE), or other

similar databases. The only sources that are publicly available are the NBS and the Center of Demographic Research and Statistics from the Academy of Sciences of the Republic of Moldova. The last census also only covered 91% of the population of the entire country. Of which, only 59% was immediately conducted in Chişinău and the remainder was generated by means of dual estimation—a process that uses a geographic sample of block clusters to find people missed by the census. Similarly, Taiwan’s census data has not been based on full investigation (實查) but on sampling (抽樣) since 2000. There also remains a discrepancy of registration and residence (戶口住居分離) which effectively distorts the data and analysis of voting or other matters, though to what extent and how it shall be dealt with are still in debate.

Furthermore, this paper only considers variance as a key outcome; that is, the likelihood of there being such a correlation between identity groups and their demand for disinformation. And while vote preference is used as an indicator, it should be noted that voting alone cannot be attributed to all the variance that rests in one’s decision to consume some forms of information and not others. The field of disinformation research would benefit from more empirical research concerning individual information consumption habits in democracies beyond the U.S. context.

This paper also suggests that when it comes to consuming disinformation, there are regional forces at play. However, such a conclusion ignores the fact that people have also started creating “networked communities”—communities based on affinity of interests rather than happenstances of geography (Tufekci, 2017). Relying solely on the spatial component ignores the fact that the “affordances of digital spaces” now permits people, in both Moldova and Taiwan, to seek connections online as individuals, rather than connecting with people who are like them only in ascribed characteristics (e.g., family, race, social class). In these ways, knowing the geopolitical and historical contexts underpinning where enclaves of identities reside can enrich our understanding of these populations’ willingness to seek out some information while ignoring others, but such findings should also bear in mind that neighboring effects are accompanied by networked affects.

Conclusion

Today, whereas the Kremlin and Beijing’s state-led propaganda glorifies the regime domestically, outside of Russia and China they aim to exploit discontent and grievances as well as divide populations in their peripheries. At its core, the success of these disinformation operations is by attaining loyalty to its cause by selling its narrative to specific identity groups who demand it. This paper provided an analytical framework that examined how peoples’ sociodemographic identities drive the demand for Russian disinformation in former Soviet countries by using the Republic of Moldova as a case study. Whereas prior studies focus on the supply-side of disinformation or are located at the crossroads between major disciplines of the social and applied sciences, this paper seeks to bridge these divides through the application of GIS software and qualitative analyses. The results demonstrate how the demand for Beijing and Kremlin-led disinformation varies significantly among identity groups in Moldova and Taiwan and maintains areas where the research could be improved. Overall, this study broadens the scope of research on the demand for Beijing and Kremlin-produced disinformation and contributes to prior literature by delineating identity as a variable that drives this demand, such that it provides a clear framework for further investigation and social network analysis in these areas.

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