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THESIS

THE IMPACTS OF SOCIAL MEDIA ON CITIZEN SECURITY BEHAVIOR IN MEXICO

by

Scott Childers

March 2012

Thesis Co-Advisors: Andrew Singer
Rodrigo Nieto-Gomez

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Over the past decade, Mexico has seen a dramatic increase in drug-trafficking organization (DTO) violence with the deaths of over 47,000 Mexican citizens that can be compared to high-profile combat zones, such as in Afghanistan. This thesis examines the critical junction between social media and citizen security behavior in Mexico. It begins by assessing the overall social media penetration in Mexico, reviewing the demographic and geographic factors of social media penetration in Mexico, in addition to analyzing what actors influence this technology. Next examined is the use of social media by DTOs. Geographical concentrations of DTO violence, how DTOs utilize social media to their advantage, as well as their use of social media, such as YouTube, are reviewed. Social media use by law-abiding Mexican citizens in their attempts to counter the violence in their communities, specifically focusing on statistics and trends regarding anti-DTO/personal security behaviors is also evaluated. This thesis concludes with not only a review of the findings, but by posing three different scenarios for the next five-to-eight years to which these findings can be applied.

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**THE IMPACTS OF SOCIAL MEDIA ON CITIZEN
SECURITY BEHAVIOR IN MEXICO**

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Submitted in partial fulfillment of the
requirements for the degree of

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ABSTRACT

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TABLE OF CONTENTS

LIST OF FIGURES

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LIST OF TABLES

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LIST OF ACRONYMS AND ABBREVIATIONS

API   Application Programming Interface

DTO   Drug Trafficking Organization

EZLN   Ejécito Zapatista de Liberación Nacional

IAB   Interactive Advertising Bureau

NPSS   National Public Security System

OECD   Organization for Economic Cooperation and Development

PGR   Procurador General de la República, Mexican Attorney General's Office

SNS   Social Networking Site

TBI   Trans Border Institute (at University of San Diego)
TTP   Tactics, Techniques and Procedures

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This work is dedicated to the memory of my close friend LT Tom Fouke, USN who passed away during the writing of this thesis. We shared many adventures and a passion for learning about the many cultures of Latin America and beyond.

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I. THE IMPACTS OF SOCIAL MEDIA ON CITIZEN SECURITY BEHAVIOR IN MEXICO

A. MAJOR RESEARCH QUESTION

Over the past decade, Mexico has seen a dramatic increase in drug-trafficking organization (DTO) violence that can be compared to high-profile combat zones, such as in Afghanistan, which generally garner greater levels of the public's attention. This focus can be exemplified by a report from Mexico's Attorney General's Office (Procurador General de la República, or PGR) that specified how 47,515 individuals have died in drug violence between 2006 and late 2011.[1] Prior to 2006, the violence had remained fairly low, but with incoming-President Felipe Calderón's heavy-handed approach to DTOs in 2006, figures of such violence have skyrocketed in Mexico.[2] Such a worrisome trend highlights the unique nature of this brand of violence. While such a trend is expected or anticipated in combat environments, such as in Afghanistan, the rise of such violence in a nation in which no external forces have formally invaded highlights both the different and important nature of this trend in Mexico.

Paralleling this rise in violence in Mexico has been a dramatic rise in the use of social media in the country. Most of this technology is used for non-security-related tasks, such as legitimate business operations, online dating or maintaining a personal blog.[3] However, DTOs have used a significant amount to post videos to YouTube, send messages between each other using Twitter, or even recruit new members to their cause via Facebook. Such actions can be seen with the 68% of individuals who use Internet sites to view or download photos or videos.[4]

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[1] Damien Cave, "Mexico Updates Death Toll in Drug War to 47,515, But Critics Dispute the Data," *The New York Times*, http://www.nytimes.com/2012/01/12/world/americas/mexico-updates-drug-war-death-toll-but-critics-dispute-data.html.

[2] BBC News Latin America and Caribbean, "Mexico Activists Seek ICC Investigation of Drugs War," n.d., http://www.bbc.co.uk/news/world-latin-america-15899687.

[3] AMIPCI and Televisa Interactive Media, *Hábitos de los Usuarios de Internet en México* (Mexico City, Mexico: AMIPCI, May 17, 2011), 24.

[4] Ibid.

Likewise, the authorities and civil society have also used a significant level of social media to enhance security for Mexican government, police, military and law-abiding citizens to aid in increasing what Lucía Dammert has termed "citizen security."[5] This level of use can be observed through such figures as how 75% of Mexican Internet users use it to send or receive instant messages, or how 61% use the Internet to access social networks.[6] In other words, the growing utilization of platforms, such as Twitter to spread real-time messages between family and friends can be observed, and is discussed in further detail in Chapter IV.

Before examining trends between this citizen security and an increase in social media use in Mexico, it is first necessary to define social media and citizen security. Social media is very much a new phenomenon, only recently being added to Merriam-Webster's 2011 College Dictionary.[7] The constantly evolving and expanding nature of the technological environment has led to over 30 different definitions of what constitutes "social media," and thus, capturing the idea that this term has yet to be completely defined. [8] However, to ease into the discussion of social media in this thesis, Investopedia (a Canadian-based company dedicated to providing information regarding investment education, personal finance, market analysis, etc.) defines social media as "Internet-based software and interfaces that allow individuals to interact with one another, exchanging details about their lives such as biographical data, professional information, personal photos and up-to-the-minute thoughts."[9]

Secondly, citizen security needs to be defined. Although not alone in Latin America, Mexico is a valuable case study because it is experiencing substantially

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[5] Lucía Dammert, Citizen (In) Security in Chile, 1980–2007: Issues, Trends, and Challenges," in *Criminality, Public Security, and the Challenge to Democracy in Latin America,* ed. Marcelo Bergman and Laurence Whitehead (Notre Dame, IN: Notre Dame Press, 2009), v.

[6] AMIPCI and Televisa Interactive Media, *Hábitos de los Usuarios de Internet en México*, 24.

[7] Merriam-Webster, "New Dictionary Words for 2011," *Encyclopedia Britannica*, http://www.merriam-webster.com/info/newwords11.htm?&t=1318711978.

[8] Heidi Cohen, "30 Social Media Definitions," n.d., http://heidicohen.com/social-media-definition/.

[9] Investopedia, "Definition of 'Social Media,'" n.d., http://www.investopedia.com/terms/s/social-media.asp#axzz1nLD6wr4e.

increased DTO-related crime and violence.[10] This increased need for citizen security may transform into a greater problem if not addressed properly through public government channels, which therefore, begins to emerge as "public outrage over the lack of government commitment to promote citizen security, reduce crime and violence, and contain conflict."[11]

The publication of certain figures by the National Public Security System (part of Mexico's Attorney General's Office) provides another example of this increasing need for citizen security. Approximately 9,614 individuals were killed in DTO violence in 2009, while in 2010, that number increased to about 15,273 killed.[12] Such a dramatic increase not only highlights the fact that what is currently in place to deal with this violence is not working, but it also emphasizes a need for citizen security. Thus emerges a junction between social media and citizen security behavior, for if the government is unable to halt this increase in violence, it then falls to the citizens to use any tool at their disposal to address the issue of their own protection in such a violent environment.

With these concepts of DTO violence, citizen security and social media defined in relation to each other, these concepts together can now be examined more in depth in an overall context of citizen security behavior in Mexico. In other words, on the one hand, social media use can be applied in many different ways, effecting political or economic change, for example, as has been observed in the Arab Spring or Occupy Wall Street movements. On the other hand, however, this thesis focuses on Mexico as a case study because social media use in nations, such as Mexico, has been observed in aiding the concept of citizen security in a violent environment. Yet, *how* has social media uniquely influenced the concept of citizen security behavior in Mexico in the context of this current wave of violence?

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[10] Political Database of the Americas, "United Mexican States: Democracy and Citizen Security," Georgetown University, http://pdba.georgetown.edu/Security/citizensecurity/mexico/mexico_e.html.

[11] Political Database of the Americas, "Democracy and Citizen Security," Georgetown University, http://pdba.georgetown.edu/Security/citizensecurity/citizensec_e.html.

[12] David A. Shirk and Viridiana Ríos, *Drug Violence in Mexico: Data and Analysis Through 2010* (San Diego, CA: Trans-Border Institute, February, 2011), 5.

B.   IMPORTANCE

Since the early days of the Internet, the World Wide Web has played an important role in both Mexican politics and every-day life. In early 1994, the *Ejécito Zapatista de Liberación Nacional* (*EZLN,* commonly known as the *Zapatistas*), pioneered the emerging technology of the Internet as a tool in its fight against the government, which parallels the modern day use of social media in Mexico.

While the initial days of its confrontation with the Mexican government proved almost overwhelming (against the government's superior forces, weapons,), the remaining days of the physical conflict saw an opposite effect with its wise use of the Internet to summon national and international support from various activists "associated with human-rights, indigenous-rights, and various other nongovernmental organizations."[13]

This virtually unseen use of a tool, in addition to over two decades of "relatively unnoticed organizational and technological changes" worldwide, thus allowed these nongovernmental organizations to do so.[14] In other words, without the innovative use of the Internet by the *Zapatistas* early on in their conflict, the "small, poorly equipped EZLN might not have done so well, and its efforts…would not have seemed out of the ordinary."[15]

Again, this use is just a recent example of how an emergent form of technology has greatly influenced a situation in Mexico. In the past, the Internet was widely used. Now is the time of social media, for on the one hand, social media has often been seen as a tool to help orchestrate leisure activities, such as flashmobs, and celebratory events. Yet, on the other hand, social media provides an important avenue of communication, as can be exemplified by the fact that social networking sites (SNSs), such as Facebook are actually "heir[s] to ideas that have been evolving for forty years."[16] The Zapatista

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[13]John Arquilla, David Ronfeldt, Graham Fuller, and Melissa Fuller, *Zapatista Social Netwar in Mexico* (Santa Monica, CA: RAND Corporation, 1999), 3.

[14] Ibid.

[15] Ibid., 23.

[16] David Kirkpatrick, *The Facebook Effect* (New York: Simon and Schuster, 2010), 66.

example has shown arguably greater uses for this social media in affecting economic, political, and social changes throughout the world. Specifically, in the case of Mexico, social media has been described as a "necessity" in terms of providing a greater sense of security to the average individual in the face of increasing violence.[17]

So far, two parallel tracks have begun to be defined. One track is the emergence of social media in the realm of Internet communications. The other can be described as a violent situation demanding greater attention be paid to the concept of citizen security. Yet, how do these two tracks intersect, and why is it both important and relevant to Mexico?

Mexico is relevant because this increasing reach and ubiquity of social media has been observed in helping to confront the challenge of DTO violence in a non-conventional manner (such as in traditional media and political parties). While newspapers and journals have written about, spoken out for/against certain actions, or have examined certain DTO violence in Mexico, it is this non-conventional tool of social media that provides a more rapid or even real-time ability to spread potentially life-saving and/or vital information between citizens. This tool is especially important in a nation in which only 44% of individuals feel "somewhat safe" and only 17% feel "very safe."[18]

It is thus important to examine these behaviors specific to Mexico that lead to the use of social media as a non-conventional tool. In doing so, this review thus assists in understanding this unconventional social media behavior in violent security contexts.

C.   PROBLEMS AND HYPOTHESES

Thus far, in this writing, the question has been refined to, "how has social media uniquely influenced the concept of citizen security in Mexico in the context of the current

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[17] Americas, "Mexico Turns to Social Media for Information and Survival," *New York Times*, September 25, 2011, http://www.nytimes.com/2011/09/25/world/americas/mexico-turns-to-twitter-and-facebook-for-information-and-survival.html?_r=1&scp=1&sq=Mexico%20turns%20to&st=cse.

[18] Gabriela C. Pérez García, *Diagnosis of Public Safety in Mexico* (Mexico City, Mexico: Fundar-Centro Análisis e Investigación, April 2004). Note: this article was written in Spanish and those 44% responding described their feelings as "algo seguro" which translates to "somewhat safe."

wave of violence?" To start with, when compared to more stationary technologies, such as desktop computers, does the use of mobile technologies (such as smartphones) significantly alter how social media is accessed? Are the users of social media in Mexico influenced to act/not act in support of citizen security, via social media, based on their age, level of education, level of income, or previous experiences with social movements (in this case, the drug cartels)? In which areas (urban/rural, coastal/inland, etc.) are these numbers concentrated? Thus, this thesis both defines and quantifies the bounds of this social media penetration of Mexico.

Another problem that arises is how DTOs themselves use social media. To begin to define this problem, it is first necessary to examine *where* the physical locations of the violence caused by DTOs are in Mexico. This data must then be correlated to social media use by the DTOs (such as YouTube postings, for example) to make it possible to tie together possible patterns between the two. The key point in using the example is not to look at where certain videos are posted, but to see if any established typologies exist regarding how many videos are posted by different groups based on both their physical proximity to social media-friendly areas of Mexico and their geographical influences. For instance, has the Zeta cartel used social media more predominantly because urban areas, such as Monterrey, are located there? Is this use occurring between DTOs at the national level to frighten each other strategically? Also, what is the *content* of these videos? As opposed to the *general* data regarding social media penetration of Mexico examined above, the correlation of this data would define social media use in Mexico specifically by *how* DTOs use social media.

How DTOs use certain social media (such as YouTube and Twitter) to their advantage must also be examined, and how this may or may not mesh with strategic leadership principles, decision making and goals of DTOs. In addressing this second problem, it is important to keep in mind that DTOs may rely on accessing social media regardless of the type of physical device (i.e., it may not matter if it is a smartphone or a desktop computer) because, as opposed to Mexican citizens using this tool to protest DTO activity, DTOs may use the tool for different purposes. Thus, like the geographical locations/social media use correlations, it is the correlation of this data that can similarly

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lead to the possible identification of DTO Tactics, Techniques and Procedures (TTPs), and how they adapt to both their competitors and overall situation using social media.

Lastly examined is the use of this social media by non-DTO individuals, namely authorities such as the federal police, the military or even average, law-abiding Mexican citizens. What are the varying backgrounds of these different users of Mexican social media, and what are some of the reasons for why they are using them and the violence that they may or may not experience?

One example is the public and the very brutal deaths of two individuals in a threat against users of social media protesting the violence of drug cartel activities.[19] Other examples abound, including the September 2, 2011 murder of two journalists by probable DTOs,[20] the September 28, 2011 decapitation of María Elisabeth Macías[21] and the September 21, 2011 dumping of 35 bodies of murdered individuals in Vera Cruz.[22] Although only a few examples amongst 47,515 drug-related deaths, these instances have two things in common: 1) they both highlight an enormous leap in violent tactics and actions, and 2) they both show DTOs targeting the users of social media who do not act as advocates of their cause. Yet, they also illustrate the impacts upon civil society, and a need for citizen security to combat such gruesome tactics. These events also raise further questions, such as if some particular set of factors in their backgrounds eventually led to their brutal deaths, specifically regarding their age, level of education, or the particular types of information being sent out? Why did they, or others like them, decide to use social media to speak out, or did they?

In other words, how have these citizens used social media in adapting to such a violent environment? An example can be seen in the December 14, 2007 posting of a

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[19] CNN World, "Bodies Hanging From Bridge in Mexico Are Warning to Social Media Users," September 14, 2011, http://articles.cnn.com/2011-09-14/world/mexico.violence_1_zetas-cartel-social-media-users-nuevo-laredo?_s=PM:WORLD.

[20] Tracy Wilkinson, "2 Mexican Journalists Found Slain," *Los Angeles Times*, September 2, 2011, http://articles.latimes.com/2011/sep/01/world/la-fg-mexico-dead-20110902.

[21] Adam Thomson, "Mexico Cartels Seek to Silence Social Networks," *Financial Times*, September 27, 2011, http://www.ft.com/cms/s/0/943097fc-e926-11e0-af7b-00144feab49a.html#axzz1dw3HFNeC.

[22] Ken Ellingwood, "35 Bodies Dumped on Street in Mexico," *Los Angeles Times*, September 20, 2011, http://articles.latimes.com/2011/sep/20/world/la-fg-mexico-bodies-20110921.

YouTube video "honoring Federal Police [and telling] of the death of an officer confronting crime."[23] This video received over 200,000 hits (website visitations), exemplifying that it was not merely a memorial to those police killed in action against the DTOs, but a form of protest against DTO violence that captured the attention of many more than just the immediate families.[24] Such attention paid to this matter can be seen in the numerous postings claiming things like, "May God bless and protect all Federal Highway [officers]."[25] Of note, some of these postings immediately followed the original posting (December 14, 2007) and some were posted at the time of the writing of this thesis (2012).[26]

Undoubtedly, social media has influenced citizen security in Mexico, but *how* has it influenced it? Some have argued that this social media in Mexico presents a "need."[27] However, this is a very subjective claim, for are the postings seen in instances, such as this last example, more than just conversations at an "ongoing cocktail party" or do they consist of comments that tangibly impact the security of a great mass of citizens?[28] The author hypothesizes that these behaviors are due to a convergence of both a growing category of a more tech-savvy and tech-capable individual and by events, such as the violence imposed by DTOs over the past five-to-ten years. He further hypothesizes a "need" for social media is thus established that is vastly different from its uses in a less-violent society, such as in the United States or Europe.[29]

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23 Torotarasco, "La Muerte De Un Federal [The Death of a Federal Policeman]," [n.d.], video clip, YouTube, http://www.youtube.com/watch?v=a3tWBG93QyM&feature=.

24 Ibid.

25 Ibid.

26 Ibid.

27 Damien Cave, "Mexico Turns to Social Media for Information and Survival," *New York Times*, September 24, 2011, http://www.nytimes.com/2011/09/25/world/americas/mexico-turns-to-twitter-and-facebook-for-information-and-survival.html.

28 Darren Barefoot and Julie Szabo, *Friends With Benefits: A Social Media Marketing Handbook* (San Francisco: No Starch Press, 2010), 221.

29 Barefoot and Szabo, *Friends With Benefits: A Social Media Marketing Handbook*, 221.

Countering the author's hypothesis would be the possible discovery of social media having *no* discernible impact upon the concept of citizen security in Mexico. In other words, this null hypothesis would highlight how social media *has not* affected the situation in Mexico any different from what has been observed in places, such as the Middle East or the United States. While the previous paragraph's hypothesis still seems more plausible based on the initial examination of evidence posed in this thesis, the two concepts in this paragraph still provide an important aspect to consider when answering the overall question to this thesis.

D.   LITERATURE REVIEW

As detailed above, both an emergence of social media as a tool utilized by social organizations in Mexico, and an increasing set of security concerns there as well does exist. However, these two ideas rarely converge in an academic setting, let alone that their convergence is not defined thoroughly. For example, shortly after entering office in 2006, former Mexican President Felipe Calderón "augmented (and cleaned up) the federal police [and] enlisted the services of the army" in combating the drug cartels.[30] However, the drug-trafficking violence in Mexico has increased dramatically since 2006, thus requiring another, possibly supplemental solution to aid in the concept of citizen security. Therefore, the supplemental solution can arguably, come in the form of social media.

However, to begin to understand this use of social media as a tool in either aiding citizen security or even promoting DTO activities, a basic framework must be established. First, to start building this framework by examining the basic concept of social organization theory, John D. McCarthy elaborates on this idea by discussing "mobilizing structures," or those "agreed upon ways of engaging in collective action which include…particular 'social movement organizational' forms, and 'modular social

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[30] Barefoot and Szabo, *Friends With Benefits: A Social Media Marketing Handbook*, 221.

movement repertoires.'"[31] In his discussion of "mobilizing structures," McCarthy specifically describes them through the concepts of "political opportunity" and "strategic framing"[32] to enable such a movement to "address their routine dynamics," in addition to both "political opportunity structures and framing processes."[33]

Moving forward, the context of modern day Mexico can actually be used as one framework to assist in understanding this social organization theory that borrows as well from McCarthy's work. Although this model by Deborah J. Yashar is geared towards social movements in Latin America over the course of the past few centuries, and does not focus on the modern day context of Mexico and its violence, it is still quite useful in framing how to examine the use of social media as a tool to either aid or hinder citizen security in modern Mexico.

Yashar's model encompasses the three main pillars of what she terms "motive/incentive," "opportunity" and "capacity."[34] As McCarthy discusses, and as Yashar reemphasizes in importance, theories of social movement and collective action require *all three* of these concepts for successful social movements to emerge, and not just one or the other.[35] For example, a successful social movement will fail to emerge if, although a motive and opportunity may exist, the *capacity* of the social movement to garner momentum is lacking. Thus, this capacity becomes the dependent variable in this thesis.

Again, while McCarthy, Yashar and others discuss social behavior at great length, a common missing element to their literature is the concept of the influences upon *modern citizen security behavior in Mexico*. Although the motive and opportunity in this thesis present as relatively clear (as shown in Table 1.1), the question then arises of how

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[31] John D. McCarthy, "Constraints and Opportunities in Adopting, Adapting, and Inventing," in *Comparative Perspectives on Social Movements: Political Opportunities, Mobilizing Structures, and Cultural Framings*, ed. Doug McAdam, John D. McCarthy, and Mayer N. Zald (New York: Cambridge University Press, 1996).

[32] McCarthy, "Constraints and Opportunities in Adopting, Adapting, and Inventing," 141.

[33] Ibid.

[34] Deborah J. Yashar, *Contesting Citizenship in Latin America: The Rise of Indigenous Movements and the Postliberal Challenge* (New York, Cambridge University Press, 2007), 58.

[35] Ibid., 55.

is it that *capacity* can be defined in the context of this thesis? Can this model, when complemented by other literature, be used to help define this thesis' dependent variable of citizen security behavior in Mexico? The simple answer is yes, for in borrowing Yashar's model of social behavior theory, the author fills in this gap in knowledge of how social media use influences the concept of citizen security behavior in Mexico. Specifically, this third pillar of capacity is further advanced by developing it in terms of the emergence of social media and a violent environment in Mexico requiring basic security.

	In Mexico	**Does the literature already exist?**
Motive/Incentive	A need for citizen security based on DTO violence	Yes
Opportunity	Freedom of organization, media use, etc. exists	This is already an established fact
Capacity	How do Mexican citizens use social media as a tool to provide citizen security?	No, not on Mexico specifically

Table 1.1.　　　Existence of Social Media Patterns in Mexico

To develop the pillar of capacity in terms of this thesis, the author draws upon two disciplines of literature that have thoroughly examined, either 1) the emergence of social media, or 2) DTO violence and the concept of citizen security in Mexico. The main *contribution* of this first discipline is in discussing the emergence of social media as a cutting-edge tool to be used by many different types of individuals in many different situations. However, the main *limitation* with this first discipline is the lack of any conversation of citizen security behavior in Mexico specifically regarding social media. This second discipline complements the first, for while its limitation is a discussion of social media in Mexico, its main contribution specifically discusses citizen security in Mexico. Thus, while neither discipline in itself provides a complete picture of the effects of social media on citizen security behavior in Mexico, when combined, they can complement each other nearly perfectly.

An example from this first discipline of literature would be the findings of Darren Barefoot and Julie Szabo's book *Friends with Benefits: A Social Media Marketing*

Handbook, which finds that social media is a powerful tool to be leveraged by business leaders and average citizens alike. Barefoot and Szabo introduce the complicated and dynamic concept of social media and profess to be "guides" for those seeking to market and/or act through social media.[36] While this book is more of a subjective description of social media use, it provides invaluable insight into the creation of TTPs regarding the use of social media. Such insight, when combined with an analysis of DTO activities and violence in Mexico, proves not speculative but rather to be a fundamental understanding of how this technology impacts such a tenuous situation between Mexican citizens and DTOs in Mexico.

Adding to this first discipline of literature upon which the author draws are the books *Here Comes Everybody: The Power of Organizing Without Organization* (by Clay Shirky), *Tactical Transparency: How Leaders Can Leverage Social Media to Maximize Value and Build Their Brand* (by John C. Havens and Shel Holtz) and numerous journal articles. The findings of these sources are quite similar in that they describe social media TTPs and how leaders can best implement them. These sources describe *general* business TTPs in using social media as a tool in seeking to profit. An example of why such literature should be used is the concept of "tactical transparency" noted by Shel Holtz and John C. Havens in their book *Tactical Transparency: How Leaders Can Leverage Social Media to Maximize Value and Build Their Brand*. Specifically, they discuss what "customers, consumers, investors, interest groups, and other publics can see when they try to look into [any] company."[37] It must therefore be emphasized that, although DTOs are not legal entities but are for-profit organizations, as such, they also use tools, such as social media to their advantage. The question is *how* do they use these tools in the context of this thesis question? In addition to the findings of Barefoot and Szabo, and Shirky, the findings from the work of Havens and Holtz are critical to this thesis in helping the reader establish a baseline understanding of how social media can best help DTO leaders formulate TTPs of their own.

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[36] Barefoot and Szabo, *Friends With Benefits: A Social Media Marketing*, xxiv.

[37] Shel Holtz and John C. Havens, *Tactical Transparency: How Leaders Can Leverage Social Media to Maximize Value and Build Their Brand* (San Francisco: Jossey-Bass, 2009), 22.

Slightly changing tack in this first discipline would be examining the findings of Michael R. Lissack, Peter M. Allen, Jeffrey A. Goldstein and David Snowden (amongst other guest authors and editors of Emergent Publications' "*Emergence: Complexity and Organization*" journal). In introducing the concept of an emergent, "interwoven complex [set of] systems," they seek to define the "meaning" and "relevance" of these systems in terms of a "willingness to act."[38] Similar to the findings of Barefoot and Szabo, the *Emergent Publications* literature discusses the realm of possibilities regarding emergent "complex social and organizational systems."[39] In addition to the many works of Harvard Business School Professor Clayton M. Christensen, this literature discusses the combination of these complex social and organizational systems not in terms of social behavior theory, such as McCarthy and Yashar, but in terms of emerging technologies, such as social media. However, like McCarthy, Yashar, Shirky, and Havens and Holtz, the findings of Lissack, Allen, and Christensen lack a discussion of both social media and violence in Mexico. While not part of their central arguments, it nonetheless presents a gap in knowledge that the author plans to address through the further definition of the pillar of capacity.

Again, this first discipline of literature shows the fundamental importance of the emergence of social media, but lacks a discussion on citizen security in Mexico. Thus, the contributions of the *second discipline* of literature, regarding DTO violence and citizen security in Mexico, become more prominent. In other words, what was missing in the first discipline of literature is present in this second discipline (and vice versa).

An example of this second discipline is Michael Kenney's discussion of drug traffickers and social relationships, in which he found that "[t]hese social networks are

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[38] Michael Lissack, "Founding Editor's Note," in *Special Relaunch Double Issue*, ed. Michael R. Lissack, Jeffrey A. Goldstein, Peter Allen & David Snowden, *Emergence: Complexity & Organization An International Transdisciplinary Journal of Complex Social Systems* 6, no. 1–2 (Fall 2004): iv.

[39] Peter M. Allen, "Section Introduction: Academic and Practitioner Paper Section," in *Special Relaunch Double Issue*, ed. Michael R. Lissack, Jeffrey A. Goldstein, Peter Allen & David Snowden, *Emergence: Complexity & Organization An International Transdisciplinary Journal of Complex Social Systems* 6, no. 1–2 (Fall 2004).

the bedrock of interorganizational trafficking networks."[40] However, this example of the DTO-citizen security relationship illustrates both a discussion of citizen security in Mexico, and a lack of a discussion on social media.

Other similar examples of this relationship exist when examining the findings of the "ongoing erosion of the police force responsible for public security" and the controversial blending of the missions and procedures of federal armed forces and local police forces.[41] This quote, from Georgetown University's "*Political Database of the Americas*," in addition to the findings of other authors in this second discipline, such as Bruce Bagley, Phil Williams and Marcelo Bergman and Laurence Whitehead, draws attention to both DTO TTPs and the concept of citizen security in Mexico. Yet, like Kenney's findings, they are only useful to this thesis when complemented by the findings of the sources seen in the first discipline regarding the emergence of social media.

As a supplement to this second discipline of literature, the findings from numerous other articles in scholarly journals, newspapers, social media blogs or micro-blogs, such as *Twitter* and more are also used. Certainly, newspaper articles do not provide developed conclusions, but in the context of such a cutting-edge and emergent technology as social media, and the influences it has upon social organization in general, their brief but current findings must be taken into consideration and used to provide a framework to the concept of citizen security in Mexico.

Of note in this entire situation, Mexico can also be defined as an *unconsolidated* democracy in the midst of a fundamentally dangerous environment. Due to this phenomenon, social movements play a role in providing unconventional forms of representation and vocal action in providing for citizen security in such an environment. Although individual pieces of this argument are not unique to Mexico when compared to other nations also struggling with the challenges of an unconsolidated democratic government, it is when the different factors are combined that the question presents itself

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[40] Michael Kenney, *From Pablo to Osama: Trafficking and Terrorist Networks, Government Bureaucracies, and Competitive Adaption* (University Park, PA: Pennsylvania State University Press, 2007), 42.

[41] Maureen Meyer and Roger Atwood, *Reformando los Rangos: La Narcoviolencia y la Necesidad de Reforma Policíaca en México* (Washington, DC: Washington Office on Latin America, June 29, 2007), 2.

of how social media influences citizen security behavior in Mexico. While abundant forms of literature present themselves regarding each of these individual pieces, no literature connects these dots. Thus, in borrowing Deborah J. Yashar's model of social organization theory and her pillars of "motive/incentive, opportunity and capacity," and in drawing upon two main disciplines of literature, the author intends to address this gap in knowledge.

E.   METHODS AND SOURCES

As stated previously, the sources of study used in this thesis pull from the two disciplines of literature just mentioned by focusing on the emergence of social media and citizen security behavior in Mexico. At this intersection between the two, the author conducts a case study of Mexico. More specifically, this examination is conducted through process tracing.

This process tracing in turn is completed by examining the social analytics of social media in Mexico. For example, one primary source used is a data-mining tool provided by Topsy Labs that enables the user to "interpret precise, actionable intelligence from the social web, powering realtime decisoning" and interfaces directly with the Twitter Application Programing Interface (API).[42] While "companies worldwide often use this tool to "apply social intelligence to realtime decisioning," this publically available, primary source data aids this thesis in presenting an analysis of the question through a lens of social analytics.[43]

In addressing the first problem identified in the "Problems and Hypotheses" section, of how this social media usage is on the rise, such data mined on Topsy's website, Twitter or other primary sources is examined through the analysis of a variety of numerical data, including demographic and geographic factors, and of the Mexican actors actually using social media. This data is then compiled in such a fashion that it establishes a necessary baseline about the actual use of social media in Mexico.

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[42] Topsy Labs, Inc., "About Topsy Labs," http://topsylabs.com/company/about/.

[43] Ibid.

The second problem identified in the "Problems and Hypotheses" section is addressed through the examination of current examples of DTO violence in Mexico, and the incorporation of social media into its operations. First, this thesis correlates DTO violence and this DTO use of social media. For example, it has been observed that Twitter usage in Mexico is highest in areas, such as Distrito Federal (Mexico City), Monterrey and Veracruz.[44] These areas have also experienced instances of high-profile violence due to DTO activity in recent years, but can a causal mechanism be identified between these two sets of correlated facts?

To provide this information, social media tools, such as Twitter, and data mining tools, such as that provided by Topsy Labs, are utilized that helps to paint a clearer picture. Regardless, this geographical characterization of DTO use of social media is just one amongst many factors that needs to be fleshed out to understand DTO use of social media.

The third problem identified in the "Problems and Hypotheses" section is addressed by building upon the trends seen in the previous problem exploration (centering on DTO use of social media) in three ways. First, it identifies public safety concerns and citizen security in Mexico as detailed in the second discipline of literature noted in the "Literature Review" section. Second, statistics are examined regarding Mexican citizen use of social media in Mexico to protest certain DTO activities, as far as what specific forms of social media they have used and potential reasons for why they have used it.

The statistics used in the solution to this third problem are provided through the previously mentioned Topsy Labs data-mining tool. This tool, in addition to other websites, such as Twitter and the analysis of its multiple threads, not only constitutes primary source data but also captures the idea of social signal. Capturing this idea thus identifies what makes certain social media trends popular, and how either DTOs or Mexican citizens can leverage the tool of social media.

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[44] Guillermo Perezbolde V, "Twitter en México 2011," Mente Digital presentation for March 2011, http://mentedigital.com/site/?p=14.

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A necessary brief examination of the censorship blackout imposed by both the DTOs and Mexican government is the third way this final problem is addressed. For example, Mexican citizens have had to contend recently with the Mexican government's "crackdown" on the use of Twitter within its borders.[45] Although the effects of these current "crackdowns" are arguable in terms of their impact, these crackdowns are becoming increasingly common in the Mexican government's war against the drug cartels. With this said, to what extent does the Mexican government's "crackdowns" have upon the Mexican citizen regarding citizen security? Instances such as these, in addition to DTO scare tactics against those using social media, have posed a speed bump to the efforts of Mexican social media users in trying to manage DTO violence. Yet, have these instances truly contributed to or taken away from Mexico's social behaviors regarding citizen security?

F.   THESIS OVERVIEW

Following the first chapter of this thesis, which introduces this convergence of the social media toolset and citizen security behavior in Mexico, the second chapter of this thesis covers the social media penetration in Mexico, reviews the demographic and geographic factors of social media penetration in Mexico, in addition to examining what actors influence this technology, such as DTOs, law-abiding Mexican citizens, politicians and/or journalists. Such an in-depth examination of this general, nationwide data set provides a baseline of comprehension so that the ensuing sections are better understood.

The third chapter focuses specifically on the use of social media by DTOs. First, the physical locations of DTO violence in Mexico are reviewed in an attempt to make any correlations between this observed violence and observed social media usage in the same areas. In this manner, the use of social media by DTOs can be further characterized and makes it possible to establish the fundamentals of this use to understand the second part of this chapter. The second part explores how DTOs use social media to their advantage, and specifically, examines DTO TTPs regarding social media use, in addition

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[45] Alexis Okeowo, "To Battle Cartels, Mexico Weighs Twitter Crackdown," *Time World-Online Edition*, April 14, 2010, http://www.time.com/time/world/article/0,8599,1981607,00.html.

to social media market trends in general, and how DTOs can utilize such notions. The third chapter concludes by examining DTOs' utilization of YouTube as an example of this social media use. Through YouTube, DTOs and *some* musical artists continue to post "*narcocorridos*" (songs and videos that promote DTO behavior) that receive up to two million hits from various users, many of whom leave comments supporting or not supporting DTO activities.[46]

The fourth chapter focuses specifically on the use of social media by average, law-abiding Mexican citizens in aiding citizen security by examining three ways Mexican social media users can use it to counter the violence in their communities. First, it examines statistics on how these citizens actually use social media by focusing on exactly which social media sites are used and the potential reasons for why they are used. Secondly, it builds upon this idea by trying to correlate this data with DTO violence, as well as to establish any trends regarding anti-DTO/personal security behaviors. Finally, an examination of the censorship blackout imposed by both the DTOs and the Mexican government is performed, as well as any other potential roadblocks Mexican citizens may or may not encounter in trying to use this social media as a helpful tool. With this data combined, this chapter answers any questions of why social media may be seen as a "need" by so many citizens in Mexico.

The fifth and final chapter concludes by summarizing the findings of this thesis seen in the previous chapters, and by applying any established patterns or findings to what may be the future of social media and citizen security in Mexico for the next five-to-eight years. While individual trends will prove or disprove the author's hypothesis, and while they will answer specific questions regarding social media use by either DTOs or Mexican citizens in general, this chapter explains in depth the overall trends regarding all these actors and factors.

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[46] Open Source Center, "*Los Tigres del Norte": El Discipulo del Diablo* (Washington, DC: April 27, 2010), 2. Originally a YouTube video available at http://www.youtube.com/watch?v=IB5NbPO1G08, and posted on September 30, 2008. However, these numbers themselves derive from a compilation done on April 27, 2010 (prior to the removal of the video).

II.   SOCIAL MEDIA PENETRATION IN MEXICO

A.   INTRODUCTION

As evidenced throughout recent events in Mexico and much of the rest of the world, social media has seen a dramatic penetration that has significantly affected culture in the nation. However, does this *social media penetration in Mexico* only generate inconsequential conversations, or is it a significant penetration that partially drives the motivations of DTOs, law-abiding Mexican citizens, politicians and journalists throughout Mexico?

This question is answered in four different parts in this chapter. First correlated are basic data sets with social media use in Mexico including age, education or employment level and gender. Second, this examination builds upon basic data sets by examining slightly more complicated concepts, such as the usage level and types of access to social media (mobile access as via a smartphone, or more stationary access as via desktop computers).

Third, the overall geographic penetration of social media in Mexico is briefly assessed. Fourth, this established data then examines the different actors utilizing social media. These final parts of the chapter highlight some examples, including *@BalacerasEnVer* (a username describing real-time violence information in Veracruz). Having covered these four areas, an attempt is made to help the reader establish a baseline for a social media penetration in Mexico.

B.   DEFINITION OF A BLOG AND A MICRO-BLOG

Before beginning this chapter, it is first necessary to distinguish between blogs and micro-blogs to understand the basics of how the social media toolset is used. For example, in Mexico, Facebook, YouTube, Twitter, Hi5, Badoo, Sonico, LinkedIn and MySpace were found to be the top social media platforms used during 2011.[47] Although these platforms are all forms of social media, the third on the list, Twitter, can actually be

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[47] AMIPCI and Televisa Interactive Media, *Hábitos de los Usuarios de Internet en México*, 31.

considered a *micro-blog*, not a *blog* like the others.[48] Therefore, Twitter can be used as an example throughout this thesis to best provide a context of both social media usage and of citizen security in Mexico.

The point of distinguishing between social media blogs and micro-blogs is important to understand because although blogs allow for continued updates of lengthy messages, videos or other content, micro-blogs generally act as a medium for more time-sensitive messages to be posted (only allowing messages of 140 characters or less to be posted). For example, *El Blog del Narco's* website had 16 posts for February 2, 2012 while its hashtag lists 20 tweets for the same date. Although these numbers are roughly equivalent, the user can access direct links to information regarding real-time DTO violence in places, such as Monterrey, San Luis Potosí or Juárez, via Twitter. Since similar links can be accessed by *El Blog del Narco's* blog/website, the links via blog/website are less time-sensitive, and require logging onto the Internet for example (versus just going to a dashboard application, such as Tweetdeck via a smartphone to check for such information).

Also, before launching into discussions about Twitter, it is necessary to review some of the associated taxonomy. First, "hashtags" and "usernames," are utilized, which are labeled as "#" and "@," respectively. These two terms demonstrate how important certain words or users might be regarding how often or seldom they might be cited. It is also important to understand the basic differences between these terms for they define distinct differences in social media trends. First, "Tweets," or postings, occur when the user posts a brief message. Then, "followers," are those who actively contribute/post in different chatrooms/forums regarding the content. Finally, the "following," are people who watch the chatroom/forum for discussion, but do not actively contribute, or Tweet, to other members regarding the discussion. The difference between usernames and hashtags can be described as the difference between a speaker and a speech, respectively. A username is just the identification of the user commenting on the speech, while a hashtag is merely the message being commented on.

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[48] AMIPCI and Televisa Interactive Media, *Hábitos de los Usuarios de Internet en México*, 31.

The username @*BalacerasEnVer* (the username for BalacerasEnVeracruz) is another tangible example that demonstrates this use of Twitter as a discussion forum for violence in the violent region of Veracruz. @*BalacerasEnVer* is another community quite similar to #Balacera (shootout), but specific to Veracruz and not the entire nation of Mexico (such as #Balacera). Both provide timely, fairly non-subjective information regarding violence. @*BalacerasEnVer* alone has over 4,360 "followers," 1,559 "following," and 496 "Tweets," which illustrates the fact that many individuals follow this group's actions and pay attention to what it is saying.[49]

C.   PROFILES OF USERS: AGE, EDUCATION/EMPLOYMENT LEVELS

To begin examining social media penetration in Mexico, age groups and the use of social media are best reviewed. Figure 2.1, based on a study conducted by the Organization for Economic Cooperation and Development (OECD), shows the education/employment and ages individuals for many different nations, but in examining Mexico, a few trends appear. First, based solely on this figure alone, while Mexico does not rank at the bottom of the totem pole, it does rank consistently third-from-the-bottom in terms of the "distribution of the population by education and work status."[50] While this OECD study does not generate an air of complete hopelessness, it highlights Mexico as a nation both of interest and concern regarding this age distribution.

A second noticeable trend in this OECD study is that the numbers of some groups remain fairly consistent (or at least relatively predictable) as the age groups increase. For example, the expectation is that the blue category ("In education") decreases as time progresses as the figure shows, which signifies that as individuals grow older, they then leave school and enter the work force. On one hand, this study shows that Mexico, with respect to this age and education/employment level distribution, is fairly comparable to other nations seen in the figure (such as Italy or Brazil) in that a vast majority of its citizens are either in education or employed.[51] Yet, on the other hand, for the "Not in

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[49] @BalacerasEnVer, "Statistics View," Twitter post, https://twitter.com/#!/search/%23Balacera.

[50] Education at a Glance 2011-OECD Indicators, *Country Note-Mexico* (Paris, France: Organization for Economic Cooperation and Development), 3.

[51] Ibid.

education, inactive" group, in all age groups within Mexico, however, they do not, and the numbers remain fairly stagnant, which shows a significant portion of the population does not progress either into or away from education or employment as time progresses. Thus, a significant portion of the population within Mexico remains fairly idle. While this trend alone is not a slam-dunk data set proving Mexico's greater propensity towards the use of social media, it does show that Mexico's averages are both less than OECD's averages and that Mexico fits a model of an environment prone to a greater use of social media to aid in citizen security.[52]

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[52] Education at a Glance 2011-OECD Indicators, 3.

Legend:
- In education
- Not in education, unemployed
- Not in education, inactive
- Not in education, employed

25-29 year-olds

20-24 year-olds

15-19 year-olds
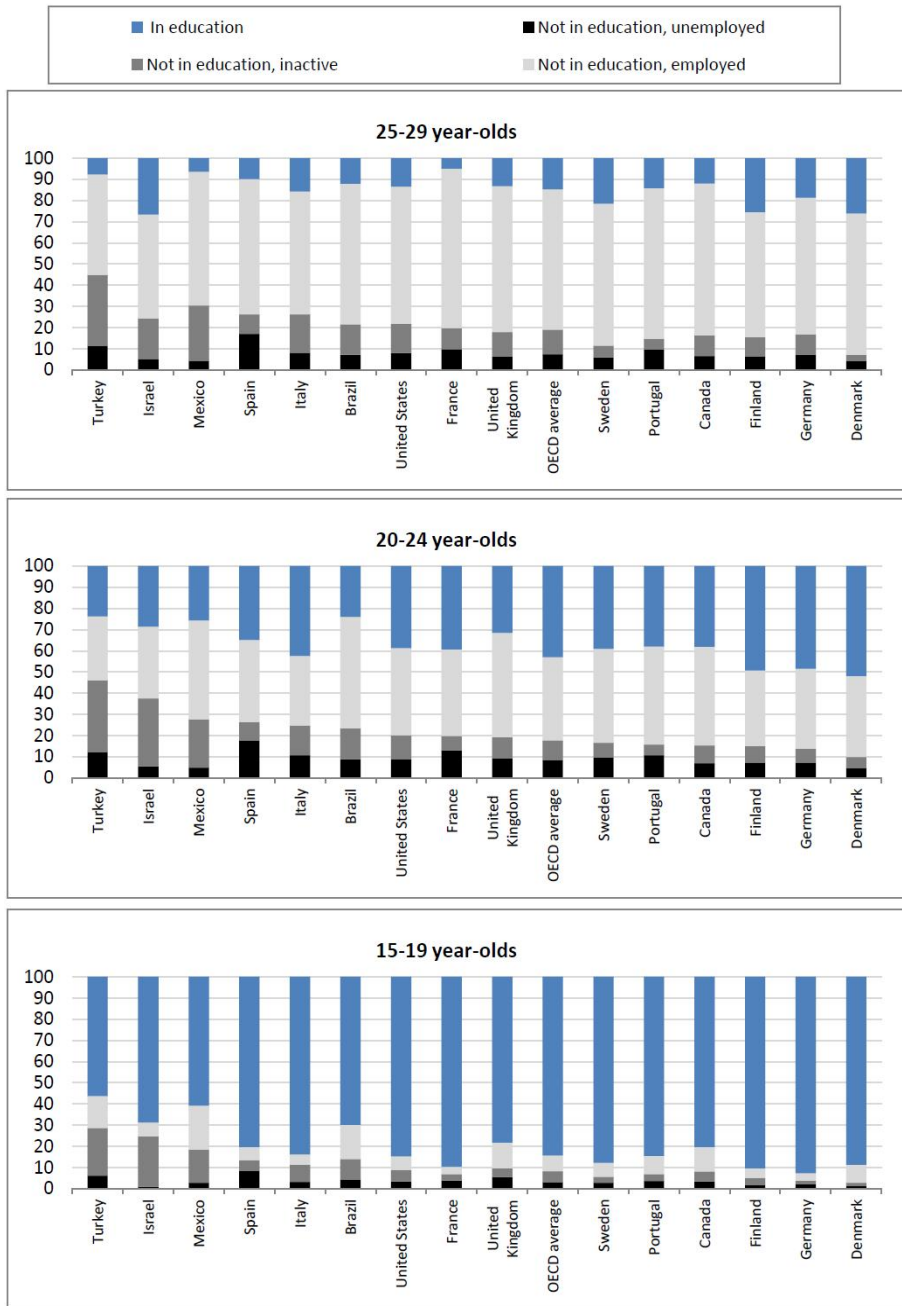
Countries are ranked in ascending order of the percentage of 20-24 year-olds in education.
Source: OECD. Table C4.2a. See Annex 3 for notes *(www.oecd.org/edu/eag2011)*

Figure 2.1.   Distribution of the Population by Education and Work Status (2009)[53]

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[53] Organization for Economic Cooperation and Development Education at a Glance 2011-OECD Indicators. *Country Note-Mexico* (Paris, France: OECD, 2011), 3.

By reviewing a study from the Pew Research Center in Figure 2.2, another piece of this puzzle presents itself by establishing that 47% of 18–29 year olds in Mexico are prone to use social networking, versus 16% of 30–49 year olds and 6% of 50+ year olds.[54] This figure shows that the 18–29 year old individuals in Mexico are far more apt to utilize social media. Combine this trend with the data from Figure 2.1, and it becomes apparent that those individuals in Mexico, roughly spanning the ages of 18–29, are more apt to be both technologically savvy (regarding social media) and have a slightly higher instance of being either unemployed or not actively engaged in receiving education.

	18–29 Years Old	30–49 Years Old	50+ Years Old
United States	77%	55	23
Germany	86	36	8
Spain	74	36	12
Turkey	55	22	3
Lebanon	39	12	3
Brazil	59	29	10
Mexico	47	16	6

Figure 2.2.   Percentage [of Individuals] That Use Social Networking[55]

D.   CHARACTERISTICS OF SOCIAL MEDIA USAGE IN MEXICO

1.   Mobile Versus Desktop Access of Social Media

Next to be examined is the slightly more complicated characteristics of social media use in Mexico to include types of access to social media (mobile access, such as via a smartphone, or more stationary access, such as via desktop computers), frequency of social media usage in Mexico, how it actually is accessed and a brief look at the overall geographic penetration of social media in Mexico. Thus, first reviewed are some of the basic trends of this usage. For example, a study conducted by the Interactive

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[54] Global Attitudes Project, *Computer and Cell Phone Usage Up Around the World: Global Publics Embrace Social Networking* (Washington, DC: Pew Research Center, December 15, 2010), 4.

[55] Pew Global Attitudes Project, *Global Publics Embrace Social Networking* (Washington, DC: Pew Research Center, December 15, 2010), 4.

Advertising Bureau (IAB)-Mexico found that ownership of more stationary media (like desktop computers) between 2009 and 2010 decreased, while more mobile technology (like smartphones or laptop computers) increased in ownership levels.[56] Such a decrease in ownership of desktop computers, and such an increase in ownership of smartphones, shows that Mexico is just as prone to some of the same trends seen elsewhere throughout the world, and thus, presents an environment prone to a trend of a growing desire for and possible dependency on mobile technology used to access the Internet, and arguably, social media micro-blogs, such as Twitter.

2.   Frequency of Social Media Usage in Mexico

Now, in defining a few characteristics of social media use in Mexico, it is also necessary to examine the *frequency* of such a use. In framing the context of this argument, consider Geoffrey A. Moore's concept of "crossing the chasm" (or "making that mainstream market emerge"), and additionally, the technology adoption life cycle.[57] Again, DTOs are not legitimate businesses trying to market a product; how they use social media closely resembles how many legitimate businesses operate. Similarly, average law-abiding Mexican citizens facing DTO violence do not necessarily find themselves as a structured, institutionalized unit as would a business organization. In other words, all these individuals require "achieving an unusual degree of…unity during the crossing period [implementing new technologies or TTPs]."[58]

Moore utilizes two broad categories to embellish this concept of "crossing the chasm," including the categorization of the innovations to be used, and the types of individuals actually implementing the innovations.[59] First, Moore discusses "continuous" and "discontinuous innovations," tying into Clayton M. Christensen's concept of

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[56] IAB México, "Estudio de Consumo de Medios Digitales 2010," http://www.iabmexico.com/ECM2010.

[57] Geoffrey A. Moore, *Crossing the Chasm: Marketing and Selling Disruptive Products to Mainstream Customers* (New York, NY: Harper Business Essentials, 2002), 7, 19.

[58] Ibid., 7.

[59] Moore, *Crossing the Chasm: Marketing and Selling Disruptive Products to Mainstream Customers*, 7.

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"disruptive technologies" discussed in Chapter III.[60] Specifically, these two types of innovation "require us to change our current mode of behavior or to modify other products and services we rely on,"[61] which is an important connection to make. Regardless of which side these individuals might be on (either with the DTOs or with the authorities), they rely on being on the cutting edge of technology and information retrieval to stay ahead of their competitors and survive the dangerous environment in which they find themselves.

Moore also discusses the types of individuals actually implementing the innovations, including technology enthusiasts, visionaries and pragmatists, to name a few.[62] Technology enthusiasts are "the ones who first appreciate the architecture of [a] product and why it therefore has a competitive advantage over the current crop of products established in the marketplace."[63] Adding to these individuals is his concept of "visionaries," or the "rare breed of people who have the insight to match an emerging technology to a strategic opportunity."[64] These two categories of individuals, when combined, both "appreciate" certain advanced technologies and have nearly boundless imaginations about the implementations of these products and how they can help achieve strategic goals.

However, these two types of individuals need to be balanced somewhat to dream realistically, and as such, Moore's "pragmatist" comes into the mix.[65] In other words "if the goal of visionaries is to take a quantum leap forward, the goal of pragmatists is to make a percentage improvement-incremental, measurable, predictable progress."[66] While visionaries, with the help of technology enthusiasts, can drive a certain organization to achieve its goals through almost an unrealistic fashion, these pragmatists provide a

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[60] Moore, *Crossing the Chasm: Marketing and Selling Disruptive Products to Mainstream Customers*, 10.

[61] Ibid.

[62] Ibid., 30.

[63] Ibid., 31.

[64] Ibid., 33.

[65] Ibid., 30.

[66] Ibid., 42.

greater element for achieving these goals in a more tangible and realistic fashion. Thus, the combination of these three main types of individuals helps provide for the procurement of advanced technologies, places them in the hands of those that need them, and allows for the attainment of future goals. This combination lays the framework for the emergence of social media technologies, and therefore, allows both sides of DTO violence to adapt and survive in their violent environments.

A final trend can be observed in the same study used to support Figure 2.3 ("Devices Used to Connect to the Internet") and the previous characteristic of mobile versus desktop access of social media. More specifically, also observed is an increase in Internet access via desktop computers in Mexico, which helps set the stage for this frequency of social media usage in Mexico.

The reasons for this increase came from access via Internet cafes, friends' computers or places of study.[67] Paralleling this finding, the study also immediately indicates that the "heavy users" of the Internet (those who prefer mobile access to it) actually increased their consumption by 32%, which solidifies the idea that mobile access to the Internet and such micro-blogs as Twitter has become *much* more prevalent in Mexico in recent times.[68]

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[67] Millward Brown, "Estudio de Consumo de Medios Digitales en México 2010," IAB, México, http://www.slideshare.net/iabmexico/estudio-de-consumo-de-medios-digitales-2010.

[68] Ibid.

IAB Mexico Study
"Devices used to connect to the Internet"

■ 2009 ■ 2010

Results taken from study conducted by IAB Mexico on 1250 participants in 2009
and 1292 participants in 2010
Source: IAB Mexico, 24 November 2010
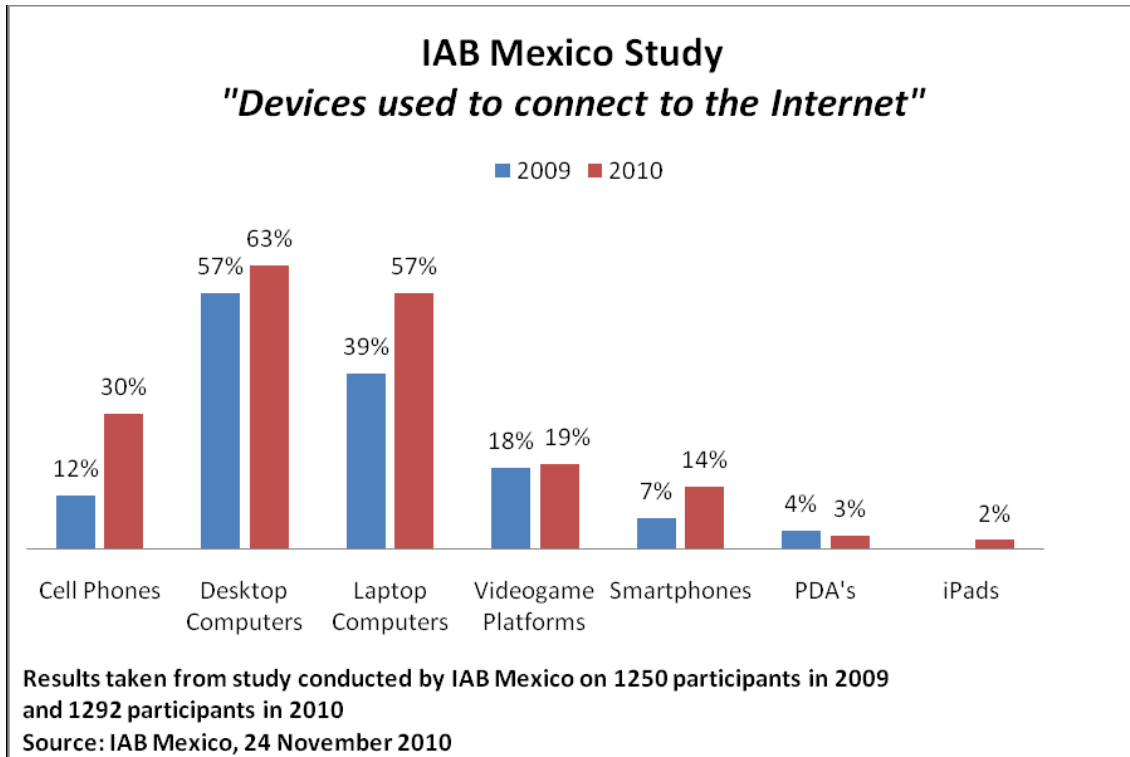
Figure 2.3.   Devices Used to Connect to the Internet[69]

However, these numbers are just Internet consumption, for while the above numbers only show those devices used to "connect to the Internet," the question in this thesis specifies *social media*, and thus, a social media lens must be applied to this data. Going one step *further*, it is possible to justify the significance of this Twitter use by briefly examining participation in different Twitter groups to provide a good idea of how prevalent social media has become to certain citizens not concerned with more superficial discussions not pertaining to their immediate security.

3.   How Social Media Is Accessed

Another way to regard this penetration of social media in Mexico is to review what type of interface is used to access it. Specifically, in using Twitter as a prime example of this social media, Twitter usage and its different types of access points can be

    [69] Open Source Center, *Media Aid: Mexico—Internet Media Environment Profile* (Washington, D.C.: September 6, 2011), 24.

examined. According to Figure 2.4, the top two access points used to access Twitter is Twitter.com (32%) and the social media dashboard application Tweetdeck (28%), with the third-party website Ubersocial gaining 14% of the total software access to social media.[70] In other words, while most users go directly to the source, via Twitter.com, many users still access Twitter via these third-party websites, which allow them to interface with other forms of social media, such as Facebook. Therefore, these users can both gain a greater situational awareness and spread information more efficiently when using the micro-blog Twitter.

Purely in terms of social media penetration, Figure 2.4 also supports the fact that the main access points of social media like the micro-blog Twitter are through more basic, and probably cheaper, forms of technology. These forms would include such technology as cell phones, laptop computers or low-end smartphones, as seen in the data presented in Figure 2.3 previously.[71] Next, combine this hardware usage data in Mexico, such as seen in Figure 2.3, and software usage data in Mexico, as shown in Figure 2.4, and another facet of social media penetration in Mexico can be exposed. This penetration has generally been seen through micro-blog use via less technologically advanced forms of mobile communication, such as cell phones, laptop computers or low-end smartphones (at least as of July 2010 when an IAB study found over 71% of technology used to be other-than-smartphone technologies).[72]

The take-away to this section is that social media is often accessed by technologies, such as cell phones, laptop computers or low-end smartphones, and by more direct-access forms of software.[73] Such a conclusion to this section can be

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[70] Guillermo Perezbolde V, "Twitter en México 2011," Mente Digital Presentation, June 9, 2011, http://mentedigital.com/site/?p=14.

[71] IAB México, "Estudio de Consumo de Medios Digitales 2010," http://www.slideshare.net/iabmexico/estudio-de-consumo-de-medios-digitales-2010.

[72] Guillermo Perezbolde V, "Twitter en México 2011, slide 9 of 16," Mente Digital Presentation, June 9, 2011, http://mentedigital.com/site/?p=14.

[73] Ibid.

supported through a few of the figures just shown, and by the figures additionally presented in the next two chapters. However, for this chapter, trends can be seen in both hardware and software usage regarding social media usage in Mexico.

Percentage of Twitter Traffic by Software in Mexico February 2011

	32%
Tweetdeck	28%
	14%
Twitter for iPhone	13%
	6%
Other Software	3%
	1%
Hootsuite	1%
	1%
Twitter for iPad	1%

Source: Mente Digital, February 2011
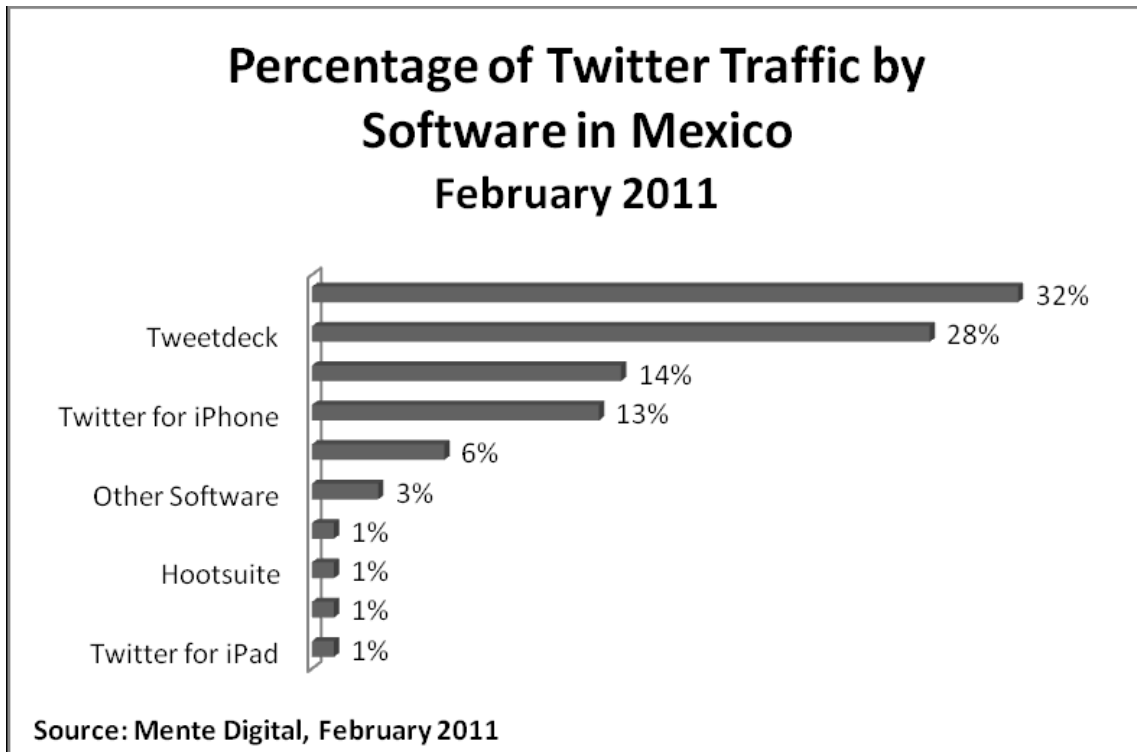
Figure 2.4.   Percentage of Twitter Traffic by Software in Mexico February 2011[74]

4.   Geographic Penetration of Social Media in Mexico

Next discussed is the third aspect of this social media penetration regarding the geographic concentration of social media use in Mexico. On the one hand, it would be quite difficult to geolocate each individual social media user and correlate it to what each is posting or the activity posted, but patterns of such use can, however, be established. For example, Figure 2.5 shows data compiled and analyzed by a March 2011 Mente

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[74] Open Source Center, *Media Aid: Mexico—Internet Media Environment Profile*, 8.

Digital study, and demonstrates that Distrito Federal (Mexico City), Monterrey and Guadalajara were the top three cities to have seen Twitter use when the study was conducted.[75]

Additionally, these numbers have changed since Mente Digital conducted the same study in July 2010. Increases were seen in areas including Tijuana, Veracruz and Puebla (roughly 100 miles west of Veracruz) and decreases in areas including Jalapa (also just west of Veracruz), Morelia and León (the latter two are located east and northeast of Mexico City).[76] Although possible correlations to drug violence in these areas are made later in Chapters III and IV, it is important in helping to establish a baseline for social media penetration in Mexico for these figures to be discussed. Unsurprisingly, these areas are urban centers, which see greater population density and greater technology penetration. What is important to note about Figure 2.5, however, is the geographic proximity of the different areas listed to DTO violence in general.
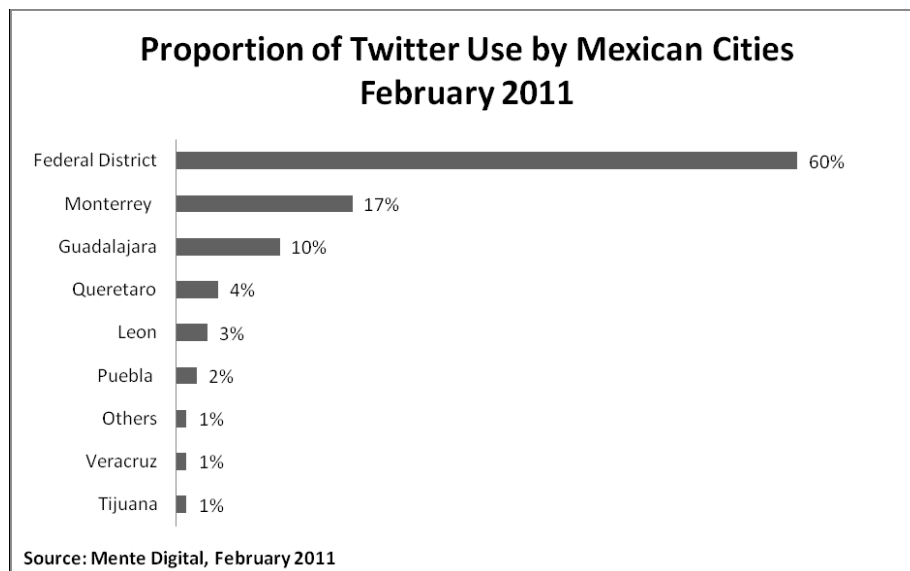
Figure 2.5.   Proportion of Twitter Use by Mexican Cities February 2011[77]

[75] Perezbolde V, "Twitter en México 2011."

[76] Guillermo Perezbolde V, "Estudio Twitter en México Julio 2010," Mente Digital Presentation, July 2010, http://www.perezbolde.com/2010/07/estudio-twitter-en-mexico-2010-2/.

[77] Guillermo Perezbolde V, "Twitter en México 2011," Mente Digital Presentation, March 2011, http://mentedigital.com/site/?p=14, slide 11.

Figure 2.6.   Map of Mexico[78]

E.   PRIMARY ACTORS WITHIN MEXICAN SOCIAL MEDIA

Now that these data sets and correlations have been examined, and to solidify this idea of social media penetration in Mexico, briefly examined are different actors utilizing this social media, such as DTO's, Mexican citizens, politicians and even journalists. For example, Figure 2.7 gives a quick snapshot of how social activities are implemented by Mexican citizens on the Internet. Again, only shown is an Internet snapshot, not a social media snapshot, but notice that the top four categories in this figure are sending emails, sending instant messages, downloading photos or videos and accessing social networks.[79] While these top four categories could likewise be observed in other modern nations or cultures, the predominant use in these top four categories then provokes the question of "who are these users in Mexico?" Instead of a trend in which such Internet activities in

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[78] Google Maps, "Map of Mexico," 2012, http://maps.google.com/maps?rls=com.microsoft:en-us:IE-SearchBox&oe=UTF-8&rlz=1I7ADRA_enUS421&q=google+map+of+mexico&um=1&ie=UTF-8&hq=&hnear=0x84043a3b88685353:0xed64b4be6b099811,Mexico&gl=us&ei=SrJmT_iFOs3aiQK77qmjDw&sa=X&oi=geocode_result&ct=image&resnum=1&ved=0CDUQ8gEwAA.

[79] AMIPCI and Televisa Interactive Media, *Hábitos de los Usuarios de Internet en México*, 24.

Mexico revolve around more social interaction, such as online dating, interactions via email, instant messages and downloading videos are indicated as more common in Mexico.

Principal Social Activities for Mexican Internet Users

Activity	Percentage
Other Activities	11%
Online Dating/Encounters	14%
Access/Create/Maintain a Blog	21%
Access/Create/Maintain a Personal…	22%
Upload Photos or Videos on a Website…	33%
Send Electronic Postcards	38%
Access Social Networks	61%
View/Download Photos or Videos	68%
Send/Receive Instant Messages	75%
Send/Receive Emails	90%

Results taken from study conducted by Elogia on 1149 participants
Source: AMIPCI, 17 May 2011

Figure 2.7.   Principal Social Activities for Mexican Internet Users[80]

1.   DTOs As Actors

The first of these four major types of actors in the realm of Mexican social media, the DTOs, is only briefly characterized as the next chapter covers this type of actor in more detail. It is first necessary to expound upon this thesis' definition of a DTO (drug-trafficking organization) as a "complex organization with highly defined command-and-control structures that produce(s), transport(s), and/or distribute(s) large quantities of one or more illicit drugs."[81] This definition is not to be confused with a drug *cartel* that

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[80] Open Source Center, *Media Aid: Mexico—Internet Media Environment Profile*, 28.

[81] National Drug Intelligence Center, "National Drug Threat Assessment 2010," Department of Justice, http://www.justice.gov/ndic/pubs38/38661/dtos.htm.

actually stems from the German word "kartell," which refers to a "formal agreement among business associations, or firms, to control production, fix prices, limit competition, and/or segment markets (by product, clientele, or territory)."[82]

The primary social media tool for DTOs is the blogging platform, such as Facebook or even YouTube, to produce and present what are called *narcoblogs*.[83] Although these blogs and micro-blogs are essential tools utilized by both DTOs and law-abiding Mexican citizens alike, DTOs use them to both inform others and compare notes on their activities, even establishing "fan pages" that promote individual traffickers and cartels.[84] DTOs do not create such blogs, but they do utilize them heavily. A good example that maintains no prejudice or bias regarding either DTOs or law enforcement is that of *El Blog del Narco*. One of the most famous blogs regarding Mexican DTO activities, *El Blog del Narco* provides timely information to all followers, including members of DTOs, military police, as well as other journalists who hesitate to publish such information for fear of retaliation and Mexican citizens in general.

It is interesting to note this dual use of *El Blog del Narco* as historically, different sides of different conflicts use their own, indigenous tools to help them combat the other entity. However, in Mexico, such blogs provide crucial information to both sides. They have become known for "preempting coverage by mainstream media" and even for "triggering an official investigation in mid-2010."[85] Specifically, *El Blog del Narco* posts nearly any material it receives in a timely fashion to "'inform [the reader] what really happens in Mexico'" regarding drug trafficking.[86] Thus, because of its claim to be impartial to either side of the drug-trafficking conflict, its information is posted in such a manner that both sides can access it quickly, which provides a necessary tool *both* sides of the conflict can use.

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[82] David A. Shirk, Eric L. Olson and Andrew Selee. *Shared Responsibility: U.S.-Mexico Policy Options for Confronting Organized Crime* (University of San Diego: Trans-Border Institute, October 2010), 34.

[83] Open Source Center, *Media Aid: Mexico—Internet Media Environment Profile*, 18.

[84] Ibid.

[85] Ibid., 19.

[86] Ibid., 36.

Also mentioned relating to DTO activities regarding social media is the use of YouTube to post *narcocorridos*. The *narcocorrido* (drug ballad) is nothing new to Mexican culture, although the *corridor* actually originated when the Spanish were still in Mexico, and thus, the local mestizo population (mixed-race Mexicans) developed this genre of music to capture some of their frustrations with their subordinated status.[87] The *corrido* really came into being around 1910–1920 during the Mexican revolution, with calls for "land and freedom" emanating from numerous militia camps and groups of refugees.[88]

The *narcocorrido* came to light in the ensuing decades, with contributing factors being the U.S.-Mexican border, instances, such as the alcohol prohibition in the United States (and the tequila bootlegging that followed), the increasing popularity of illegal drugs themselves and even a greater influence of rock 'n' roll music.[89] As time progressed, all these influences shaped the emergence, and the extreme popularity of the *narcocorrido,* which explains why it is such a mainstay of Mexican *narcocultura* (drug culture) today.

While many of these types of posted videos on YouTube do not contain information as current as that seen on *El Blog del Narco*, for example, they do contain updated lyrics used to discuss ongoing events or the status of various DTOs.[90] However, some of the main benefits to DTOs in using YouTube include the generation of high numbers of visits, and it is a fairly effective tool to pass messages to rival DTOs.[91]

2. Law-Abiding Mexican Citizens As Actors

As opposed to the DTOs, however, many law-abiding Mexican citizens have been observed using such micro-blogging platforms as Twitter to report on DTO activity and

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[87] Ioan Grillo, *El Narco* (New York: Bloomsbury Press, 2011), 174.

[88] Ibid.

[89] Mark C. Edberg, "El Narcotraficante: Narcocorridos and the Construction of a Cultural Persona on the U.S.-Mexico Border," *Ethnomusicology Review*, 2004, ethnomusicologyreview.ucla.edu/journal/volume/11/piece/512.

[90] Open Source Center, *Media Aid: Mexico—Internet Media Environment Profile*, 2.

[91] Ibid., 3.

keep others aware of their environment. This situation can be defined through the concept of crowdsourcing, which is "the act of taking a job traditionally performed by a designated agent (usually an employee) and outsourcing it to an undefined, generally large group of people in the form of an open call."[92] In other words, as opposed to just delegating a certain job to a "designated" individual, crowdsourcing involves posing a requirement for a job to a group of individuals whom (ideally) form a pool of more able problem solvers with abilities fit to the task.[93]

A prime example of this crowdsourcing in the context of this thesis occurred on June 21, 2010, when citizens in or near Reyanosa, Mexico (on the U.S.-Mexican border, about 150 miles southwest of Corpus Christi, TX, seen in Figure 2.6, used Twitter to "break the information blockade" concerning the sustained drug violence in the area.[94] It is even possible to search for *#Mexicorojo's* (Red/Bloody Mexico) hashtag on Twitter at any moment and receive updates on events, such as a car bombing in Ciudad Victoria, Tamaulipas (about 100 miles south of Reynosa) where a violent clash between Mexican soldiers and DTO operatives in Saltillo occurred, or how death threats aimed at a journalist reporting on the personal interests of the mayor of the town of Concorida, Sinaloa also happened. Many other examples abound; however, Chapter IV provides further details. For purposes of this chapter and in terms of social media penetration in Mexico, it is important to understand the basic nature of these law-abiding Mexican citizens as actors in social media influences and DTO activity in Mexico.

The take-away is that, as opposed to the DTO's use of social media oriented more along the lines of blogs like Facebook or YouTube, many Mexican citizens use micro-blogs to post shorter and more time-sensitive messages and to crowdsource their problem

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[92] Seamus Condron, "Crowdsourcing: A Definition," May 11, 2010, http://crowdsourcing.typepad.com/.

[93] Ibid.

[94] Mexicorojo.com and CNN México, "La Ley Del Silencio en Reynosa Sólo La Rompe...Twitter," *CNN*, June 21, 2010. http://mexico.cnn.com/nacional/2010/06/21/la-ley-del-silencio-en-reynosa-solo-la-rompe-twitter.

of dealing with DTO violence. Many more layers of complexity to the description of these actors does exist, such as their specific attributes or their reasons for using social media, but for the purposes of this chapter, they are merely introduced.

3. Politicians As Actors

The third group of notable actors in this junction between social media and citizen security that helps to establish a baseline for social media penetration in Mexico includes many of the politicians in the nation. Although these actors do not play such a prominent of a role as either the DTOs or many law-abiding Mexican citizens, they do play a role that must be briefly discussed to understand this social media penetration in Mexico. For example, just as in nations, such as the United States, many politicians in Mexico maintain active portals, blogs and other social networking sites (SNSs).[95] Also similar to some of these nations, Mexico has seen several legislative attempts to regulate both blogs and micro-blogs (many of which, as of 2011, have failed).[96] Although these attempts may be similar in Mexico, it nonetheless provides an interesting piece to the puzzle and helps to establish the idea of a censorship blackout, which is discussed in Chapter IV. It is important to understand in this chapter, however, that politicians both use social media heavily, and that they also try to regulate it substantially.

4. Journalists As Actors

The fourth and final group of notable actors at this juncture includes Mexican journalists. Journalists in Mexico, like journalists in most other nations, have also created for themselves a multitude of portals, blogs and other active SNSs. Such prominent journalists as Jesus Silva-Herzog Marquez (@jshm00), Sergio Aguayo (@sergioaguayo), Ana Maria Salazar Slack (@Amsalazar), Javier Alatorre (@Javier_Altorre) and Denise Maerker (@Denise_Maerker), amongst many other well-known and little-known journalists, maintain these blogs, Facebook pages and Twitter accounts.

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[95] Open Source Center, *Media Aid: Mexico—Internet Media Environment Profile*, 14.

[96] Ibid.

What should be noted for this section of the chapter is *how* these different social media tools are used. If many of these journalists and their blogs, and both Facebook and Twitter pages, were examined, of notice is that many journalists more often focus their attention towards their Facebook and Twitter pages, and not necessarily their blogs. As many maintain blogs regarding various current events including politics, economics and more, they only often comment in them sporadically, sometimes numerous times a week, and sometimes only a few times a month. However, these journalists tend to remain very active on Twitter, with followings sometimes reaching over 20,000 people.

The point is that these journalists do not see greater levels of violence because they blog often, but because they place themselves in more high-visibility situations (such as via blogs and micro-blogs). As an example of how journalists have often been caught both in the crossfire and have found themselves in the middle of DTO violence in Mexico, the September 1, 2011 killings of two journalists near Mexico City can be examined.[97] Such proximity to this violence leads to the idea that these journalists find themselves in this situation currently, reporting both on real-time events and on key players in the orchestration of these events. This participation, whether wanted or not, cannot simply be ignored, and thus, journalists also find themselves as players in this concept of citizen security in Mexico. It is important to recognize these actors as the violence imposed upon many journalists in Mexico exemplifies the extent to which the activities of DTOs reach throughout Mexico.

F.   CONCLUSION

With the definitive baseline for a social media penetration in Mexico established in this chapter, it is time to focus specifically on the penetration of and use by the DTOs and law-abiding Mexican citizens. It comes as no surprise that social media has seen a dramatic penetration within Mexico, but how has it affected the different groups of individuals either causing or trying to cope with DTO violence in Mexico? Through this chapter, specific answers to this question have been presented in which a multitude of

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[97] Tracy Wilkinson, "2 Mexican journalists found slain," *The Los Angeles Times*, September 1, 2011, http://articles.latimes.com/2011/sep/01/world/la-fg-mexico-dead-20110902.

different actors play a critical role in fronting important information via this tool. Thus, this social media penetration in Mexico has proven to generate dialogue that significantly drives the motivations of DTOs, law-abiding Mexican citizens, politicians and journalists throughout Mexico and not just a dialogue about the entertainment industry or other aspects of popular culture.

First, basic data sets were correlated with social media use in Mexico including age, education and employment level. This section of the chapter showed that 18–29 year olds were more prone to use social media as they tended to be technologically-savvy AND either not be enrolled in education or be unemployed. Second, slightly more complicated concepts were examined, such as the usage level and types of access to social media, It was found that a growing dependency on mobile technologies, such as cell phones, laptop computers or low-end smartphones occurred. Additionally examined was an example of how Twitter (*@BalacerasEnVer*) has been used to illustrate how Twitter is used in Mexico for purposes of sending more time-sensitive information.

Finally, the overall geographic penetration of social media in Mexico and of the different actors utilizing social media, including DTOs, law-abiding Mexican citizens, politicians and journalists, was briefly reviewed. This section demonstrated that Distrito Federal, Monterrey and Guadalajara were, as of 2011, the top three cities within Mexico to use Twitter. Also seen was that sending emails and instant messages, downloading pictures or videos, and accessing SNSs were the most prevalent activities of Internet users in Mexico. In turn, this finding supports the fact that such blogs and micro-blogs as YouTube, Facebook and Twitter can be used by such entities as *El Blog del Narco* or *#Mexicorojo* to spread messages regarding coordination, recruitment or danger-avoidance.

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III. USE OF SOCIAL MEDIA BY MEXICAN DTOS

A. INTRODUCTION

The last chapter briefly examined the penetration of social media in Mexico. Next, this characterization is expounded upon by now taking a look at the use of social media by DTOs themselves. For example, although a basic geographical penetration of social media within Mexico has just been established, this chapter begins by examining these correlations further by focusing both on the geographic areas of DTO violence and on DTO use of social media *specifically*. Second, *general* business social media TTPs are also examined followed by an assessment of actual *DTO* social media TTPs (relating to some of their end-state objectives). An examination of these three factors can determine to what extent DTOs are using social media and provide the reader a more thorough understanding of what the thesis introduced previously.

B. GEOGRAPHIC CORRELATION OF DTO VIOLENCE AND DTO SOCIAL MEDIA USE

To begin, the areas with some of the highest violence in Mexico are reviewed and a few short-term correlations captured to help establish the context concerning the use of social media by Mexican DTOs. While several things can be noted in the next few paragraphs, it is important to remember that these correlations are not trends, but merely snapshots of a very dynamic environment. While different DTOs have different operating areas, members, tactics, etc., trying to classify certain areas as belonging to certain DTOs is only temporary and partially accurate at best.

It is important for the reader of this thesis to understand that the map provided in Figure 3.1 merely provides a glimpse of drug trafficking in Mexico, and is a glimpse of a very *dynamic* environment, which is prone to change once again. Thus, it is helpful to examine this map to help organize thoughts regarding this subject matter at the time of the writing of this thesis, but it is not data to be used in the long term or beyond the writing of this thesis.

Thus, with this idea in mind, Figure 3.1 shows several different points using a tangle of arrows and colors. One point to take away is that the tan area in the middle of the nation is one of the only areas relatively undisputed by DTO control. In other words, notice how only one arrow (displaying movement of drugs) emanates from Mexico City, and that other arrows around it curve around Mexico City, which occurs namely because Mexican federal security forces were mostly distributed in Mexico City at the time of the writing of this thesis. Next, notice that the violence and DTO control of areas occur outside of Mexico City, which is precisely where cities like Monterrey and Guadalajara, focal points found in Figure 2.5 from Chapter II, are located.

Figure 3.1.   Cartel Territories and Drug Routes[98]

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[98] Fred Burton and Ben West, *Cartel Territories and Drug Routes* (Austin, TX: Stratfor Global Intelligence, 2008).

Figure 2.5 from Chapter II showed that Mexico City, Monterrey (roughly 150 miles west of Reynosa) and Guadalajara (roughly 250 miles northwest of Mexico City) were the top three cities in Mexico that received the highest amount of Twitter traffic.[99] Using the map from Figure 3.1, and combining the locations from Figure 2.5, notice that most of these locations are centered in the heart of DTO trafficking routes or areas. Although the map in Figure 3.1 only provides a snapshot of an incredibly fluid situation regarding DTO boundaries and drug trafficking, it highlights the fact that a number of the areas from Figure 2.5 are urban areas with higher populations, which leads to the notion that this greater urban density leads towards more centrality in distribution chains. Therefore, it makes sense that they would have more robust communications infrastructure, and therefore, a higher volume of Twitter traffic, in addition to a higher instance of violence.

Finally, when reviewing Figure 3.2, notice that many of the areas described in Figure 2.5 can also be located in the darker-red areas (indicating higher levels of drug killings).[100] These urban areas do have higher populations and more robust communications infrastructure, but they also tend to see more violence, as evidenced by this figure. In other words, if the maps (from Figures 2.5, 3.1 and 3.2) are overlaid with each other, it can been seen that certain geographic areas within Mexico experience both dramatically increased violence and dramatically increased levels in the use of Twitter. This correlation of DTO violence and social media use can be utilized to support *both* sides of the violence (DTOs and law-abiding Mexican citizens, for example), but in this chapter, it can be seen specifically in the examples provided further in the reading of this chapter through other such blogs and micro-blogs like YouTube or Facebook. For this section, however, it is important to understand the geographic concentrations of DTO violence within Mexico.

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[99] Perezbolde V, "Twitter en México 2011."

[100] Shirk and Ríos, *Drug Violence in Mexico: Data and Analysis Through 2010*, 10.
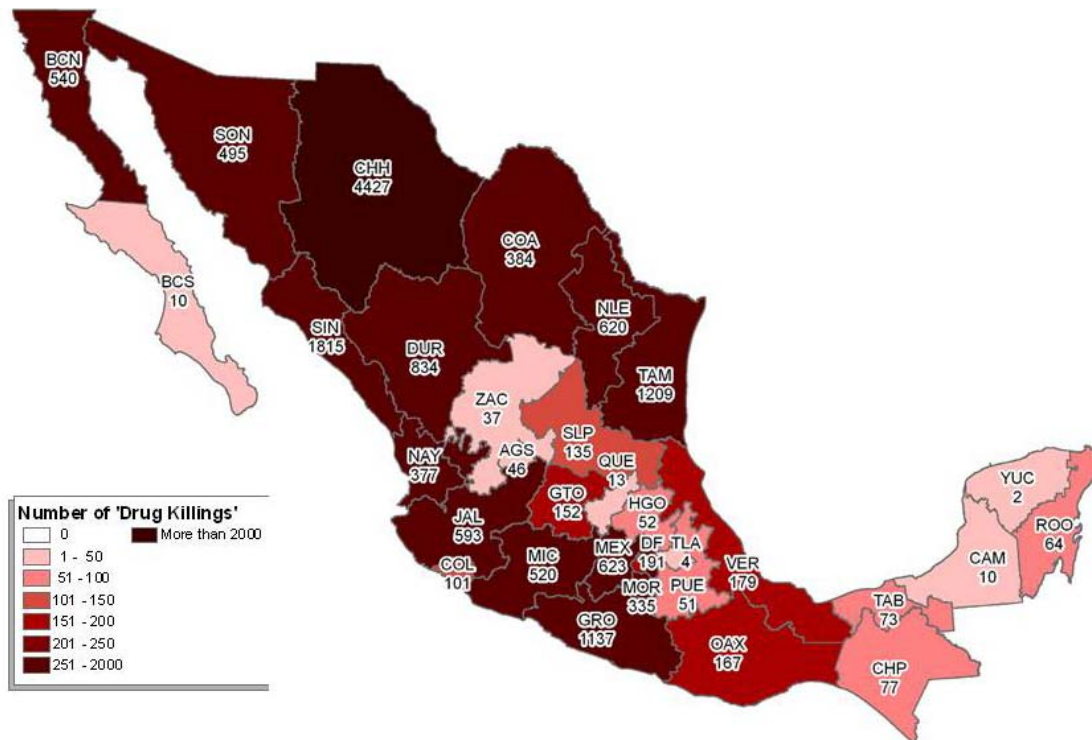
Figure 3.2.   Organized Crime Killings in 2010, by State[101]

With the Mexican government providing a wealth of new data having in the past few years leading up to the writing of this thesis, notice that certain areas see proportionately higher DTO activity than other areas. It is also important to remember that the analysis done currently, geographically speaking and in relation to DTO activity, may shift significantly in a few months. However, what has been seen in this thesis should help to paint a clearer picture of what some possible correlations might be between social media and the geographic disposition of DTO violence. While some evidence may point to other reasons for increased Twitter traffic in urban areas, for example, the correlation of the data from Figures 2.5, 3.1 and 3.2 highlight an important aspect of the geographical correlation between social media use and DTO violence.

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[101] Shirk and Ríos, *Drug Violence in Mexico: Data and Analysis Through 2010*, 10.

C. GENERAL BUSINESS TTPS REGARDING SOCIAL MEDIA USE

1. "Tactical Transparency"

In building upon this concept of a basic geographical correlation of DTO activity and social media use throughout Mexico, the focus now shifts to examining how social media is used as a tool to aid other businesses and organizations themselves. To begin an assessment of general business TTPs regarding social media use, Shel Holtz' and John C. Havens' concept of "*tactical* transparency" and how it is applied to the use of social media is examined.[102] Holtz and Havens introduce transparency by dividing it into "financial" and "governance" transparency.[103] In other words, they discuss how different companies "disclose [their] financial information, such as earnings and profits" or "expose [their] rules, processes and behaviors."[104] By maintaining this transparency, companies can "bolster their reputation" with the judicious use of social media amidst a general deterioration of trust and "increas[ing] public scrutiny."[105]

This concept is raised to highlight the emerging technology of social media and its use by DTOs, or organizations that, like many legitimate businesses around the world, seek to promote the trafficking of a product, and with this, seek to decrease costs and increase profits. To compound this point, the authors continued by underscoring that, "the Internet provides organizations with their own means of distribution; reliance on traditional channels is dissipating."[106] While DTOs are illegitimate organizations and can only be so transparent, and although the idea that "traditional channels" of distribution are waning is nothing new, it is important to use these concepts in introducing how social media is a tool that can help DTOs achieve their end-state objectives.[107]

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[102] Holtz and Havens, *Tactical Transparency: How Leaders Can Leverage Social Media to Maximize Value and Build Their Brand*, 22.

[103] Ibid., 13.

[104] Ibid.

[105] Ibid., 14–15.

[106] Ibid, 21.

[107] Ibid.

2. Emergence Theory and "Disruptive Technologies"

Another theory to be considered in the context of the emergence of social media in Mexico is the emergence theory, or what Clayton M. Christensen refers to as "disruptive technologies" (those technologies that significantly influence an already-established order of things).[108] Very closely linked to innovation theory, this emergence theory describes how, in the short run, disruptive technologies have driving factors that customers still "value" (such as cost, uses, and more).[109] Yet in the long run, they can ultimately lead to the failure of the business if the business "chooses to ignore [disruptive technologies]."[110] Another way to understand this concept of "sustaining" versus "disruptive" technologies is to look at Figure 3.3, which presents examples of this relationship.[111]

Established Technology	Disruptive Technology
Wireline Telephony	Mobile Telephony
Notebook Computers	Hand-held Digital Appliances
Printed Greeting Cards	Free Greeting Cards, Downloadable over Internet
Manned Fighter and Bomber Aircraft	Unmanned Aircraft
Open Surgery	Arthroscopic and Endoscopic Surgery

Figure 3.3.   Established versus Disruptive Technology Examples

Although an abbreviation of a greater concept, it is important to note that, in DTO's use of social media, products based on disruptive technologies (such as social media blogs and micro-blogs) are "typically cheaper, simpler, smaller, and, frequently, more convenient to use."[112] Since many forms of social media are exactly similar, DTOs, like any legitimate business, have to a degree recognized the utility of these tools and

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[108] Clayton M. Christensen, *Innovater's Dilemma* (New York: HarperCollins, 2011), xv.

[109] Ibid., xviii.

[110] Ibid., 113.

[111] Ibid., xxix.

[112] Ibid.

have used them to their benefit, such as using free, very accessible and widely-viewed forms of social media (like *El Blog del Narco*, Twitter, YouTube, etc.) to do things, such as post *narcocorridos* on YouTube.

It is Christensen's concepts of emergent, disruptive and adaptive technologies that leads to the idea that "firms that [lose] their battles with disruptive technologies [choose] to ignore or fight them."[113] One of the ways that many legitimate and illegitimate organizations have seen success is that they "[plan] to fail early and *inexpensively* in the search for a disruptive technology."[114] In other words, these organizations were unafraid of trying, failing, and trying again if it led to ultimate success. Although, again, Christensen's argument really is aimed at legitimate businesses, it is important to note that the management in many DTOs recognizes the need to focus on "plans for *learning* rather than plans for implementation."[115]

3.   Complexity Theory, Adaptive Technologies and DTOs

Christensen builds on these statements by describing different types of adaptive technology as well, which can be further supported in this particular thesis regarding Mexican DTOs by Michael Kenney's observations of DTO educational processes and adaptations.[116] For example, Kenney discusses the concepts of "Mētis vs. Techne" (different types of learning) and of "competitive adaptation."[117] Building on this concept, Kenney states, "…narcos [narcotics traffickers] learn not in isolation but within complex adaptive systems, where both sets of imperfectly informed, interdependent players gather and analyze information to change practices and outmaneuver their opponents."[118] This

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[113] Christensen, *Innovater's Dilemma*, 113.

[114] Ibid., 114.

[115] Ibid., 181.

[116] Kenney, *From Pablo to Osama: Trafficking and Terrorist Networks, Government Bureaucracies, and Competitive Adaption*, 79.

[117] Ibid., 4, 103.

[118] Ibid., 6.

"complex adaptive" set of systems leads many actors in the narco-trafficking world to remain competitive by adapting to their environment and using the available tools, such as those that are "cheaper, simpler, smaller and…more convenient to use."[119]

To help reinforce this point, another of Kenney's writings discusses how "traffickers [have] developed flexible operating procedures to conduct sensitive transactions and reduce their exposure to law enforcers and adversaries."[120] Although Kenney specifically writes in this piece about Columbian DTOs, he raises a point that can be paralleled by Mexican DTOs. For example, a few sentences later in this writing he discusses how the Columbian DTOs "communicate through pay phones, beepers, cell phones, cloned cell phones, phone cards and email to evade electronic surveillance," not unlike Mexican DTOs in both their flexibility and adaptability in using a variety of tools to succeed in their overall goals.[121] Thus, DTOs maintain part of a "routine" in how they communicate between each other.[122]

Although Kenney's concept of the "flatter" network composition of many DTOs is further discussed, it is important to first note this concept of survival as it underscores the need, not the want, for "competitive adaption."[123] In other words, in a complex environment, "[n]arcs [law enforcement personnel] and narcos [narcotics traffickers] learn not in isolation but from each other."[124] This concept is repeated often throughout Kenney's book, but it is an instrumental point. He describes what it means for DTOs to be adaptive in a competitive and complex environment. More specifically, he discusses this learning through "interaction" and not through "isolation."[125]

Another concept Kenney discusses is the advantage of information, and thus, the more timely means of accessing this information. In such a competitive and complex

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[119] Kenney, *From Pablo to Osama: Trafficking and Terrorist Networks, Government Bureaucracies, and Competitive Adaption*, 6.

[120] Ibid., 258.

[121] Ibid., 251.

[122] Ibid.

[123] Ibid., 103.

[124] Ibid.

[125] Ibid., 131.

environment, "…players seek to make better decisions by reducing uncertainty."[126] Again, although they compete against other DTOs for business, they also compete against the law-enforcement authorities to survive their environment, which can be seen as how "drug traffickers initially enjoy an information advantage over law enforcers."[127] In turn, a necessary demand for *sources* of information is created, namely seen in social media tools, such as *El Blog del Narco*, YouTube or various Facebook pages or Twitter hashtags/usernames. Such sources provide incredibly timely, relatively accurate, and most importantly, unquestionably *cheap* information that gives an edge to those who use them.

Kenney's findings are used in this thesis because his "complex adaptation" discussion segues into the concepts of emergence and complexity theories, which helps to address and clarify the issue of a "mismatch between the world as it is envisioned by decision-makers and reality as it actually is."[128] Complexity theory authors Guido Fioretti and Bauke Visser state,

> [a]n organization will need information about certain characteristics of its tasks, its employees and its own structural features in order to fit its employees with the tasks they face in particular organizational positions…Thus, the amount of information that is required…is likely to be affected by organizational structure.[129]

Although, like Christensen, Fioretti and Visser are talking about complexity theory in legitimate organizations in the business world, many parallels can be drawn regarding the use of social media by DTOs, and the required consideration of a multitude of factors (such as trafficking routes and methods or types of individuals used). The above quote highlights how organizational structure will "likely affect" the volume of

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[126] Kenney, *From Pablo to Osama: Trafficking and Terrorist Networks, Government Bureaucracies, and Competitive Adaption*, 104.

[127] Ibid., 105.

[128] Guido Fioretti and Bauke Visser, "A Cognitive Interpretation of Organizational Complexity," ed. Michael R. Lissack, Jeffrey A. Goldstein, Peter Allen & David Snowden, in *Emergence: Complexity & Organization An International Transdisciplinary Journal of Complex Social Systems* 6, no. 1–2 (Fall 2004): 16.

[129] Ibid., 17.

information required for the successful operation of the organization (such as a DTO).[130] Thus, complexity theory can greatly aid in understanding the process of attaining this information in a DTO.

Regarding complexity theory specifically, and how it relates to DTO activities, authors Carole McKenzie and Kim James state that an "[a]lteration of one subset of relationships alters the relations between all the elements."[131] In other words, complexity theory tells not of a complex arrangement of certain items, but rather is a "complex set of interrelationships between elements which have attributes."[132] Hence, complexity theory helps to explain the less tangible aspects of the structural norms of DTOs, and why they use social media. To further this point, complexity theory helps provide a set of metrics used to address the less-tangible problem of intuition, or a "gut feeling,"[133] which is especially helpful in understanding and quantifying why an illegitimate organization uses emerging tools, such as social media.

D.   DTO TTPS AND GOALS REGARDING SOCIAL MEDIA USE

In this third part of this chapter, and in building upon the concepts of "tactical transparency" and both emergence and complexity theories, DTOs and their use of social media as a tool in accomplishing their end-state objectives become the focus again. In other words, some *general, business-oriented* TTPs regarding social media have been promoted, but next, DTO TTPs regarding social media are contemplated. To transition into this third and final part of this chapter consider a statement made by Clay Shirky in his book that captures the idea of how important mobile technologies and social media have become to the formation of social networks.

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[130] Fioretti and Visser, "A Cognitive Interpretation of Organizational Complexity," 17.

[131] Carole McKenzie and Kim James, "Asthetics As An Aid to Understanding Complex Systems and Decision Judgement in Operating Complex Systems," ed. Michael R. Lissack, Jeffrey A. Goldstein, Peter Allen & David Snowden, in *Emergence: Complexity & Organization An International Transdisciplinary Journal of Complex Social Systems* 6, no. 1–2 (Fall 2004), 34.

[132] Ibid.

[133] Ibid., 33.

Mobile phones, which started out as personal versions of ordinary phones, are taking on all the functions necessary to become social tools—digital messaging, the ability to send messages to groups, and critically, interoperability with the internet, the premier group-forming network (in the sense of both first and best).[134]

1. Social Media and the Formation of Transnational Criminal Networks

The above quote by Shirky, although discussing mobile phones and social media in terms of basic social-network-forming, can be applied to Mexican DTOs to highlight the importance of this emerging technology. For example, authors John Arquilla and David Ronfeldt thoroughly explain the concept of a network both in terms of transnational terrorism and transnational criminality in their book *Networks and Netwars: The Future of Terror, Crime, and Militancy*.

Similar to the "cheaper, simpler, smaller, and, frequently, more convenient to use" framework of analysis seen above, Arquilla and Ronfeldt have noted that such networks "provide criminals with diversity, flexibility, low visibility, durability, and the like."[135] To "best understand" these criminal networks and organized crime, they must be understood through the "patron-client relations rather than formal hierarchies."[136] They continue by describing different characteristics of criminal networks, including that they can "operate clandestinely" and how they can "exploit differences in national laws and regulations [particularly if they are "transnational in nature"]."[137] As they specifically highlight, Mexican DTOs, with their "narrow focus" on the drug trafficking business, fit this model quite well.[138] Social media then would come into play by helping provide

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[134] Clay Shirky, *Here Comes Everybody: The Power of Organizing Without Organizations* (New York: Penguin Press, 2008), 295.

[135] Phil Williams. "Transnational Criminal Networks," in *Networks and Netwars: The Future of Terror, Crime, and Militancy*, ed. John Arquilla and David Ronfeldt (Santa Monica, CA: RAND, 2001), 71.

[136] Ibid., 62.

[137] Ibid.

[138] Ibid., 70.

these DTOs a "diversity, flexibility, low visibility, durability, and the like" through the use of a free, hard-to-follow, easy-to-use tool that enabled the DTOs to both show off their activities to the masses, and to recruit from these masses themselves.[139]

Arquilla and Ronfeldt continue to explain in much greater detail the concept of a network, including descriptions of the different actors within this network.[140] One of the types of actors, the "communicators," provides the avenue in which the entire organization depends on transmitting its central message.[141] Such a type of actor proves crucial in DTOs for it acts at the forefront of spreading this message, helping to coordinate, and more via the tool of social media. Although these actors play one of many roles within their organization, it is through them, and their use of social media, that this message is spread "effectively from one node to another across the network as a whole."[142]

In a similar vein, authors Ori Brafman and Rod A. Beckstrom also detail this concept of a network in their book *The Starfish and the Spider: The Unstoppable Power of Leaderless Organizations*. However, their book, containing more recent concepts, such as social media, describes the concept of a "starfish" organization versus a "spider" organization.[143] In other words, this concept describes a centralized versus a decentralized type of organization. The findings of Brafman and Beckstrom support the idea that decentralized, flatter organizations can be just as effective, if not more so, than top-down hierarchies (depending on their set of tools of course).

Such a concept can be further supported in the context of Mexican DTOs when author Michael Kenney discusses the capturing of both DTO leaders and footsoldiers as "Darwinian" in nature.[144] Building upon Brafman and Beckstrom's statements, and in

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139 Williams. "Transnational Criminal Networks," 70.

140 Ibid., 82.

141 Ibid.

142 Ibid.

143 Ori Brafman and Rod A. Beckstrom, *The Starfish and the Spider* (New York: The Penguin Group, 2006), 29.

144 Kenney, *From Pablo to Osama: Trafficking and Terrorist Networks, Government Bureaucracies, and Competitive Adaption*, 108.

providing his own classification of these networks as "[w]heel and [c]hain [n]etworks," it is when individual DTO nodes are "dismantled" that other DTO leaders "turn to other nodes that provide the same service or function."[145] Thus, this more flattened structure seen across many transnational criminal networks, as described by authors, such as Brafman and Beckstrom, can also be observed in Mexican DTOs.

2. Social Media and the Formation of Mexican DTOs

As an example of these transnational criminal organization concepts, the group *Los Zetas* whom are "considered by U.S. officials to be 'the most technologically advanced, sophisticated and violent' of the DTOs active in Mexico, is examined next.[146] *Los Zetas* also "employ computer experts to track the cell-phone signatures of their rivals and penetrate police and military communications channels," which establishes the idea that engaging in such activities belongs to domains other than solely nation-states, such as the United States.[147] How this concept ties to social media results because these groups use "commercially available technology to coordinate strategy and operations," and thus rely on cheap and efficient means of orchestrating these activities and others.[148] Without such blogs and micro-blogs as *El Blog del Narco* or Facebook, for example, such coordination and operations would be hampered significantly.

This point is further supported by observing the idea that "cartels [often] advertise themselves as a culture, religion, and way of life."[149] Compounding this "way of life," Mexican DTO web pages advertise themselves as a "profession with an income, in

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[145] Michael Kenney, "Architecture of Drug Trafficking: Network Forms of Organisation in the Colombian Cocaine Trade, "*Global Crime* 8, no. 3 (August 2007): 242; Kenney, *From Pablo to Osama: Trafficking and Terrorist Networks, Government Bureaucracies, and Competitive Adaption*, 108.

[146] Hal Brands, "Third-Generation Gangs and Criminal Insurgency in Latin America," *Small Wars and Insurgencies* (July 4, 2009): 3.

[147] Ibid., 4.

[148] Ibid.

[149] Ibid., 86.

addition to a group membership."[150] This concept of recruiting for the DTO cause is one hinted at throughout this thesis and can further be exemplified through the observation of YouTube in Mexico.

YouTube has become quite prevalent throughout Latin America and Mexico, and DTOs are no exception. YouTube has been used to conduct war-like actions between numerous entities, through the posting of violent songs and even video threats as discussed earlier. In addition to the *narcocorridos*, DTOs also use YouTube to upload videos containing "threats of revenge" or "support for their causes."[151] Both sides use YouTube to upload these videos and comment on each one in a rally of near epic proportions, and it is important to note that these *narcocorridos* are products of a past full of revolutionary spirit and of "social rebellion."[152] Such *narcocorridos* are not just drug ballads, but are symbols of a very historic past, influenced by violent, modern events in Mexico, and used as tools to wage the drug-trafficking war from the "jungles of Central America to the immigrant ghettos of Los Angeles."[153]

E.   CONCLUSION

To summarize this chapter, the geographical correlations from Chapter II were further examined by focusing both on the geographic areas of DTO violence and on DTO use of social media through specific examples. One conclusion reached was that the drug-trafficking routes and Twitter activity correlated highly with cities from Chapter II's Figure 2.1, which helps to solidify the idea of a connection between high levels of DTO violence in urban areas, and a high use of social media in these same areas.

Second, the *general* business social media TTPs were reviewed, including such concepts as "tactical transparency," "disruptive technologies," adaptive technologies,

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[150] Brands, "Third-Generation Gangs and Criminal Insurgency in Latin America," 86.

[151] Open Source Center, *Analysis: Mexico Wages Drug War on YouTube With Violent Songs, Video Threats* (Washington, DC, August 9, 2010), 3.

[152] Grillo, *El Narco*, 189.

[153] Ibid., 170.

emergence theory and complexity theory.[154] Shel Holtz and John C. Havens' concept of "tactical transparency" parallels DTOs' use of social media to decrease costs, increase profits, "bolster their reputation," provide an internal means of distribution, and more. Similarly, Clayton M. Christensen's concepts of emergence theory and "disruptive technologies" explained DTO use of social media (such as YouTube) in terms of "plans for *learning* rather than plans for implementation," and how they have adapted to this new form of technology.[155] Also relating to Christensen were his concepts of complexity theory and adaptive technologies, which were, in turn, supported by Michael Kenney's concept of "Mētis vs. Techne."[156] All these concepts can be used to support the fact that DTOs recognize the impacts of various blogs and micro-blogs and have adapted to using them effectively. Thus, with a better understanding of the emergence of social media in many legitimate businesses and organizations, and in applying these concepts to DTOs, it was possible to advance to the third part of this chapter and examine social media penetration of DTOs specifically.

In the third part of this chapter, actual *DTO TTPs* regarding the use of social media were examined. This topic was introduced through John Arquilla and David Ronfeldts' discussion of transnational criminality.[157] This concept was then expounded upon by examining Ori Brafman and Rod A. Beckstroms' centralized versus decentralized networks found in their book, *The Starfish and the Spider: The Unstoppable Power of Leaderless Organizations*.[158] Specifically, this section defined how these concepts related to DTO activities in that DTOs recognize the "diversity, flexibility, low-visibility, durability, and the like" of social media in which DTOs can perform such critical tasks as showing off or recruiting from the masses of Mexican

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[154] Holtz and Havens, *Tactical Transparency: How Leaders Can Leverage Social Media to Maximize Value and Build Their Brand*, 22; Christensen, *Innovater's Dilemma*, xv; Kenney, *From Pablo to Osama: Trafficking and Terrorist Networks, Government Bureaucracies, and Competitive Adaption,* 79.

[155] Christensen, *Innovater's Dilemma*, 181.

[156] Kenney, *From Pablo to Osama: Trafficking and Terrorist Networks, Government Bureaucracies, and Competitive Adaption*, 4.

[157] Williams, "Transnational Criminal Networks," 62.

[158] Brafman and Beckstrom, *The Starfish and the Spider*, 29.

citizens.[159] Following the discussion of these two concepts, it was shown how *Los Zetas* have employed social media blogs like Facebook and YouTube to post material like *narcocorridos.*

While the trend of the rise of social media use in Mexico parallels the trend of DTO violence in Mexico, the point of this chapter has been to show the *correlation between the two*. In looking at both these trends and some of the examples provided, how the convergence of these two trends leads to the idea that DTOs incorporate social media into their business model as a whole and use it heavily to communicate with each other, send messages to competing DTOs and to recruit other individuals to their cause, was demonstrated. This explanation should thus help to build upon the discussion of the previous chapters, and to answer further the overall question of this thesis of *how* social media has uniquely influenced the concept of citizen security behavior in Mexico in the context of the current wave of violence.

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[159] Williams, "Transnational Criminal Networks," 71.

IV. USE OF SOCIAL MEDIA BY LAW-ABIDING CITIZENS AND AUTHORITIES IN MEXICO

A. INTRODUCTION

Many Mexican citizens use a variety of social media blogs and micro-blogs, yet lines can be drawn by analyzing *how* these blogs and micro-blogs are used. For example, Chapter III demonstrated how DTOs tend to use social media, such as Facebook or YouTube, to help enable their overall mission of transporting illicit drugs or to even recruit members to their cause, but only discussed use by DTOs.

This chapter draws attention away from DTOs and examines other players previously mentioned including ordinary, law-abiding Mexican citizens and authorities in Mexico. First, statistics on how certain forms of social media, in this case Twitter, are used and potential reasons for why they are used are advanced. Then, this data is correlated with DTO violence to establish any trends regarding anti-DTO/personal security behaviors. Finally, a potential censorship blackout imposed on these citizens by the Mexican government is examined. By doing so, the topics discussed thus far in this thesis are expounded upon but focus on the use of social media by many Mexican citizens *not* involved with DTOs that aids in improving their own citizen security in a time-sensitive fashion.

B. TWITTER IN MEXICO: A CASE STUDY

1. How Twitter is Used

While average, law-abiding Mexican citizens and authorities use many different social media blogs and micro-blogs, the author uses Twitter to illustrate this use of social media. First, a few examples of the data mining tools The Archivist and that from Topsy Labs are examined, which, for the sake of simplicity, is henceforth abbreviated as "Topsy". The first example, using tweets mined from The Archivist, was achieved by first accessing the website and entering several Twitter hashtags or usernames to be

archived.[160] In using The Archivist, several limiting factors are considered. One example is how this website does not pull from the "firehose" (a historical record of all tweets regarding a certain subject).[161] In other words, The Archivist does not allow the user to examine tweets from the past but only allows the examination of tweets archived in real-time throughout the experiment. Another limiting factor is that it is only possible to search three subjects at any one time, which also constrains the search.

On the flip side, however, The Archivist proves to be a powerful tool when analyzing tweets, and more specifically, when trying to analyze the their number, the users who post them, as well as the frequency in which they are posted. In terms of readability, The Archivist presents this data in a visual format that allows a greater ease in understanding the information presented.

In using The Archivist data below, the author first accessed its website and used three different search terms, those being "El Blog del Narco," "Juarez" and "drogas violencias," and let the Archivist archive the metadata of the tweets regarding these subjects for up to a month (and not the actual content of the tweets themselves), the data was then manipulated to present the figures seen below. The utility of this search engine can be proven because numerous options on The Archivist website exist that make it possible to manipulate the data in such a fashion that findings can be interpreted in a quick and easily readable format.

Figure 4.1 shows the sources of tweets regarding "El Blog del Narco" (only encompassing 20 hours on January 6, 2012) and highlights the trend that not only expensive forms of technology are used to access Twitter.[162] In other words, the highlighted trend indicates that Google, twitterfeed (another tool to add or follow content on Twitter) and other third-party applications via the web are used more commonly than more expensive forms of technology, such as Twitter for Blackberry, Tweet Button or

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[160] The Archivist, n.d., http://archivist.visitmix.com/.

[161] Ibid.

[162] The Archivist, "Archive: el blog del narco," 2012, http://archivist.visitmix.com/3fe36670/4/source.

TweetDeck.[163] This idea can further be supported by a search for "El Blog del Narco," spanning from January 6, 2012 to February 4, 2012, which encompassed 536 different tweets.[164]

Another search for "drogas violencia" (drug violence) revealed similar results, with 52% of tweets originating from the web, 8% originating from the mobile web and 8% originating from TweetDeck (and the others originating from various other mobile and static sources in less than 5% increments).[165] As a side note, the difference between mobile web and web simply means the difference between something like a smartphone and a desktop computer, respectively.

Although the results of this experiment are only for these two search terms, they nevertheless help support the idea raised earlier that desktop computers are predominantly used to access Twitter. Similarly, it also shows that mobile applications are significantly used in adding/monitoring content and in engaging in a dialogue. These results can even be found in searches for #nomassangre (the Twitter hashtag, or name, for the group No Mas Sangre) as well.[166]

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[163] The Archivist, "Archive: el blog del narco."

[164] The Archivist, n.d., http://archivist.visitmix.com/ScottChilders1/2/source. The top four means of tweeting "El Blog del Narco" were the web, twitterfeed, Google and TweetDeck, with 23%, 18%, 13% and 5% of the total tweets, respectively).

[165] The Archivist, "Archive: drogas violencia," 2012, http://archivist.visitmix.com/afade878/5/source.

[166] The Archivist, "Archive: no mas sangre," 2012, http://archivist.visitmix.com/3fe36670/6/source.
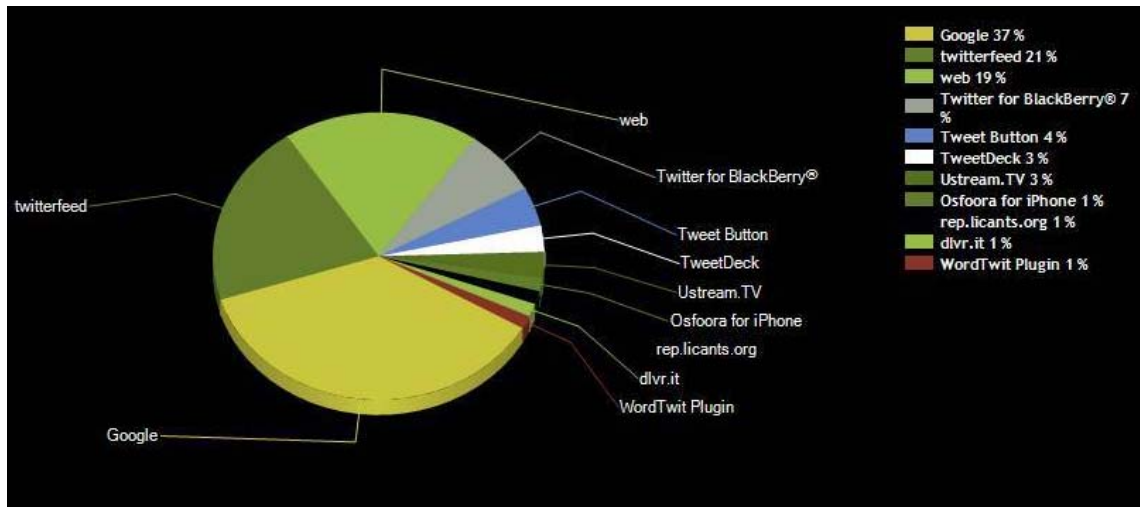
Figure 4.1.   Source of Tweets for El Blog del Narco (January 6, 2012).[167]

Another search done on the terms "Juarez" and "El Blog del Narco," via Topsy, yields similar results. The author accessed the Topsy Labs website and ran searches on both terms. However, this tool is a bit different from The Archivist, for as opposed to The Archivist data mining tool that archives tweets and displays them in a multitude of different ways, Topsy displays the correlation between a certain event from the recent past and the amount of tweets posted on it. Just as The Archivist, however, Topsy provides both pros and cons.

For instance, a few limiting factors can be observed when using Topsy. For example, when searching Topsy's website using any search term, the graph shown depicts two types of information that are limited themselves. On the horizontal axis, the date is shown (which can only extend up to 30 days in the past), and on the other axis, the amount of tweets posted regarding the subject searched upon is shown (but not the content of them). With this, the information found on each axis is significantly limited to a narrow window in which to view the overall subject. However, the advantages to using this tool outweigh the limiting factors, as this tool shows a correlation between possible recent historical events and the amount of tweets posted regarding the event. More importantly, and building upon this concept, when examining the graph and seeing a

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[167] The Archivist.

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spike of Twitter activity on a certain day, a link to a news article about the most-discussed event (regarding that subject) at that time appears. In other words, when examining the previous 30 days of a certain search term, a correlation can be found between the most discussed search term tweeted about, and a news story regarding that event. With this in mind, the author went back 30 days from the search date (January 6, 2012) and found a peak of activity in both "Juarez" and "El Blog del Narco," and specifically, examined the news articles linked to these times.

This search revealed the most popular news articles published were of a "Police Officer Burned Alive" (in a December 20, 2011 CNN article) and a December 20, 2011 article on El Blog del Narco discussing how "Mexico [has been] Repeated as the Most Dangerous Country for Journalists."[168] At nearly any point in time, this website will plot similar tracks as far as tweeting about DTO violence in the areas noted in Figures 4.4. In other words, it will note news articles similarities between search words (such as "Juarez" and "El Blog del Narco") relating to the same topic.

What these examples show is that drug-trafficking violence in Mexico can be partially measured by utilizing social analytic tools. More specifically, these tools can be used to observe the use of blogs and micro-blogs, such as *El Blog del Narco* or Twitter by both DTOs and average, law-abiding Mexican citizens. In terms more specific to social media, these tools are a means of utilizing the Twitter Application Programming Interface (API) to analyze the different types of tweets sent regarding different types of DTO violence (in the context of this thesis). Thus, a more concrete understanding of how, exactly, social media influences the concept of citizen security within Mexico can be garnered.

2.   Potential Reasons for Use of Social Media Such as Twitter

In the realm of Twitter, a multitude of different subjects to comment on and a variety of ways to comment on these subjects exist. The concept of retweeting, however, is focused upon as it shows a few potential reasons for the use of this social media. For

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168 TopsyLabs, Social Analytics, 2011, http://analytics.topsy.com/.

starters, retweeting is the basic idea of echoing the original message sent by somebody that can be used to describe that the tweets sent out regarding "Juarez" are, generally speaking, more than just conversation at an "ongoing cocktail party."[169]

An example is a search done on "drogas violencia" between January 6, 2012 and February 4, 2012.[170] Figure 4.2 shows the results of the 3,401 tweets and retweets sent over this timeframe. Notice that the concept of retweeting, again echoing other messages, plays a key role in the spread of information with many of the original tweets being retweeted to other members in the Twitter community.
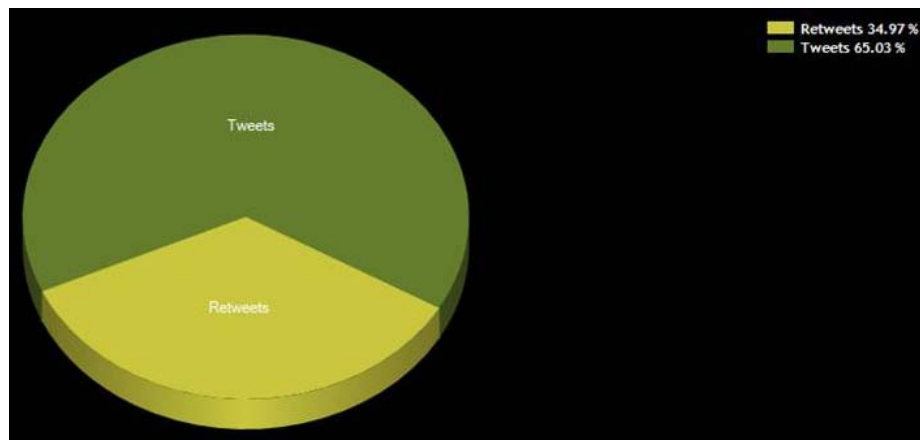

Figure 4.2.   Tweets vs. Retweets for "drogas violencia"

The example of the September 21, 2009 dumping of 35 bodies in Boca del Rio (outskirts of Veracruz) can also be examined.[171] Of course, such an event would warrant at least some attention in the more traditional written media, such as newspapers, but it is interesting to observe the reporting surrounding the event via social media like Twitter. In other words, by examining some of the tweets sent out on that day, it is possible to glean how many Mexican citizens communicate with each other, inform their position and bring situational awareness to the population during a crisis.

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[169] Barefoot and Szabo. *Friends With Benefits: A Social Media Marketing Handbook*, 221.

[170] The Archivist, n.d., http://archivist.visitmix.com/ScottChilders1/3/Retweets.

[171] Ellingwood, "35 Bodies Dumped on Street in Mexico."

On the day that these 35 bodies were dumped in Boca del Rio, there were 2,163 tweets in *#balcera's* (shootout) hashtag alone (when searching for *"boca del rio"*), and that fails to even mention the posts in any other of the hashtags (like those belonging to *El Blog del Narco* or *No Mas Sangre*).[172] Of these 2,163 tweets, not only is it possible to observe postings regarding the event, but also other events in other geographic areas of Mexico, such as one tweet that reported a possible shooting in the "Aztlán Avenue area [with] [a]pparently…two people injured and two dead."[173] These tweets, also linking to other hashtags like *#Monterrey* or *#Veracruz*, add to the numerous foursquare tweets (providing geographical location of the individuals), and convey a situational awareness the likes of which is also seen by soldiers in more publicized combat operations in other areas of the world.[174]

The take-away to all of this data is that it demonstrates a correlation between Twitter usage and the drug violence seen in Chapter III. In other words, thus far in this chapter, part of this overall picture has been painted to reveal how a social media micro-blog can be used to aid the concept of citizen security, but *how* it is used has only been briefly reviewed, which is the next focus of this chapter.

C. TRENDS REGARDING SOCIAL MEDIA USE BY LAW-ABIDING MEXICAN CITIZENS

1. Geographic Correlations

Figure 4.3 shows the drug-related killings in Mexico for the period between 2001 and 2010.[175] These facts were mentioned much earlier in this thesis but this alarming increase in drug-related killings over the past decade needs to be restated to tie in the results from other studies. For example, Figure 4.4 shows that the areas around Ciudad

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[172] Topsy, "boca del rio OR #balacera," 2011,
http://topsy.com/s?offset=42&om=baab&page=5&q=boca%20del%20rio%20OR%20%23balacera%20&type=tweet&window=d12.

[173] Topsy, "boca del rio OR #balacera," 2011,
http://topsy.com/s?offset=89&om=abbfbaab&page=9&q=boca%20del%20rio%20OR%20%23balacera%20&type=tweet&window=d12.

[174] Ibid.

[175] Shirk and Ríos, *Drug Violence in Mexico: Data and Analysis Through 2010*, 5.

Juarez (in the state of Chichuahua) and around Culiacán (in the state of Sinaloa) are, regarding drug trafficking-related homicides, the top two most violent municipalities in Mexico.[176] By combining these two areas, it is possible to compare them to a map of Mexico in Figure 4.5 and also then confirm that drug-trafficking violence is located namely near urban areas and drug trafficking routes (i.e., not in the less-populated northern-central sections of Mexico).

As a side note, notice that Figure 4.4 uses a municipal-level map, since, while many other maps show the geographic concentration of DTO violence in Mexico, many also present such a concentration just on a state level. In other words, with these other maps, it is possible to identify certain states within Mexico in which this violence is concentrated, but a higher fidelity can be achieved by looking deeper at the concentration of this violence. For example, if a state is identified as having a greater preponderance of crime, that may mean that certain cities or towns within the state might disproportionately experience crime compared to other cities or towns within that state. It is thus very important to keep this in mind when discussing a very fluid environment, such as what has been observed in Mexico.
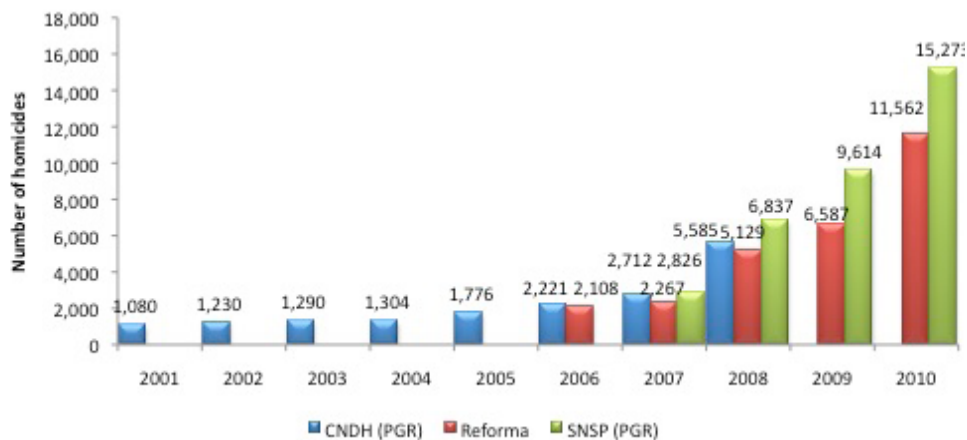

Figure 4.3.   Drug-Related Killings in Mexico, 2001–2010[177]

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[176] Diego Valle-Jones, "Homicides and Trafficking Routes [interactive map]," 2012, http://www.diegovalle.net/drug-war-map.html.

[177] Shirk and Ríos, *Drug Violence in Mexico: Data and Analysis Through 2010*, 5.
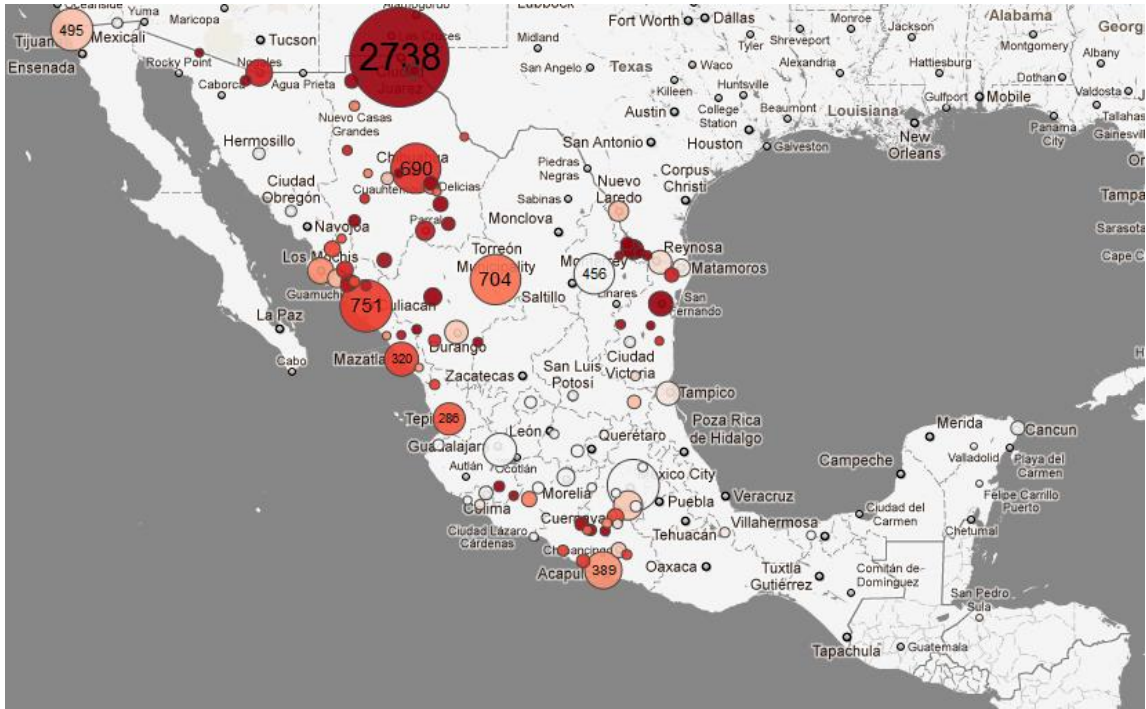
Figure 4.4.   Drug War Homicides by Municipality, 2010[178]

Figure 4.5   Map of Mexico[179]

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[178] Valle-Jones, "Homicides and Trafficking Routes [interactive map]."

[179] Google Maps, "Map of Mexico."

2.   Correlations Regarding the Mexican Government and Other Law-Abiding Mexican Citizens

In building upon the geographic correlations just established, a few correlations exist regarding two sets of actors amidst this DTO violence. The Mexican government's response to both DTO violence and the use of social media is considered first. The response of law-abiding Mexican citizens and their use of social media when encountering this DTO violence follows. While the scale of this issue is immense, by allowing for a digression into conversations regarding other facets of DTO violence in Mexico, it is important to show a few ways in which these actors of Mexican social media act in this violent environment and make any correlations of these observations.

The Mexican government's response to this violence is especially important since "Mexican drug cartels can still operate at full capacity while they fight bloody battles with each other and the government…[g]angsters can go on having downtown shoot-outs with soldiers, leaving piles of severed heads, and still be trucking the same quantity of dope."[180] On one hand, the Mexican government has taken measures to combat drug trafficking violence within its borders. An example is the signing of the General Act on National Public Security System (NPSS) by the Calderón administration on January 1, 2009.

A more specific example is the six guidelines of Title Eight, Article 131, which stipulates: "[t]o improve public safety services, coordination authorities created by this Act will promote community involvement through the following actions:

1.   Participate in the evaluation of policy and public security institutions

2.   Review policies on public safety

3.   Suggest specific and concrete actions for this function

4.   Measure effectiveness

5.   Suggest merit awards or incentives for members of the institutions

6.   File reports or complaints of irregularities, and VII. Assist the competent authorities in the exercise of their duties and participate in activities that are not confidential or jeopardize the public safety."[181]

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[180] Grillo, *El Narco*, 137.

[181] Pérez García, *Diagnosis of Public Safety in Mexico*, 34.

These guidelines outline the Mexican government's strong-handed approach in dealing with the upsurge of crime and violence seen since the mid 1990s, but merely tell citizens to do things like "review policies" and "[f]ile reports or complaints of irregularities."[182]

Thus, a need for further definition of this citizen security in Mexico can also be observed, which includes more than just placing complete confidence in a nationally-mandated act, such as the General Act on National Public Security System. Although an act of the Mexican government, or those who take the lead on defense against such violence as that cause by DTOs, it also involves the participation of citizens themselves.[183] Since the Mexican government cannot quickly end the violence throughout the country, the onus partially falls on average Mexican citizens to aid in their own security.

As highlighted previously, this concept of aiding citizen security can be seen using such micro-blogs as Twitter. Using the aforementioned example, the dumping of 35 bodies on a busy street outside Veracruz in the middle of rush hour produced a dramatic uptick in Twitter activity. Before the arrival of police or news reporters, Twitter was already "buzzing with fear and valuable information [such as exact location of the incident, the presence of armed, hostile individuals, etc.]."[184]

At any moment, it is also possible to review El Blog del Narco and obtain updates about this or other situations like a *sicario* (assassin) in Culiacán.[185] Alternatively, accessing the Topsy Labs website shows that the most popular articles tweeted about (regarding El Blog del Narco) include updated information, such as various videos on the *narcoculture* or "soldiers landing by helicopters in search of [Los] Zetas members in Matamoros, Tamaulipas."[186] On the other hand, it is even possible to read about the

[182] Pérez García, *Diagnosis of Public Safety in Mexico*, 34.

[183] Ibid.

[184] Cave, "Mexico Turns to Social Media for Information and Survival."

[185] Notirex, 2011, http://notirex.com/category/blogdelnarco/.

[186] Topsy, "Soldados aterrizan en helicoptero en busca de Zetas en Matamoros, Tamaulipas—El Blog del Narco Video #soldados," 2011, http://topsy.com/feeds.feedburner.com/~r/videomx/~3/GQ0nvRl7ZX4/2469?utm_source=otter.

group Anonymous (the international group that undertakes "hacktivism" and various other forms of protest via the Internet) and incidents, such as its threat to expose Los Zeta cartel members on its Anonymous-Latin America blog.[187]

D. EXAMINATION OF THE CENSORSHIP BLACKOUT IMPOSED BY THE MEXICAN GOVERNMENT

The final concept of this chapter regards the impediment to citizen security in Mexico brought about by the Mexican government, as seen through the attempted imposition of a social media blackout due to the failed 2010 implementation of a law that regulated the content of micro-blogs in response to a Twitter account that shared the location of alcohol breathalyzer checkpoints.[188] This attempt was imposed to prevent certain citizens from coordinating and avoiding breathalyzer checkpoints.

Other, similar examples can be seen, such as in a September 5, 2011 *Associated Press* article that described accusations and a possible prison sentence for two Twitter users in Mexico.[189] These two individuals had been accused of spreading false rumors about a gunman attack in schools in Veracruz, which led to "car crashes and panic" as parents raced to the schools to save their children from the possible violence.[190] Although the Mexican government later dropped the charges and the two walked free on September 21, 2011, critics of the Mexican government's actions still say that it can smother an increasingly common way to communicate regarding violence in Mexico at a time when the information from many traditional sources becomes questionable.[191] Specifically

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[187] Anonymous Iberoamerica, "Anonymous Message to Zeta Cartel," November 1, 2011, http://anonopsibero.blogspot.com/2011/11/anonymous-message-to-zeta-cartel.html?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+AnonymousIberoamerica+%28Anonymous+Iberoam%C3%A9rica%29.

[188] "Propone diputado perredista regular contenido de redes sociales en Internet," *Milenio Newspaper*, Mexico City, January 8, 2010, htp://www.milenio.com/cdb/doc/noticias2011/656481a84786e736e71b1fbe23b06e06.

[189] Associated Press, "2 Mexicans Deny Terrorism, Face 30 Years for Tweet," *Inquirer Technology*, September 5, 2011, http://technology.inquirer.net/3951/2-mexicans-deny-terrorism-face-30-years-for-tweet/.

[190] Ibid.

[191] Rodrigo Soberanes, "Twitter 'Terror' Charges Dropped in Eastern Mexico," *CNN*, September 21, 2011, http://articles.cnn.com/2011-09-21/americas/world_americas_mexico-twitter-terror_1_school-attacks-social-media-coatepec?_s=PM:AMERICAS.

regarding this example, a security expert at Mexico's Center for Research and Teaching in Economics observed, "[i]n some cases, the population does not have many other mechanisms [aside from social media] to protect itself against actions of organized crime groups."[192]

Therefore, where is the line drawn between free speech and providing for citizen security? Although this second example illustrates how the creation of an environment of mass hysteria and "panic" can easily be generated, the dramatic reaction on both sides also highlights the sensitive nature of this tool of social media.[193] In other words, while in the eyes of the Mexican government, the use of social media in these two cases is quite improper, it is still a necessary tool for many average Mexican citizens to use in aiding their own citizen security. Instance upon instance has shown the spread of situational awareness because of tools, such as Twitter, and not only would the silencing of Mexican social media blogs and/or micro-blogs infringe upon the free speech rights of Mexican citizens themselves, but such a silencing would also be prohibiting the use of an important tool used by many to aid in providing for their own citizen security.

E.   CONCLUSION

This chapter examined *how* ordinary Mexican citizens and politicians not involved with DTOs have used social media to aid in citizen security. Statistics were first laid out on how certain forms of social media, such as Twitter, are used and potential reasons for why they are used. With the help of various social analytic tools, such as those provided by Topsy Labs or The Archivist, the idea of how, exactly, micro-blogs, such as Twitter, are used can be seen in more graphical form. This data was then correlated geographically with DTO violence, and the results from Topsy Labs or The Archivist were compared with a variety of diagrams provided regarding drug violence in Mexico. Finally examined was a potential censorship blackout imposed on these citizens by the Mexican government and the controversial issue between freedom of speech, which aids the concept of citizen security.

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[192] Soberanes, "Twitter 'Terror' Charges Dropped in Eastern Mexico."

[193] Associated Press, "2 Mexicans Deny Terrorism, Face 30 Years for Tweet."

It can be seen that these average, law-abiding Mexican citizens and politicians use social media as a tool for citizen security in an environment previously described as an unconsolidated democracy. While the symbol of *El Narco* (the emerging Mexican drug-trafficking culture) is "associated with the idea of struggles of the poor, of social rebellion," many other Mexican citizens are looking for a "Superman" to help "save them, to clean up [many] cities, to take out the bad guys."[194] Although many tools are needed to provide for citizen security, social media can be one of them and help fill this "Superman" void.

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[194] Grillo, *El Narco*, 189. This was an interview conducted by the author with Alma Herrera, a resident of Culiacán, Sinaloa whose innocent son had been shot dead in DTO violence; Grillo, *El Narco*, 274.

V. CONCLUSION AND SCENARIO-BASED RECOMMENDATIONS

A. REVIEW OF PREVIOUS POINTS IN THIS THESIS

In conclusion, this thesis has examined the junction between social media use and citizen security in Mexico, namely due to such events as the dramatic increases in DTO violence and deaths or the 2006 election of Mexican President Felipe Calderón and his tough anti-drug stance. More specifically, the material of this thesis introduced the examination of both DTO violence and the increasing use of social media as a tool to aid in building the concept of citizen security between 2006 and 2012. Using what has been discovered in this thesis, a few scenario-based recommendations can be posed regarding how social media may further affect the concept of citizen security in Mexico in the next five-to-ten years.

Although drug trafficking in Mexico and the technologies involved in this situation are constantly changing, the main points of this thesis can help the reader to understand better the context of social media as a tool to be used by *both* sides in the conflict. While Chapter I introduced this thesis, Chapter II framed the concepts by discussing the *general* penetration of social media in Mexico. Specifically, Chapter II discussed a variety of actors in this situation in Mexico, including the fact that 18–29 year olds in Mexico are more likely to be more technologically savvy, engaged heavily in social media use, and at the same time, *not* in education or employment. Although such a pattern may be observed elsewhere in the world, this chapter puts this trend in the context of what has been observed regarding the combination and use of such hardware and software tools to help enable the goals of *both* sides of the drug-trafficking conflict in Mexico.

Chapter III then moved on to examine the use of social media by DTOs in Mexico specifically. Here, Chapter III found that the formation of much of social media today can be attributed to notions, such as "tactical transparency," "disruptive technologies,"

adaptive technologies, and emergence and complexity theories.[195] Therefore, new technologies, and ways to operate these new technologies, can both successfully be implemented into a business model, and advance the ways in which other tools are used. The take-away in this case is that, while this concept has been widely discussed in legitimate business circles, illegitimate businesses, such as DTOs, *also* implement these ideas.

Chapter III tied these concepts to the findings of other authors regarding transnational crime and decentralized networks. This thesis placed their concepts in the context of Mexican DTOs and their social media use to explain their desire for "diversity, flexibility, low-visibility, durability, and the like."[196] Such a classification of Mexican DTOs as transnational, decentralized criminal networks, compounded by the use of social media seen in the previous paragraph, makes it possible to appreciate the true power of this tool when wielded by such an organization.

Chapter IV started with the idea that both local and federal governing institutions in Mexico are perceived by many to be inadequate in providing basic security to their citizens, placing it in the context of social media use and citizen security.[197] Building on this idea, it found that many Mexican citizens have relied on blogs and/or micro-blogs (such as *El Blog del Narco* or Twitter) to aid in providing for their own citizen security. Combined, these two findings established how a few of the actors in Mexican social media (identified in Chapter II), including law-abiding Mexican citizens, use social media in ways different from Mexican DTOs.

Thus, with the findings from this thesis, the chapter moves on to its second part in which potential scenarios for the future junction between Mexican social media and citizen security are posed. Following the review of points made in this thesis and the presentation of three possible scenarios combining these established facts and a few

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[195] Holtz and Havens, *Tactical Transparency: How Leaders Can Leverage Social Media to Maximize Value and Build Their Brand*, 22; Christensen, *Innovater's Dilemma*, xv; Fioretti and Visser, "A Cognitive Interpretation of Organizational Complexity," 17.

[196] Arquilla, Ronfeldt, Fuller, and Fuller, *Zapatista Social Netwar in Mexico*, 71.

[197] Grillo, *El Narco*, 10.

variables found in this situation, certain ramifications for the future of these two subject areas then arise. This section thus combines what is known based on what has been reviewed in this thesis with a categorization of these few future possibilities.

B. POSSIBLE SCENARIOS FOR THE FUTURE OF THE JUNCTION BETWEEN MEXICAN SOCIAL MEDIA AND MEXICAN CITIZEN SECURITY

In a piece regarding transnational crime in Latin America, Bruce Bagley writes, "…in the future, indigenous and foreign-based transnational crime networks in Latin America and the Caribbean could become more directly threatening to state security throughout the region and in the United States itself."[198] This quote hits on what was discussed earlier in this thesis regarding transnational crime and decentralized networks, but adds an element of what the future might be for Mexico and Mexican DTOs specifically. Although Bagley refers to the Latin American and Caribbean regions as a whole, this principle can be applied to Mexico, for the migration of mainstay DTO activities going from Central America to Mexico over the past few decades has been demonstrated as has the substantial problems that accompany this migration.

In this context of Mexico and Mexican social media, along with the facts/findings established in this thesis, the author poses three possible scenarios (of the many) that present themselves as the most likely to occur. It must be noted that these scenarios are not intended to be "predictive in nature," but rather present a few possible situations in which different strategies can be tested.[199]

1. Scenario 1: Shifting of DTO Activity Due to Social Media Activity in Mexico

The first scenario involves the shifting of the intersection of the supply and demand curves for drug trafficking dependent on the utilization of social media by either side of the drug-trafficking conflict in Mexico. A few findings of this thesis can be used to help generate the first scenario. First, many business and non-business operations in

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[198] Bruce Bagley, "Globalisation and Latin American and Caribbean Organised Crime," *Global Crime* 6, no. 1 (February 2004): 45.

[199] United States Coast Guard, *Evergreen II Project Report* (Washington, DC: August 2009), 13.

this drug-trafficking situation in Mexico rely increasingly on the importance of phenomenon, such as "tactical transparency," "disruptive technologies," adaptive technologies and both emergence and complexity theories (regardless of whether or not they realize it or not).[200] Secondly, Mexican DTOs and their social media TTPs also revolve around the concepts of transnational crime and decentralized networks. When combined, these findings describe the growing necessity of social media tools on *both* sides of the drug-trafficking conflict.

However, a variety of influencing variables to this situation also present themselves, including the decriminalization or even legalization of certain drugs. Such actions taken by different nations, not just Mexico, would dramatically shift not just the prices, quantities or types of drugs to be trafficked, but would have a significant impact on the TTPs (both types of and efficiencies of) used by both DTOs and law-abiding Mexican citizens in their struggles in/against DTO violence.

Also, as seen in this thesis, the varying geographic location of DTO violence is an ever-evolving situation in which the locations provided may shift even in as little as a few months from this writing. While bearing in mind that it is continuously a variable in most situations or scenarios, the consideration of these locations is both beneficial and necessary to this overall discussion.

Thus, if all established facts and variables in this first scenario are combined, a dramatic shift in the geographical centers of DTO activity in Mexico dependent upon this shift in the intersection of the supply and demand curves for drug trafficking in Mexico can possibly occur. More specifically, this dramatic shift in these geographical centers can be measured by examining the use of social media by *both* sides of DTO violence in adapting to some of the supply and demand issues described above.

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[200] Holtz and Havens, *Tactical Transparency: How Leaders Can Leverage Social Media to Maximize Value and Build Their Brand*, 22; Christensen, *Innovater's Dilemma*, xv; Kenney, *From Pablo to Osama: Trafficking and Terrorist Networks, Government Bureaucracies, and Competitive Adaption*, 79.

2. Scenario 2: Use of Social Media in Further Combating Mexican DTO Violence

The second scenario is an actor-oriented one in which, based on just one set of the facts presented in Chapter II (regarding age groups and social media use), it might be possible to observe a positive use of social media in further combating DTO violence in Mexico. To review the facts established in this thesis, it is known that 18–29 year olds in Mexico are more prone to be technically savvy and engaged in social media, and also not in either the education or employment realms. A second fact found in this thesis shows that a growing dependency on cell phones, laptop computers, and/or low-end smartphones used to access blogs and micro-blogs, such as *El Blog del Narco,* Facebook or Twitter exists.

Now, variables specific to this second scenario include the idea of either a "fractionalization" or a consolidation of Mexican DTO power.[201] In other words, as time progresses and the overall situation regarding Mexican DTOs evolves, these DTOs will experience various forms of splinter groups or mergers between cartels just as they have in the past few decades. Building on this scenario is also an analysis of their alliances of the time, specific "motives" or "hidden strategies" or even their levels of "power and influence."[202] As the author presented in Chapter II, numerous actors in this junction between social media and DTO activity include DTOs, law-abiding Mexican citizens, politicians and journalists. Although it is now possible to understand some of their basic motives in this situation, this scenario would demand a much more in-depth look into what the situation has evolved, and what the specific motives of each player would be.

Thus, when combining these facts and a few variables from the overall situation in a second scenario, a possibility of a positive use of social media exists in further combating DTO violence in Mexico. In other words, when combining these facts and variables, the potential for 18–29 year old Mexican citizens to effectively (i.e., via the use of more mobile technologies, such as cell phones, laptop computers and low-end

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[201] Shirk, Olson, and Selee, *Shared Responsibility: U.S.-Mexico Policy Options for Confronting Organized Crime*, 34, 40.

[202] Mats Lindgren and Hans Bandhold, *Scenario Planning: The Link Between Future and Strategy* (London, England: Palgrave MacMillen, 2003), 164–165.

smartphones) and proactively speak out against the violence brought about by DTOs in their nation can be demonstrated. However, as stressed, it would be necessary to define the specific "motives," "hidden strategies" or levels of "power and influence" of the actors clearly at the time of the scenario to understand better both the magnitude and direction of the situation.[203]

3.   Scenario 3: Regulation of Mexican Social Media

The third scenario is "consequence-focused" in its approach, specifically regarding either the Mexican government's or DTOs' regulation of social media.[204] Before engaging in a discussion of this possible scenario, a review of the facts of the situation as presented by this thesis is essential. First, it can be seen that both local and federal governing institutions in Mexico are generally perceived to be inadequate in providing for the security of their citizens. This notion can be built upon by noting also that blogs and micro-blogs are highly used throughout Mexico to discuss DTO activities and increase situational awareness in such an environment (using *El Blog del Narco,* Facebook, or Twitter).

A third fact in this scenario, pulling from the analysis of this thesis, regards the attempted regulation by the Mexican government regarding social media. In the recent past, a few attempts have been made to block Twitter use to prevent the efficient operation of breathalyzer checkpoints, for example.

However, this fact can also be construed as a variable, for although this scenario may have happened a few times in the past, certainly, the surrounding events and intentions of others would be different in the future. In other words, while in the past such attempted blackouts of social media use was centered on arguments, such as the operation of breathalyzer checkpoints, future attempted blackouts may center on issues regarding social media use in aiding citizen security.

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[203] Lindgren and Bandhold, *Scenario Planning: The Link Between Future and Strategy*, 164–165.

[204] Ibid., 166.

Another variable may also be the possible DTO regulation of social media in Mexico. While, of course, this regulation would not be to the bureaucratic level of government enforcement, it would come in the fashion of the continued intimidation of those law-abiding Mexican citizens using social media to their benefit, or in terms of turf-marking tactics via YouTube, for example. Such events have occurred in the recent past, so what if they were to continue or even become more intense?

In combining both the facts and the variables in this situation, a third possible scenario involving either the Mexican government's or DTOs' regulation of social media is encountered. With the growing public perception of the Mexican government's inadequateness in providing for citizen security, many DTO members and law-abiding Mexican citizens alike increasingly use social media blogs and micro-blogs (like *El Blog del Narco* or Twitter) to aid in the provision for citizen security. Add to this a number of instances in which the Mexican government tries to regulate Mexican social media use.

It is not possible to predict the future and say who would be the ones, either the DTOs or the Mexican government that would regulate and/or enable the efficient operation of social media in Mexico, but would certainly be a question for the future. In other words, although it is unlikely to tell who would regulate in the future, it can be seen from both sides that this may be a point of contention in the future, and thus, it is important to consider this possibility now.

C. CONCLUSION

Throughout this thesis, the path of how Mexican social media has converged with the other path of the concept of Mexican citizen security was shown. On one hand, social media use can be seen affecting a variety of political or economic changes, such as those observed in the Arab Spring or Occupy Wall Street movements. On the other hand, however, social media use in nations, such as Mexico, has primarily been observed in aiding the concept of citizen security in a violent environment. Thus, throughout this thesis, the author has aimed at answering the question posed in the beginning of *how*, specifically, social media has uniquely influenced the concept of citizen security behavior in Mexico in the context of the current wave of DTO violence.

To answer this question, this thesis has explored the concepts of social media penetration in Mexico, the use of social media by Mexican DTOs, and the use of social media by law-abiding Mexican citizens and authorities. Therefore, this combination of "driving forces" defines the junction between social media and citizen security in Mexico as one of "complexity and interconnection."[205] To conclude this thesis, the author then posed three potential scenarios of what the future may hold for this junction between social media and citizen security in Mexico.

With these facts, variables and scenarios combined, it is then possible to understand the different behaviors that lead to the use of social media in Mexico as a non-conventional tool and to gauge some of the possibilities that may lay ahead for the nexus between social media and citizen security in Mexico. This understanding is particularly important in a nation that experiences tremendous violence resulting in over 47,000 deaths and in which social media has been used by both the authorities and civil society to enhance security for Mexican government, police, military and law-abiding citizens to aid in increasing this citizen security.[206]

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[205] Peter Schwartz, *The Art of the Long View: Planning for the Future in an Uncertain World* (New York: Currency Doubleday, 1991), 36.

[206] Cave, "Mexico Updates Death Toll in Drug War to 47,515, But Critics Dispute the Data."

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