The Impacts of Social Media on Leadership and Organizational Change in the U.S. Coast Guard: A First Look

By

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Submitted to the MIT Sloan School of Management in Partial Fulfillment of the Requirements for the Degree of

> Masters of Business Administration at the Massachusetts Institute of Technology

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Submitted to the MIT Alfred P. Sloan School of Management on April 24th, 2009 in partial fulfillment of the requirements for the degree of Masters of Business Administration

Abstract

The U.S. Coast Guard faces a period of radical organizational change (known as "Modernization") in a time of asymmetrical threats to the U.S. and uncertain budget climates. In this time of uncertainty, a wave of New Media or Social Media (NSM) like blogs, social networking sites, file sharing and virtual worlds is sweeping the globe, connecting and networking people as never before. This thesis explores the impacts of New or Social Media on the U.S Coast Guard through two lenses: leadership and organizational change. There are three main themes to the thesis. First, I will present the reader with an introduction to New or Social Media along with a snapshot of the Coast Guard and its state of organizational change. Then, I will describe potential opportunities and challenges of NSM for the Coast Guard and strategies for leaders to engage in the medium. Lastly, I provide recommendations for NSM policies and actions for the Coast Guard going forward.

Thesis Supervisor: John Van Maanen Title: Erwin H. Schell Professor of Organizational Studies MIT Sloan School of Management

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To the men and women of the United States Coast Guard: You are one of our nation's most valuable resources. You get it done. You are all heroes.

And finally, I would like to recognize the enduring love and sacrifice from my family. My wife Jennifer and our children Nicholas and Julia have weathered the long separations and frequent moves and I am deeply indebted to them for their love and support. Daddy's coming home guys....

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Chapter 1: Introduction to New or Social Media (NSM)

"The youth of today don't own desks at home, they have no landline telephone, they don't have printers for their laptops or deal at all in paper. It is all wireless and electronic." - Anne Moore, CEO, Time Inc.

(Personal Interview of Anne Moore, 2008)

1.1 Introduction

The Coast Guard faces a period of radical organizational change (known as "Modernization") in a time of asymmetrical threats to the U.S. and uncertain budget climates. In this time of uncertainty, a wave of NSM is sweeping the globe, connecting and networking people as never before.

Engagement in NSM is being driven from the highest levels of the Coast Guard as a means to help deal with these challenges. But what is NSM? While NSM is largely misunderstood by the middle majority of Coast Guard, its newest and youngest members appear to be the actual experts on the subject. How then, should the Coast Guard proceed in engaging in the NSM environment?

In this chapter, I explore the world of NSM and look at its penetration into the civilian, corporate and government realms. Next I identify some of the reasons for the rapid growth of

NSM and review the literature that has addressed the subject. Lastly, I will outline the remainder of this thesis.

1.1.1 NSM Defined

Tim O'Reilly, the founder and CEO of O'Reilly Media, Inc. is regarded in by the popular press as one of the current 'Internet Gurus'. In his book, entitled "*What Is Web 2.0: Design Patterns and Business Models for the Next Generation of Software*" he coined the phrase 'Web 2.0' as the movement to employ the "Internet as a platform" (O'Reilly, 2005). NSM then, is subset of the Web 2.0 environment and encompasses "any capability that empowers a broad range of actors (individuals through nation-states) to create and disseminate near-real time or real time information with the ability to affect a broad (regional or worldwide) audience using global standardized communications technologies such as the Internet as unifying platforms" (Murphy, 2008: 1).

The Coast Guard describes NSM in the all-hands message ALCOAST 457/08 as "the new media or web 2.0 that is the evolution and integration of information technology and social interaction through various media including web logs (blogs), wikis, social networks, really simple syndication (RSS) feeds social bookmarking and podcasts." More broadly, the industryleading blog monitor website Technorati defines NSM in a more encompassing fashion as "that combustible mix of 24/7 cable news, call-in radio and television programs, internet bloggers and online websites, cell phones and iPods (Technorati.com)."

More simply put, the general "tools" of NSM include blogs, wikis, social networking sites, file and photo sharing sites, and virtual worlds. These terms will be discussed throughout this thesis. To further elaborate on the NSM concept for the novice, a non-inclusive listing of currently popular NSM terminology is enclosed as Appendix E. Though not all terminology contained in Appendix E is used here, it is provided as a reference.

Some claim that NSM is changing the world. At the 2008 Department of Defense (DoD)sponsored conference entitled *New Media and the War Fighter*; a distinguished panel of experts debated the implications of new media on the military. For example, the conference report discussed NSM in the context of the 2006 Israeli 33-Day War:

"Hezbollah demonstrated a refined capability to leverage new media to create positive informational effects. New media such as digital photography, videos, cellular networks and the Internet were used by all parties: the press, Israeli and Lebanese civilians, the IDF, and Hezbollah... [The] ease and speed of transmission and the manipulation of images impacted the war. Israeli soldiers sent cell text messages home, both sides actively used videos of the fighting, and civilians posted still and video imagery on blogs and websites, most notably YouTube."

(Murphy, 2008)

The impact of these developments could be far reaching. Younger soldiers and sailors are very comfortable using NSM such as blogs and YouTube and, despite their current position as military members, still maintain an expectation that they should be able to communicate freely. This, in turn, may mean that many of them could post almost anything on their social network sites thus blurring the line between private and public domains.

1.1.2 The Explosive Growth of NSM

Many leaders might perceive NSM as 'just a fad' that will go the way of the VHS tape. To better understand just how big NSM is, we need to examine how much it has grown over a relatively short period of time. As a benchmark, consider O'Reilly's (2005: 5) observation: "it took 35 years for television to reach 25 million people and earn \$1billion in revenues. It took the Internet just three (3) years. We have now reached a point where if you are an old media company and you are not deeply engaged in new media, you are a dead media company." The internet is now enormous in size and reach and is growing every day. But what about the NSM environment? Figure 1-1 shows just how much of the world is participating in NSM today.

the indicated activ	ity at lea	st once pe	er month.	e consumer	s who pa	incipat
	U.S.	U.K.	France	Germany	Japan	South Korea
Read blogs	25%	10%	21%	10%	52%	31%
Write blogs	11%	3%	7%	2%	12%	18%
Watch user- generated video	29%	17%	15%	16%	20%	5%
Visit social network sites (for example, Facebook)	25%	21%	3%	10%	20%	35%
Participate in discussion forums	18%	12%	12%	15%	22%	7%
Read ratings/ reviews	25%	20%	12%	28%	38%	16%
Post ratings/ reviews	11%	5%	3%	8%	11%	11%
Use Really Simple	8%	3%	5%	4%	0%	1%

Figure 1-1 – NSM Around the Globe (Bernoff & Li, 2008)

Wikipedia, the on-line user community dedicated to a collaborative 'wiki'-based internet encyclopedia launched in January 2001, grew to include 1,560,000 articles (in English) by January 2007 (Wikipedia.com, 2009). As of February 2009, the English version of Wikipedia has over 2.7 million entries (Wikipedia.com, 2009).

MySpace, launched in February 1999 grew to 100 million accounts, with 31 million active users by August 2006 (Sifry, 2007). Facebook now boasts 150 million users, 75 million of which are "active" users (Facebook.com, 2009). The 2007 Edelman Survey and PR Week joint *New Media Academic Summit* found that "If MySpace were a country, it would be the 11th largest in the world [between Japan and Mexico] (Edelman & PR Week, 2007).

Further, consider the virtual world known as the *Blogosphere* – the collection of active blogs throughout the internet. The number of blogs has grown from tens of thousands in March 2003 to over 70 million by March 2007 (Sifry, 2007). Why are blogs so prevalent? One explanation can be found in Scoble's (2006) *Naked Conversations: How Blogs are Changing the Way Businesses Talk With Customers.* The author identifies "six pillars of blogging" and notes that only blogging provides all six compared to other communication means such as e-mail, press releases or print media:

	Blogs are:
Publishable	e
Social	
Syndicatab	le

Findable Viral Linkable

(Scoble, 2006)

Based on this burgeoning popularity, it is likely that NSM greatly impacts personal time. But, do users carry NSM into the workplace? A recent Clearswift Communications survey shows that 87% of corporate employees access social media sites such as Facebook, MySpace and YouTube at work each day, often more than once per day. More than 50% of them spend one or more hours surfing these sites while sitting at their place of work and, about 46% of them have used social media forums to discuss work-related issues (Foster, 2007).

In many cases, users are experiencing NSM through virtual worlds such as *World of Warcraft* or *SecondLife*. These virtual worlds allow a user to create an "Avatar" or computer generated

character with who lives life in cyberspace. These sites are hugely popular, perhaps allowing users an escape from reality.

1.2 The NSM Enabler

Fueling the growth of NSM is the penetration of high-speed broadband internet service.

Edelman (2007) found that as of November 2006 "more than three-quarters of residential Web

users connect to the Internet using a high-speed broadband connection. More recently, the 78

percent broadband penetration rate for U.S. homes represents a jump from 65 percent a year

earlier, according to Nielsen/NetRatings (Edelman & PR Week, 2007)."

This phenomenon is not predicted to cease or slow down any time soon. For example:

"89% of respondents in an Edelman survey agreed that 'In a few years, Weblogs and Social Software will be widespread and integrated into communications as websites are today'. Further, 85% of respondents agreed that 'Weblogs and Social Software are revolutionizing the way we communicate.' Interpretation: 'Social Software applications can be understood as a 'disruptive' communication innovation; they are changing the way organizations communicate internally and externally"

(Maher, 2008: 9).

1.3 Real-World Examples of NSM

1.3.1 NSM in the Corporate World

NSM is also penetrating the corporate world. ChangeWave Research recently completed a

benchmark survey on Web 2.0. "Our survey of 2,081 companies' shows a huge percentage [of

them] not only believe in the benefits of collaborative Web 2.0 tools but are rapidly moving to

implement them in a wide variety of ways" (Levine, 2009). The key findings of this study include:

- One-in-four respondents (24%) say their company already uses Web 2.0 social software.
- Another 8% say they'll begin using it in the next 12 months.
- Wikis (20%), Blogs (18%), and Social Networking (15%) are attracting the most attention.

(Levine, 2009)

While corporate users find wikis to be most beneficial to their company, these same users think Blogs (26%) and Social Networks (21%) will be most beneficial to the organization in the future (Levine, 2009). The Economist Intelligence Unit (2007) attempted to quantify how corporate IT systems are integrating NSM tools onto their servers. Figure 1-2 depicts the types of tools being used on company servers and those projected or being developed for the future.



Source: Economist Intelligence Unit survey, January 2007

Figure 1-2, Early Uses of Web 2.0 - Source: The Economist, 2007

But why has the corporate world adopted NSM at such a fast pace? According to the Edelman Survey: "The Internet enables companies to communicate directly with their stakeholders without the filter of the media" (Edelman & PR Week, 2007). The report also highlights other factors related specifically to blogging. When asked, 'What are the greatest opportunities

weblogs offer to your organization?' respondents to the survey answered as follows:

81% of respondents agreed to 'Environmental Scanning (Seeing what's going on),'
74% agreed to 'Fast Reaction time to issues'
63% agreed to 'Building relationships with stakeholders'
75% agreed to 'Reaching new audiences'
63% agreed to 'Direct communication with stakeholders (bypassing journalists)'
65% agreed to 'Being read, commented on and linked to other weblogs' and
73% agreed to 'Receiving feedback from the audience.'

When asked, "What are the factors limiting the use of weblogs in your organization?

69% of respondents agreed that 'We do not have the personnel capacity' 42% agreed that 'We cannot demonstrate return on investment' and 34% agreed that 'It is not possible to measure the impact of our social media activity'

When asked, 'What are the biggest challenges using weblogs brings to your organization?'

83% agreed to 'Having time to blog regularly'
83% agreed to 'Reacting to comments/feedback by the audience'
80% agreed to 'Creating Content and ideas for posts'
51% agreed to 'Staying in line with corporate guidelines' and
88% agreed to 'Integrating blogs into communication strategy'

(Edelman Report, 2007)

At the corporate leadership levels, a 2006 Melcrum survey of 3,500 corporate vice presidents,

directors and managers were asked "What were the perceived benefits of using social media

within the organization." The responses indicated that:

71% felt social media could enable "improved employee engagement"
59% believed it could "improve internal collaboration"
47% percent believed social media would encourage "two-way dialogue with senior executives"
(Melcrum, 2008)

Today, IBM boasts more than 7.7% of their 386,000 employees (IBM, 2007) who blog regularly

(Amis, 2007) while 10% of Sun Microsystems' employees say they blog publicly (Melcrum,

2008). Further, IBM's innovation organization now holds meetings virtually in the three-

dimensional on-line world of *SecondLife* using their computer-generated *Avatar* characters (Personal Interview of Richard Linden, 2009). Unfortunately, no data can be found to assess the impact, positive or negative, of these corporate bloggers or virtual meeting schemes.

The world-renowned Mayo Clinic, however, has been able to leverage NSM for organizational improvement. Upon the establishment of a new walk-in clinic for employee medical care, Mayo set up an internal blog for feedback. During a personal interview in February 2009, Lee Aase from the Mayo Clinic reports that this mechanism provided immediate feedback that resulted in process improvements and reduced wait times.

Booz-Allen Hamilton (BAH), a strategy, government consulting and service company, rolled out *Hello.bah.com*, in August 2008. This NSM environment uses open-source, free collaborative tools that are tied into their existing knowledge management portal in Microsoft *Sharepoint*. It features blogging, a company-wide wiki, social networking profiles, social bookmarking and discussion forums. During a personal interview in March, 2009, Steve Radick reported that 1/3 of the BAH staff have already created social networking profiles. Further, the BAH teams that are using their wiki are experiencing better collaboration on white papers and project proposals than the teams that do not use the wiki.

1.3.2 NSM in Government and Military

Industry is not the sole adopter of NSM. Allison Barber, the Director of the Department of Defense (DoD) Office of New Media was quoted as saying "New technology gives us the capability to reach the soldier no matter where they're deployed. The Office of New Media was developed because we realized that technology is changing so quickly that it offered us new

advancements and new tools to reach our audiences, and we needed to find ways to incorporate that into our job" (Kilbridge, 2008). But what does this really mean and who is really engaged in NSM in the Government and military realm?

NSM has been around in government agencies for some time. For example, the MilitaryAvenue.com website, founded in 1998, offers a question and answer forum for military families during permanent change of station (PCS) moves – anything from recommendations for the best restaurant near a new base to tips on filling out travel claims. Fred'sPlace.org, a familiar Coast Guard affiliated website that started in 2001, offers discussion forums and tips for qualifications and service wide exams required for promotions.

There are no doubt, numerous state and local organizational examples of NSM adoption. For the purposes of this research, however, I have confined my analysis to only federal agencies. Some examples are provided below.

Goodwin (2008) reports that the National Aeronautics and Space Administration (NASA) created an organization-wide wiki for Object Oriented Terminology that is widely used and remotely accessed. The US intelligence community has created a collaborative wiki called *Intellipedia* that is accessible to anyone with a dot-mil (.mil) or dot-gov (.gov) account. Further, the 7th Circuit of the US Court of Appeals has also created a wiki for bar members. The General Services Administration (GSA) has established the Collaborative Work Environment for general support activities. It is even reported that the Central Intelligence Agency (CIA) is recruiting new personnel via a Facebook page under the philosophy of "reaching people where they are" (Goodwin, 2008: 3). In another example, five employees of the Transportation Safety Administration (TSA) maintain a blog to "facilitate an ongoing public dialogue on innovations in security, technology, and checkpoint screening process" (Goodwin, 2008: 3). These employees generally field complaints from passengers, vet and post them on line, and make suggestions for improvements.

Also at TSA is the *Idea Factory*. Launched in April 2007, *Idea Factory* is a "secure intranet site for employees (43,000 employees dispersed nationwide) to offer suggestions for improving TSA. As of March 2008, TSA employees had submitted over 4,500 ideas and offered more than 39,000 comments. TSA estimates that 20 ideas solicited from *Idea Factory* have already been implemented by the TSA as national policy" (Goodwin, 2008: 2).

In all, the GSA Office of Citizen Services, the program manager for *USA.gov*, tracks a total of 36 active, federal agency-maintained public-facing blogs (Goodwin, 2008: 12). The GSA provides support and guidance for federal agencies for NSM tool adoption that will be discussed later in Chapter 6. On a parallel track, the *Web Council* is a Chicago-based industry association for Fortune 500 companies to share ideas and work through issues of NSM adoption in the corporate world. As of 2009, the U.S. Coast Guard is the only federal agency or military service on the *Web Council*.

There are several leaders in the military that seem to be strong proponents of engagement in NSM. Lieutenant General (LtGen) William Caldwell, Commanding General of the U.S. Army Combined Arms Center and former commander of the 82nd Airborne Division in Iraq is one such leader. He promulgated one of the very first military policies on NSM (Combined Arms Center Command Policy 19-08) clearly encouraging and providing guidelines for military

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bloggers under his command. General Caldwell is a well-know proponent of military bloggers. He sees such blogs as a way of ensuring balanced media portrayal of military operations and came to this view while in command in Iraq.

Another proponent of NSM in the military is Major General Michael Oats, Commanding General of the 10th Mountain Division, based in Fort Drum, NY and deployed in Iraq under the multinational force command "Task Force Mountain". General Oats developed the Task Force Mountain web site (http://www.taskforcemountain.com) to provide a resource for media stories, photos and video. Moreover, General Oats is an avid blogger. On the Task Force Mountain web site, there are blog forums and chat rooms where the troops and their families can ask direct questions of the General and get replies. Further, these blog posts provide opportunities for members and their families to share insights and information to help in their daily lives, both in New York and Iraq. General Oates also hosts frequent live chats in a forum called the "Lima-Charlie" chat room. During these live on-line chats, soldiers can get immediate responses from their commanding general and then see the chat transcripts posted on the website. The users can use anonymous names or web identifications to eliminate fear of reprisal.

Another early adopter of NSM was *CompanyCommand.com*, a website started by several combat-experienced military instructors at the U.S. Military Academy at West Point to share tips for company and platoon commanders in Iraq and Afghanistan. The U.S. 1st Cavalry Division similarly launched CAVNET to collect and spread patrol tactics in Iraq. Both of these sites became so information-rich and technically detailed that they became victims of their own successes. Considering the sensitivity of the information contained therein, "The Army moved both sites behind the password-protected Army Knowledge Online (AKO) web portal, and assigning trained moderators and high-ranking "sponsors" to each site" (Axe, 2008). This limited the access for contributors to each site requiring all of them to have a .mil e-mail account and AKO access.

The Commandant of the Coast Guard, ADM Thad Allen is also an engaged user of and contributor in the NSM environment. ADM Allen has established an iCommandant blog, Facebook and MySpace pages, Twitter and Flikr accounts and more. Moreover, he has guestposted on other military blogs, participated in blogger round tables, encouraged other Coast Guard flag officers to guest blog and establish their own blogs, and is regarded by Jack Holt at the DoD Office of New Media as one of the most forward-leaning military officers for NSM.

Additional external blogs have been established by the Master Chief Petty Officer of the Coast Guard, by the new Force Readiness Command (FORCECOM) transition team and a new internal blog for the new Operations Command (OPCOM). The Coast Guard Headquarters Public Affairs Office has established Coast Guard accounts for Twitter, Flikr, and a YouTube "channel" for Coast Guard video footage. This staff has also begun to monitor daily blogs and other NSM activities. They provide a daily report to senior leaders on overnight web traffic that concerns the Coast Guard. Further, they are developing a desktop NSM analytic toolkit that will allow users to track web traffic automatically and provide alerts when the Coast Guard is mentioned in blogs or discussion forums, or when Coast Guard-related pictures are posted on line.

1.4. Literature Review: The Broader Picture

In the conduct of my literature review, I accessed the research available within the MIT Library system and its affiliates. This review yielded a wealth of information and research on New Media and Web 2.0 from social and economic perspectives. There was a great deal in the field of marketing on how the American society uses NSM. There was less material, however, in the context of social or new media for organizational leadership or organizational change in government or the business world. But there was some.

Significant effort was made to utilize only open source information in this assessment. All of the information I cite resides in the public domain or is voluntarily provided by businesses and governmental agencies. Since the NSM environment is dynamic and fluid, this research, while extensive, is not exhaustive.

In addition to the academic literature, I examined the libraries of the Defense Technical Information Center (DTIC), Fort Belvior, VA, for any published military research on the subject. This repository is reported to include all works from the Defense Colleges (U.S. Army War College, the Naval War College, the Air War College, the Marine Corps War College and the National War College and all associated Staff Colleges). Again, though there was much work published on new media, most of it was focused on information warfare, counter-insurgency and news-media relations. There were some studies found in the DTIC archives that indirectly addressed new or social media impacts on organizational change and leadership. Once again, these studies provide valuable context that is important to this study.

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1.4.1 Network and Generational Studies

USAF Colonel Elisabeth J. Strines' research on informal social networks within a unit or an organization identified potential network mapping tools (Strines, 2002). She noted that "Network mapping is a new tool that can be used to great advantage by commanders and leaders at all levels to provide subtle insights into their organizations as well as their personnel, which can then be used to make more informed leadership and management decisions" (Strines, 2002: 32). Strines advocates that workspace allocation and design are critical to harnessing the power of informal networks, and increasing communication between desired elements of the organization. Strines further theorized that the physical structure of the facilities (cubicles, offices, etc.) and strategic placement can facilitate or negate communication exchange. Finally, Strines described the need for safeguarding of informal network information, proper training for unit commanders in identifying informal networks, and the incorporation of software tools used by industry and academia. Quite often these network mapping tools are graphically depicted in hub and spoke diagrams that can identify key persons in the organization. These principles of informal social networks can be applied to social media networks in that identification of the key "hubs" in the Web 2.0 space can be leveraged as "change agents" in the organization.

Other studies suggest a propensity for today's youth to seek affiliations and a sense of community on line in Web 2.0. McMillan & Chavis (1986) suggest that there are four key factors of community: (1) membership, (2) influence, (3) fulfillment of individual needs, and (4) shared events and emotional connections (McMillian & Chavis, 1986). These attributes must be

kept in mind when attempting to develop NSM communities for desired organizational purposes.

In a study for the Army Center for Behavioral Sciences, Bonk (2000) provides a categorization scheme for online communities using the works of McMillan and Chavis (1986). Bonk states

that:

"Online indicators of factor one— membership— include self-disclosure statements, acknowledging other's membership, the paying of dues in terms of time and energy, references to the boundaries of the community, and attempting membership. Online influence might occur when referring to norms, rules, laws, or other orders, attempting to influence or persuade others, being influenced by others, and identifying and trusting some authority. Fulfillment of individual needs is found when one is attempting to find common ground, express a personal need, thank or acknowledge someone for needed information, give and receive information, or voice criticisms, suggestions, or differences of opinion. Finally, sharing events and emotional experiences as well as identifying the spiritual bond of the group might occur when referring to stories of what has happened in the past and using special symbols or language specific to members of the group."

(Bonk, 2000: 38)

This implies that users in the Web 2.0 realm can feel strong affiliations and sense of community

and trust with persons they do not know and have never met.

Further, a study entitled the *Edelman Trust Barometer 2007*, surveyed 3,100 people in multiple countries regarding trusted institutions and sources of information. The study reports: "In the European Union, North America and Latin America, 'a person like me' is considered the most credible deliverer of information about a company," and that "trust in an 'average employee' is twice as high as trust in a CEO (Edelman Report, 2007)." These implications can carry over to any form of official messaging whether directed internally or externally.

Research by Ori Brafman and Rod Beckstrom (2006) highlights the power of leaderless

organizations. In their book The Starfish and the Spider, Brafman and Beckstrom describe the

vulnerabilities of strong, hierarchical organizations as akin to a spider. Although a spider can survive without a leg or two, if you chop off the spider's head, it dies. Largely decentralized and "leaderless" organizations however – such as in NSM collaborative communities – are more like starfish and have no protruding and vulnerable head. They note that a starfish can be cut into five pieces and five new starfish will regenerate. Such is the viral power of large-scale, decentralized collaborative environments that can produce large scale change. These principles can be applied when assessing how to use NSM for organizational change.

In describing the challenges associated with leading the new generation of Coast Guardsmen at the U.S. Coast Guard Academy, the C³ORE Study (2007) found that the Millennial Generation (the generation born to "Baby Boomers" after the early 1980s, also known as "Generation-Y" [a.k.a. Gen-Y]) students are the most technically, racially and ethnically diverse members yet to join the Coast Guard (Brown, 2007). The study described some attributes of the generation that highlight their social media preferences such as an example of avoiding face-to-face encounters and electronically awarding and promulgating demerits - referred to as "e-bagging". It found that these Millennials are projected to spend nearly one third of their lives (23 years, two months) on the internet. One of the study's recommendations was for the Academy to update policies, procedures, materials, and facilities in order to better appeal to and serve the Millennial generation. This study was conducted early in the rise of Web 2.0 tools like MySpace, Twitter, Facebook and other NSM.

Another study by the Kaiser Family Foundation on media in the lives of 8-18 year olds found compelling data that can explain the differences between the Millennials and Gen-X/Baby Boomers. They found that

> "In the U.S., young people have access to an unprecedented array of media in their homes and in their bedrooms, as well as by means of a variety of highly portable media devices. A typical 8- to 18-year-old lives in a home containing three TV sets, three CD/tape players, three radios, three VCR/DVD players, two video game consoles, and a computer."

> > (Roberts, Foehr & Rideout, 2005: 10)

Further, this study found some 39% of Millennial children own cell phones and more than 68% have a TV in their bedrooms while another 53% watched TV during meals (Roberts, Foehr, & Rideout, 2005). This study concludes that media is everywhere in the upbringing of this generation. It is important to understand how this shapes the connectivity expectations of today's youth when they join the military.

Many would argue that today's younger generation that is the backbone of the Coast Guard today is different than previous generations. These young adults were raised in a time of instant, on-demand access of information 24/7, 200 channels on cable, ENRON, President Clinton's definition of fidelity, and a lifestyle that was structured by their 'Boomer' parents. They are said to be completely comfortable with technology, used to constant supervision from "hovering" parents, value personal associations and experience-sharing and are not accustomed to down-time. They are:

"Ambitious, achievement-oriented, and confident, they grew up earning trophies for winning or participating. They learn in groups, help each other, and are public service-oriented."

(Brown, 2007: 14)

The personality traits of these Millennials, as described in the Coast Guard Academy C³ORE Task Force Study, can be both positive and negative:

> Assets Collective Action Optimism Tenacity Multitasking capabilities Technological savvy

<u>Liabilities</u> Need for supervision and structures Inexperience, particularly with handling difficult people issues

(Brown, 2007: 37)

This generation considers themselves as "cutting edge" and the May 2008 Pew Internet & American Life Survey shows that that some 90% of these Millennials use some form of social media (Anderson, 2008). For example, though mainstream America has fully embraced e-mail, this form of communication may now be considered somewhat 'old fashioned' or 'clunky' by the Millennials. Many colleges and universities are struggling with getting students to simply check their college e-mail and note a high rate of missed obligations by these students. Eszter Hargittai, a professor of communication studies and sociology at Northwestern University, says "students often ignore messages coming from their colleges (read 'institutions'), considering them a form of spam" (Carnevale, 2008). College and institutional e-mail account addresses are often seen as 'boring' (simply an initial and last name) and are typically non-customizable. This generation seems to prefer customized, on-demand information and would rather communicate within their personal network via text message, Twitter, or some other social network mechanism. This trend has implications for large institutions such as the military if leaders assume every message sent via electronic means is actually reaching the intended audience.

Even amongst Millennials, social media usage differs by gender. A recent Rapleaf study of social media use among 13.2 million people found that while both sexes are using social media in huge numbers, women far outpace the men in social networking sites, while men are far more likely to use on-line gaming (Hoffman, 2008).

In short, Coast Guard leaders and policy-makers must not only adapt to the changing environment but also to the changing beliefs and perceptions of our workforce. The evolving senses of affiliation, community, openness and developments in technology will require a new set of tools, tactics and policies.

1.4.2 NSM Engagement Studies

Operating in the New or Social Media (NSM) environment is more than just internal communications. Safe navigation in the external environment – reaching key stakeholders in Congress, the American public and the media – is essential. Navy Commander Charles Maher's (2008) study of Department of Defense (DoD) strategic communications in the era of new media identified significant challenges in engaging the public and news media in the Web 2.0 realm. Maher notes that leading-edge DoD organizations such as the U.S. Central Command were dedicating between three and ten full-time personnel around the clock in the form of bloggers to respond to the traffic in the blogosphere.

Further, Maher contends that:

"Strong and effective DoD [Strategic Communications and Public Diplomacy] SC&PD programs are essential to advancing our nation's security and interests." Moreover, "disruptive changes in communications technology have changed the way in which people, groups and organizations communicate. The future success of DoD's efforts to understand, inform and influence key audiences requires that the DoD initiate a transformational change to adapt its SC&PD organization, methods and culture to the new media environment"

(Maher, 2008: 37).

The threats and challenges NSM represent to government and military organizations have not gone unheeded. The Quadrennial Defense Review (QDR) process is a Congressionallymandated wholesale review of Department of Defense capabilities and strategy for the changing world. The review occurs every four years. This is a comprehensive and analytic assessment of current and future threats against the United States.

In 2006, the QDR recognized NSM as a critical concern for U.S. national security. One of the 2006 QDR recommendations was to "develop the capability to communicate in a 24/7 New Media environment (Rumsfeld, 2006)." This recommendation led to the establishment of the DoD Office of New Media to engage in this space, develop policy and guideless and to advise the Secretary of Defense.

Charlene Li and Josh Bernoff (2008) completed a study for Forrester Research where they attempted to understand a corporate world transformed by social technologies. They describe the varying levels of individual participation in NSM through a construct they call the Social Technographics Ladder (see Figure 1-3). The Social Technographics Ladder classifies users by their activities in NSM environments. This is a useful construct for assessing individual and

organizational competency in NSM and will be discussed further in later chapters.



Figure 1-3 – Social Technographic Ladder – Source: Groundswell (Li, 2008)

1.5 Thesis Outline

The purpose of this thesis is three-fold: to present the reader with an introduction toNSM along with a snapshot of the past and present state of the U.S. Coast Guard; to describe the potential opportunities and challenges NSM presents to the Coast Guard; and, to provide recommendations to the Coast Guard for NSM policies and actions going forward.

Chapter 2 will describe my research methods. Chapter 3 discusses the Coast Guard and its history, along with an overview of the current organizational structure. Chapter 3 also outlines some of the organizational change efforts now being undertaken by the Coast Guard, an effort known as "Modernization". Chapter 4 summarizes the data collected through a survey I administered to Coast Guard personnel concerning the use of NSM. Chapter 5 further discusses

the threats, challenges and opportunities in the world of NSM and provides some examples of how it is being used in government and the business world. Chapter 6 explores options for using social media to help affect organizational change, providing examples from government and industry. These efforts are contrasted to those of the Coast Guard in its "Modernization" campaign.

Chapter 7 provides the Coast Guard with some lessons learned from my study of NSM. Finally, Chapter 8 offers some policy recommendations for the Service and identifies areas in need of further study.

Chapter 2: Methodology

This chapter describes the research methodology I used in this thesis. I review my data sources, and the way these data were collected and analyzed.

2.1 Research Questions

There are three principal research questions for this thesis. First, how ready is the Coast Guard to adopt NSM across the organization? Second, how might Coast Guard leaders begin to engage in NSM? And third, how might the Coast Guard leverage NSM to facilitate organizational change in the context of the modernization effort?

2.2 Research Methodology

To better understand the views of those impacted by NSM in the Coast Guard, I went to the source. My research entailed 28 telephone and face-to-face interviews with subject matter experts and leaders on New or Social Media in the Coast Guard, the Department of Defense, industry and academia. These interviews sought to identify challenges – good and bad – arising from the evolution and prevalence of social media today. The sheer number of potential interviewees was staggering. To better manage this number, I strove to interview those Coast Guard personnel in policy-making positions or those on the "cutting edge" of the issue in the

respective part of their organizations. For non-Coast Guard personnel, I sought experts that I had identified through the literature review and from the recommendations of other interview respondents. A summary of the type and number of those interviewed is depicted in Table 2-1 below.

Subject Category	Number of
	Subjects
	Interviewed
CG Flag Officer	6
CG Senior Officers & Senior GS	7
Employees	
DoD Officers & Civilians	2
CG Junior Officers, Civilians &	7
Contractors	
Industry & Academic Experts	6

Table 2-1: Interviewees

These interviews were based on a standardized interview protocol contained in Appendix D. However, each interview evolved depending on the subjects' level of expertise in, and concern with NSM. The duration of each interview varied from 12 minutes to over 85 minutes. The identity of the interview subjects has been kept confidential. In cases where interview subjects are cited by name, permission to do so is authorized.

2.2.1 Survey Research

I gathered additional data through web-based questionnaires developed in *SurveyMonkey*©. *SurveyMonkey* is a fee-based survey tool that allows any internet user to create and distribute surveys and subsequently analyze the resulting data. I chose a survey format to allow for input by members of the Coast Guard at all levels. Anonymity was offered in the survey to promote candid feedback. The questions for the survey were developed in conjunction with my thesis advisor at MIT and with input from senior Coast Guard mentors. The questions were designed to provide an exploratory glimpse of where the workforce in the Coast Guard stands with respect to familiarity and comfort in the NSM environment. To gather this information, I chose a bifurcated approach with two separate surveys.

The first survey was developed for Command Cadre personnel – those in command of a Cutter, Cutter Executive Officers, Sector Commanders, Sector Deputy Commanders, Sector Department Heads, Integrated Support Command (ISC) Commanders, Civil Engineering Unit Commanders, Small Boat Station Officers in Charge and other shore-based command personnel. A more indepth explanation of these terms is provided in Chapter 3. An example of this survey is included as Appendix B.

This survey was distributed to the Commanding Officers and Executive Officers of 30 high- and medium-endurance cutters in the Atlantic Area and 15 high- and medium-endurance cutters in the Pacific Area. It was also sent to the Commanders, Deputy Commanders and Department Heads of the 31 Sector commands throughout the Coast Guard. Sector sub-unit Command Cadre personnel (Small Boat Station Officers in Charge and Executive Petty Officers, and Patrol Boat Commanders and Executive Officers) surveys were sent to Sector Miami, FL and Sector North Carolina in Wilmington, NC. The last set of Command Cadre surveys were sent to other shore-based personnel; through the Civil Engineering Unit Executive Officer e-mail network; and, through Integrated Support Command (ISC) Boston. The response rate for these 'targeted' surveys can be calculated fairly easily as depicted in Table 2-2.

Job Description	Total Number	Targeted
	of Responses	Response Rate
Cutter Commanding Officer/	115	63%
Executive Officer		
Shore-Based Command	54	26%
Cadre (Sector/Deputy/ Dept.		
Head, Small Boat Station		
OIC/XPO, ISC/CEU CO/XO		

Table 2-2: Command Cadre Respondents

In addition, this survey was propagated through my personal network to reach prior cutter Commanding Officers currently sitting ashore in non-command billets. In some cases, these personnel passed the survey on to their own personal networks. The response rate for this group of participants cannot be correctly calculated since I was not privy to the number of members that received the survey link through these networks. Still, the additional data provide valuable breadth to the results. These additional responses obtained via personal networks are not included in the statistics below.

In general, the response rates varied by unit type with rates ranging from a low of 6% to a high of 63% as depicted in Table 2-3 below.

	Subjects		
	Targeted	Responses	Response Rate
ISC Boston Command Cadre	11	4	36%
Sector NC Sub-Units Cadre	30	17	57%
Sector Miami Sub Units Cadre	27	14	52%
CG Sectors Command Cadre	87	5	6%
Cutter Command Cadre	109	69	63%

Table 2-3: Shore Cadre Responder

I requested Command Cadre personnel send an additional survey to their Crews. Those officers willing to pass an additional survey on to their crews received the Crew Survey. This survey was similar to the command cadre version but was designed specifically for crews - generally younger, junior personnel. There were some specific questions designed to see if there were perceivable differences between the Command Cadre and their subordinates' regard for NSM. The Crew survey is included as Appendix C.

Responses from the Crew survey came largely from the Seventh and Fifth Coast Guard Districts. Again, the crew surveys were based on Command Cadre willingness to participate. In all, 402 surveys were collected from this pool. The response rate for these surveys is indicated in Table 2-4 below.

Unit Type	Number of	Targeted
	Responses	Response Rate
Cutter-Based Crew (WHEC,	146	23%
WMEC, WPB, WLB, WLM, WAGB)		
Shore-Based Crew (Station, ESD,	256	52%
ISC, HQ/Area Staff)		

Table 2-4: Crew Respondents

A total of 591 survey responses were collected from all sources. However, 20 surveys had to be removed from the data pool because of incompleteness. All but one of these incomplete surveys were from the Cutter-Based Crew target pool and can likely be attributed to limited bandwidth or interrupted connectivity aboard ship while deployed. Cutter-based responses through the *SurveyMonkey®* tool reportedly took between 12 minutes and two hours and 20 minutes through the ship's internet server. Others reported loss of connectivity during the

survey and an inability to return to the unfinished survey once the connection was reestablished. Others reported delays in receiving the survey link via e-mail for up to two days.

2.3 Integration of Research Methods

Once the interviews and survey collection were complete, I looked for commonalities across the data set. I drew upon my 17 years of operational experience in the Coast Guard to assess the responses. This was an exploratory effort – a first glimpse- of the issues pertaining to NSM in the Coast Guard. All survey data was entered into the tables of Microsoft Excel and are displayed in tabular format in Chapter 4. I present that data in cross-tabulated percentage form, looking only for "main effects" as revealed by apparent differences in response data in particular categories. Where appropriate, the survey data is supported by or contrasted to interviewee statements.

I now turn in Chapter 3 to a historical overview of the Coast Guard and its missions. This is to provide the reader unfamiliar with the Coast Guard a sense of the Service's structure as well as a sketch of what the current "Modernization" efforts are intended to accomplish.

Chapter 3: Coast Guard Overview

"We rely on a bias for action"

ADM T. Allen, Commandant, US Coast Guard, US News & World Report, 22 Oct 2006

Not all readers of this thesis will have an understanding of the Coast Guard as a Service. Therefore, this chapter is provided to outline the history, missions and current organization of the United States Coast Guard. Further, it describes the Coast Guard's "Modernization" effort and the proposed changes to the organization. It is intended to provide a context for the reader before I explore the impacts of NSM on the Service.

3.1 History of the Coast Guard

The U.S. Coast Guard is America's smallest and least-known armed service. Despite these facts, the mission portfolio of this critically important federal agency touches each American citizen every single day whether they are aware of it or not.

The Coast Guard is America's oldest continuous seagoing service and represented the only "front line" in American national security in the days when there was no standing Continental Navy or Army. The origins of the service began when a young Secretary of the Treasury, Alexander Hamilton said: "A few armed vessels, judiciously stationed at the entrances of our ports, might at a small expense be made useful sentinels of the laws" (U.S. Coast Guard, 2002). This ideal and a small budget for ten vessels on August 4th, 1790 formed the Revenue Marine (later to be renamed the Revenue Cutter Service in 1863) with the mission of enforcing tariffs and customs for the newly formed United States of America.

At that time, the United States had already established the U.S. Lighthouse Service to operate and maintain nautical aids to navigation for the burgeoning trade nation. The Tariff Act of 1790 placed both these agencies within the Department of the Treasury under the control of Hamilton (U.S. Coast Guard, 2002)(){{}}.

During the next ten years, the Revenue Cutter Service established itself as a unique instrument of national security and defended the new nation as the only maritime force, fighting effectively in the 1798 French-Quasi War. This tradition of defending the nation has continued for 219 years as the Revenue Cutter Service and subsequently, U.S. Coast Guard have fought in every U.S. war alongside their sister services as depicted in Figure 3-1. For example, in 1861, the Cutter HARRIET LANE fired the first naval shots of the Civil War at Fort Sumter, South Carolina.


Figure 3-1, CG Battle Streamers – Source: CG Pub 1, Chapter 2

In 1838, the U.S. Congress authorized the creation of the Steamboat Inspection Service in response to numerous steam vessel casualties. This legislation was intended to improve steam vessel safety and established the modern-day Coast Guard's marine safety and inspection mission. Simultaneously, as maritime trade increased in the U.S., the number maritime casualties and mariners in distress increased dramatically.

In 1863, the Revenue Marine was renamed the Revenue Cutter Service. Simultaneously and

without training or official tasking, the quiet, isolated "Keepers" in the little-known U.S.

Lighthouse Service began conducting shore-based rescue operations for mariners in distress.

These roots established the U.S. Lifesaving Service in 1848 which worked closely with the

Revenue Cutter Service keeping America's shores safe.

The next 100 years laid the groundwork for the Coast Guard's unique role in the United States as a "jack of all trades." Throughout U.S. history, when Congress could not determine which federal agencies should be assigned a new mission, the Coast Guard often got the nod. In 1867, the U.S. purchased Alaska from Russia and dispatched the Revenue Cutter Service to maintain a U.S. presence and conduct a variety of duties. "From 1871 to 1878, the Revenue Cutter Service and U.S. Lifesaving Service underwent several reorganizations and administration changes. The Revenue Cutter Service was assigned enforcement duties for new federal anchorage regulations (1889), removal of derelict hulls (1906), and authority over pleasure boating (1910)" (Parker, 2008). When the infamous passenger ship TITANIC sank in 1912, the Revenue Cutter Service was directed to conduct the International Ice Patrol mission, a mission that still exists today.

A government streamlining effort in 1911 led to legislation in 1915 that combined the Revenue Cutter Service and the Lifesaving Service into the United States Coast Guard. More legislation added the U.S. Lighthouse Service to the Coast Guard in 1939 followed by the Steamboat Inspection Service in 1946. In 1967 the Coast Guard was transferred from the Department of Treasury to the Department of Transportation. During this period, additional mission portfolios such as alien migrant interdiction, counter narcotics and more were added to the Coast Guard's portfolio. Incidents such as the EXXON VALDEZ oil spill and the 1990s mass migrant exodus' from Haiti and Cuba highlighted the Coast Guard's environmental and humanitarian missions.

In 2003, Congress established the Department of Homeland Security for 21 federal agencies, including the Coast Guard and further increased the security-related missions carried out by the

Service. In 2005, Hurricane Katrina highlighted the Coast Guard's "bias for action" and resilience as federal emergency management and coordination was added to the already extensive Coast Guard mission portfolio.

Today, some 95% of all U.S. trade flows through Coast Guard regulated and inspected ports. The 95,000 miles of U.S. coastline (see Figure 3-2) throughout the contiguous United States, Alaska, Hawaii and the U.S. territories is monitored 24/7 by the U.S. Coast Guard. These critical efforts ensure the vibrancy and security of the U.S. economy. For example, it is estimated that a closure of the Port of Long Beach from a terrorist incident or marine casualty would impact the U.S. Economy by \$500 million per day (Schafer & Kutalik, 2007).



U.S. territorial seas and Exclusive Economic Zones

Figure 3-2 – US Territorial Seas and Coastlines, Source: Parker (2008)

The Coast Guard remains a unique instrument of national security and provides an invaluable service to this nation. There are far more demands for the Coast Guard than are resources currently available. Nearly all of the U.S. Combatant Commanders (CENTCOM, SOUTHCOM,

AFRICOM, etc.) demand Coast Guard assets for regional security and engagement. Coast Guard ships and training teams have for decades helped to develop third world regional navies and coast guards. During the recent Russian invasion of Georgia, it was the Coast Guard Cutter DALLAS, not a U.S. Navy ship that was the first to deliver much-needed aid to the people of Georgia.

Yet, the future of the Coast Guard is uncertain. The Service is facing an unprecedented need for recapitalization that must be addressed immediately. To help facilitate that recapitalization,

the Service is undergoing a major modernization effort to streamline support and command

and control functions and better align the organization to the changing world.

3.2 Mission Overview

"The U.S. Coast Guard is the principal Federal agency responsible for maritime **safety, security, and stewardship**. As such, the Coast Guard protects vital economic and security interests of the United States including the safety and security of the maritime public, our natural and economic resources, the global transportation system, and the integrity of our maritime borders. The Coast Guard is committed to addressing all threats and all hazards throughout the maritime domain including in U.S. ports and inland waterways, along the coasts, on the high seas, and in other regions where U.S. maritime equities are at stake."

2009 Posture Statement and Budget in Brief

The Coast Guard has eleven statutory missions - those mandated by Congressional legislation -

organized under three mission areas: Safety; Security; and, Stewardship. These missions are

depicted in Figure 3-3 below.

Safety	Security	Stewardship
Saving Lives &Establishing & Maintaining aProtecting PropertySecure Maritime System whileFacilitating its Use for the National		Managing the Sustainable & Effective Use of its Inland, Coastal, and Ocean Waters
	Good	& Resources for the Future
Search and Rescue	Ports, Waterways & Coastal	Marine Environmental
Marine Safety	Security	Protection Living Marine
	Illegal Drug Interdiction	Resources
	Undocumented Migrant	Aids to Navigation
- - 	Interdiction	Ice Operations
	Defense Readiness	
	Other Law Enforcement	

Figure 3-3 – Coast Guard Mission Areas, Source: USCG 2008 Budget in Brief and Performance Report

3.2.1 Safety

Search and Rescue. The Coast Guard is undoubtedly best-know for the life-saving Search and Rescue (SAR) mission. The Coast Guard's Search and Rescue Mission Program is pivotal for the safety and security of U.S. waterways and the boating public (U.S. Coast Guard, 2008a). This responsibility extends well beyond U.S. waters as the Coast Guard is a world leader in international SAR coordination.

Marine Safety. The Coast Guard's Marine Safety Mission Program ensures the safe operation and navigation of over 20,000 U.S. and foreign flagged vessels through the conduct of over 70,000 domestic vessel inspections and almost 9,000 port state control (foreign vessel) examinations each year (U.S. Coast Guard, 2008a). The Marine Safety Program conducts vessel and coastal industrial facility inspections that ensure the safety of America's ports, rivers and coastlines. Additionally, this mission encompasses U.S. mariner licensing and certification. This mission area emphasizes strong cooperation and partnerships with civilian organizations, industry and international engagement. 3.2.2 Security

Ports, Waterways and Coastal Security (PWCS). The goal of the Ports, Waterways, and Coastal Security Mission Program is to reduce the risk of maritime terrorism through: *achieving Maritime Domain Awareness (MDA), conducting maritime security and response operations, and developing maritime security regimes* (U.S. Coast Guard, 2008a). This mission, recently referred to as "Maritime Homeland Security," came to full prominence post-9/11.

Maritime Drug Interdiction. The Coast Guard is the lead Federal agency for maritime drug interdiction, combating the narco-terrorist use of air and maritime routes in the Caribbean, Gulf of Mexico, and Eastern Pacific Transit Zones. Through this mission, the Coast Guard strives to reduce the supply of drugs from the source and is a full partner with DoD, U.S. Customs and Border Protection, the drug Enforcement Administration and the Federal Bureau of Investigation.

Alien Migrant Interdiction Operations (AMIO). The Coast Guard is also the lead Federal agency for enforcing immigration laws at sea. The Coast Guard partners with U.S. Customs and Border Protection (Border Patrol and Customs and Immigration) and foreign countries to interdict undocumented migrants at sea, denying them illegal entry to the United States via maritime routes (U.S. Coast Guard, 2008a).

National Defense and Defense Readiness. Department of Defense (DOD) Combatant Commanders continue to seek Coast Guard people and assets to support security cooperation in their areas of responsibility. The Coast Guard's long and proud history of defense of this nation continues today in the Northern Arabian Gulf and during the recent invasion of the Republic of Georgia.

Other Law Enforcement. This mission portfolio encompasses many other law enforcement missions such as enforcement of the United Nations ban on High Seas Drift Net Fishing and other lesser-known missions. In addition, this mission focuses on preventing illegal foreign fishing vessel encroachment in U.S. Exclusive Economic Zones (EEZ) and focuses on three high-threat areas for illegal foreign incursions: the U.S.-Mexican border in the Gulf of Mexico, the U.S.-Russian Maritime Boundary Line (MBL) in the Bering Sea, and the eight non-contiguous EEZs in the Western/Central Pacific (U.S. Coast Guard, 2008a).

3.2.3 Stewardship

Marine Environmental Protection. The Coast Guard is a pivotal agency in the U.S. government for the prevention, response, containment and clean-up of marine environmental spills. Working within the guidelines of the Marine Safety Mission, the Coast Guard certifies shoreside industrial facilities and vessels to prevent spills and works with Federal and State Environmental Protection Agencies. Moreover, the Coast Guard manages the National Pollution Funds Center to pay for clean-up efforts under the OPA '90 "Superfund".

Living Marine Resources Enforcement. The Coast Guard is the lead Federal agency for at-sea enforcement of U.S. fisheries and marine protected species regulations. These efforts in cooperation with the U.S. National Marine Fisheries Service, and State and local agencies ensure the management and sustainment of U.S. and global fish stocks. Aids to Navigation (ATON). The Aids-to-Navigation and Waterways Management Mission-Program promotes safe, environmentally-sound waterways and efficient marine transportation by assessing waterway risk and providing aids-to navigation, Vessel Traffic Services, and marine information services (U.S. Coast Guard, 2008a).

Ice Operations. The Coast Guard conducts ice-breaking operations in numerous U.S. ports, rivers and the Great Lakes, ensuring the smooth flow of goods (specifically heating oil) throughout the winter months. Beyond domestic operations, the Coast Guard operates the only U.S. - flagged heavy icebreakers capable of operations in the Polar Regions to serve national defense and National Science Foundation research missions (U.S. Coast Guard, 2008a).

3.3. Current Organization & Structure

The April 2009 U.S. Coast Guard will complete its expansive mission portfolio with only 41, 900 active duty service members, 7,000 civilians, 8,100 reservists and 27,000 volunteer Auxiliarists (note: an Auxiliarist is a civilian volunteer, typically a retiree, with no law enforcement or military authority, they are similar to the Civil Air Patrol). These units and personnel operate on less than a \$9.4b budget and serve in more than 740 widely-dispersed units, some with fewer than 60 personnel assigned. The Service is a hierarchical and geographical organization as depicted in Figure 3-4.



Figure 3-4 – Coast Guard Current Organization – Source: CG Modernization Brief (2008)

The April 2009 operational chain of command is geographically organized by the Atlantic and Pacific Areas. The Area Commanders are nationally and internationally focused, "own" the majority of the major assets in their geography, and maintain budgetary authority for all units. Each Area is divided into several Districts that are regionally focused and somewhat missionspecialized. These districts "own" minor assets such as patrol boats and buoy tenders and oversee the shore-based Sector organizations. Sectors oversee the familiar small shore-based rescue units that are evenly distributed along the US coastline. A graphical depiction of the 2009 U.S. Coast Guards shore unit footprint is depicted in Figure 3-5 below.



Figure 3-5 – Coast Guard Districts (U.S. Coast Guard, 2007)

Each Sector controls rescue stations and the marine safety resources and serves as the Coast Guard Captain of the Port for port control and security functions. The geographic depiction of this function is shown in Figure 3-6 below.



Figure 3-6 – Coast Guard Sectors – Source: CG Modernization Brief (2008)

The Coast Guard has 252 cutters ranging from 65-421 feet in length and 23 air stations operating 211 helicopters and fixed wing aircraft. A non-inclusive listing of Coast Guard assets is included in Appendix A. In addition, there are 35 Sector offices that perform command and control (C2) and maritime safety duties and oversee 189 small-boat stations, 13 Maritime Safety and Security Teams, 8 Port Security Units, and 60 Aids to Navigation Teams encompassing more than 1,700 small-boats (USCG Website, 2009).

The non-operational or support community of the Coast Guard is similarly organized. As depicted in Figure 3-4 above, the Pacific and Atlantic Areas each have a Maintenance and Logistics Command (MLC). These MLCs oversee regional mission support units such as Electronics Support Units, Naval Engineering Support Units, Integrated Support Commands and more. These larger regional support centers and training bases are distributed throughout the U.S. and abroad.

3.4 Future Organization & Structure

"The world is changing. We must change to be responsive to 21st century threats and hazards"

CG Modernization Brief – 2008

The organization of the Coast Guard is in a state of change or "Modernization". For the purposes of this thesis, I will not conduct an analysis of this modernization effort but will provide only a brief overview to set the context for how the Coast Guard might use NSM to better implement this change.

The current organization has served the Coast Guard for some time with unique strengths and weaknesses. Yet, as described in the Coast Guard's Modernization Plan, the world has changed.

Events like Hurricane Katrina and 9/11 have shown that the Coast Guard must be more adaptive to 21st Century threats and challenges. In turn, the service must have a more agile and flexible operational command structure that facilitates the free flow of assets where and when they are needed and one that ensures these assets will be ready to perform.

3.4.1 The Modernization Plan

The modernized Coast Guard will be, in theory, much more streamlined and efficient. In the field, there will be only one operational commander (instead of two Area Commanders) and only one readiness and support commander. The Coast Guard Headquarters organization will change as well in order to make decisions faster and better aligned to the needs of the Service. This new organization is depicted in Figure 3-7 below.



Figure 3-7 – Future CG Organization – Source: CG Modernization Brief (2008) As stated in the Modernization Plan, the Coast Guard is realigning the operational structure, modernizing the Mission Support Organization, and transforming the business processes followed in the organization by creating the following organizations (Figure 3-8):

New Organization	Intended Outcomes
Deputy Commandant for Operations (CG- DCO)	 Mission performance plans, policies, strategic analysis and planning, assessments and requirements for all Coast Guard statutory missions. Integrated response and prevention mission policy. Integrated external and international outreach/partnerships for operations policy and regulations. Integrated authorities, capabilities, competencies, capacity and partnership requirements. Situational and policy awareness to inform and enable leadership for Critical Incident Communications in coordination with OPCOM. Commandant's executive agent with the Joint Staff, DHS and inter-agency in coordination with OPCOM.
Deputy Commandant for Mission Support (CG-DCMS)	 Full life cycle management for CG people, platforms and systems. Standard, disciplined, repeatable, & scaleable processes. Disciplined configuration management. Bi-level maintenance support/services model (pushed support to unit). Single point of accountability for support above unit level. Centralized management of resources for support above unit level.
Coast Guard Operations Command (CG OPCOM)	 Command & Control construct that unifies efforts across all of the Service's eleven mission areas. Agile & responsive Mission Execution – effectively & efficiently meet emergent operational needs consistent with CG & National Command Authority priorities. Enhanced MDA utilizing a robust, fully integrated, real-time CG COP and CG CIP. (Provide daily briefs to COMDT, "Big 4", and other operational and Headquarters elements). Strengthened Maritime Relations, Regimes & Maritime Governance – robust public & private sector partnerships, both in the U.S. and abroad.
Coast Guard Force Readiness Command (CG FORCECOM)	 Force Management and Allocation. Allocate mobile and deployable forces on a global basis. Doctrine. Promulgate doctrine that will align training and standardization to ensure force interoperability and readiness. Training. Provide timely and high quality training. Readiness and Standardization. Consolidate and standardize inspection visits and establish a standard measurement system to evaluate the readiness of CG Forces. Innovation and Best Practices. Rapidly validate field innovation best practices and incorporate them into Tactics, Techniques and Procedures.

Figure 3-8, CG Modernization Outcomes – Sources	CG Modernization Brief (2008)
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At the "deck plate" level of the Coast Guard, where the average Coast Guardsman performs his/her duties, not much will change with respect to the modernization efforts. For the most part, each service member will still report to the same person in their chain of command and continue operations normally. What will change for the average service member is the structure of support and training. If a small boat engine fails, who will they call for support? When it is time for a transfer to a new assignment, who will determine what kind of specialized training they will need and who will provide that training? This part of the modernization is still under development.

3.4.2 Status of Modernization Communications

There is anxiety at all levels of the Service whenever such efforts are undertaken from the top down. These efforts are often associated by service members with past reorganizations such as the 1990s "Streamlining" that substantially reduced the size of the Coast Guard without an appropriate reduction in mission roles and responsibilities. To counter the anxiety that often accompanies large-scale organizational change, the Coast Guard Strategic Transformation Team (STT) – a Headquarters-based transition organization – is using an aggressive communications strategy to educate internal and external audiences on the modernization effort. The forums for these outreach efforts vary from "all-hands" e-mails (e-mails to every service member from the Commandant), to pod-casts, to "town hall" meetings and more. The STT and their communications outreach will be addressed in detail in Chapter 6.

Before NSM can be employed in the modernization effort, Coast Guard leaders must become familiar with the NSM tools and must understand what is driving their use. Further, these leaders must know where the Coast Guard actually stands in their acceptance of NSM. Chapter 4 examines the survey data collected for this thesis.

4

Chapter 4: Data and Findings

"We need to keep improving wherever we can, whether it's my presence inside or outside the Coast Guard, how we deal with the American public, but more importantly, how we deal with the folks in the Coast Guard " - ADM T. Allen

(Cragg, 2008)

Chapters 1, 2 and 3 were intended to provide the reader with a basic understanding of the NSM environment and the Coast Guard. This chapter will discuss the results of the survey I administered. As noted in Chapter 2, the data is presented in tabular format and supported where possible with interview results. The data are organized by the four themes addressed by the survey questions such as NSM Awareness, NSM Engagement, Resource Requirements, and General NSM Concerns.

4.1 Survey Results and Data

The NSM survey I developed and propagated in *SurveyMonkey* was announced on January 8th, 2009 and closed on February 15th 2009. The *SurveyMonkey* data was exported to Microsoft Excel to calculate statistics for each response. Although each respondent's name and unit was an optional entry, I was generally able to determine their unit. This made the level of granularity in the origin of responses fairly clear.

In general, the responses were in line with my expectations with a few exceptions that will be

noted below. Examples of the two surveys issued are included as Appendices B and C.

4.1.1 General Awareness Data

The first question in each survey was the respondent's name and unit.

Respondents	Survey Subjects					
That Did Not	Cutter Command Shore Command Cutter Shore Crew					
Answer	Cadre	Cadre	Crew	n=256		
	n=115	n=54	n=146			
Name	11%	9%	48%	57%		
Unit Name	3%	0%	3%	1%		

Table 4-1: Name and Unit

It is not surprising that Coast Guard Crews favored anonymity in this survey.

The next set of questions sought to assess the general level of familiarity with NSM tools

amongst Coast Guardsmen.

Have You Used the	Survey Subjects			
Following Applications in	Cutter Command	Shore Command	Cutter	Shore Crew
the Last Six Months	Cadre	Cadre	Crew	n=256
	n=115	n=54	n=146	
Facebook	45%	54%	40%	48%
MySpace	18%	30%	39%	64%
Flikr	6%	6%	5%	8%
Twitter	38%	16%	16%	30%
inkedin	19%	20%	1%	1%
Blogger.com	6%	7%	3%	1%
iCommandant	17%	28%	5%	4%
Fred'sPlace	52%	69%	47%	52%
Military.com	63%	74%	53%	47%

Table 4-2:	NSM Applications	Used in	Last 6	Months
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Have You Used the	Survey Subjects			
Following Applications in	Cutter Command	Shore Command	Cutter	Shore Crew
the Last Week	Cadre	Cadre	Crew	n=256
	n=115	n=54	n=146	
Facebook	32%	37%	25%	43%
MySpace	8%	9%	20%	51%
Flikr	1%	25	4%	4%
Twitter	2%	0%	0%	1%
Inkedin	8%	6%	0%	0%
Blogger.com	4%	2%	1%	1%
iCommandant	9%	15%	1%	2%
Fred'sPlace	10%	30%	25%	26%
Military.com	16%	31%	23%	34%

Table 4-3: NSM Applications Used in Last Week

Tables 4-2 and 4-3 appear similar with one distinct difference. The tables are differentiated by the frequency in which these media are seen or visited. Examination of this data suggests that most Coast Guardsmen have a general awareness of the NSM tools. The difference in the two tables is found in "how often" these media are visited. It appears that NSM has yet to become a standard of daily life for the majority of my respondents.

It also appears that Coast Guardsmen are comfortable with traditional media on the internet such as websites (Fred's Place & Military.com) and visit those sites more than other types of NSM. Facebook however appears to garner a good deal of attention with at least 25% of **all** respondents visiting it weekly, thus making it the most popular of all NSM tools. Coast Guard Crews tend to favor MySpace more than Command Cadre do. This not surprising as MySpace is intended towards a younger (teen) audience. Correspondingly, the professional networking site LinkedIn is favored more by Command Cadre than Crews. In general, it appears that few Coast Guardsmen visit the blogging hub Blogger.com (my surrogate measure for blogs in general). This may not be the entire story regarding blogs, however, as will be discussed later. It also appears that Command Cadre personnel are reading the iCommandant blog, which is generally not visited by Crews.

The next set of questions sought to examine in more detail how the respondents treated various blogs.

How Often Do You Read	Survey Subjects			
Blogs?	Cutter Command Cadre	Shore Command Cadre	Cutter Crew	Shore Crew <i>n=256</i>
	n=115	n=54	n=146	
Daily	7%	9%	55	4%
Weekly (1-2 Times/Week)	22%	20%	20%	17%
Monthly (1-2 Times/month)	20%	19%	17%	15%
Almost Never (0-12 Times/Yr)	52%	54%	58%	60%

Table 4-4: Frequency of Blog Viewing

From the data presented in Table 4-4, it appears that more Coast Guardsmen are visiting blogs and in a slightly higher frequency than appears in Table 4-3. But what kind of blogs are they visiting?

If You Do Read Blogs, What	Survey Subjects			
Kind of Blog Subject is it?	Cutter Command Cadre <i>n=115</i>	Shore Command Cadre n=54	Cutter Crew n=146	Shore Crew n=256
Coast Guard	30%	33%	27%	27%
DHS	3%	12%	0%	15%
General Military	8%	11%	35	2%
Other	51%	43%	42%	41%

Table 4-5: Blog Types Viewed

From Table 4-5 we can infer that the majority of Coast Guardsmen who are visiting blog sites,

visit those sites that relate more to personal interests. This data point will become important

when considering how to get Coast Guardsmen to engage in work-related NSM.

Continuing on the theme of awareness of NSM tools, the next question was intended to assess

the respondent's familiarity with general NSM practices: RSS Feeds, Wikis and Tags.

Do you Have an Understanding		Survey Subje	cts	
of the Following Web 2.0 Tools	Cutter Command Cadre <i>n=115</i>	Shore Command Cadre <i>n=54</i>	Cutter Crew n=146	Shore Crew n=256
RSS Feeds				
Thorough Understanding	3%	2%	45	4%
Some Understanding	27%	26%	25%	13%
None at all	70%	72%	71%	83%
Wikis				
Thorough Understanding	10%	6%	13%	8%
Some Understanding	32%	28%	21%	22%
None at all	57%	67%	66%	70%
Tagging				
Thorough Understanding	6%	4%	55	7%
Some Understanding	26%	22%	25%	18%
None at all	68%	74%	70%	75%

 Table 4-6: Understanding of NSM Concepts

It is not surprising that few Coast Guardsmen claim to have a "thorough understanding" of these tools. What is surprising is how many Coast Guardsmen claim to have "no understanding at all" of these tools. What is more surprising is the lack of clear differentiation between Command Cadre and Crew responses to this question. It is a common belief that the younger generation of Coast Guardsmen (Crews) is far more familiar with NSM tools than their seniors. This may not, in fact, be the case.

4.1.2 NSM Engagement Data

The next question was intended to get a sense from Command Cadre personnel as to the level of engagement in internet technology. From Table 4-7 we can see that though nearly every

unit in the Coast Guard has a web page, a surprisingly high number of respondents claim that their site is not actively maintained.

Does Your Unit Have an Active	Survey Subjects		
Web Page ?	Cutter Command Shore Comman		
	Cadre	Cadre	
	n=115	n=54	
Yes	70%	56%	
No	30%	44%	

Table 4-7: Active Unit Web Pages

The next survey question was intended to determine if Coast Guardsmen had received any training or had any familiarity with on-line or "web" reputation. This terminology will be discussed in detail in Chapter 5. As can be seen below, this is not a common term amongst Coast Guardsmen.

Are You Familiar	Survey Subjects					
with the Term	Cutter Command	Shore Command	Cutter Crew	Shore Crew		
Web	Cadre	Cadre	n=146	n=256		
Reputation?	n=115	n=54				
Yes	10%	13%	9%	7%		
No	90%	87%	91%	93%		

 Table 4-8:
 Web Reputation Terminology

The next survey question was designed to assess any disparities between Command Cadre and Crews with respect to media preference. When developing the question, I thought there would be a large difference between the news gathering habits of Command Cadre and their younger Crews.

Please Rank Your	Survey Subjects' Average Rank					
Source of News and	Cutter Command	Shore Command	Cutter	Shore Crew	Standard	
Current Events 1-6	Cadre	Cadre	Crew	n=256	Deviation	
	n=115	n=54	n=146			
ти	1	1	1	1	0	
Print	3	3	3	3	0	
Websites	2	2	2	2	0	
RSS Feeds	6	6	6	6	0	
E-mail Alerts	4	4	4	4	0	
Other	5	5	5	5	0	

Table 4-9: News Media Preference

As can be seen in Table 4-9, there was, surprisingly, no difference between the news habits of Command Cadre and Crews.

The next question was again asked to assess differences between Command Cadre and Crews. It asked the respondent to rank (1 through 6) how they communicate with their local friends and again how they communicate with their long distance friends.

Please Rank 1-6 How you		Survey Subject	cts' Average	Rank	
Communicate with LOCAL	Cutter Command	Shore Command	Cutter	Shore Crew	Standard
Friends	Cadre	Cadre	Crew	n=256	Deviation
	n=115	n=54	n=146		
Landline	4	4	5	5	.58
Cell Phone	3	1	1	1	· 1
E-Mail	1	3	3	4	1.26
In Person	2	2	2	2	0
Text Message	5	5	4	3	.96
Other	6	6	6	6	0
Please Rank 1-6 How you		Survey Subject	cts' Average	Rank	
Communicate with LONG	Cutter Command	Shore Command	Cutter	Shore Crew	Standard
DISTANCE Friends	Cadre	Cadre	Crew	n=256	Deviation
	n=115	n=54	n=146		
Landline	3	3	5	4	.96
Cell Phone	2	2	3	1	.82
E-Mail	1	1	1	2	.5
In Person	5	6	4	6	.96
Text Message	4	4	2	3	.96
Other	6	5	6	5	.58

Table 4-10: Communication Preferences

Table 4-10 shows the responses for the two questions regarding communications preferences. Each column lists the average ranking for each category by respondent group. The right hand column shows the standard deviation for the rankings as compared across columns, amongst the four respondent groups. The higher the standard deviation scores in the last column, the greater the variation in the responses amongst respondent groups. If all answers were the same amongst respondent groups, the standard deviation would be zero. As can be seen in the data, most of the standard deviations are at or below 1.0. The sum of the standard deviations for all rows was 8.54. Thus, the answers were generally similar across groups (within one ranking for each answer category). The next questions were intended to assess any disparity between what Command Cadre perceive as the communication habits of their Crews and what the Crews' describe as their habits. This question was asked only to Command Cadre and had them guess how they perceive their Crews would respond to those same questions. Table 4-11 below contains the answers provided by the Command Cadre respondents for this question, as compared to the Crew responses from the previous question in Table 4-10.

Please Rank 1-6 How you	Survey Subjects' Average Rank					
Perceive Your SUBORDINATES	Cutter Command	Shore Command	Actual Crew	Actual	Standard	
Communicate with LOCAL	Cadre	Cadre Perception	Response	Shore Crew	Deviation	
Friends	Perception of	of Crew	n=146	Response		
	Crew	n=54		n=256		
	n=115					
Landline	5	5	5	5	0	
Cell Phone	1	1	1	1	0	
E-Mail	3	3	3	4	0.5	
In Person	4	4	2	2	1.15	
Text Message	2	2	4	3	.96	
Other	6	6	6	6	0	
Diagon Donk 1 C How you		SURVAY	Subjects' Average	A Rank		
Please Rank 1-6 How you		Survey	Subjects Average	e Nalik		
Perceive Your SUBORDINATES	Cutter Command	Shore Command	Actual Crew	Actual	Standard	
Perceive Your SUBORDINATES Communicate with LONG	Cutter Command Cadre	Shore Command Cadre Perception	Actual Crew Response	Actual Shore Crew	Standard Deviation	
Perceive Your SUBORDINATES Communicate with LONG DISTANCE Friends	Cutter Command Cadre Perception of	Shore Command Cadre Perception of Crew	Actual Crew Response n=146	Actual Shore Crew Response	Standard Deviation	
Please Rank 1-6 How you Perceive Your SUBORDINATES Communicate with LONG DISTANCE Friends	Cutter Command Cadre Perception of Crew	Shore Command Cadre Perception of Crew n=54	Actual Crew Response n=146	Actual Shore Crew Response <i>n=256</i>	Standard Deviation	
Please Rank 1-6 How you Perceive Your SUBORDINATES Communicate with LONG DISTANCE Friends	Cutter Command Cadre Perception of Crew n=115	Shore Command Cadre Perception of Crew n=54	Actual Crew Response n=146	Actual Shore Crew Response n=256	Standard Deviation	
Perceive Your SUBORDINATES Communicate with LONG DISTANCE Friends	Cutter Command Cadre Perception of Crew <i>n=115</i> 3	Shore Command Cadre Perception of Crew n=54	Actual Crew Response n=146	Actual Shore Crew Response n=256	Standard Deviation .5	
Prease Rank 1-6 How you Perceive Your SUBORDINATES Communicate with LONG DISTANCE Friends Landline Cell Phone	Cutter Command Cadre Perception of Crew n=115 3 2	Shore Command Cadre Perception of Crew n=54 3 2	Actual Crew Response n=146	Actual Shore Crew Response <i>n=256</i> 4 1	Standard Deviation .5 1.0	
Prease Rank 1-6 How you Perceive Your SUBORDINATES Communicate with LONG DISTANCE Friends Landline Cell Phone E-Mail	Cutter Command Cadre Perception of Crew n=115 3 2 2 1	Shore Command Cadre Perception of Crew n=54 3 2 1	Actual Crew Response n=146 5 3 1	Actual Shore Crew Response n=256 4 1 2	Standard Deviation .5 1.0 .82	
Prease Rank 1-6 How you Perceive Your SUBORDINATES Communicate with LONG DISTANCE Friends Landline Cell Phone E-Mail In Person	Cutter Command Cadre Perception of Crew <i>n=115</i> 3 2 1 1 5	Shore Command Cadre Perception of Crew n=54 3 2 1 6	Actual Crew Response n=146 5 3 1 4	Actual Shore Crew Response n=256 4 1 2 6	Standard Deviation .5 1.0 .82 1.0	
Prease Rank 1-6 How you Perceive Your SUBORDINATES Communicate with LONG DISTANCE Friends Landline Cell Phone E-Mail In Person Text Message	Cutter Command Cadre Perception of Crew n=115 3 2 2 1 5 4	Shore Command Cadre Perception of Crew n=54 3 2 1 6 4	Actual Crew Response n=146 5 3 1 4 2	Actual Shore Crew Response n=256 4 1 2 6 3	Standard Deviation .5 1.0 .82 1.0 .58	

Table 4-11: Subordinate Communication Preferences

As can be seen, Command Cadre personnel generally have a shared understanding of the

preferences of their subordinates (crews) with nearly all answers at or below a standard

deviation of 1.0 with a sum of the standard deviations of 7.01. This leads me to believe that

Command Cadre personnel do recognize the differences between themselves and their Crews and they are accurate in guessing what their crews would say.

The last question in this series was addressed to the Crews only. It asked Coast Guard Crews if and what kind of cell phone they possess as depicted in Table 4-12.

What Kind of Cell Phone Do	hat Kind of Cell Phone Do Survey Subjects			
You Have?	Cutter Crew Shore			
	n=146	n=256		
Regular Cell Phone	64%	73%		
Smart Phone	36%	25%		
No Cell Phone	0%	2%		

Table 4-12: Crew Cell Phone Ownership

Not surprisingly, more than 98% of Coast Guard Crews surveyed have at least a common cell phone with 28% owning smart phones (as of March 4th, 2009). "Smart" phones are defined as data-enabled cell phones that are capable of receiving standard e-mail, SMS text messages and have some sort of internet access such as iPhones, Blackberrys, and Treos, to name a few. Based on data from Cellular-news.com Smart phones will account for 17% of cell phone sales in 2009 and account for more than 10% of all registered cell phones. Mobilemarketer.com (March, 2009) projects that smart phones will command 23% of the cell phone market by 2013, meaning that Coast Guard Crews in general, with an average of 28% Smart Phones, are ahead of this trend.

The next set of questions was intended to address the NSM policy issues in the Coast Guard. The first question assesses the level of awareness with the Coast Guard definitions of NSM as defined in the ALCOAST message 457/08 (this message was attached to the survey). The result of this question is depicted as Table 4-13. The second question asked Coast Guard members if they would be comfortable replying to a blog that affected their unit. Table 4-14 illustrates those results.

Do You Feel You Have a Good		Survey Subj	ects	
Understanding of NSM as	Cutter	Shore	Cutter	Shore
Described in ALCOAST 457/08	Command	Command	Crew	Crew
	Cadre	Cadre	n=146	n=256
	n=115	n=54		
Yes	57%	63%	51%	48%
No	43%	39%	49%	52%

Table 4-13: Understanding of Coast Guard NSM Definition

Table 4-14: Willingness to Respond to Blogs

Would You Feel Comfortable		Survey Sul	ojects	
Enough, TODAY, to Respond to	Cutter	Shore	Cutter	Shore Crew
A Blog Regarding Your Unit In	Command	Command	Crew	n=256
Accordance With CG Policy?	Cadre	Cadre	n=146	
	n=115	n=54		
Yes	40%	46%	42%	31%
No	60%	54%	58%	69%

The data show two key points. First, only about half of Coast Guardsmen surveyed claim to be familiar with the description of NSM as defined by the Coast Guard. Second, despite the fact that half of Coast Guardsmen know the definitions, far fewer are ready to engage in answering blogs even though they are authorized to do so.

The next question was designed to delve deeper into the reasons why Coast Guardsmen may or may not want to engage in NSM. The question assesses the level of trust placed in different NSM sites and tools.

How Much Trust do You Have In the	Survey Subjects			
Following Media?	Cutter Command	Shore Command	Cutter	Shore Crew
	Cadre	Cadre	Crew	n=256
	n=115	n=54	n=146	
Official Websites (ex:uscg.mil)				
Trust Implicitly	38%	35%	22%	11%
Somewhat Trust	60%	56%	66%	73%
Don't Trust At All	0%	0%	9%	14%
Print Media (ex: newspapers)		•		•
Trust Implicitly	13%	19%	25%	17%
Somewhat Trust	80%	63%	64%	68%
Don't Trust At All	1%	9%	9%	13%
Online Media (ex: CNN.com)		-		•
Trust Implicitly	16%	17%	30%	27%
Somewhat Trust	77%	65%	60%	60%
Don't Trust At All	6%	9%	6%	10%
Unofficial Websites (ex: Fredsplace)				
Trust Implicitly	1%	0%	3%	2%
Somewhat Trust	77%	72%	75%	68%
Don't Trust At All	21%	24%	20%	28%
Blogs				
Trust Implicitly	0%	0%	1%	0%
Somewhat Trust	44%	30%	47%	34%
Don't Trust At All	50%	65%	49%	63%
Facebook				
Trust Implicitly	1%	0%	2%	1%
Somewhat Trust	46%	37%	41%	34%
Don't Trust At All	44%	59%	51%	61%

Table 4-15: Trust in NSM Sites

Table 4-15 displays the results of this question. There are few media in which Coast Guardsmen place their implicit trust. What is surprising is the disparity between Command Cadre and Crews with respect to trust of "Official" websites. Command Cadre are more likely than their Crews to trust official websites. Conversely, Command Cadre appear more skeptical of on-line media than their crews. Blogs and Facebook are the least trusted of the NSM types by Coast Guard members across ranks.

4.1.3 Resource Requirements Data

The next set of survey questions were intended to learn how much time Coast Guardsmen are spending during the day on NSM and what resources are being consumed to manage NSM at the unit level.

How many Hours Per Day		Survey Subjects	5	
Do You Dedicate to	Cutter Command	Shore Command	Cutter	Shore Crew
Managing NSM?	Cadre	Cadre	Crew	n=256
	n=115	n=54	n=146	
Checking Blogs				
None	65%	67%	60%	59%
Less Than 1 Hour	32%	31%	25%	33%
1-2 Hours	2%	2%	1%	2%
Reviewing News Sources				
None	37%	35%	42%	43%
Less Than 1 Hour	57%	54%	40%	45%
1-2 Hours	6%	11%	2%	7%
Managing Web Pages				
None	80%	83%	71%	74%
Less Than 1 Hour	17%	13%	14%	16%
1-2 Hours	1%	2%	1%	3%
Managing NSM Personnel				
Issues				
None	65%	69%	60%	66%
Less Than 1 Hour	32%	24%	24%	23%
1-2 Hours	2%	6%	1%	6%

 Table 4-16:
 NSM Use Profile

It appears that Coast Guardsmen most frequently review news sources as part of their daily NSM routine. The data show that NSM has yet to consume a significant portion of time for most Coast Guardsmen. I should note that an average of 31% of Command Cadre report spending **up to** two hours per day on NSM personnel-related issues. These personnel-related issues included discipline issues for inappropriate behavior related to NSM and training on NSM, to name two of the tasks related to NSM. The issue of connectivity to the internet and access to Coast Guard computers spurred the next question. The question asks Command Cadre what percentage of the work day their subordinates have unrestricted access to a Coast Guard computer. The question was designed to illustrate any disparities that might exist between the perception of the Command Cadre and what the Crews actually report.

		Perceived Percentage of the Work Day Crews Have Unrestricted Access to a			
Survey Subjects		Computer			
		0-25%	26-50%	51-75%	76-100%
Cutter Command Cadre (Perception) n=	:115	23%	17%	15%	45%
Cutter Crew (Reality) n=	146	38%	16%	16%	30%
Shore Command Cadre (Perception) n=	=54	19%	9%	15%	57%
Shore Crew (Reality) n=	256	41%	24%	10%	25%

 Table 4-17: Coast Guard Computer Access

Table 4-17 shows that Command Cadre perceive that their subordinates have much more access to Coast Guard computers than is actually reported. For illustration purposes, I have highlighted responses that represent a difference of greater than 10% between Command Cadre and Crew respondents. What is surprising is the disparity in responses between Shore Command Cadre and Shore Crews. It appears that Shore Command Cadre have a vastly different view than their Crews on this issue. This issue of access will again be addressed in later chapters.

In keeping with this same theme, the next question asked Command Cadre respondents if greater access to Coast Guard Computers would help their subordinates do their job better. As

a contrast, I asked Coast Guard Crews if they believe that greater Coast Guard computer access would help them do their jobs better.

Would Greater Access to CG		Survey Subje	ects	
Computers Help You (or Your	Cutter Command	Shore Command	Cutter Crew	Shore Crew
Subordinates) DO their Job?	Cadre	Cadre	n=146	n=256
	n=115	n=54		
Yes	76%	69%	82%	64%
No	23%	31%	18%	36%

Table 4-10: Perception of value of increased computer Acces	Table 4-18:	Perception of	Value of Increased	Computer Acces
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Table 4-18 shows the results from the computer access question. Both Cutter Command Cadre and Crew express a desire for more computer access for the Cutter-based crews. Cutter crews are commonly considered throughout the Coast Guard to have less access to computers than shore units.

The last question in the resources section of the survey asked Command Cadre personnel if their unit maintained a separate, commercial internet connection, outside of the Coast Guard IT system, to access NSM sites and other channels. The survey reveals that 18% of operational units maintain a separate, unit-funded commercial internet with an average cost of \$75.69 per month per unit. Ideally, the *CG Portal's* (coming in spring 2009) new functionality will alleviate the need for these separate accounts returning that funding for other uses.

4.1.4 Data Regarding Concerns of NSM

The last two questions of the survey were open-ended in an attempt to solicit non-structured, candid responses. The first question asked each respondent what their single biggest concern

was with respect to NSM. A total of 230 of the 571 survey respondents answered the question.

For brevity, I have grouped the responses into five broad as follows:

- Access/Bandwidth Concerns over lack of computer time or connectivity
- Privacy/Security Concerns over compromised personal or Coast Guard information
- Resources Concerns over lack of time, to manage NSM, personnel or funding
- Leadership/Chain of Command Concerns over breaches in the Chain of Command, discipline issues or lack of policy or guidance
- Web Reputation Concerns over false information, slander

What is Your Single Biggest	Survey Subjects			
Concern With Respect To NSM?	Cutter Command	Shore Command	Cutter	Shore Crew
	Cadre	Cadre	Crew	n=58
	n=82	n=38	n=52	
Access/Bandwidth	9%	0%	21%	5%
Privacy / Security	21%	5%	25%	16%
Resources	10%	11%	2%	0%
Leadership/Chain of Command	11%	32%	19%	21%
Web Reputation	50%	53%	33%	59%

Table 4-19: NSM Concern Areas

In general, issues I classify as related to "web reputation" are most worrisome. Though most respondents answered in Table 4-8 they could not define "web reputation", their concerns expressed in response to this question related to dissemination of false information, slander and other web reputation issues. This issue will be discussed in more detail in Chapter 5. The data in Table 4-19 show that access and bandwidth are of most concern to those most affected by it, namely, Cutter Crews. One High Endurance Cutter Commanding Officer noted in a personal interview in January 2009 that "the cutter fleet is being left behind to the point where it is hurting careers and hurting families on the beach. Knowledge is power, and Cuttermen are rapidly drifting astern."

The second open-ended question was asked only to Command Cadre and solicited what resources they felt they were lacking to effectively manage NSM in their unit. Eighty-seven of the 169 Command Cadre survey respondents answered the question. I grouped the openended responses into four broad categories:

- Policy and Guidance
- Access for Personnel and Increased Bandwidth
- Training & Understanding of NSM
- Additional Personnel Resources or Additional Time

What Resources Do You Feel You	Survey Subjects	
Are Lacking in Managing NSM?	Cutter Command	Shore Command
	Cadre	Cadre
	n=87	n=32
Policy & Guidance	8%	6%
Access/Bandwidth	52%	41%
Training & Understanding of NSM	23%	19%
Personnel & Time	17%	34%

Table 4-20: NSM Resources Desired

Table 4-20 again shows that access and bandwidth are important concerns for Command Cadre personnel. This issue will be discussed further in Chapter 5. Policy and Guidance is low, but is still present. When interviewing Coast Guard employees I asked if their NSM sites that exist off

the Coast Guard IT network were "official" sites. A representative response is below:

"I really don't know. I will need to talk to [Coast Guard] Headquarters about it. Currently, we do not follow the Coast Guard policy for our Facebook page. We treat it as [an official] website as best I can. I need to get more clarification. The bottom line is that I have no control over what others do on the site. We are expecting to experience a lot of growing pains"

(Personal Interview of CG Civilian Employee, 2009)

Further, when discussing the time constraint impacts of NSM, one interview subject noted that

"Fewer and fewer people in the Coast Guard are reading official message traffic. We as a Service are not letting go of the old systems or requirements while adding new ones like NSM. This creates additional workload."

(Personal Interview of Coast Guard Officer, 2009)

This chapter reported survey responses from around the Coast Guard. Respondents came from as disparate locations as downtown Boston to Manama, Bahrain in the Arabian Gulf. The survey data show that there are many concerns amongst Coast Guardsmen with respect to NSM including issues of security, privacy, resources, and policy. Moreover, the data show that the perceived differences in NSM skills and competencies between Command Cadre personnel in the Coast Guard and their Crews or subordinates may not be as broad as has been thought by some in the Coast Guard, myself included.

Chapter 5: NSM for Coast Guard Leaders

"Every time we have been faced with a new dimension to our operations, we have learned how to change our tactics to succeed, cyberspace requires the same shift from old think to ensure that we gain and maintain the information advantage that we need to win in this environment. Like any advance in technology, either we will become proficient in its use, or our adversaries will. In the end, we have decided that the benefit from properly using these tools outweighs the risk."

VADM Nancy Brown, J6, Joint Chiefs of Staff (2009)

This Chapter addresses first the dangers of NSM in the military. Then, I identify positive aspects

of NSM and how it has apparently helped other organizations. Throughout this chapter, I

attempt to integrate my Coast Guard specific findings with the larger context of NSM.

5.1 Risks and Benefits of NSM

NSM is a new and unfamiliar territory for most military leaders. As with other aspects of the

information age, it is fraught with dangers and challenges.

5.1.1 What Are the Dangers of NSM?

Members of the armed forces are subject to certain risks. The proliferation of personal

information and social networks in the NSM environment has increased these risks. For

example, in a recent newspaper article, the Government of Canada warned that "80 percent of

enemy intelligence is gleaned from the internet" (Shachtman, 2008b). Recognizing this, some DoD installations have warned their troops about the hazards of social media. "Posting information on these sites that are viewed by millions every day can have dangerous, even deadly, consequences," reads one news release from Robbins Air Force Base (Shachtman, 2008a). In another case, the Public Affairs Staff from Pope AFB in Georgia has posted numerous user tips for social media sites like Facebook, TogetherWeServed.com and others on the base home page (Hoyler, 2008).

DoD is not alone. My survey data revealed that 18% of Coast Guardsmen polled believe privacy and security are their biggest worries with respect to NSM. Personnel from the Coast Guard Office of Counterintelligence warn organizational members not to underestimate the impact of NSM on foreign intelligence gathering. Standard security clearance procedures require Coast Guard members to disclose their foreign national friends with whom they maintain close and continuing contact. Where do NSM friends fit into this environment? If younger Coast Guard members are more willing to share personal information with on-line NSM friends than they are with co-workers, should those NSM friends be part of the background check. Do these Coast Guard members really know these NSM friends?

Most officials in all branches of the military have, until recently, discouraged blogging by junior personnel for fear that they will give away valuable operations security (OPSEC) information. In 2006, the Army assembled a unit to monitor official sites and soldiers' blogs for transgression of OPSEC policies. The audits, performed by the Army Web Risk Assessment Cell between January 2006 and January 2007, found 1,813 violations of operational security policy on 878 official military websites. In contrast, only 28 breaches were discovered on 594 individual blogs during the same period. After a year of study, the Army concluded that official web pages were 65 times more likely to violate security rules than soldiers' blogging (Shachtman, 2008a).

Again, no Coast Guard-wide data on OPSEC violations from NSM is available. This data was not directly solicited in my survey. However, of the 571 Coast Guardsmen surveyed in this study, ten members (1.75%) reported anecdotal information regarding OPSEC violations due to NSM tools in the open-ended question listed in Table 4-19.

Most NSM sites are blocked from government and military IT networks for fear of viruses, malware and Trojans. In some cases, however, this policy has been relaxed. One Coast Guard member reported in my survey:

"On or about July/August [2008], PACAREA sent out an ALCOAST regarding an introduction to FORCECOM. In the ALCOAST members are instructed to view a 'YouTube' video from work using CGDN+ workstations (even though security measures were in effect to specifically block YouTube from being viewed on CGDN+ workstations). Because of the security block, the ALCOAST gave detailed instructions on how users can bypass the security controls, and view the video."

(2009 Thesis Survey Data – Open-ended Question)

Within industry, the NSM coordinator for Booz-Allen Hamilton (BAH) states that he has received no reports of malicious software entering BAH's systems despite open employee access to common NSM sites like Facebook, Myspace, Twitter and more (Personal Interview of Steve Radick, 2009). Though 18% of Coast Guardsmen regard security and privacy as their single largest concern with respect to NSM, there is no clear evidence I could find to support the prevalence of malicious software entering the Coast Guard IT network through NSM sites. It may simply be too early in the evolution of NSM for accurate data regarding security.

5.1.2 Chain of Command Hierarchy Issues

Still, NSM propagates a sense of openness and accessibility unlike any other medium. Once someone such as the Commandant of the Coast Guard establishes a NSM access point - a blog or a Facebook page - nearly anyone can communicate directly with him and they have. In most cases, these are positive interactions. But not always. At present, no policy or Tactics, Techniques and Procedures (TTP) exist to handle these situations.

My survey data suggests that 19% of Coast Guardsmen believe usurping the chain of command and lack of official guidance to be their biggest concerns with respect to NSM. Though many in the Coast Guard believe it is "fantastic" to be able to communicate directly with the Commandant or Master Chief Petty Officer of the Coast Guard, some of those I interviewed say that this violates the chain of command and creates unnecessary staff work in answering some of the questions that arise. There are no quantitative data to support this, only anecdotal information. To put this in another context, the same could be said for official visits when a high-ranking Coast Guard leader visits a subordinate field unit. One of the great benefits of these official visits is the opportunity for the deck-plate sailor to meet and talk to one of their leaders they seldom see. During almost all these visits, the leader will ask for any questions from the audience. Invariably, from my experience, one person will ask a question that should probably have gone through the chain of command first.
5.1.3 Misuse of Government Systems for NSM

As stated previously, most NSM sites are blocked from government and military IT networks. One reason for doing so is because of management fears of the potential misuse of government IT systems or lost workforce productivity from 'surfing' NSM sites. Depending on what survey data one examines, between 60% and 75% of companies are actually tracking employees' web usage with some companies tracking productivity to the level of the keystroke (Grassioux, 2008). Some organizations such as FedEx and UPS have blocked social network sites for preservation of IT bandwidth and the threat of lost productivity. FedEx for example, ships 15.6 million packages a day worldwide with a fleet of more than 94,000 vehicles and 284 aircraft and cannot afford a network slow-down (Brewin, 2007).

The impact of NSM bandwidth usage on the Coast Guard IT network is currently unknown and, in any case, would be difficult to track. Following the authorization of YouTube access on the Coast Guard IT network for the release of a FORCECOM modernization video, one Coast Guardsman reported:

"The next morning (0730-0830), TISCOM's (Coast Guard Telecommunication Command) network status page showed bandwidth capacity percentages in the 90% ranges for almost each of the Districts. This could have brought down the network at multiple locations across the country. Later in the day (and for several days following) I caught personnel viewing other videos on YouTube, many of which were not Coast Guard appropriate"

(2009 Thesis Survey Data – Open-ended Question)

But how much misuse really results from access to NSM sites? In the late 1990s when Web 1.0 was becoming common on Coast Guard computer workstations, the same fears arose, yet never seemed to materialize. Perhaps the fears over NSM are overstated. There may be some quite positive outcomes to organizations awaiting the use of NSM. For example, Booz-Allen

Hamilton reports that non-work related NSM pages are actually helping employees get used to the internal collaboration tools that the firm had developed for their intranet. Furthermore, these sites are allowing BAH associates to stay abreast of developments and commentary in the NSM environment for their clients (Personal Interview of Steve Radick, 2009). Could a parallel be drawn for the Coast Guard?

5.1.4 Web Reputation

A "Web Reputation" (sometimes called an E- or soft-reputation) is one's personal or corporate on-line reputation. It can be defined as the sum of what is said about an individual or an organization. This is a relatively new term, and, as I noted earlier from Table 4-8 in the survey data, 91% of Coast Guardsmen stated they had never heard of the term nor could define it. This presents something of a contradiction in the data as seen in Table 4-19. Although such a large percentage of Coast Guardsmen surveyed said they were unfamiliar with the term "web reputation", web reputation-related issues were ranked highest amongst NSM concerns for all Coast Guardsmen surveyed.

This contradiction may be explained as a labeling issue. The question in Table 4-8 was a structured "yes or no" question, whereas the question in Table 4-19 solicited an unstructured, open-ended response. It is clear to me that those Coast Guardsmen surveyed are, in fact, concerned with web reputation issues even if they are not familiar with the generalized term "web reputation."

Along the lines of web reputation, the transparency of information in Web 2.0 is creating privacy challenges today. Having strong desires for authenticity and openness, people in the NSM environment may not realize that what they say or post on-line can haunt them later. To some extent, NSM novices may still retain some level of expectation of privacy for information posted to NSM sites and tools.

This is not the case. Facebook for example recently endured some bad press for a clause in their Terms of Service (TOS) for subscribers that stated that all information posted on their site was Facebook property. This remains under debate and Facebook is said to be updating their TOS. Regardless, any information provided to open NSM sites can be copied and seen and/or propagated by nearly anyone with internet access.

A user might ask 'Who could possibly be reading my NSM sites?' *The Economist* (2008) reported on October 31st that Virgin Atlantic Airlines fired several flight attendants for their Facebook postings in which they called some of their passengers "smelly" and "annoying". A recent Kaplan study of 320 college admissions officers found that one out of ten admission departments visit an applicant's NSM sites as part of the application process. Of those, 25% of the sites viewed led to positive information or opinions about the applicant while more than 38% found information or postings that had a negative effect. The remaining admissions officers said they gleaned both positive and negative from these sites (Kaplan Surveys, 2008).

NSM blurs the line between personal and professional relationships. Most people try to maintain a buffer between personal and professional relationships. Leaders often feel, for example, they cannot be friends with a subordinate for fears of promoting favoritism charges

from other subordinates. But how do these concerns translate to the NSM environment? Can a person share the same content they post for their friends in the NSM media environment with their supervisor? On a personal note, I have had friends and family report removing content from sites such as Facebook when 'befriended' by a supervisor. It is almost certainly the case that Coast Guard members are wary of Coast Guard-sponsored NSM tools because they believe "the boss is watching."

Although there is no hard evidence of much misconduct in the Coast Guard in relation to NSM, my survey responses and interview results did identify three cases of Uniform Code of Military Justice (UCMJ) violations: underage drinking; sexual misconduct; and, one case of possible subversion. In two out of three of these cases, punishment was brought to bear on the individual involved.

The lesson to be learned is that whatever content is published on the internet or in any NSM environment should be considered open for all to see. It cannot be "taken back" once it has been posted. Members of the armed forces are considered to be representatives of their Service and their country at all times. Unfortunately, many service members have not been provided training on NSM matters.

LtGen Caldwell of the US Army Combined Arms Center has said, "we should encourage soldiers to tell their story, but; [we must] educate them on the ramifications of messages and the use of new media; empower them by underwriting honest mistakes and; equip them with the proper regulations and policy" (Murphy, 2008). This certainly resonates with Coast Guardsmen since 49% of those polled believe that "web reputation-related issues" such as OPSEC violations or dissemination of false information are their biggest concerns. Organizations like the Interagency OPSEC Security Support office (www.ioss.gov) can provide guidelines for training and advice in this area.

5.2 Positive Impacts of NSM

Despite the dangers of NSM, there is evidence of the positive impact it may have on morale, personal and professional development, public outreach and other corporate/organizational benefits. A few examples are given below.

When US Airways flight 1549 ditched into New York's Hudson River in January 2009, the Coast Guard was able to release video footage of the ditch from a harbor camera on their YouTube Coast Guard Channel the very next day. This video generated a large number of hits and viewings. What was not expected was the fact that once the heavy viewing traffic of this ditch had passed, the Coast Guard Headquarters public affairs staff has been able to track a significantly higher visitor rate to the Coast Guard Channel, weeks later. The timeliness in which the video hit the NSM environment has directly translated to greater public awareness for the Service in the eyes of the public affairs community.

On a similar note, the 9th Coast Guard District had released footage of ice rescue training held on the Great Lakes during the 2008-09 winter season. Weeks later, the Coast Guard conducted a mass rescue operation of fishermen trapped on an ice flow on Lake Erie – most of which was caught on tape. The culmination of outreach and video postings on YouTube and other sites has no doubt been beneficial to public relations in the Great Lakes region. The Coast Guard-managed Automated Mutual Assistance Vessel Rescue System (AMVER) is a registry of commercial freighters that volunteer to assist mariners in distress and maintains an informational website among other public outreach endeavors. The New York AMVER office started an AMVER Facebook page in 2008. Within months, the monthly hits on the AMVER.com website went from an average of 40,000 per month to over 70,000 web hits per month. According to Benjamin Strong from AMVER, a press release would not normally get much attention, however, "doing one [press release] in Facebook results in it hitting numerous news sources giving us much more exposure in the media now."

In another example, the US Central Command (CENTCOM), the military commander responsible for the operations in Iraq and Afghanistan reports that from March to October 2006, traffic on CENTCOM's website tripled to 20 million "hits" per month, and subscription to CENTCOM's syndicated (RSS-style) products was up 162%. CENTCOM attributed this growth mostly to the CENTCOM blogging effort that reached entirely new audiences (Maher, 2008).

On a personal note, a number of Coast Guardsmen have told me they frequently use of NSM sites like Fredsplace for study tips for exams and other useful information. Coast Guard spouses have reported gleaning useful area knowledge during permanent change of station moves from sites like CoastieChicks.com. Coast Guardsman from small boat stations have reported:

"On my personal MySpace page, I mention that I am active in the Coast Guard at this station. As a result, I receive inquiries on about a weekly basis and most are from people either considering joining or already in delayed entry. Occasionally, I receive inquiries from folks who have no military affiliation at all."

(From Open-Ended Thesis Survey Question, 2009)

And,

"MySpace has made a personal positive social media impact on me. I became better friends with my co-workers/shipmates here at my Station when I was first reporting aboard. It helped to 'break the ice'."

(From Open-Ended Thesis Survey Question, 2009)

One member assigned to a ship reported:

"I feel like our morale is directly related to our internet connectivity and the amount of social media that is available. This is very evident during port calls. If I can get the guys access to the internet off SWIII (the Coast Guard IT system) they are happy, it's just that simple."

(From Open-Ended Thesis Survey Question, 2009)

There is no disputing that the internet and NSM tools are changing the way people interact and

connect. The risks and challenges must all be managed, however, to both harness the benefits

of NSM and ensure the security of Coast Guard personnel and systems. How these might be

managed is the topic I take up in the remaining three chapters. I move now to consider how

NSM might be helpful in promoting organizational change.

Chapter 6: NSM for Organizational Change

"Becoming a more agile and change-centric organization requires that we understand and interact through social media. Accordingly we must adjust to this paradigm change and move from a vertical information management structure to a more networked organization. These changes offer tremendous advantages in mission execution and support, communication, and knowledge management, including our new business model for logistics. However, the managerial and cultural implications of this change are significant. That said we will move forward to adapt our enterprise architecture, policies, and procedures to position us for success in the future."

U.S. Coast Guard ALCOAST 457/08 (2008)

The impetus for modernization in the Coast Guard is clear: the world is changing and the organization must adapt to these changes. How modernization is delivered and the extent to which the workforce is united behind the plan remains uncertain. This chapter describes the current status of the Coast Guard Modernization effort and, more specifically, looks at the efforts thus far taken to communicate the changes to the workforce. It will identify challenges being faced by the Coast Guard and provide some examples of how NSM has been able to help in other organizations facing similar problems.

Since the Coast Guard's modernization effort is delayed pending Congressional authorization and civilian workforce union negotiations, the information being communicated about modernization in the Service is quite general. Until the legal hurdles are overcome, the average Coast Guardsman will not have access to the detailed information needed for a thorough understanding of the modernization plan. The Coast Guard must, in the interim, provide only higher-level information to its members regarding the Modernization. Yet, despite the uncertainty and delays, the Coast Guard must be ready to roll-out the detailed information when deemed appropriate and have a strategy in place to do so. NSM can help.

6.1 Status of Communication Efforts in the Coast Guard Modernization Program

There is anxiety at all levels of the Service whenever efforts such as "modernization" are undertaken from the top down. As I said earlier, these efforts are often associated by service members with past reorganizations such as the 1990s Clinton Administration "Streamlining." Streamlining was intended to implement efficiencies in government, but resulted in a reduction of the size of the Coast Guard without an appropriate reduction in mission roles and responsibilities.

The help alleviate some of the anxiety associated with Modernization within the work force, the Coast Guard Strategic Transformation Team (STT – described in Chapter 3) is using an aggressive communications strategy to educate internal and external audiences on the general aspects of the modernization effort. These outreach efforts vary from "all-hands" e-mails (emails to every service member from senior leaders), to pod-casts, "town hall" style meetings and more.

Additionally, in the summer of 2008, the STT began doing "road shows" – visiting Coast Guard units and engaging senior civilians and officers. They also created a video of the DCMS transformation (described in Chapter 3) highlighting a small boat station's initiative to track parts in the new aviation-based support model. In general, the STT reports that the feedback they receive from junior members of the Coast Guard is that "they know something is important when someone comes to their unit and speaks to them."

According to a contract support member of the DCMS transformation staff;

"Boat crews want information in person and want the opportunity to have a conversation. Their second choice is to get an e-mail message with the information. The third preference is through official Coast Guard message traffic. This is cumbersome and is often time late, so it does not get read or they rely on someone screening it and sending it to them in e-mail."

(Personal Interview of Coast Guard Civilian Employee, 2009)

Unfortunately, the majority of the information available to the average Coast Guardsman is in a "pull" format. This means that a person must seek out a set of web page links for detailed information, or go to a source such as YouTube to watch an official Coast Guard podcast. In other words, if the person does not expend some effort to find out about the new organization, they will not have the information. On a positive note, the STT reports that the Coast Guard's modernization video has received more than 10,000 views on YouTube (remember, the Coast Guard has more than 50,000 people). Complicating this is the prevalence of NSM tools throughout the Coast Guard making it difficult for the STT to manage a consistent message. And, there are personal "biases" involved since some commands prefer face-to-face "all-hands" meetings while others are quite comfortable with podcasts.

The STT reports that the outreach plan is a "distributed" model and is quite heterogeneous. With an extremely small staff, the STT is forced to rely on unit commanders to help train and educate their subordinates on modernization. For example, an STT member reported that "an average E-4's knowledge of the modernization effort depends largely on their immediate chain of command and peer network to educate them." Moreover, the actual communication messages vary wildly. For example, a Petty Officer is a likely recipient of important, detailed information from FORCECOM or OPCOM, but probably does not need to know anything about the DCMS organization. Further, the medium in which he or she receives the information is not the same. The real Coast Guard audience for information about the DCMS organization is more senior with unlimited Coast Guard computer access.

Contrast this to a member of Congress who wants to know about the big picture. That member may want to know, for example, 'how many people will be moving to/from my district?' He or she expects this information to be delivered in a formal briefing or through a written official "Question for the Record." (Note: A "Question for the Record" is an official correspondence between a Member of Congress or a Congressional Committee and a Federal agency)

The STT has initiated a communication survey for Coast Guard personnel to assess their preferences for information flow for initiatives such as modernization which will report out in May 2009. It is hoped that the survey will identify common themes and method that will resonate with a majority of the workforce. The STT is also looking to NSM tools for the daunting task of standardization between the Atlantic and Pacific Area methods of doctrine, maintenance procedures, training and more. The use of wikis and discussion forums are being discussed, but nothing is in place as of this writing.

6.1.2 Computer Connectivity

Any venture into using NSM tools for driving organizational change must take into account the member's access to the medium. The Coast Guard supports a standard computer workstation

ratio of 1:3 – one computer workstation for every three people at a unit. This metric is somewhat skewed in that computer workstations that count in this ratio are in places that are often not accessible by all hands (i.e., in the Commander's office or classified spaces).

I noted in Chapter 4 that computer accessibility for junior members of the work force should not be taken for granted by those at the Headquarters level. Even at the unit level, there is disparity. Unit commanders, both afloat and ashore, have a much higher expectation of their subordinates' computer access than is reported by those subordinates (see Table 4-16). As the data show, the disparity is most severe at the extremes of the data field. Unlike the Headquarters, Area, or District level offices, not every person on a cutter or shore crew has a cubicle with their own computer workstation.

Even if the Coast Guard were to solve the computer availability issue, the lack of bandwidth continues to hinder basic functionality aboard deployed cutters. As noted in Chapter 2, the cutter-based web survey responses for this research took between 12 minutes and two hourstwenty minutes through the ship's underway internet connection. One officer reported a delay in receiving the survey link via e-mail for over two days while at sea.

Coast Guard major cutters are notorious for deviations in configuration control and standardization. For this reason, they are considered to have the "most to lose" by the FORCECOM leadership when the modernization comes to fruition. FORCECOM will implement Coast Guard-wide standardized procedures and processes where cutters had previously had considerable autonomy in the past. The issue of access to computers is not confined solely to cutters. If the Coast Guard cannot provide sufficient access to the new Coast Guard Portal during the work day, can the Coast Guard efficiently and safely provide access to Portal for members at home, after the work day? Blog trackers believe that most NSM collaboration, social networking and blogging occur mainly at night and on weekends. If Coast Guard leadership expects the members to use the NSM tools only within CG Portal, they are missing an opportunity to get personnel into the medium during prime collaboration times; nights and weekends.

Remote access (RAS) from a home computer using a virtual private network (VPN) to the Coast Guard's intranet is generally limited to only staff and senior personnel. Currently, it requires a dedicated support staff at the Coast Guard's Operations Systems Center and a \$500 annual fee from a unit's operating budget. The recent DoD network security violations have raised the possibility from federal security authorities that this 'RAS' procedure may no longer be permissible and may stipulate that remote access can only occur from home with governmentissued computers. Is the Coast Guard willing to issue a government computer to each member graduating from boot camp, Officer Candidate School or the Coast Guard Academy?

Consider, for example, the Coast Guard Patrol Forces Southwest Asia (PATFORSWA) model. When Coast Guard personnel report to Manama, Bahrain, they are issued a common cell phone. Not only is this phone their official recall number in case of emergencies, it is connected to the Navy's 5th Fleet security system. Throughout the day, the phones receive security alerts for establishments that are off limits, gate closures and other security-related warnings. These members are connected at all times. It seems that nearly every O-4 and above in the Coast Guard today carries a government-issued Palm Treo or Motorola Q. In fact, during a personal interview in March, 2009, Andrew McGrath from the Headquarters Support Command reports that Coast Guard Headquarters alone accounts for 1,957 government-supported Treos, Q's and other similar devices. Coast Guard – wide, this number approaches 6,000 units according to McGrath. These smart phones can cost up to \$300 to buy per current internet ads and cost up to \$100 per month for service. In addition to these smart phones, most of these Service members carry an additional private cell phone for personal use and likely pay between \$30 and \$60 a month for that service.

The junior members of the workforce also have personal cell phones. Of the junior Coast Guardsmen surveyed (n=402), 98% report having a personal cell phone and 25% of these are smart phones like iPhones, Blackberrys, etc. (see Table 4-12). How the Coast Guard might treat smart phones in the future will be discussed in Chapter 8.

As smart phones become more and more common and complex, the extension of applications will allow more functionality in these compact packages. In fact, a recent Pew Internet and American Life Survey predicted that "the mobile device will be the primary connection tool to the Internet for most people in the world in 2020" (Anderson, 2008).

6.2 Examples of Successful Use of NSM to Promote Organizational Change

Several companies have been able to leverage NSM to facilitate change within their organizations. In her book entitled *Groundswell*, Charlene Li, a Forrester Research consultant, describes several case studies in which NSM-led change is described as "embracing the

groundswell" (Li, 2008: 179). *Groundswell* is a term used to describe the social phenomenon of employees getting what they need within an organization from each other "directly," instead of "indirectly" by going through "proper channels." Two of her case studies are summarized below.

6.2.1 Best Buy

The management at Best Buy, a consumer electronics chain established an internal employee community for their work force called *Blueshirtnation*. Within 13 months, *Blueshirtnation* had grown to include 14,000 employees. Best Buy claims that *Blueshirtnation* is facilitating learning, support and mentoring amongst its employees. It is fostering collaboration on display designs between regional stores and is helping to identify and manage key talent within the company.

6.2.2 Bell Canada

The Bell Canada telephone company is also using NSM technology. Bell Canada created *ID-ah*! in 2005 as a place for employees to pose ideas and suggestions for process and product improvements. *ID-ah*! subsequently allows other employees to comment on those ideas and vote on them to give management a sense of what ideas they might try out. By 2007, 15,000 of Bell Canada's 40,000 employees had used the site while management claims to have "harvested" 27 of those ideas for implementation.

6.3 Other Areas to Leverage NSM in Modernization

6.3.1 Administrative Overhaul

Among other changes, the Modernization effort will change the nomenclature used for nearly every manual and publication in the Coast Guard. Updating all these documents with new organizational designs, titles and procedures is a daunting task that will take years. Complicating this overhaul is the cumbersome official review process that one Coast Guard Flag Officer estimates at 12-15 months for each version change to a manual (Personal Interview of CG Flag Officer, 2009). This process is necessary so that proposed changes in a publication do not contradict other policies or violate laws or statutes. Under the old process, a sponsor organization forwards a proposed revision to key stakeholder organizations within the Coast Guard for comment and approval. Quite often, the sponsor must compile and respond to feedback from stakeholders, eliminate duplicity, if noted, and then send a revised version out for a new round of comments.

Organizations like Booz-Allen Hamilton have used wikis for collaboration of this sort. At BAH, some project proposals and reports have been placed on an internal wiki for any employee, regardless of the physical location, to comment and edit. Steve Radick from BAH claims that this method has been extremely successful and have generated valuable knowledge repositories (Personal Interview of Steve Radick, 2009).

In keeping with knowledge repositories, the *CG Portal* is reputed by the Coast Guard Chief Information Officer Directorate (CG-6) to have better tools for knowledge management for the Service than are currently in use (Personal Interview of Coast Guard Officer, 2009). For example, in my last position at Coast Guard Headquarters, I discovered there was no central database for analysis, reports and studies related to Coast Guard requirements, force size or force structure. Having a readily-accessible database of this sort would have been beneficial.

6.3.2 Competency Management

As mentioned previously, Booz-Allen Hamilton has a robust NSM tool set in place on their intranet with Facebook-like social networking member profiles. BAH has found that these profiles, which include employee competencies, are quite useful in selecting personnel for project teams for different clients.

In the Coast Guard, personnel competencies are managed by the *PeopleSoft*-based HR program called *Direct Access*. *Direct Access* generally limits the descriptions of competencies to a standard drop-down set and is somewhat cumbersome to use. The Coast Guard could use social media networking tools to allow Coast Guardsmen to establish a profile and list their competencies in free form. This would enable personnel to list resumes or non-standard competencies that could be used to select cross-functional teams, or to help organize deployable operations like the Hurricane Katrina response. For example, if a member's profile or resume' stated that they had worked for *Verizon* in New Orleans before joining the Coast Guard, that member's local knowledge might have been valuable during that operation. But, currently, the Coast Guard cannot access such knowledge.

The same holds true for the *modernization* effort. There is the potential for loss of knowledge once the existing Coast Guard commands are disestablished. Member profiles that list prior competencies in a former unit (i.e., former Virginia-based *Cutter Forces Manger for the Atlantic*

Area) could be helpful when someone else, dealing with similar issues (i.e., the new Californiabased FORCECOM Major Cutter Manager), needs expertise in their organization.

6.3.2 Building Trust

As stated previously, a study entitled the *Edelman Trust Barometer 2007* found that 'a person like me' is considered the most credible deliverer of information about a company. Moreover, this study reported that trust in an 'average employee' is twice as high as trust in a CEO" (Edelman Report, 2007). This finding is not out of line with Coast Guard crew's perceptions that were detailed in Table 4-15. My survey data shows that, on average, Coast Guardsmen trust print and on-line media more than they trust official websites. But, how can Coast Guardsmen trust *CNN.com* more than they trust *uscg.mil*? One explanation, in line with the *Edelman Trust Barometer,* is that there are few, if any voices in the official Coast Guard websites for the junior workforce. Perhaps the more 'like me' the voice, the more credible that voice is in the minds of today's junior Coast Guardsmen.

The strength of NSM tools in an organization relies on allowing people to connect, collaborate and share ideas. It is not a guarantee. There are certainly examples of successful companies that spend millions developing NSM tools only to find that no one uses them. Li (2008: 227) believes these tools only work when management is "listening" – when the leadership is engaged, uses the tools themselves, and sponsors employee use of the tools.

I believe that NSM can help shape organizational change in the Coast Guard. The impact of these tools will not be felt overnight. Impact will require a substantial user-base to generate a

'critical mass' of information and engagement. This user base must come from the junior ranks of the workforce.

Moreover, the NSM tools will only be as good as the policies that guide their employment. In this regard, the Coast Guard is likely to see the tools delivered before a policy is developed. Admittedly, it is probably premature to issue comprehensive policy without a thorough understanding of these tools. How these tools might be used in the Coast Guard for Organizational Change will be discussed in Chapter 8.

This chapter described some of the challenges the Coast Guard faces in the upcoming Modernization effort. Although NSM tools may help with these challenges, Coast Guardsmen must first have a basic understanding and comfort level in the NSM environment. That can only happen with time and experience. Chapter 7 will explain some of the NSM tools and concepts introduced in Chapter 1 and in Chapter 6 in more detail, and propose some strategies the Coast Guard might follow in regard to NSM.

7

Chapter 7: Engaging in NSM – What Coast Guard Unit Leaders Can Do

"If you want to be a leader in the Coast Guard, you need these [social media] skills."

(Personal Interview of VADM D Pekoske, 2009)

So far, I have described some of the positive and negative impacts of NSM, and how some organizations are leveraging NSM for organizational change. Before making any recommendations for what the Coast Guard might do. First, I first explain some NSM concepts in more detail. This chapter then outlines potential engagement strategies to help individual Coast Guard leaders at all levels of the organization become more familiar with the NSM environment.

7.1 First Steps

The Social Technographic Ladder that was described in Chapter 1 (and is repeated as Figure 7-1) is a good place to start. Most Coast Guardsmen are "Inactives" or "Spectators" on the ladder, meaning they either have no engagement in NSM (Inactives) or they infrequently read blogs, view podcasts or read consumer reviews on-line (Spectators). This is clear from the data

presented in chapter 4. For the present, I will assume the Coast Guard unit leader is an

"Inactive."



Figure 7-1 – Social Technographic Ladder – Source: Groundswell (Li, 2008)

The first step for any NSM novice or "Inactive" is awareness and exploration. The simplest way to begin might be to encourage Coast Guard personnel to establish a free internet e-mail account on a site like G-Mail (part of Google) or Yahoo. Nearly everyone in the organization has at least one e-mail account (home and work). A separate e-mail account on one of these free providers can be used for blogging or using other NSM sites and allows a user separate their work and personal information.

Next, an "Inactive" could be encouraged to explore tutorial videos on NSM like the ones at Plain English (http:// commoncraft.com) or by searching for "social media lessons" on a site like YouTube. Though sites like YouTube often require a free account registration, one can establish these accounts using the internet e-mail address described previously.

7.1.1 Becoming a "Spectator"

The next step in exploring NSM might be through well-know "Coast Guard friendly" sites that provide an additional layer of NSM richness such as Fred's Place (fredsplace.org), the video-hosting Coast Guard Channel (coastguardchannel.com), or Military.com.

A very simple approach to NSM awareness is to enable "Google Alerts" from a free Google or G-Mail account. Google is known as the current market leader in internet search engine technology. Google Alerts allows a user to specify certain key words ('Coast Guard', 'Search and Rescue' or 'Cutter' as examples) that the user is concerned about. Google then screens daily internet traffic will send the user an alert whenever those key terms or 'tags' (to be discussed in more detail later) are mentioned in web pages, blogs, news stores, etc. The user also receives a link to the site where the tagged word or phrase appears. The alert can come in many formats with an e-mail message being the most common.

Since more than 57% of those Coast Guardsmen surveyed do not read blogs at all, the next step in NSM awareness and progressing towards being a "Spectator" might be to explore the sanctioned Coast Guard NSM sites such as the iCommandant and iFORCECOM blogs that can be accessed through the Coast Guard data network (CGDN). Outside of the CGDN, there are numerous lesser-known Coast Guard and military blogs. For example, if a person wanted to know what is being said in the blogosphere about the Coast Guard, they could visit to the website Technorati.com and search under 'Coast Guard'. This would produce all the recent blog traffic regarding 'Coast Guard' along with some statistics on the frequency of "blog mentions" over the last month. As a follow-up, a unit commanding officer's weekly or daily routine could include searching Technorati under 'Coast Guard' or his or her unit's name that allows them to identify any blogs mentioning those items – positively or negatively.

The resources mentioned above allow a user to view what is being posted without having to sign up or register for a website (with the exception of the Google account). This is, of course in no way an endorsement of any of these entities. These sites are simply a taste of what is in the NSM realm that is germane to the Coast Guard. A more detailed explanation of some of the NSM formats follows.

7.1.2 "Joiners"

Transitioning from a "Spectator" to a "Joiner" essentially entails sharing information and content. Joining a social networking site is a relatively easy way to experience NSM, albeit with much less anonymity than enjoyed as a "spectator." Popular sites like Facebook, MySpace or Linked-In are some of the most common social networking sites and are all free. It is fairly common in the Coast Guard with some 46% of Coast Guardsmen surveyed already having a Facebook account while 45% have a MySpace account. Once a social networking account has been established, one can seek out friends and colleagues fairly easily if they too have an account. Then, to get familiar with those in a network, one can upload some photos and videos to the social networking site. One could take this a step further and share additional content in Flikr or some other photo-sharing site. Exploring these types of NSM sites provides a user with a good sense of how much information people are willing to share with their "friends" through NSM.

The level of engagement and exposure through these social networking sites is up to the user. The web-based applications provide the user with control over what content can be shared and with whom. It is certainly not foolproof and brings to the surface the aforementioned issues of web reputation and the blurring line between personal and professional relationships.

A newer and more succinct variation of the "Joiner" step is known as microblogging. In my opinion, "Microblog" is a misnomer since it has more to do with social networking than it does with blogging. Sites such as *Twitter* allow a user to register for a free account and send short 'blogs' to their network of friends in 140 characters or less. This compressed size enables the microblogs to be easily received on mobile phones and other smart devices. Microblogs are less about conversations and dialogue and more about statements. Many of the Coast Guard District-level public affairs offices have already embraced Twitter to send short-burst press releases with an attached link to the full story. This has been beneficial in increasing the Coast Guard's visibility in the media.

6.1.3 "Collectors"

"Collectors" are users that begin to gather information from disparate NSM sources and process that information according to their own preferences. For example, once a user has identified certain blogs of interest, they could use NSM tools to collect all these blog posts in one place. One option is to use Really Simple Syndication (RSS) feeds that subscribe to a blog and automatically send the blog posts to an Outlook[®] e-mail folder.

This is an easy way to monitor certain blog sites, but typically requires the user have access to the same computer all the time. As depicted in Chapter 4, more than 76% of Coast Guardsmen surveyed claim to have no understanding of RSS feeds, even though the Coast Guard has been syndicating internet releasable message traffic for some time. For example, anyone can subscribe to RSS feeds from *www.uscg.mil* and receive in their Outlook inbox internetreleasable Coast Guard official messages like ALCOASTs, ALCGPERSOMs, ALCGOFFs (different general message types for Coast Guard personnel) and so forth. This also holds true for Google Alerts.

A more transportable blog monitoring method is called a blog 'aggregator'. Aggregators such as *Google Reader* or *Bloglines* are web-based utilities which collect blog posts from disparate web sites and aggregate them into a single page for viewing. This allows the user to log into their blog aggregator website from any location and see what is transpiring in the blogosphere. Another option is to "bookmark" the blog or other sites using a 'favorites' function in Microsoft Internet Explorer[®]. Then, the user can check those sites at whatever frequency deemed appropriate. Once again, this typically requires the user have access to the same computer or server all the time.

A derivative of this is to "tag" content using social bookmarking sites such as del.icio.us.com which, like aggregators, allows the user to save and share their bookmarks to a web-based program and have access to them from wherever they log on. Further, sites like "del.icio.us.com" will allow a user to share their bookmarks or tags with friends. It will also rank those bookmarks by popularity and thereby entice other people to try those sites. Unfortunately, 72% of Coast Guardsmen surveyed have no understanding of tags.

6.1.4 "Critics"

A "Critic" is a NSM user that now offers opinions. One way to become a "Critic" is through online communities. One very basic form of an on-line community is a 'wiki' site like Wikipedia. Wikipedia is a collaborative on-line encyclopedia with millions of user entries that allows users to edit topics from their own expertise. Wikis are becoming commonplace in many corporate IT systems for multi-user collaboration, but only 35% of Coast Guardsmen state that they have any understanding of them. On a positive note, the Coast Guard is already using a wiki to gather input from key stakeholders in the development of the Coast Guard's forthcoming social media policy. Further, wikis will be incorporated into the new Coast Guard Portal for intranet users.

Another way to be a "Critic" is to comment on others' blogs. Again, blogging is about dialogue and most bloggers encourage conversation. Providing feedback to blogs and witnessing the reactions and rebuttals can provide insight into the authenticity, knowledge and passion of the other contributors.

A third and quite simple way to become a "Critic" is to rate or review a product or service. Anyone that has purchased an item from an on-line vendor like Amazon.com has seen the user ratings that perhaps influenced their decision to buy. Contributing to the sites or more broad forums like Angieslist.com can also transition the user to a "Critic" status.

6.1.5 "Creators"

The final rung on the Social Technographic Ladder is becoming a "Creator" by developing and managing his/her own blog. The CG-6 Directorate at Coast Guard Headquarters has developed

a standardized Coast Guard blog template for use on Blogger.com. This template is currently being used by iCommandant, iFORCECOM and others. A follow-on template for use in the new Coast Guard Portal will allow units and individuals to create internal blogs within the Coast Guard intranet.

When establishing a blog, there are some tips for the novice on how to manage that blog. First, the blogger must decide the frequency of input – how often they will add content. It is important to remember that this is a blog and not a journal. Daily input is not necessarily required. There must be something important or compelling in the blog to attract readers. Second, effective blog entries contain authenticity and are the first part of a *conversation* whereby the power of that blogs resides in the dialogue, not the statement. Steve Field coined the concept of "blogging at your pay grade" which is essentially a message to bloggers to remain cognizant of who may be reading their blogs (Field, 2007). Scoble, in his book *Naked Conversations* (2006) identifies additional tips for blogging:

- Talk, don't sell
- Post often and be interesting
- Write on issues that you know and care about
- Blogging costs time
- You get smarter by listening to what people tell you
- Set up your blog for multiple bloggers as a time sharing effort.

(Scoble, 2006)

Another example of blogging guidelines, this one in the governmental realm, is available from

GSA (USA.gov) at http://www.usa.gov/webcontent/technology.

Blogging remains an unfamiliar and uncomfortable environment for most Coast Guardsmen.

Only 37% of those Coast Guardsmen surveyed feel they could, today, respond to a blog in an

official Coast Guard capacity in accordance with current guidance. Venturing into the

blogosphere in a personal setting may alleviate this apprehension and make members feel more comfortable engaging in organizationally-relevant blog discussions. In essence, this becomes an opportunity to "cut one's teeth" in blogging before doing so in an official capacity.

In addition to blogging, "Creators" can write articles for on-line publications or produce their own web pages and create other artistic content for the web. An even more integrated NSM technique, though not specifically mentioned in the Social Technographic Ladder is participating in virtual worlds. There are several three-dimensional virtual world environments today including *World of Warcraft* and *SecondLife*. Wikipedia states that these two sites alone claim more than 15 million on-line participants. In these virtual worlds, users create characters, sometime known as *Avatars* in which they "live" their virtual lives. Even IBM, known in the past for their blue suits, white shirts and red ties, leverages *SecondLife* for their business. IBM's web innovation team holds all teleconference meetings in *SecondLife* with their *Avatar* characters (Personal Interview of Phillip Rosedale, 2009).

In this chapter, I have suggested individual NSM engagement strategies according to the Social Technographic Ladder framework provided by Li (2008). There is no timetable associated with moving up the rungs of the ladder. The speed in which Coast Guard leaders scale the rungs of the ladder is completely up to them. Getting past the "Inactive" rung to become a "Spectator" is the first step. In the next and final chapter, I will provide recommendations for policy that builds upon the data presented in Chapter 4 to address the concerns outlined in Chapters 5 and 6.

Chapter 8: Recommendations and Conclusions

Change has a considerable psychological impact on the human mind. To the fearful it is threatening because it means that things may get worse. To the hopeful it is encouraging because things may get better. To the confident it is inspiring because the challenge exists to make things better. King Whitney Jr. (Famousquotes.com, 2009)

The previous chapters have provided an introduction to NSM and the Coast Guard. This chapter will suggest recommendations for Coast Guard-wide policy and conclude with a brief look at areas that need further study.

As noted several times in this thesis, NSM in the workplace is relatively new. Comprehensive guidance is still under development. The Coast Guard is not alone however. A 2006 survey of 3,500 corporate vice presidents found that 70 percent of respondents reported having no guidelines or policy in place at all for the use of social media within their organization (Melcrum, 2008).

A question yet to be addressed is whether or not the Coast Guard should be a bleeding-edge, leading-edge, mainstream or a laggard organization?' This is an important question for Coast Guard leaders. For example, the 2009 Coast Guard Sector Float Plan identified "Information Management Technology", and within that, "Social Technology" as a key concern for Sector Commanders (U.S. Coast Guard, 2008b). To properly address the issue and develop guidance, I believe the Coast Guard must attack the problem from four fronts: Strategy, Policy, Engagement and Access.

8.1 Strategy

Before a comprehensive policy can be written, the Coast Guard must have a clear strategy in place to specify the desired outcomes of NSM engagement. The Coast Guard can draw parallels between the challenges they face in engaging in social media to similar efforts in industry.

Pharmaceutical organizations must maintain important customer relationships that are heavily regulated by the FDA. As such, public forums for discussions about medications and potential products are tricky and have crucial legal and economic impacts. Compare this to the Coast Guard that must be very careful when speaking about pre-decisional budgetary and organizational issues that may or may not align with Congress, the current Administration or both. A recent article in *Pharmaceutical Executive Magazine* discussed the significant human resources necessary for engaging in social media. It also described a staged framework approach for deciding whether or not to invest in this area. It is called the STOP method:

- What is your <u>Strategy</u>?
- What is your <u>Timeline?</u>
- What is the desired <u>Outcome?</u>
- What will be the <u>Procedures?</u>

(Johnmar, 2007)

It is critical that the Coast Guard also have answers to these questions.

The US Navy is responding to the NSM world by combining the Illustrator Draftsman (DM), Journalist (JO), Lithographer (LI) and Photographer's Mate (PH) ratings into the Mass Communication Specialist (MC) on 1 July 2006. The reason for this change was "a changing environment." At the same time, Allison Barber oversaw the creation of the DoD New Media directorate as a means of extracting the benefits of NSM. Does the Coast Guard need to create or merge ratings to address this issue? Does the Coast Guard need a new organization to develop the policies? I think not.

As has been described, NSM has changed traditional media outlets. No longer are organizations dependent upon the traditional media to carry their message, subject to the decision-making of editorial staffs. Today, NSM allows any organization to transmit their message in multiple forums and may well generate more viewers than traditional media. Further, it allows the organization to target specific audiences that can most benefit from that message. For example, Figure 8-1 shows the disparity between media coverage and actual public interest for major news stories in 2007. As can be seen, traditional media does not always follow the public interest, making it imperative that the Coast Guard have a strategy for effective mass communications that extends beyond traditional 'press releases'.



Figure 4. Public interest vs. media coverage by topic.¹¹⁷

Figure 8-1 - Source: Harvard Berkman Center

In developing this strategy, the Coast Guard must consider not only defensive considerations, but proactive ones as well. For example, amongst Millennials, social media usage differs by gender. The Rapleaf described in Chapter 1 found that while both sexes are using social media in huge numbers, women far outpace the men in social networking sites, while men are far more likely to use on-line gaming (Hoffman, 2008). Could this fact be leveraged for targeted recruiting or better gender policy?

The Coast Guard will need, however, to consider the investment required to play effectively in this space. As outlined in Chapter 5, the US Central Command's experience shows that three full-time personnel are needed to monitor the blogosphere around the clock, and up to ten

dedicated personnel may be required to for timely and effective response in the blogosphere. In light of flat or shrinking budgets, these resources will be hard to come by. The new Coast Guard OPCOM command center will reportedly have a 24/7 media watch to monitor NSM and conventional media. They will employ tools to screen and identify significant events in the NSM environment that require attention at all levels of the organization and parse those response actions to the appropriate level. How this will happen on the ground must be addressed by new policies.

NSM may bring other unintentional consequences. With the proliferation of cell phones, the Coast Guard has found itself often receiving cell phone distress call from boaters instead of the distress calls coming from the use of the traditional VHF Channel 16. Journalist Bill Schreier (2008) has described the concept of the "Next-Generation 911". Though not technically NSM, there exists the possibility that future 911 calls, and accordingly, future SAR calls to the Coast Guard, will come via cell phone, text messages and/or e-mail. The Coast Guard must be ready to deal with this and develop a strategy to respond to these channels.

Additionally, the Coast Guard must address the extensions of NSM in their strategy. For example: How do "friends" in social media affect the security clearance of a Coast Guard member? Our workforce is very willing to collaborate and share on line but do they know who they are really associating with in the virtual world? For example, I have developed friendships with people from Saudi Arabia, China and Pakistan. Will these friendships that exist in the NSM environment require disclosure for my future background checks? Finally, strategy must be developed to determine the extent the Coast Guard will react to information in the NSM channels. Here, the Coast Guard can take lessons from the Central Command (CENTCOM) in developing an appropriate strategy. CENTCOM attempts to identify "key influencers" in the blogosphere. It has currently identified a growing list of around 400 blogs. As new blogs are identified, they are categorized based on their "viewpoint" on CENTCOM operations ("pro-military," "news blogs," "pundit," and "determined detractors") to help shape the tone and message of CENTCOM's responses to these blogs.

"The initial contact with an identified blog is made by a CENTCOM Public Affairs staffer, who writes an e-mail to the author of the blog, informing them of source materials on the CENTCOM website and asked the blogger to post a hyperlink to the CENTCOM website on their website as an additional resource to their readers. The e-mail is written to ensure transparency and full disclosure. At their option, bloggers accept or decline."

(Maher, 2008: 15)

Maher goes on to note that if the blogger refuses, their post is removed from the CENTCOM site and a public statement is made to that effect.

This is an example of how nearly every unit in the Coast Guard, from those in recruiting to those in operations must think about their strategy in the NSM environment. Every Coast Guard leader needs to understand the environment that is changing around them and develop strategies to carry the organization forward. Some critical policies that need to be addressed in the near term follow.

8.2. Policy

8.2.1 CG Portal

Recommendation 1: Establish a liability disclaimer for public-facing collaboration tools on CG *Portal.*

The new Coast Guard Portal will come on line in April 2009 and provide the 'backbone' for Coast Guard NSM engagement. The policy to govern how the portal is administered has yet to be developed.

The Portal will house not only the internally-facing CG Intranet, but also the outward facing internet. Functionality will be such that users outside the Coast Guard's firewall can participate in some on-line forums and blogs that reside inside the firewall. Jerald Jacobs, Lead Counsel for the American Society of Advertising Executives, suggests that [organizational] blogs or forums that engage the public have a click-through disclosure feature that reduces the [organization]'s liabilities (Briscoe, 2007). The Coast Guard will have to develop such a feature.

As depicted in Table 4-19, the majority of Coast Guard Command Cadre surveyed identified "web reputation issues" as their top concern with respect to NSM. This click-through function might inhibit misinformation from being posted on Coast Guard NSM tools and/or provide a mechanism for easily removing such content.

8.2.2 UCMJ

Recommendation 2: Work with DoD, Department of Homeland Security and the Department of Justice to review the Uniform Code of Military Justice for NSM impacts

The Uniform Code of Military Justice (UCMJ) governs the conduct of all members of the Armed Forces of the U.S. The articles of the UCMJ have withstood the test of time and have undergone the gamut of legal reviews and appellate processes. Case law regarding NSM is just beginning. Though there are clear guidelines for members that govern the expression of contempt towards officials (Article 88) and disrespect toward a superior officer (Article 89) among others, the issues of legal burden of proof, expectation of privacy, etc. have not yet been addressed. Table 4-19 illustrated that leadership and chain of command issues were nearly as important to Coast Guardsmen as privacy and security. What will the Coast Guard allow members to say about the organization, their chain of command, and so forth, in the NSM environment? The Department of Defense and the Department of Homeland Security, with possible consultation from the Justice Department, should review the UCMJ in the context of NSM and determine if any changes to the Articles are in order. The Coast Guard may have to lead this review.

8.2.3 Blog Monitoring Policy

As mentioned, the Coast Guard was the first service to issue a policy that authorizes all Coast Guard members to respond to blogs in an official capacity. This policy was published in a standalone message format and has not been integrated into any other aspects of blog monitoring and response. Government and industry are both struggling with question about bloggers. Does responding to a blogger legitimize their views? What is the response threshold? Although the new OPCOM command center will have a NSM watch 24/7, what criteria will the Coast Guard use in determining whether to respond to a particular blog or news article? The Coast
Guard simply does not have the resources to respond to each and every bit of misinformation in the NSM environment. How should the problem be approached? I have several suggestions.

Recommendation 3: Develop and maintain a central list of blogs or sites that are recognized as "stakeholders" of Coast Guard operations.

As shown in Table 4-14, most Coast Guardsmen do not feel comfortable responding to a blog in accordance with Commandant Policy. Narrowing the field of players in the blogosphere might allow Coast Guardsmen to become more familiar with them, and help to reduce the feeling of not knowing where to begin.

A "stakeholder" could be a professional maritime organization, a Congressional watchdog, a general military blogger, etc. The threshold for placing a site on the list could be determined by Coast Guard Headquarters based on viewership, Technorati ratings, subject area, etc. The very positioning of blogs and sites on that list would necessitate a response if misinformation was posted. Other sites could be added to the central list through an established process. For example, Sector Hampton Roads could petition Headquarters to add the *Virginia Pilots*' blog to the central list since that forum is stakeholder in Coast Guard affairs.

Once this list is established, it can be used as part of the screening process for any NSM watch. If web traffic is found concerning the Coast Guard on a site or blog that is not on the central list, it would require an additional level of scrutiny determined by the aforementioned criteria. Based on that screening, the information could be disregarded or sent to an appropriate entity for action. There is of course, no substitute for judgment. A blog with only four readers would be ignored (unless one of those four readers is the Congressman that oversees a House Committee on the Coast Guard). In the absence of established policy, this screening process cannot be done consistently. Partnerships with DoD and other government agencies is perhaps a way to develop these policies.

8.2.4 Blog Response Policy

Recommendation 4: Further develop the Coast Guard's blog response policy to include a standard response for certain situations.

Again, pointing to Table 4-14, Coast Guardsmen are not comfortable in responding to blogs today. On the positive side, the lack of policy and guidance in this regard is much less of a concern to Coast Guard Cadre than other NSM issues as depicted in Table 4-20.

Regardless, once a policy that specifies what blogs are appropriate for responses is established, there should be additional guidance to set the content, tone, and tenor of the response. Circumstances will vary and may concern, for example, inaccurate information, Freedom of Information Act issues, sensitive but unclassified information, and so forth. In one recent case, *Wired News* published an unclassified Army policy document on its Web site. Two days later, *Wired* received an e-mail from an employee of the U.S. Army stating "You have Army Publications hosted on your website illegally," and "There are only 5 Official Army Publications Sites, and you are not one of them. Please remove this publication immediately or further action will be taken" (ABC News.Com, 2007). *Wired* stood its ground and did not remove the content from its website, perhaps because the Army post angered the editors of the magazine.

With thousands of blogs in the NSM environment, it is hard for many to differentiate themselves from the pack. Blogs can be viral and spread quickly. An organizational response like the one noted above can unknowingly add fuel to a small and fairly insignificant issue and increase its virility. The Coast Guard must heed this lesson and develop standard phraseology for situations like this Army case that are less abrasive, portray the Coast Guard in a positive light and prevent potentially antagonizing a blogger or news source to do more ill. Approaching the blogger in a cooperative manner can often yield better results.

Jack Holt from the DoD Office of New Media has proposed some basic guidelines for blogging and blog responses that warrant attention in the development of Coast Guard Policy. He describes these guidelines as the *HISTORY* concept:

Honor - Trust and personal responsibility are core values. Don't violate them.Integrity - Be who you are and don't be anonymous. Be open and honest. Stay in your lane and speak to what you know.

Security - Don't give out personal, privileged, proprietary or classified information.

Transparency - Stick to what you know, provide links, citations, references.

Objectivity - Everyone has an opinion. Stick to the facts and don't pick fights.

Respect - Your audience, coworkers, family, and friends.

Yourself - You are responsible for what you publish. Be authentic and genuine (you are what you publish). Use your best judgment, add value to the conversation and represent us well.

(Personal Interview of Jack Holt, 2009)

The Coast Guard's relationships on the Blog Council will certainly help in the development of NSM policy. As an example of what is occurring in the corporate world, IBM's Social Computing Policy is included as Appendix F.

8.2.5 Training

Recommendation 5: Develop NSM training for the Coast Guard workforce to include: awareness, Operations Security (OPSEC), privacy and UCMJ implications.

As shown in Table 4-20, training and understanding of NSM ranks high amongst Coast Guard Command Cadre concerns. Moreover, the Coast Guard has been unable to provide additional resources to manage social media issues to date. In light of the fact that there will be no new funding or billets for NSM management, there are some things that can be done nonetheless to help Coast Guard leaders. No one in the Coast Guard wants to add unnecessary training to the already burdensome list of annually-required General Military Training (GMT). Any new training programs developed for NSM should be added with due consideration of what training modules in the current GMT matrix are obsolete and can be removed.

The Coast Guard workforce needs basic NSM awareness training. Basic training could cover a broad range of topics from defining wikis, RSS feeds, and other tools. A simple two-page tri-fold "glossy" handout would be moderately low cost and could provide just enough information to get users "over the hump" to begin exploring NSM. An even more effective training mechanism might be a podcast that highlights NSM basics such as the ones described in Chapter 7. A NSM Introduction Podcast would be relatively inexpensive, easy to produce, and have near-zero distribution costs.

Basic user training must be conducted as soon as the *CG Portal* is brought on line. It is, however, difficult to provide training in NSM without the tools on which to demonstrate those skills and awareness sought to be developed. That said, the shortcomings of the old *CG Central* intranet included both its difficulty in use and the lack of formal training for users until after they were required to engage it. The best way to teach the use of NSM tools is by using the tools themselves. PowerPoint "*how-to*" presentations will not be nearly as effective as *CG Portal*-based wikis, tutorials and blogs that demonstrate the tools directly within the NSM environment.

The Coast Guard needs dedicated NSM Operations Security (OPSEC) training. As far as I can discern, no entity in the Coast Guard's security community is currently addressing this concern. It is a pressing need. NSM security training will help prevent identify theft, malware and viruses, and OPSEC violations associated with NSM. Once this training is developed, it should be provided at all accession points for the Service (Academy, Officer Candidate School or Boot Camp).

Until NSM becomes familiar to the Coast Guard, efforts should be undertaken to provide leaders with NSM awareness and some tools. One to two hour teaching modules should be added at Coast Guard leadership and advanced schools such as the Prospective Commanding Officer/Executive Officer/Operations Officer School (PCO/PXO/POPS), the Sector Commander's Course, Leadership and Management School (LAMS), and the Chief Petty Officer's Academy (CPOA) (to name just a few). These are multi-day refresher and preparatory courses for future leaders who would then be expected to be familiar with NSM upon arrival at their new duty stations.

LtGen Caldwell from the Combined Arms Center has been very outspoken in this regard. He noted "All DoD personnel should be trained on how to be a strategic communicator and on guidelines on what is appropriate for them to discuss" (Shachtman, 2008c). This is true for the Coast Guard also.

8.3 Engagement in NSM

Recommendation 6: Coast Guard leaders must engage in NSM now, and not wait for 'perfect' policy.

When I asked ADM Allen how to address Coast Guard leaders' concerns regarding the lack of additional resources for NSM, he replied: "it does not matter if we get additional resources [for NSM] or not. You need to do it. Failure to understand cyberspace will hurt you" (Personal Interview of ADM Allen, 2009). Coast Guard leaders must begin to engage now. This will certainly require a period of adjustment, an acceptance of uncertainty, and an air of forgiveness and experimentation. Coast Guard leaders do not have the luxury of waiting for perfect policy before engaging.

More broadly, however, if the Coast Guard strategy is to reach the public and the youth of America, it will require new channels. Blogger Peter Seeger (2008) opines that "Social media is the mass media for those under 30." Further, he predicts that "social networking will have as

large an effect on American society—and more specifically media consumption—as the countercultural movement did during the 1960s" (Seeger, 2008).

Noah Shachtman, editor of *Wired Magazine's Danger Room* advises: "Giving the lowly sailor a chance to be heard. These are the guys that are believed. Officials are assumed to be lying from the get-go" (Personal Interview of Noah Shachtman, 2009). Shachtman states further that he has been trying to encourage people to identify the 'natural writers' in military units and organizations and allow them to be the 'designated blogger'. Certainly someone who writes well and is passionate about the blog will do a better job than a reluctant commanding officer. Moreover, these personnel could serve as the key "hub" or change agent described by Strines (2002) in Chapter 2.

Further, LtGen Caldwell from the Combined Arms Center has said:

"Every Soldier, Sailor and Airman is a Strategic Communicator. Our troopers are by far the most credible voice of the DoD – when given the opportunity to speak. DoD should establish a wide aperture for our troops to communicate with the public via blogs and social networks and encourage them to speak."

(Shachtman, 2008c)

Coast Guard leaders must become conversant in NSM vernacular and climb the Social Technographic Ladder described in Chapter 7 (Figure 7-1). Each leader should strive to at least reach the status of a "Collector" or "Critic."

8.4. Access and Infrastructure

Wide-spread adoption of NSM in the Coast Guard will not occur without a robust infrastructure

to support NSM tools and member access to the infrastructure. It is uncertain if the Coast

Guard's current IT infrastructure has sufficient bandwidth to handle wide-spread NSM use. One can only speculate at this point on the rate of adoption and use. Aboard cutters at sea, it is certain that NSM adoption will be difficult, if not impossible, with the existing network.

8.4.1 Increased Bandwidth

Recommendation 7: Commission a joint study with DHS to investigate the need for a departmental satellite communications network.

As shown in Table 4-20, access and bandwidth issues are the top concern amongst Coast Guard Command Cadre. Coast Guard cutters at sea are reliant on satellite communications for data transfer. Though many cutters are equipped with military satellite communication systems (MILSATCOM), the majority rely on commercial satellites (i.e., INMARSAT) for connectivity. Under this regime, the best data exchange rate a cutter at sea can now get is typically 128kbps per channel (approximately 2X 'dial-up' speed). Quite often, these channels must be shared amongst cutters reducing that data rate by a factor of two, three or more. During one visit by ADM Allen to a cutter in the U.S. Virgin Islands in 2007, it took more than three minutes to log onto a standard Coast Guard computer and access the *CG Central* start page via this satellite link. Coupled with the efforts to standardize financial systems and the use of web-based programs for general administrative tasks throughout the Coast Guard, cutters are frustrated with underway connectivity – today!

If NSM is wide-spread, bandwidth considerations will cut across all communities in the Coast Guard and it is possible that the cutter fleet will be further left behind. The Coast Guard is already looking into different frequency spectrums and other methods to alleviate the problems faced today. Will this be enough five or ten years from now? Will the Coast Guard be able to afford the commercial satellite access when many competitors for bandwidth (i.e., private businesses) are willing to pay more for it? At some point, the Coast Guard, in concert with the Department of Homeland Security, must pursue a DHS communications satellite system. Though not a popular topic in today's tight fiscal budget climes, this is the only longterm and cost effective solution for a growing need. Again, partnerships and cost-sharing with DoD may provide appealing risk mitigation. This area is certainly in need of further study.

In the interim, it is imperative that the STT's outreach plan dedicate special efforts to major cutter outreach when the Coast Guard computer workstation and future NSM tools may simply be inaccessible or too bandwidth-intensive to use.

8.4.2 Modifications to the Existing Network

The new *CG Portal* will allow for better management of unit web pages and use of collaborative tools. Yet, within the existing Coast Guard IT network, several changes can be made to make NSM more accessible.

Recommendation 8: Enable RSS Feeds in Microsoft Outlook within the Coast Guard IT network.

Coast Guard security considerations restrict access to many NSM sites due to the threat of viruses, malware, Trojans and other harmful software. While some sites such as *Blogger.com* and *Google.com* have been carefully screened and are now allowed past the firewall, most sites are not. These restrictions make it difficult for Coast Guard leaders to monitor some NSM sites

and maintain awareness of what is being said about their unit or their Service. As mentioned in Chapter 7, Microsoft Outlook has the capability of serving as an RSS feed aggregator.

If the Coast Guard were to enable RSS feeds in Outlook, Coast Guard leaders could subscribe to blogs of interest and have those RSS-enabled blog posts sent to them daily. In this configuration, the blog posts would pass through the Coast Guard's virus filters and be safely deposited into an Outlook folder. Nearly every Coast Guard officer and senior enlisted member has their own computer workstation and looks at Outlook throughout the day. This move alone could greatly increase Coast Guard leaders' awareness and engagement in NSM while eliminating the need to individually search for various blogs across the internet.

Enabling RSS feeds in Microsoft Outlook would also allow for services such as *Google Alerts* to monitor web traffic and despot alerts into an Outlook RSS folder instead of through multiple emails. Depending on how may alerts a user sets up in Google, this could translate into preventing hundreds of e-mails per day in one's in-box. This also allows the user to select what blogs to monitor based on their current assignment or interests instead of a prescribed list of blogs from a central source.

8.4.3 Access for Junior Personnel

Recommendation 9: Commission a study to review the standard computer workstation allowance policy for Coast Guard units.

As shown in Table 4-18 the vast majority of Coast Guardsmen surveyed believe more computer access would help junior personnel do their jobs. This result is supported by Table 4-17. This

table shows that even though Command Cadre personnel recognize that their subordinates lack sufficient access to government computers, these field level leaders generally overestimate the computer access that their subordinates have today. As the Coast Guard is becoming less paper-oriented and more web-based, the organization cannot afford to leave any of the workforce behind.

Similar to the bandwidth dilemma, access to the *CG Portal* for junior personnel is critical if they are to use Coast Guard NSM tools. The question is how to establish access to the 'portal' both during and after work hours. During work hours, there simply are not enough workstations to make it practical for all hands to be on line when needed. The Coast Guard must re-visit the unit computer allowance that specifies a standard 3:1 ratio of personnel to workstations.

Recommendation 10: Begin a pilot program to evaluate the internet kiosk concept at a Coast Guard small boat station and aboard a major cutter.

It has been suggested by many that Coast Guard units could have an "internet kiosk" for junior personnel. The model for this is being employed at forward operating bases in Iraq and Afghanistan. This kiosk set-up would provide additional computer workstations at each unit without drastically increasing in office space. Since the underlying infrastructure already exists in the form of fiber-optic lines and servers, the marginal cost of adding banks of laptops for Coast Guard units would be small with perhaps a corresponding increase in usage and morale.

8.4.4 Remote Access

The lack of unrestricted access to Coast Guard computers during the workday, coupled with the fact that most NSM traffic occurs at night and on the weekends could result in an alarming lack of use of the *CG Portal* by junior Coast Guard members.

Recommendation 11: Enable remote access to CG Portal NSM tools for Coast Guard members.

As stated previously, Coast Guard members that want to connect remotely (from home or elsewhere) can do so on a personal computer with a *RAS* token and a \$500 unit-funded annual fee. For the most part, only senior personnel are issued RAS tokens. If network security requirements dictate that full remote access to the Coast Guard IT network can only be accomplished on government computers in the future, this will further isolate some Coast Guard members.

The new *CG Portal* will reportedly allow for non-Coast Guard users (DHS, DoD, etc.) outside the Coast Guard's firewall to collaborate with Coast Guardsmen through NSM tools and sites within the firewall. This is a planned future capability. A logical extension of this principle would be to grant access to every Coast Guard member for a specified set or category of NSM applications like e-mail, blogs, wikis, on-line publications, internal social networking sites and forums, as soon as *CG Portal* is operational. This would provide a test bed to gather data for a future application allowing non-Coast Guard users to collaborate inside the firewall. This policy might eventually eliminate the need for many existing RAS token accounts.

8.4.5 Smart Phones

Recommendation 12: Conduct a feasibility experiment by: (a) equipping junior personnel with government-issued 'smart' cell phones and, (b) allowing personal 'smart' cell phones on the Coast Guard IT network.

As noted previously, smart phones may hold the key to future internet and NSM access. Cell phone configurations will continue to become more complex with every new product line. Smart phones are becoming more commoditized and, therefore, affordable. Table 4-12 showed that Coast Guard Crews seem to be ahead of the trend in smart phone ownership. The Coast Guard should explore ways to allow these smart phones to link the workforce to NSM through some kind of a "*CG Portal to-Go*."

There are a variety of smart phones compatible and approved for the Coast Guard's security software package. A review of the Coast Guard Headquarters Support Command telephone support site on 5 March 2009 reveals that there are currently seven (7) approved smart phone models including manufactures like Palm, Samsung and HTC. Thus, to put one of these devices in the hands of the entire workforce is not only feasible but potentially appealing to the workforce.

Since the majority of the workforce already pays out-of-pocket for their personal cell phone, there is maybe a marginal cost point at which these members would be willing to pay, in addition to their current monthly bill, for access to their Coast Guard account e-mail. In some cases, the perceived value in no longer having to carry two separate phones (personal and governmental) may be worth paying a higher monthly rate. To entice those members to adopt this system, the Coast Guard could potentially subsidize the members' smart phones with a nominal monthly payment dispersed in their pay. Would a potential \$20 or \$30 subsidy in pay offset the extra cost and be enough to convince members to standardize?

This would require additional resources in the form of IT support since the number of smart phones employed in the Coast Guard could jump nine-fold (as high as 50,000). Other costs could include additional licensing fees for software. Potential off-sets for these resources could come from the reduced need for RAS support. But, if the burden of billing shifts from the unit to the member, the human resources currently needed to reconcile and manage billing would be reduced. Further, if the Coast Guard were to go forward with this idea, the Service would wield significant bargaining power in negotiating group rates with the cell phone service providers. This could translate into reduced monthly service fees for members, thus negating the need for any kind of personal subsidy at all.

There are undoubtedly security and potential legal concerns with this concept that would require detailed analysis and review. While a business case analysis of this idea is not part of this thesis, it represents an area ripe for further study. Coast Guard Headquarters, with more than 1,900 of these devices in use, is an ideal location for an experimental pilot program. If the Coast Guard were to attempt this, they might lead the way for other government agencies. Certainly a robust business case analysis of cell phone subsidies or issuance is required before Coast Guard leadership could consider adopting such a policy.

A word of caution with respect to equipping the workforce with *CG Portal to Go*. Employees may in fact reject the offer of a government-affiliated smart phone since it may impose a sense of being unable to 'escape' work. Of those who own Blackberries and PDAs; 63% feel that they

work more hours as a result of 24/7 connectivity and 30% feel that work demands placed on the, have increased (Madden & Jones, 2008).

8.5 Organizational Change

8.5.1 Administrative Overhaul

As described in Chapters 3 and 6, there are significant challenges associated with the Coast Guard's Modernization effort. Among these challenges, the Modernization effort will change the nomenclature used for nearly every manual and publication in the Coast Guard.

Recommendation 13: Experiment with wikis and other NSM tools for Coast Guard wide collaboration in advance of the Modernization.

The use of wikis within the new Coast Guard Portal could streamline the task of updating the hundreds of manuals, publications and instructions for the post-Modernization Coast Guard. Proposed changes to a publication could be posted on a wiki with a specified timeline for comment. As each stakeholder enters comments, the remaining stakeholders see them instantly and can shape their input accordingly. As the document is updated by the sponsor, the stakeholders could then electronically "sign-off" on their approval, section by section.

NSM tools can also be used for revising standard Coast Guard operating and maintenance procedures. Assume, for example, that cutters in the existing Pacific Area have found that adding a preservative to a ship's water-maker will extend the life of an expensive membrane by 30 days. Assume also that Atlantic Area cutters have found that the use of this preservative inadvertently reduces water-making capacity and is not necessarily cost effective. Which procedure is correct? These disparities could be placed in a blog or forum for comment. Input that would never have even been solicited before can be gathered from all levels of the service to help leadership adjudicate which variation of the procedure will be best implemented. The STT has already proposed the use of wikis or blogs for this purpose.

Further, any Coast Guard member that has been on active duty since 2001 has felt the confusion of trying to decipher the differences between numbered headquarters staffs, changing organization names, and the like. Forums and blog tools in NSM can help, similar to sites like *Ask.com*. For example, if a member does not know who to talk to about Search and Rescue School (is it OPCOM or FORCECOM??), they could use the forum to pose the question and get answers from other users. An on-line forum or wiki could easily generate a "call for studies" from the entire Coast Guard and compile all that information into a NSM-powered, search-based knowledge repository.

During any large-scale reorganization like the Coast Guard Modernization efforts, reams of valuable information and knowledge are lost in the shuffle. If we extend the knowledge repository concept to Modernization, all the disparate reports, analyses and data from the existing pre-modernization commands could be collected and stored. This could be collected subject by subject, for future consolidation in the post-modernized Coast Guard before these commands are disestablished and resident knowledge is lost.

It is imperative however, that these processes begin while key information holders are still in place in their pre-Modernization positions. Once Modernization occurs and these key personnel start rotating into new assignments and assuming new duties, their resident knowledge will disappear. Recommendation 14: Use NSM tools as a conduit for junior members of the Coast Guard to speak about their Modernization success stories.

There are and will continue to be success stories in the Modernization effort. For example, the Coast Guard will change the maintenance and support procedures for their fleet of over 1,700 small boats. The new procedures were first implemented in a pilot program at selected units. I have heard anecdotal evidence that within those units there are junior personnel who are very pleased with the new system. Those personnel should be recruited as 'trusted agents' by the STT and given a forum in the CG Portal to communicate the successes of the new system to their peers.

These forums could also alleviate some of the trust issues described in Chapter 6 and facilitate more "buy-in" from junior personnel. These success stories will carry far more power and authenticity if they come from the 'deck plates' rather than from members of the 'high command.' In turn, these junior members could be rewarded with some sort of recognition like a flag letter, unit coin, and so forth.

8.5.2 Knowledge Management

Professional development forums are another application of NSM with enormous potential to help the work force in the Coast Guard. Sites like *Fredsplace.org* and *Military.com* serve as unofficial information repositories for enlisted men and women in a public forum.

Recommendation 15: Use NSM tools in *CG Portal* to create discussion forums for each rating, specialty or interest.

Within the Coast Guard Portal, a professional development forum for each rating, competency or interest could be an extremely valuable tool and allow for more detailed discussion. It must be placed behind the protection of the security firewall. These forums could be managed by the Rating Force Master Chiefs (the senior enlisted members of each rating) and give them better access for mentoring their Petty Officers. In the dot-com world, these forums are often referred to as "community of practice" and have proved their value in a number of public and private organizations (Interview of John VanMaanen, 2009).

8.5.3 Other Policy

Recommendation 16: Issue comprehensive NSM policy for the Coast Guard in 2009.

It is no surprise that a comprehensive NSM policy for the Service has yet to be developed. Based on my interview data, a forthcoming rewrite of the Coast Guard Public Affairs Manual with sections on NSM is not expected to begin until the fall of 2009. Much of this delay stems from manpower shortages and the desire to wait for the introduction of the new CG Portal before policy is issued. I submit that the Coast Guard cannot wait that long.

The Coast Guard should seek broad input from the field in the development of the policies. This should start now. Detailed interim guidance should be promulgated sooner rather than later. Relevant of industry or government NSM policies could be borrow and modified for this purpose as a stop-gap measure until comprehensive policy is developed. See, for example, the corporate NSM policy at IBM, included as Appendix G.

8.6. Conclusions

When beginning this thesis, I hypothesized that I would identify large gaps in awareness and capability between the leaders in the Coast Guard and the new generation of the workforce with respect to the NSM environment. In reality, it appears that most members of the Coast Guard are novices of one sort or another.

In an emerging NSM environment, the Coast guard has embarked on a critical modernization effort to make the Service more flexible and agile. There are numerous changes taking place at once and this is worrisome for the Coast Guard. Embracing NSM during the Modernization effort is, to many, yet another change and hence unnerving.

Whatever steps are taken in the near-term, the Coast Guard must adapt to the changing environments. This adaption must come quickly and be accompanied by the right set of comprehensive policies, training efforts and tools. A.J. Frame provides the following analogy:

"[Encyclopedia] Britannica's attempt to adjust to today's wiki world is instructive to **government**. Even the most venerable institutions are shaken to the core by the new order. A standard response to competitors is to copy their modus operandi, which is hardly an innovative way to deal with life-threatening challenges. Traditional organizations that are going to survive — and even thrive — in the new order need to reinvent themselves thoroughly. Simply adopting new technologies without reworking the organization to accommodate them in innovative ways is a formula for failure"

(Frame, 2008: 44).

In this thesis, I have traced the history of the Coast Guard to provide a context for how a small Service can continue to aid the country at large. Despite changing environments and formidable challenges, the Coast Guard has seemingly always found a way to succeed. Delving into the NSM environment will seem risky to most members of the Coast Guard. But the Coast Guard is used to taking risks. In 1904, the Revenue Cutter GRANT was interdicting illegal Chinese immigrants and opium in the vicinity of Washington State. GRANT then used a new wireless telegraph to coordinate the interdiction – the first time this had been done (long before the US Navy used the technology). By 1907, the US Congress had mandated that all Revenue Cutters be equipped with a wireless telegraph (Personal Interview of ADM Allen, 2009).

In this thesis, I never expected to discover *the* solution. My aim was to identify some key issues and provide some insights that might help shape decision making in the Coast Guard. This effort has certainly, in my mind, identified areas for further study. It is my hope that this research will help to provide useful information and a broader perspective to interested Coast Guard personnel and help shape the development of Coast Guard NSM policy. It is my further hope that commanders in the field might reference this work in the interim as a means to begin their engagement in the NSM environment which can and will facilitate the Coast Guard's Modernization effort.

Asset	Asset Description	Typical Missions
- the	421' High Endurance Cutter; operates worldwide, # in service: 1 of 8 planned	Counter Drug, Alien Migrant Interdiction, PWCS, Living Marine Resources, Defense Operations, Search and Rescue
1	378' High Endurance Cutter; operates worldwide, <i>#</i> in service: 12	Counter Drug, Alien Migrant Interdiction, PWCS, Living Marine Resources, Defense Operations, Search and Rescue
	270' Medium Endurance Cutter; operates worldwide, # in service: 13	Counter Drug, Alien Migrant Interdiction, PWCS, Living Marine Resources, Defense Operations, Search and Rescue
	210' Medium Endurance Cutter; operates in western hemisphere, # in service: 14	Counter Drug, Alien Migrant Interdiction, PWCS, Living Marine Resources, Search and Rescue
	110' Patrol Boat; operates worldwide (with support group) # in service: 41	Counter Drug, Alien Migrant Interdiction, PWCS, Living Marine Resources, Defense Operations, Search and Rescue
1	87' Patrol Boat; operates near shore # in service: 66 of 75 planned	Counter Drug, Alien Migrant Interdiction, PWCS, Living Marine Resources, Search and Rescue
	225' Ocean Going Buoy Tender; operates in western hemisphere, # in service: 16	Aids to Navigation, Alien Migrant Interdiction, PWCS, Ice Operations, Search and Rescue
	175' Coastal Buoy Tender; operates near shore in US, # in service: 14	Aids to Navigation, Alien Migrant Interdiction, PWCS, Search and Rescue
	140' Harbor Tug; operates in harbors and near shore # in service: 9	Ice Operations, Alien Migrant Interdiction, Living Marine Resources, Search and Rescue

Appendix A: Coast Guard Platforms and Units

1	65' Harbor Tug; operates in harbors # in service: 11	Ice Breaking, PWCS, Search and Rescue, Aids to Navigation
	47' Motor Life Boat; operates up to 50 miles offshore in heavy surf, # in service: 117	All missions except Ice Operations and Defense Operations
	45' Medium Response Boat; operates near shore (up to 50 miles offshore) # in service: 1 of 100 planned	All missions except Ice Operations and Defense Operations
	25' Response Boat; operates in harbors and near shore (up to 10 miles offshore) # in service: 457	All missions except Ice Operations and Defense Operations
- AL	HC-130 Airplane # in service: 27	All missions except Defense Operations
- 2	HU-25 Airplane # in service: 19	All missions except Ice Operations and Defense Operations
	HH-60 Helicopter # in service: 42	All missions except Ice Operations and Defense Operations
	HH-65 Helicopter # in service: 107	All missions except Ice Operations and Defense Operations
	Coast Guard Command Centers; operate 7X24 managing Coast Guard operations; local, regional, and national focus # in service: 50	All missions
	Coast Guard Vessel Traffic Service Centers; operate 7X24 managing commercial traffic in high traffic ports; local focus # in service: 10	Aids to Navigation, Marine Safety

Appendix B: Social Media Web Survey for Command Cadre

Commanding & Executive Officers: over the past six months, the Commandant has issued several ALCOAST messages highlighting the need to understand and manage the impacts of Social Media on the Coast Guard. Social Media can be loosely defined as the collection of electronic social and networking tools and applications in the latest generation of the internet (WEB 2.0) such as FaceBook, MySpace, blogging, etc. ALCOAST 457/08 describes Social Media as

"SOCIAL MEDIA, ALSO REFERRED TO AS THE NEW MEDIA OR WEB 2.0, IS THE EVOLUTION AND INTEGRATION OF INFORMATION TECHNOLOGY AND SOCIAL INTERACTION THROUGH VARIOUS MEDIA INCLUDING BLOGS (WEB LOGS), WIKIS, SOCIAL NETWORKS, REALLY SIMPLE SYNDICATION (RSS) FEEDS, SOCIAL BOOK MARKING, AND PODCASTS.

This survey is in support of an applied thesis research project by a Coast Guard officer at MIT attempting to identify these issues and impacts and develop a strategy to assist not only Coast Guard senior leadership, but the unit commander both at sea and ashore. The survey should take no more than 15 minutes and can be anonymous should you choose.

Name (optional) Unit (optional) Unit Type (Cutter, Sector, Staff) Position (Command Cadre, Subordinate)

Do you feel that you have a good understanding of Social Media as described in ALCOAST 457/08?

Do you currently or have you used the following applications, or visited these pages in the past 6 months:

FaceBook	MySpace	Flikr	Twitter
LinkedIn	Blog.Com	iCommandant	Fred's Place
Military.com	RSS Feeds		

Does your unit have a web page?

How often do you read web blogs?

Please rank how you communicate with your local friends & peers (people at the same unit or within the same city)?

Landline	Cell Phone	e-mail	In Person
Text Messaging	Other (please list)		

Please rank how you communicate with your long distance friends & peers (people NOT within the same city)?

Landline	Cell Phone	e-mail	In Person
Text Messaging	Other (please list)		

Please rank how you believe your Subordinates communicate with local friends & peers (people at the same unit or within the same city)?

Landline	Cell Phone	e-mail	In Person
Text Messaging	Other (please list)		

Please rank how you believe your Subordinates communicate with long distance friends & peers (people NOT within the same city)?

Landline	Cell Phone	e-mail	In Person
Text Messaging	Other (please list)		

Please rank your source of news and current events: TV Print Websites RSS feed Other (list)

What resources do you lack as a Commanding/Executive Officer in managing social media?

Would you respond to a web blog regarding your unit that you discovered or was brought to your attention?

How many minutes per day do you dedicate to managing social media?

- Checking blogs
- Reviewing news sources for unit-related stories
- Managing web pages

Managing personnel issues WRT social media

Are you familiar with a term called "web reputation"?

What percentage of your subordinates use these applications daily (assuming internet connectivity)?

What is your single biggest concern WRT social media?

Do you maintain a separate non-CGDN internet connection for unit usage? If so, why and at what monthly cost?

What negative impacts has social media had on your unit, if any?

What positive impacts has social media had on your unit, if any?

Appendix C: Social Media Web Survey for Crews.

Fellow Guardians: over the past six months, the Commandant has issued several ALCOAST messages highlighting the need to understand and manage the impacts of Social Media on the Coast Guard. Social Media can be loosely defined as the collection of electronic social and networking tools and applications in the latest generation of the internet (WEB 2.0) such as FaceBook, MySpace, blogging, etc. ALCOAST 457/08 describes Social Media as

"SOCIAL MEDIA, ALSO REFERRED TO AS THE NEW MEDIA OR WEB 2.0, IS THE EVOLUTION AND INTEGRATION OF INFORMATION TECHNOLOGY AND SOCIAL INTERACTION THROUGH VARIOUS MEDIA INCLUDING BLOGS (WEB LOGS), WIKIS, SOCIAL NETWORKS, REALLY SIMPLE SYNDICATION (RSS) FEEDS, SOCIAL BOOK MARKING, AND PODCASTS.

This survey is in support of an applied thesis research project by a Coast Guard officer at MIT attempting to identify these issues and impacts and develop a strategy to assist not only Coast Guard senior leadership, but the unit commander both at sea and ashore. The survey should take no more than 15 minutes and can be anonymous should you choose.

Name (optional) Unit (optional) Unit Type (Cutter, Sector, Staff) Position (Command Cadre, Subordinate)

Do you feel that you have a good understanding of Social Media as described in ALCOAST 457/08?

Do you currently or have you used the following applications, or visited these pages in the past 6 months:

FaceBook	MySpace	Flikr	Twitter
LinkedIn	Blog.Com	iCommandant	Fred's Place
Military.com	RSS Feeds		

Does your unit have a web page?

How often do you read web blogs?

Please rank how you communicate with your local friends & peers (people at the same unit or within the same city)?

Landline	Cell Phone	e-mail	In Person
Text Messaging	Other (please list)		

Please rank how you communicate with your long distance friends & peers (people NOT within the same city)?

Landline	Cell Phone	e-mail	In Person
Text Messaging	Other (please list)		

What kind of cell phone do you have? Smart Phone (iPhone, Blackberry, Treo) Regular Cell Phone No Cell Phone

Please rank your source of news and current events:

TVPrintWebsitesRSS feedOther (list)

Would you respond to a web blog regarding your unit that you discovered or was brought to your attention?

How many minutes per day do you dedicate to managing social media?

Checking blogs Reviewing news sources for unit-related stories Managing web pages Managing personnel issues WRT social media

Are you familiar with a term called "web reputation"?

What percentage of your subordinates use these applications daily (assuming internet connectivity)?

What is your single biggest concern WRT social media?

Do you maintain a separate non-CGDN internet connection for unit usage? If so, why and at what monthly cost?

What negative impacts has social media had on your unit, if any?

What positive impacts has social media had on your unit, if any?

Appendix D: Social Media Interview Protocol

The following template was used as a basis for interviews of key personnel. The interviews were conducted in a conversation format. Not all questions were asked of each subject. Each interview was somewhat unique with different follow-on questions asked of different interviewees.

How are you leveraging Social Media within your unit? What social media tools are you using? Is this (these) an official CG web site? Are these tools on the Coast Guard Data Network (CGDN)? If not, do you have a non-CGweb internet service provider that you are paying for? What kind of social media routine do you have (check sites from home, check 3X day, etc)? What are the risks that you see associated with using these tools? Do you have a Social Media horror story? Do you have a Social Media success story? How do social media relationships affect your subordinates? Are you working on social media policy at this time?

Are you working on developing social media training at this time?

Appendix E: New or Social Media Terminology

The following are taken directly from Urbandictionary.com and Quickonlinetips.com

- Audioblogging Also called audioblog, MP3 blog or musicblogs. A variant on the blogging using audio instead of text. Created by audioblogger.
- Autocasting is an automated form of podcasting
- Blog short form for weblog (see below)
- Blogcasting the blog and the podcast merged into a single website.
- Blogger a person who blogs
- Blogging the act of posting on blogs
- **Blog Hooligan** An enabler for truth. One who speaks truth to power. People who provide real news and opinions and are no longer at the mercy of, or controlled by MSM
- **Blogosphere** The internet blogging community
- Blogroll list of links to other blogs in your sidebar. Also see blogrolling.com
- Blog troll ap person who lives in their parents basement and lies in wait to pounce on a blog
- Blogophobia Fear of blogs and blogging.
- Bloglines, Rojo, Newsgator, Kinja, are News Aggregators that display content from syndicated Web content from web feed. Can be configured online or downloaded on your desktop. Like . Also called RSS readers, feed readers, feed aggregators or news readers
- Blurker a blog reader not posting comments, just lurking around quietly.
- **Captcha** short for "Completely Automated Public Turing test to tell Computers and Humans Apart". Those word and letter verification images you need to type in to show you are human and not a bot. Helful to block automated spam comments.
- **Cloud Computing** Using a web interface to access personal data and applications stored on a remote server such as a user having access to Google Docs, Google Calendar and Gmail.
- Feedburner a professional feed management system
- Feedblitz, Zokooda Email subscriptions and newletter tools.
- **FTP** short for file transfer protocol. Transferring file to and fro from your web host using FTP tools like Filezilla
- Index page the front page fo the blog
- Metablogging writing articles about blogging
- **Moblogging** Also called **moblogs**. A blog posted and maintained via mobile phone. Moblogs are created by **mobloggers**.
- **OPML** short for Outline Processor Markup Language. It is an XML format for outlines. Easily import and export multiple blog subscriptions between different rss aggregators.
- Odeo, Podnova are Podcatchers, a form of aggregator used to automatically download podcasts and can sometimes transfer a portable media player. Like
- Pageflakes, Newsvine Track multiple feeds on a single page by modules.
- Permalink A link to a specific article
- **Photoblogging** a blog predominantly using and focusing on photographs and images. Photoblogs are created by **photobloggers**
- **Photofeed** a web feed with image enclosures.
- **Ping** Short for Packet Internet Grouper. Blog and ping helps to notify other blog tracking tools for updates, changes and trackbacks.
- **Pingback** See trackback.
- Pingomatic, Pingoat ping multiple blog tracking services. More

- **Podcast, Podcasting** a method of distributing multimedia files (audio / videos) online using feeds for playback on mobile devices and personal computers. **Podcasts** are created by **podcasters**.
- **Post, Entry** individual articles that make up a blog
- RDF short for Resource Description Framework. A web content syndication format.
- **RSS** a family of web feed formats used for Web syndication. Short form for Really Simple Syndication (RSS 2.0), Rich Site Summary (RSS 0.91, RSS 1.0), RDF Site Summary (RSS 0.9 and 1.0). Word press generates RSS 2.0
- Sideblog A smaller blog usually placed in the sidebar of a blog.
- Tags labeling / attaching keywords to collect similar posts
- **Tag cloud** Displaying tags lists or keywords in a blog.
- Technorati a real-time search engine that keeps track of what is going on in the blogosphere
- **Template** the blog presentation design
- **Trackback** A system by which a ping is sent to another blog to notify that their article has been mentioned by you
- **Twitter** Social networking site that allows users to send a brief text blurb of 140 words or less to their network of friends
- Vlogging Also called video blogging. Shortened to vlog. Posted by vlogger. A variant on the blogging using video instead of text.
- Web Feed allows online users to subscribe to websites that change or add content regularly.
- Wiki a collaborative on-line software that allows readers to add and edit content.
- Web 2.0 The participatory internet including blogs, wikis, social networking. Does not connotate any improvements on internet technology
- **Weblog** An online dated diary listing your periodic thoughts on a specific topic, often in reverse chronological order.
- XML short for eXtensible Markup Language. a general-purpose markup language for syndication formats used on blogs.

Appendix F: IBM Corporate Social Computing Policy

The following are taken directly from IBM's Blogging Guidelines at IBM.com (February, 2009)

Blogs, wikis, social networks, virtual worlds and social media

In the spring of 2005, IBMers used a wiki to create a set of guidelines for all IBMers who wanted to blog. These guidelines aimed to provide helpful, practical advice—and also to protect both IBM bloggers and IBM itself, as the company sought to embrace the blogosphere. Since then, many new forms of social media have emerged. So we turned to IBMers again to re-examine our guidelines and determine what needed to be modified. The effort has broadened the scope of the existing guidelines to include all forms of social computing.

Below are the current and official "IBM Social Computing Guidelines," which continue to evolve as new technologies and social networking tools become available.

Introduction

Responsible engagement in innovation and dialogue

Whether or not an IBMer chooses to create or participate in a blog, wiki, online social network or any other form of online publishing or discussion is his or her own decision. However, emerging online collaboration platforms are fundamentally changing the way IBMers work and engage with each other, clients and partners.

IBM is increasingly exploring how online discourse through social computing can empower IBMers as global professionals, innovators and citizens. These individual interactions represent a new model: not mass communications, but masses of communicators.

Therefore, it is very much in IBM's interest—and, we believe, in each IBMer's own—to be aware of and participate in this sphere of information, interaction and idea exchange:

To learn: As an innovation-based company, we believe in the importance of open exchange and learning—between IBM and its clients, and among the many constituents of our emerging business and societal ecosystem. The rapidly growing phenomenon of user-generated web content—blogging, social web-applications and networking—are emerging important arenas for that kind of engagement and learning.

To contribute: IBM—as a business, as an innovator and as a corporate citizen—makes important contributions to the world, to the future of business and technology, and to public dialogue on a broad range of societal issues. As our business activities increasingly focus on the provision of transformational insight and high-value innovation - whether to business clients or those in the

public, educational or health sectors—it becomes increasingly important for IBM and IBMers to share with the world the exciting things we're learning and doing, and to learn from others.

In 1997, IBM recommended that its employees get out onto the Internet—at a time when many companies were seeking to restrict their employees' Internet access. In 2005, the company made a strategic decision to embrace the blogosphere and to encourage IBMers to participate. We continue to advocate IBMers' responsible involvement today in this rapidly growing space of relationship, learning and collaboration.

IBM Social Computing Guidelines: Executive Summary

- 1. Know and follow IBM's Business Conduct Guidelines.
- 2. IBMers are personally responsible for the content they publish on blogs, wikis or any other form of user-generated media. Be mindful that what you publish will be public for a long time—protect your privacy.
- 3. Identify yourself—name and, when relevant, role at IBM—when you discuss IBM or IBMrelated matters. And write in the first person. You must make it clear that you are speaking for yourself and not on behalf of IBM.
- 4. If you publish content to any website outside of IBM and it has something to do with work you do or subjects associated with IBM, use a disclaimer such as this: "The postings on this site are my own and don't necessarily represent IBM's positions, strategies or opinions."
- 5. Respect copyright, fair use and financial disclosure laws.
- 6. Don't provide IBM's or another's confidential or other proprietary information. Ask permission to publish or report on conversations that are meant to be private or internal to IBM.
- 7. Don't cite or reference clients, partners or suppliers without their approval. When you do make a reference, where possible link back to the source.
- 8. Respect your audience. Don't use ethnic slurs, personal insults, obscenity, or engage in any conduct that would not be acceptable in IBM's workplace. You should also show proper consideration for others' privacy and for topics that may be considered objectionable or inflammatory—such as politics and religion.
- 9. Find out who else is blogging or publishing on the topic, and cite them.
- 10. Be aware of your association with IBM in online social networks. If you identify yourself as an IBMer, ensure your profile and related content is consistent with how you wish to present yourself with colleagues and clients.
- 11. Don't pick fights, be the first to correct your own mistakes, and don't alter previous posts without indicating that you have done so.
- 12. Try to add value. Provide worthwhile information and perspective. IBM's brand is best represented by its people and what you publish may reflect on IBM's brand.

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