Strategy Research Project

COMMUNICATING WITH THE NET GENERATION

BY

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The Net Generation is often referred to as Generation Y or Millennial Generation. This generation has learned to survive and thrive in the connected era. The Net Generation has developed new ways to socialize, interact, think, and work through technology. As a byproduct of the technology evolution, they have become accustomed to immediate feedback and are able to succeed in rapidly changing environments. The Net Generation is suffering from a decline in interpersonal communication as more people turn to online social networking as a means to communicate. This emerging trend has led the Net Generation to expect real time content, updates, and feedback. We will be examining whether the Army is adapting to the available technological media, including social networking tools, to aid leadership in communicating and harvesting the contributions the Net Generation can provide to the institution and enable the adoption of applications that meet future requirements while embedding operational security.

COMMUNICATING WITH THE NET GENERATION

> Each generation goes further than the generation preceding it because it
> stands on the shoulders of that generation.

<div align="right">

—Ronald Regan[1]
President of the United States

</div>

The Net Generation is the most educated generation in history with a vast array of new technologies that create new challenges. These challenges define who they will become and the contributions that they will provide to the nation. This generation is the most socially and technologically empowered generation that possess opportunities beyond anything we have ever known due to rapid evolutions in technology. Don Tapscott first coined the term "Net Generation" in his book *Growing up Digital* to describe a generation shaped by a new, networked, visually rich, digitally constructed communication and information world.[2] Although this generation is often referred to as Generation Y or Millennial Generation, the term Net Generation capitalizes on the characteristic that this generation has grown up surrounded by digital media and technology that is integrated and essential in daily life.

"The Net Generation has developed new ways to socialize, interact, think, and work through the evolution of technology."[3] They are accustomed to immediate feedback and thrive in a rapidly changing environment because they have grown up with information at their fingertips due to computers and Smartphones. This emersion in technology and being "Connected 24/7" has caused this generation to change the definition of how interpersonal communication takes place as more people turn to social networking as means to communicate.

The Net Generation became absorbed with the current and emerging technology because they were born into the associated culture and grew up immersed with it. The current generation of leadership in the Army, to address the Net Generation, has had to accommodate it.[4] The soldiers entering the Army "view technology as another part of their environment."[5] This generation is considered to be proficient at multi-tasking since they are more likely to simultaneously interact in several windows while they text to friends and listen to music, all while watching video clips and doing homework.[6] Generational expert Don Tapscott believes that this generation has been flooded with information and their ability to access, sort, categorize, and remember it all has significantly enhanced their skills to multi-task.[7] That translates into the capability of this generation of soldiers and leaders to multi-task and make decisions in an overabundance of information. This flood of information has also developed the requirement for continual stimulation and the need to be actively doing something that is plugged into the information network whether by phone or computer.

The purpose of the paper is to provide a generational profile of the Net Generation and address concerns as to whether the Army is effectively using the available technological media to aid leadership in communicating with the Net Generation. Furthermore, we focus on the abilities of the Army to harvest the contributions the Net Generation can provide to ensure the institution is functioning as efficiently as possible. Lastly, we address concerns over operational security and possible threats to the institution when capitalizing on Smartphones for communicating with the Net Generation. For further clarity, the Net Generation or Net Geners, describes the demographic group born between 1978 and 2000[8] that has access to the

Internet and cellular technology. The difference between Generation Y and the coined term "Net Generation" is access to the Internet and cellular technology that have ingrained skills as a result of immersion into technologies that define their generation.[9]

<u>Net Generation Attributes</u>

The Army senior leadership has a requirement to look like the society they serve and currently there is a generational gap with the Net Generation. To assess more effectively if the Army is adapting to this generation, there needs to be a common denominator between the Army and the Net Generation. Don Tapscott outlines the following eight characteristics of Net Generation norms that are the attitudes and behaviors that define this generation.[10] These definitions for this generation will be valuable in addressing if the Army is adapting technology to meet this generation.

- The Net Generation wants freedom in everything they do, from freedom of choice to freedom of expression. The Net Geners leverage technology to escape traditional office constraints and integrate work with their home and social lives.

- They love to customize and personalize. They have grown up getting what media they want, when they want it, and being able to change it.

- They are the new scrutinizers. They do not believe in transparency with access to pertinent information and research; they scrutinize what they hear, read, and see.

- They look for corporate integrity and openness when deciding what to buy and where to work. They make sure the company values align with their own;

which is important when deciding where to work or selecting the military as a career.

- The Net Geners want entertainment and play in their work, education, and social life. This generation brings a playful mentality to work. There is an outside-the-box-thinking resulting from 82 percent having regular access to video games and being bred on interactive experiences.

- They are the collaboration and relationship generation. They have grown up with collaboration on Facebook, playing multiuser games, share files for school, work, and engage in relationships from on-line environments.

- They have a need for speed and not just in video games. Real-time chat combined with a database of global contacts has made rapid communication the norm for the Net Generation. In a world where speed characterizes the flow of information, the Net Geners expect the same quick communication from others – every instant message should draw an instant response.

- They are innovators. Today innovation moves in hyperdrive, and the Net Geners expect the latest technology. They seek innovative companies as employers and are constantly looking for innovative ways to collaborate, entertain themselves, learn, and work.[11]

In addition to understanding the characteristics that define this generation, figure 1 compares the behaviors and values of the net generation with the baby boomers generation as perceived in the literature and outlined in Karine Barzilai-Nohon and Robert Mason's *How Executives Perceive the Net Generation.*[12] The baby boomers are those born from 1946 to 1964 that characterize the current Army Senior leadership.

Behaviors and Values	Net Generation	Senior Army Leadership (Baby Boomers)
Work Style	Multitasking	Time Management
Learning Style	Learn from Experience	Learn from instruction
Collaboration	Collaborative	Independent
Motivations	Positive reinforcement	Competition
View on Authority	Respect for others is earned	Competition
Structure	Decentralized, non-hierarchical, inclusive	Centralized, hierarchical, exclusive
Information Access	Access for all	Access to those in power

Figure 1: Behavior and Values Comparison

The behaviors and values that define the Net Generation are those skill sets that coincide with the nontraditional means of developing the critical thinking and the collaborative skills sets that leaders need to succeed in today's dynamic environment. These pre-ingrained skills defining the Net Generation provide the leaders with improved base skill sets to critically analyze the situation and multitask in complex environments with numerous systems of inputs and outputs utilized in today's military command and control situations. Research shows that the Net Generation is more culturally tolerant because they have grown up with fewer cultural boundaries due to the Internet. This generation is highly educated, aware of social changes, and accustomed to collaboration and networking with the ability to conduct meaningful work no matter where they are due to being "plugged in."[13] As a result, cultural boundaries do not restrict this generation, they are more willing to accept differences and understand people for who they are. This plays a key role in the military's expeditionary operations because this generation not only recognizes other cultures, they are less likely to see other cultures as threatening, wrong, or inferior.

<u>How the Net Generation Thinks</u>

As a result of growing up in the digital environment and the amount of technology this generation uses on a daily basis causes them to think and process information fundamentally differently from that of the senior Army leadership.[14] Mark Prensky, author of Digital Natives, describes how these differences go far further and deeper than most educators suspect or realize. He believes that these different kinds of experiences lead to different brain structures; it is very likely that the Net Generations brains have physically changed – and are different from ours – as a result of how they grew up.[15] Regardless if it is true, it is clear that the Net Generation grew up with significantly different stimuli than that of the generation that leads the Army today and this younger generation thinks and process information differently.[16]

A challenge for the Army's leadership, due to generational differences, is that many leaders speak a language of pre-digital vocabulary and struggle to communicate with this generation that speaks a dynamic new language, possess different thinking patterns and communication preferences. "Research by social psychologists shows that people who grow up in different cultures do not just think about different things, they actually think differently. The environment and culture in which people are raised affects and even determines many of their thought processes."[17]

The Net Geners have developed hypertext minds.[18] Their thought process is not linear and does not follow a normal sequential pattern when processing information.[19] This difference in cognitive skills has generated a need to crave interactivity in every action.[20] Parallel, not sequential cognitive structures, combined with decentralized and non-hierarchical thought processes predisposes this generation to critical thinking skills and collaborative work environments.[21]

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The Net Generation is infamous for their multitasking skills and short attention spans. Growing up online, they're trained to quickly and simultaneously consume and process information from multiple media sources. This generation quickly shifts attention from one project to the next, always putting a high priority on speed, sometimes that speed comes at a cost. Educators and researchers have found that the Net Generation lacks depth in its research and critical skills. Research shows that Net Geners often grab information from the first page that pops up on Google, without fully examining if the Web site is a credible source and are strong visual learners but weaker textual learners.[22]

Based on the trends in how the Net Generation learns, they are more apt to respond and grow in the adult learning model from an earlier age with active listening, conversation, and an interactive style environment. This generation is a hands-on generation, constantly surfing and finding information as required. They are able to learn more successfully when discovering for themselves. They do not rely on rote memorization.[23] An additional challenge in dealing with this generation is that they are constantly plugged in and reachable by phone, e-mail, and/or instant messaging."[24] Separating them from family and friends during the workday is a leadership challenge to maintaining their focus. Constantly being plugged in has a distinct advantage for leaders in ensuring communication flow for a dynamic and rapidly changing environment where flexibility is key if leaders are able to balance the restrictions for and access during the work day.

The Dark Side of the Net Generation

Numerous articles outline the flaws with the Net Generation ranging from a narcissistic "me" generation to a perceived lack of respect for authority. The Net Generation displays high self-esteem and confidence but appear much more self-centered and believe that they are more entitled than those 10 years ago. Don Tapscott reached a different conclusion, he concludes that "this perception is based on observed

behavior (e.g., being bored with 9 to 5 work, and willingness to take risks to find meaningful work, a mixing of work life and personal life) and not underlying selfish values."[25] This highly talented generation will bring a unique style to the military with a non-conforming attitude that looks for unique ways to solve problems but will demand the latest in technology to fulfill their expectations. This generation's personal and work lives intertwine more than previous generations, and they are reluctant to make long-term commitments unless they can have fun at work and work with friends.[26] The Net Generations believes they must constantly remain connected to their friends. They utilize the most convenient means available that often includes chat, text, video, or other means available via Smartphone or Internet. Maintaining contact is vitally important to the Net Generation's well being and helps raise their productivity, morale, and retention."[27]

Unless the Army is willing to adapt, its risking challenges in both recruiting and skill set retention of this generation. Studies indicate that this generation will change careers seven times in a lifetime and only stay with a job for two to five years before becoming bored.[28] This provides significant challenges for the military due to the increased capital investment associated with the acquisition and training of this generation. To delineate the amount of investment is it imperative to calculate the initial investment in resources to progress a soldier from basic training, through Advanced Individual Training (AIT). There are additional resources applied by the unit in on the job training to enable the soldier to become a productive member of the unit. This capital resource investment is necessary to sustain a high quality all-volunteer force.

<u>Leadership Technique for the Net Generation</u>

Army Regulation 600-100, Army Leadership, defines leadership as; "influencing people by providing purpose, direction, and motivation while operating to accomplish the mission and improve the organization."[29] Claire Raines, one of the nation's leading experts on the generations provides provocative insights and practical solutions with nine principles that leaders should follow to optimize this generation and will be the workplace practices that the Net Generation will prefer and demand in the future workplace.

- Help them learn.

- Believe in them.

- Tune in to their technology.

- Connect them.

- Let them make it their own.

- Tell them how they are doing.

- Be approachable.

- Plug in to parents.

- Be someone to believe in. [30]

Many of the young Soldiers entering the military believe that this is just one of many possible opportunities available to them. If they find that they are not able to enjoy their job within the military, they can decide to pursue an alternate line of work. This generation believes that this is merely "looking for the reset button."[31] The Military inherently addresses several of Claire Raines insights and solutions to leading the Net Generation. Leadership is the backbone to the military. This is the forum in which

leaders motivate, inspire, and influence soldiers. This combined with a lead-by-example ethos provides the Net Generation empathetic, competent, honest leaders with the integrity that they desire.[32] An additional challenge in leading the Net Generation is that they typically grew up in a household that was significantly less directive in nature. Their experience is with parents that ask for compliance rather than require it, thus growing up in an environment where everyone is a peer. Many leaders at the company level are similar in age and in mindset to this new generation of soldiers that can reinforce a basic perception that they are peers.[33] Based on the net generation's behavioral values, respect has to be earned and maintained, as leaders are role models. When Army leaders model the Army Values, they provide tangible evidence of the desired behaviors that the Net Geners are seeking and thus their respect for their leaders transcends their beliefs that leaders are their peers.[34]

The ability to communicate is the key to leading this new generation. This generation requires constant feedback and positive reinforcement. Leaders communicate by expressing ideas and actively listening.[35] This generation views active listening via any means of interactive dialog, not necessarily face-to-face. The person receiving the message, not with the person delivering the message, defines effective communication techniques. The Net Generation, immersed in technology, has changed the definition of interpersonal exchanges as they look to texting and social networking as a means to communicate.

Communication is an essential component to all leadership competencies. Communicating with the Net Generation, using web-based and mobile technologies turn communication into an interactive dialogue, which is the preferred means of

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communication by the Net Generation.[36] Based on the Net Generations communication preferences, social media is the ideal means of communication for this generation. Social media is media used for social interaction and is defined as "using highly accessible and scalable communication techniques using web-based and mobile technologies to turn communication into interactive dialogue."[37] By the nature of the definition social media and the interpersonal communication preference of the Net Generation, using social media and Smartphone technology is a normal evolution that the military needs to capitalize on.

Transforming the Institution

Transformation is a buzzword frequently mentioned that often coincides with potential change. Social media is the catalyst technology that will require the military to transform in order to adapt to society. Social media is not a passing phase, it is here to stay, and the military must embrace and effectively use it.[38] "We tend to overestimate short-term change and underestimate long-term change."[39] Certain branches of the military had previously blocked access to and the use of social media under the premise that was used was social media arenas are havens for malicious actors, content and tend to be particularly high risk due to information exposure to the adversaries. If the military puts the information out there, friends as well as adversaries can reach the information. In February 2010, the Pentagon reversed multiple bans on social media websites and tools that included YouTube, Facebook, MySpace, Twitter, Google Apps and other social tools.[40] At the Army level, the Chief of Public Affairs developed an Online and Social Media Division that designs and operates the Army.mil website and engages the public with Army messages using Army.mil and social media platforms. The Army encourages the communication of your organization's messages as a method

of keeping our Soldiers and the general public informed. The Army has done significant work in embracing Facebook and Twitter as a method for news distribution. This method is not only useful at the garrison level to the user, but is extremely imperative to have open communication lines from the battlefield as well. The number of commanders seeing the value in using social media in combat is increasing rapidly. Social media has the ability to keep the public informed, address negative news stories and inaccurate reports, and keep families connected, no matter the Soldiers geographic location. Lack of information is the easiest way to alienate families, soldiers, and the public.[41]

The Army has developed a Social Media Handbook to address the issues that are inherent to this forum. The handbook illustrates how to use these tools effectively within boundaries and focus on the possibility of threats and security breaches. In the book *Grown Up Digital*, Don Tapscott advises, "Don't ban Facebook and other social networks. Figure out how to harness them."[42] The Army has learned the importance of social media as a communication tool and enabled them to reach a much larger audience.

The Army has begun integration of social media technology with Smartphone technology for combat operations. The Army is leading the military in Smartphone technology with the Land Warrior system and integration to digital communications systems. This technology has been used in combat since 2007 in addition to the Army's new Connecting Soldiers to Digital Applications (CSDA). CSDA is a Science & Technology initiative to rapidly provide soldiers Commercial Off-The-Shelf (COTS) technologies and Government Off-The-Shelf (GOTS) technologies to enhance their effectiveness and efficiency in the performance of training and tactical operations.[43] The

Internet or cellular access enables the military to use off-the-shelf technology for routine communications, education, collaboration, information sharing, providing financial, medical, and other necessary services to the soldiers at home or abroad.[44]

In conjunction with the CSDA initiatives, using COTS technology the Defense Advanced Research Projects Agency (DARPA) is progressing with plans to link Smartphones to military applications. DARPA is assessing COTS applications that fill a diverse set of needs, including but not limited to, the tactical battlefield, humanitarian missions, and disaster recovery. DARPA assesses that user friendly applications would focus on aiding command and control, reporting, mission planning, real-time collaboration, intelligence/surveillance/reconnaissance, geospatial visualization, language translation, training, and logistics tracking that a soldier can use on his Smartphone.[45]

Terrestrial Global System for Mobile (GSM) communications is a digital cellular technology used for transmitting mobile voice and data to cell phones that covers more than 80% of the world's population.[46] The benefit of using a GSM satellite-roaming device is GSM satellite extends service access to areas where terrestrial coverage is not available.[47] Combining COTS technology and Smartphones with standardized applications from DARPA and coverage to over 80% of the world's population creates a significantly powerful capability to the military. This new COTS technology will provide a soldier access to professional and personal communications along with information sharing capabilities. This coupled with encrypted geo tracking for force protection, allows for a more robust capability from each soldier without adding additional

infrastructure, which allows the military to capitalize on what they have to bring to the fight.

<u>Strategies for Communicating and Leading with Technology</u>

> Being an effective communicator today relies on proactive planning, nesting messages, engaging audiences on a variety of platforms, monitoring what is being said both online and in traditional media, and taking a proactive role in telling the Army's story.[48]

"Leadership and communications are inseparable. Our ability to energize, inspire, and arouse people to ever-higher levels of performance, relates to our ability to communicate. Strong leaders are strong communicators."[49] Capitalizing on technology, social networking and evolving applications for Smartphones enables another avenue for communicating with the Net Generation that prefers to be "plugged in" 24/7. What distinguishes the Net Generation from the Army's senior leaders is their lifelong immersion in digital technology.[50] The Net Generation are innovators who use the latest technology to challenge established procedures. They want to work where they can be creative with the help of podcasts, blogs, social networking sites, and online applications.[51] There are countless ways that social media can help the military communicate their message not only to soldiers, but also to the families and the public. These tools not only help respond to a 24-hour news cycle but enable the ability to adapt to an ever-changing environment at home and while deployed.[52] As much as social media can aid in communicating with the Net Generation it does not take the place of face-to-face communication. Junior leaders are as comfortable with technology and social media as the Net Generation soldier is, so a challenge will be to ensure junior leaders do not substitute social media for face-to-face communication in order to maintain the health of the formation.

AR600-100 defines direct level leadership as the frontline leadership that includes leaders from squad through battalion levels of tactical units.[53] These young leaders are required to build cohesive teams and we charge them with the welfare of their soldiers and their families. This task requires face-to-face interpersonal leadership to allow them to influence human behavior, shape values, and ethics.[54] Communicating with soldiers using the social networking forum plays an important part in monitoring the health of soldiers due to trends and indications those soldiers often display online and not communicated directly to the leader. Additionally, junior leaders must develop and refine their analytical and intuitive decision-making techniques in a different manner.[55] These skills grow and mature from communication and interpersonal interaction.

In addition to capitalizing on the off-the-shelf technology, the military is developing a host of applications through DARPA. The most visible off-the-shelf technology is the T2 Mood Tracker application. This application is a mental health assessment tool for leaders to use to assess the health and well-being of the soldier. DARPA is working on additional applications to aid in communicating through social networking, manage data, information management, reference data, online training and education and medical records. The acceptance of off-the-shelf technology supports the utilization of social networking and a host of other applications available. These applications set the stage to increase productivity, and support one of the largest leaps forward in reaching the goal of a paperless initiative. The applications leverage e-signatures, e-forms and content management capabilities to achieve cradle to grave electronic processing thus significantly reducing costs and delays.[56]

Privacy, Permission and Operational Security

> When most people think of the term "computer," an image of a cell phone does not come to mind. However, today's smart phones (such as the iPhone, Blackberry, and Droid) are indeed computers. Not only do they have an operating system and storage capabilities, but they also have their own software applications.[57]

Thinking of Smartphones as computers highlights the security threat to the institution. Operations security awareness and mission execution are crucial to Army success with this generation's immersion in digital technology; it opens more avenues for adversaries to gather information. Operational Security (OPSEC) is the process of identifying critical information that can be observed by adversary intelligence systems, indicators that hostile intelligence systems might obtain that could be interpreted or pieced together to derive critical information.[58] Operations security protects critical information from adversary observation and collection in ways that traditional security programs cannot.[59] As the military begins to embrace the use of Smartphone technology with the associated social media and applications, the military needs to address the virus and malware targeting smart phones in the same manner it addresses all cyber threats. Unlike government owned computers and cyber threats the military currently defends against, Smartphones use can be for both personal and business purposes. This dual use complicates the matter of privacy violation for information technology officers and the use of site-blocking applications. Websites and games that the average soldier will use with his Smartphone pose a greater threat to network attack. The Smartphone platform is typically a closed system with only approved applications allowed on the device. A closed system minimizes viral attacks but significant threats still remain that need to be defended against.[60]

Smartphones, particularly iPhones and Android devices, have numerous

applications that store critical and sensitive information. This sensitive information could

be login names and passwords, contacts or other identifying information that an

adversary could use to recreate your sensitive information. The government issued

BlackBerrys have automated links to your workplace and your email. A lost phone could

jeopardize all of the sensitive information located in your e-mail, contacts, and your

social networking applications. Smartphones contain more personal data than older

analog phones were capable of containing.[61] Location tracking of soldiers both in the

continental United States and abroad is a significant threat. Location tracking combines

several technologies. There are three basic techniques to determine the location of a

cell phone or other similar device using GPS, cell phone tower triangulation, and

tracking Wi-Fi signals from transmitters.[62]

Geotagging is one of the greatest threats to social networking sites. Geotagging

is the process of adding geographical identification to photographs, video, websites, and

SMS messages.[63] Geotags add an equivalent to a 10-digit grid coordinate embedded in

pictures taken with smart phones. When that picture posts to the Internet, key personal

or operational information is provided to adversaries.[64] Location-based social

networking is growing in popularity and increasing the military's OPSEC threat. These

applications are extremely dangerous, easily interpreted by our adversaries, especially

by terrorist organizations that continually look for vulnerabilities to exploit. Location-

based social networking helps adversaries establish patterns, exposes places of duty

and home by tracking movements and aggregating information that identifies locations

of Army personnel.[65] Leadership needs to educate soldiers at every level to disable

geotagging in various smart phones. "Soldiers should never tag photos with geographical location when loading to photo sharing sites."[66] Unit Information Technology (IT) professionals need to implement rigorous security measures to safeguard smart phones from Blended Attacks, worms and viruses, and Peer-to-Peer applications where adversaries gain access to networks.[67] Soldiers should not use location-based social networking application at any time when publishing their exact location could damage Army operations.[68]

Recommendations and Way Ahead

The Army is effectively exploring the use of all available technological media to aid leadership in communicating with the Net Generation and fundamentally change how soldiers access knowledge, information, training and operational data.[69] This will enable soldiers to develop skills accessing information or operational data in garrison that will directly translate to combat operations. The established linkage for the soldiers between garrison and Land Warrior technology, as well as the Army's new Connecting Soldiers to Digital Applications with commercial off-the-shelf technology, enable the Net Generation to socialize, interact, think, and work through the evolution of technology. Effectively integrating Smartphone technology and social media is critical in designing a work place that the Net Generation will be attracted to and thrive in. The environment built around senior leaders that are now departing the Army does not meet the expectations of the Net Generation replacing them. As the military looks at recruiting, retention, and maximizing the effectiveness of the Net Generation the shift in technology and the definition of communication is critical. The technologies that the Net Generation have grown up with are smaller, truly portable, and almost completely untethered.[70] With the commonality of Smartphone technology and applications used in daily interaction

and the advancements to the Land Warrior applications, the Army is making a common architecture used across the spectrum of conflict. As the Army adapts to the Net Generation changing the definition of interpersonal communication with texting and social networking, it will increase its capital investment associated with the acquisition and training of this generation.

The Army is leading the efforts within the Department of Defense in the implementation of Smartphone technologies, COTS technologies, and communicating using social media and social networking. As the military transforms to improve its vitality in a joint organization, and with the creation of U.S. Cyber Command responsible for network operations, defense and attack, further implementation needs to be under the DoD guidance and oversight. The intention of this oversight is not to restrict growth but to ensure joint integration, streamlined systems, and effectively integrate technical capability while remaining focused on addressing risk effectively. Additionally all services need to adapt the Army's model of embracing social media with a service specific or DoD specific Social Media Handbook to address the issues that are inherent to this forum and the effective use within specified boundaries to ensure the military retains its freedom in this new arena of communication under the guidance of U.S. Cyber Command.

Endnotes

[1] American Presidents, Ronald Regan Quotes, http://www.american-presidents.com/ronald-reagan/ronald-reagan-quotes, (accessed January 12, 2011).

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