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THE INFLUENCE OF MOBILE TECHNOLOGY CULTURE: BLIND TRUST, NAÏVETÉ, OR SKEPTICISM

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ABSTRACT

The bedrock of journalism ethics, the "fourth estate," has traditionally been placed with publishers, managing editors, writers of print media, and network news broadcasters whom the public has been taught to rely upon for trusted verifiable sources of information. The Digital Age of the 21st century has accelerated the demand for new voices and global borderless news producers; and audiences must now weigh the credibility and accuracy of content against the speed of information that continues to evolve exponentially. This research is an exploration of the concept of trust, also termed credibility of news sources, within social media. Furthermore, this inquiry considers whether a difference in behavior exists between Digital Natives when compared to an older population. While it was expected that younger respondents would more likely trust online sources outside of traditional media relationships, this study found that digital users responded similarly regardless of age. The discussion also includes the constructs that define the differences between the traditional anthropological kinship relationships from virtual relationships; and posits several social-cultural factors that influence trust behavior in virtual mediums, such as personalization, echo chambers, trolling, convenience, and efficiency verses complete accuracy and veracity as a result of always being connected.

Keywords: Mobile Technology Culture, Social Media, Trust, Naïveté, Skepticism, News, Hofstede, Minkov

INTRODUCTION

Social Media "trust" with regard to news provided by "friends" online is trending away from traditional anthropological research findings in which actors primarily trust core groups of family, close friends, kinship and religious affiliations first and foremost, and then fan out to lesser known groups (i.e., from classmates, organizational and team members, work colleagues, to online acquaintances and anonymous sources) like layers of an onion. The 2013 Pew Internet Life Study [17] stated that the average teen between the ages of 12 and 13 has about 200 online friends and that number increases to approximately 350 as they advance through ages 14-17. It is not uncommon for teens, or adults for that matter, to be Facebook friends with people they never met in person, nor attended school or worked with, or shared organized group or team membership. Consequently, many of those "friends" are individuals they do not know, remember, or ever cared for. Previous research [7; 16] determined that exploration of social media trusted relationships was the next logical step in the online news sourcing process. While Facebook usage is admittedly declining among younger populations it is still ranked as the number one social media site used across the same population [17]. Twitter, YouTube and other social media sites are also used to convey news. Instagram is the largest growing social media site; but the function of the site is more related to documenting day-to-day life without the "news" aspect [36; 37]. Carr [12, p. 88] reminded us that: "Once the information is digitized, the boundaries between media dissolve," and therefore our time reading print publications, such as newspapers, magazines, and watching television news broadcasts, steadily decreased in favor of the latest and greatest technology available. According to Schmidt and Cohen [44, p. 47]: "Where we get our information and what sources we trust will have a profound effect on our future identities." Therefore, the goal of this research was to explore the phenomena of blind trust in news provided by family members, "friends," subject matter experts, online communities, and other sources through social media networks.

This study also focused on the social-cultural issues that drive adults to accept virtual realities and digital tools as their primary sources of local news and information. Our literature review examined the traditional anthropological physical kinship relationships of family, friends, classmates, professional colleagues, organizational members, and societal connections and compared them to the twenty-first century online (and often anonymous) virtual relationships directly relating to the constructs of trust, naïveté, and skepticism. Through the lens of the metaphoric "onion," the social-cultural behavioral and communication theories of Hofstede [21], Palfrey and Gasser [33], and Turkle [48] were analyzed and compared to show the evolution of these relationships from the traditional to the virtual. Sociologists, anthropologists, social psychologists, and other subject matter experts argue that technology

environments encourage avid participation of students and young adults into a virtual world completely reliant and trusting of the digital information received, with little or no challenge to its currency, accuracy, or completeness. Not all virtual news sources are under the journalistic legal and editorial constraints and restraints of the "fourth estate" [29], and young adults are more likely to trust their instant digital sources rather than verify [35]. Therefore, this follow-on research focused on exploring the reasons why young adults under 35 and if those over 35 have shifted their reliance and trust from the physical feedback of core family members and close friends, to the virtual anonymity of online social media participants with whom they provide and receive news, current events, and other types of just-in-time information.

The Problem. Do students and adults place their trust in news and information sources that are not traditional print media, online accredited journalistic sources, or those referred by their core familial group the way anthropological research has dictated? Do students and adults trust online communities by establishing relationships and sharing information with those individuals that reside further outside of their inner circle, while doubting and double-checking those who would have traditionally been part of their core familial group with shared experiences and world views? Is Social Media just a news source for Digital Natives or are the Digital Immigrants [41] hooked, too?

The Study. Our pilot study is a quantitative approach to inquiry based upon a survey that elicited responses from students and adults ranged in ages 18 through 66. The survey asked questions to determine this blind trust or naïveté of these lesser known actors while potential doubting (skepticism) those closest in a traditional sense. We then compared our survey results to the 2013 Pew Research Study [17] results to further refine our results and develop future recommendations.

LITERATURE REVIEW OF TRADITIONAL VS. VIRTUAL RELATIONSHIPS

The evolution of organized groups and communities that rely upon each other for current, accurate, and complete information reverts back through the ages from hunters-gatherers through the development of "farms, factories, and floppies" [15, p. 14; 46] to the virtual world of today. The study of social-cultural anthropological underpinnings provides a foundation for human core values, such as trust, ethics, reliability, understanding, and familial connections, as the cornerstones for safe and trusted relationships. When a paradigm shift disrupts our core anthropological values and causes us to abandon the safety and security of familial bonds and trusted sources, it is important to revisit those values in concert with the evolution from an analog to a digital society. This section illustrates the world views of Hofstede's [21] traditional organizational cultural roles; Palfrey and Gasser's [33] construct of the digital native's online relationships; culminating in Turkle's [48] ethnographic research describing complete role reversals from reliance on the traditional kinship approach to favoring distant online and sometimes anonymous friendships.

Hofstede's Approach to Organizational Anthropology

Social scientists and cultural management theorists, such as Hofstede [21] and Hofstede, Hofstede, and Minkov [22, p. 8], have long described the components of culture utilizing the metaphoric skin of an onion (Figure 1). The outer layers of the onion can be peeled away just as easily as the learned practices of a culture (i.e., rituals, ceremonies, heroes, and symbols) as these attributes can be learned, cast away, and re-learned anew once we are adolescents and adults. On the other hand, values are inherent and we cannot abandon the culture of our birth, no matter the reason or how hard we may try. Our values, ethics, morals, race, gender, ethnicity, and religion are there waiting for us when we arrive and will still be there when we leave this earth; merely enveloping our replacements in that specific culture. That value system is the hard core of an onion and it stands solid to give the onion its shape [5].

Values. Individuals bring with them the inherent values, ethics, and morals that they were born into and led by example through parents, grandparents, siblings, extended family, close friends, neighbors, and in some cases, baby-sitters and day-care. These values are expanded and extended through early schooling at home and formal pre-school, kindergarten, and elementary education, and for some, religious education. These inherent cultural values are with us forever, no matter how hard we try to repress or disguise them. Organizations have value systems, as well, and although they are learned in late adolescence and adulthood when one enters university, the military, or employment, one can become inured to an organizational value system and this relationship can last an entire career if one does not change employers or employment situations [22].

Practices. Group practices are what we need to know in order to get *along*; and it's how we fit into our respective social-cultural groups so we can *belong*. Practices must be learned in order to survive and thrive; and if not learned and accepted, one will always be an outsider. Practices show "how members construct meaning through interactions with other members of the group, how they actually interpret and organize their own and others' actions" [18, p. 140]. According to the "Onion" (Figure 1), Hofstede's [21] cultural practices are outwardly and explicitly deployed by Heroes (and Leaders); Rituals (and Ceremonies); and Symbols (and Artifacts).

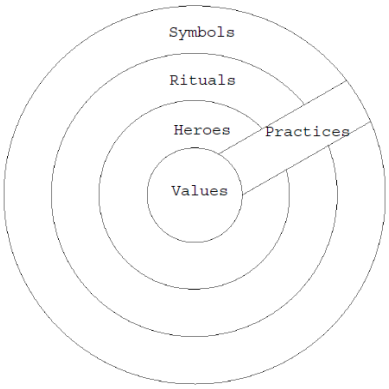

Figure 1. Depiction of "The Onion, Manifestations of Culture at Different Levels of Depth" (c. Hofstede, Hofstede, & Minkov [22, p. 8])

As depicted in Figure 2, the kinship groups of familial "trusted" relationships are illustrated as the core values (ethics and morals learned during our youth); and the practices (learned in adolescence and adulthood) exemplifying lesser degrees of reliance upon friends, classmates, organizational members, work colleagues, and society in general. These core value systems and learned shared practices shape our social-cultural mores as we learn whom we can trust for our survival and well-being, and whom we cannot.

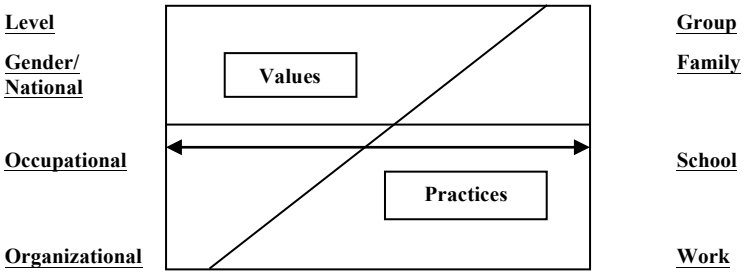

Figure 2. The Balance of Values and Practices for Various Levels of Culture (c. Hofstede, Hofstede, & Minkov [22, p. 347])

Palfrey and Gasser's "Digital Native" Approach

Palfrey and Gasser [33] advanced the metaphoric "onion" into the 21st century by depicting the Digital Native [41; 15] at its core, and not the traditional family values of Hofstede [21]. Figure 3 illustrates the Digital Native's trusted relationships beginning with friends and family; teachers, coaches, and mentors; companies (trusted) and software providers; and at its outermost layer, state and law enforcement. Generally, the authors are more focused on the online and virtual guidance provided by friends and family for safety purposes; teachers, coaches, and mentors for online navigation training; companies (trusted) for technology products and services; and law enforcement as powerful instruments accessed and used only as a last resort [33].

Figure 3. Depiction of the "Onion" through the lens of the Digital Native (c. Palfrey & Gasser [33, p. 11])

Turkle's "Ethnographic" Approach to Virtual Relationships

Turkle [48, p. 1] suggests that "technology is seductive when what it offers meets our human vulnerabilities. . . . We are lonely but fearful of intimacy. Digital connections . . . offer the illusion of companionship without the demands of friendship. Our networked life allows us to hide from each other, even as we are tethered to each other." She further argues that when technology engineers intimacy, relationships are reduced to mere connections, and connections are redefined as intimacy. Additionally, online conversations make it easy to blur the line between confession and apology. Confessing to a friend takes personal fortitude and may bring disapproval, but an online apology may elicit only a barrage of anonymous opinions. To summarize, we would rather text than talk.

For example, in Second Life, avatars represent most people as richer, younger, thinner, and well-dressed. Turkel [48] asserts that real life is too risky and too disappointing so people report feeling letdown when they move from the virtual to the real world. "Gradually, we come to see our online life as life itself" [48, p. 17]. As an avatar, you can hide or show as much of yourself as you want and you can present your image as your wish to be seen. In contract to Turkle, Pariser [34, p. 66] purports that via Facebook, Blogs, Instagram, and email: "Our friends and family are more likely to know what's important and relevant to us than some newspaper editor in Manhattan."

Perhaps the most distressing of all is Turkle's ethnography of children and young adults who experience symptoms of fear, isolation, and abandonment by their families. The author explains that some parents work several jobs and have little time for children; and some have endured divorce or multiple divorces with children transported from house to house, unsure of their real home. Lucky children with intact families and stable incomes may experience an empty home until a parent returns from work. "Longed for here is the pleasure of full attention, coveted and rare. Today, children contend with parents who are physically close, tantalizingly so, but mentally elsewhere" [48, pp. 266-267]. So the children turn to the Internet for friendship, companionship, and attention and the cycle begins.

Turkle [48, p. 153] further argues that virtual places offer connections and a sense of community without claims to commitment: "We don't count on cyberfriends to come by if we are ill, to celebrate our children's successes, or help us mourn the death of our parents." Turkle's [48, p. 295] narrative sums it up with the phrase, "we expect more from technology and less from each other." As illustrated in Figure 4: "When you change the contents of your circle, you change your conception of yourself. The center of the circle shifts as its perimeter is changed." [11. p. 37].

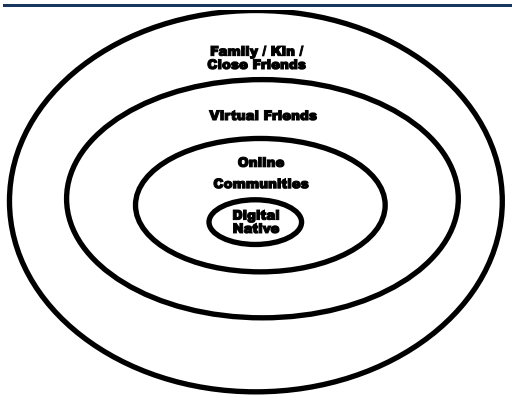

Figure 4. Depiction of the "Virtual 21st Century Onion."

The Digital Native prefers online communities, then virtual friends, and lastly the physical family and friends (in the outermost position) by reversing and displacing the traditional and trusted core familial anthropological relationships with distant and often anonymous online contacts.

"News" Defined

Adults' perception of the term "news" resulted in several interpretations. Batteau and Selwyn [2; 45] asserted that the advent of cable in the late 20th century propelled the selling of news; and news quickly became the selling of culture 365/7/24. By the mid-1990s, messages and images were communicated globally within seconds and virtual acceptance of cyber technology was instantaneous. Global, regional, local, and campus news were so widely accessible that Americans no longer had prudent, reasonable, or rationale excuses to support a lack of information. Web 2.0 has taken the world into a virtual reality where ubiquitous Internet participation is advocated and welcomed. The media encourages youth and adults alike to share, report, collaborate, and upload news on websites. Information is streaming live at break-neck speed with little regulation or oversight, and a vast opportunity exists to post subjective opinions in lieu of objective news. Postman [40, p. 70] described e-news as "information appear[ing] indiscriminately, directed at no one in particular, in enormous volume and at high speeds, and disconnected from theory, meaning, or purpose." Postman [40, p. 16] offered that "new technologies compete with old ones - for time, for attention, for money, for prestige, but mostly for the dominance of their worldview." In its quest for market-share, the online news media are no less aggressive and volatile, well-aware that college students and young adults are the high-energy, fast-paced, rapid-response earners, consumers, and news producers of the future.

Socio-Technical Applications of Digital Systems: Trust vs. Naïveté vs. Skepticism

A culture based upon openness, trust, respect, collaboration, shared meanings, and resources reflects a mutual understanding of goals, objectives and purpose, but how are these values and mission applied to a techno-virtual environment? In the 21st century, technology and culture do not lead separate lives, but are implicitly and explicitly intimately connected and linked by communities of practice, semiotics, signs, cues, and oral and written language. The socio-technical theory [8] describes the interaction between people and technology in the workplace and social informatics [24] provides the tools of the interface.

Technology and culture tend to evoke dramatically different connotations, systems of meaning, experiences, and worldviews. Among today's youth, college students and young adults believe that: "Technology is clean, powerful, exciting and a magical key to prosperity" [2, p. 1]. As naïve as this statement may be, some believe there are no problems that cannot be solved without some form of technology. Technophiles [40] and early adopters [9; 10] argue that technology represents a necessary upheaval, innovation, and creative destruction to the permanence and stability of organizational, societal, and national culture.

Alternatively, culture is traditionally interpreted by the masses as the visible and tangible "fine arts" of music, dance, drama, painting, philosophy, etc., a lifetime achievement reserved for the cultivated elite [2]. But social scientists, such as anthropologists and sociologists, view both the tangible and intangible learned systems of shared

understandings, patterns of behavior, rules, rituals, traditions, language, heroes, symbols, etc. as the glue that binds like-minded humans organized in formal and informal groups, communities, and societies [20; 22]. Crain [13] describes this milieu as "groupiness," where people access and read digital news and other social media mainly to experience a feeling of belonging rather than for personal enlightenment or amusement. Since electronic text is impermanent, revisions of digital news can be infinite thereby diminishing the pressure to achieve publication perfection [11]. The digital readers' reliance on and pleasure in informal and immediate access to news is based upon the perception that online news can be continually edited, updated, and enhanced, encouraging an uncritical trust of media sprinkled with the naïveté that news editors will diligently and ethically take the time to correct items rather than moving on to the next headline.

Trust. Within human communities, trust is a common construct based upon familial values and a shared topology of stable relationships and identities. We automatically trust those with whom we feel a shared kinship (i.e., family, ethnicity, nationality, profession, education, employment) even when we meet for the first time. Batteau [2] argues that societies are made up of complex webs of trust and mistrust among individuals, groups, and organizations learned over years of interaction. Within stable communities there are institutional practices that respond with ritualized punishment when this construct is abused; but in the Digital Age, online communities of users are rarely concerned about repercussions. Batteau [2] further asserts that trust builds on histories or reciprocities. We learn to trust after identities are known, patterns of good behavior are established, and that the cultural schema of kinship and our associates' behavior is guided by the same norms as ours. "The familiar anchors of identity, ethnicity, gender, social class, are also familiar anchors of trust" [2, p. 70]. But technological innovation changed the terms of this equilibrium; and social change, including social media, requires new learning to figure out whom and what information can be trusted.

Naïveté. As humans mature we still tend to fuse seeing with believing. Philosophers call this view naïve realism [43]; that we see reality as it really is, objectively and without bias. We also tend to believe we have full command of the facts and patterns, and that everyone else agrees with us [34]. When our social life is miserable, depressing, or oppressive, escapism is a reasonable response. And if we feel lonely or abandoned, it is probably not far-fetched or coincidental that technology is alluring and convenient. Although technology doesn't solve every problem of its own accord, Pariser [34, p. 187] argued that: "Technodeterminists like to suggest that technology is inherently good. [However,] it's only good when people make it do good things and use it in good ways."

Skepticism. Postman [40] coined the term, Technopoly, with its emphasis on progress without limits, rights without responsibilities, and technology without cost. "Technopoly is without a moral center" [40, p. 179] and places efficiency, convenience, interest, and economic advance through technological progress above all. Its purpose is to produce a common culture whose key symbol is the computer with skepticism toward all else. The author asserted that this feature of the American ethos is plain to everyone who has studied American culture. Postman [40, p. 53] further argued that: "It is enough to say that the American distrust of constraints – one might even say the American skepticism toward culture itself – offered encouragement to radical and thoughtless technological intrusions."

For these reasons, Americans are prepared to accept anonymous online communities, to communicate with strangers, and to share and receive private information under the cloak of anonymity. But its complete success depends upon the less visible conditions of the American culture of individualism and risk-taking. The background and context in which the "American distrust [and skepticism] of constraints, the exploitative genius and successes of technology, and the devaluation of traditional beliefs [and values] took on the exaggerated significance that pushed Technopoly" [40, p. 55] into the 21st century and the American Digital Natives with it.

American Obsession with Scarcity of Time and Workarounds

Petrides, McClelland, and Modine [38, p. 100] described workarounds as "informal practices, idiosyncratic methods of data collection and management, both inventive solutions to pressing organizational needs and over time, costly alternatives to a robust and flexible information system." Workarounds allude to students' use of mobile "apps," and various social media such as WIKIs, YouTube, Facebook, Twitter, Instagram, and others for sources of news and related information often without checks for reliability, credibility, and accuracy. Our prior research [7] clearly inferred that students are willing to accept the risks associated with lack of confirmation when seeking breaking

news from social media. When time is scarce, convenience and instant access are acceptable trade-offs for confirmation of online accuracy, currency, and completeness.

Personalization

News shapes our sense of the world and helps us decide what is important as it relates to our problems. More importantly, it provides a foundation for shared experiences and knowledge. But a paradigm shift [27] occurred and the forces of the Internet are driving a radical transformation in who produces news, how it's done, what content is selected, why it's produced, where its posted, and who receives it. Once you had to buy a whole newspaper to get the sports section; now you can go to a sports-only Website with plenty of new minute-by-minute content. Pariser [34, p. 51] reminds us that these overwhelming choices cause us to "rely ever more heavily on human and software curators to determine what news we should consume. Professional human editors are expensive and code is cheap." The Internet's explosive impact on news continually expanded the information landscape casting aside traditional older media sources. In its wake it dismantled the trust that news organizations had built, resulting in plummeting consumer trust in recent years [25; 26]. Editors at Yahoo News, the biggest news site on the Internet with over 85 million daily visitors, links articles on other servers generating up to 12 million views [34]. When you get news from one source, the source doesn't often draw your attention to its own errors and omissions; and prior research shows that Digital Natives do not care much where news and other information originates [7]. Pariser [34, pp. 64-65] argues that: "A spicy headline will win over a more trusted news source any day. People don't make a distinction between the New York Times and some random blogger. This is Internet news. Each article ascends the most-forwarded lists or dies an ignominious death on its own . . . opening the door for personalization."

Personalization proponents often point to social media like Facebook to dispute the notion that we'll end up in a narrow overfiltered world [11] bringing some focus to topics outside our immediate purview. But Pariser [34] notes that the average person's friend will be too like-minded than a general-interest news source; therefore it is doubtful that the news and information seeker will come into contact with different points of view. Among techies, these two paradigms came to be known as push and pull technologies. Pariser [34] notes that pull media, such as a Web browser, puts users in control; but the problem with pulling information is that it can be a lot of work. Television, email, and newspapers are examples of push technologies because the information shows up without any action on the user's part. And Digital Natives prefer not to be curators of their own media experiences [34].

This literature review proffered that many subject matter experts are adamant that individuals are more than willing to abandon the safety and security of family, close friends, and reliable inner circles as trusted sources for news and other information; easily displacing them for online communities, anonymous "friends," and other invisible news curators. Our research explored the construct of trust in online scenarios and discovered, within a limited sample size and regardless of age, that individuals' preferences are trending toward the efficiency, convenience, and often unverifiable social media news sources, to the long-standing comfort of, and reliance upon, traditional anthropological core groups. From a news perspective, the trend also includes our willingness to abandon seasoned hard copy print news journalists and broadcast media of the "fourth estate," the majority of whom are well-known for adhering to the principles of truthfulness, accuracy, objectivity, impartiality and public accountability.

RESEARCH METHODOLOGY

This quantitative study was designed to explore the trust relationship relative to news consumed through social media platforms by examining a sample population at a single point in time. Additionally, this methodology was the optimal way to conduct the study because the collected data helped isolate relationships between variables [47]; and provided correlations rather than predictive means [1; 31]. Therefore, the intended consequence of the correlations was not to prove a causal, but rather to show a direct relationship. Our survey approach provided the ability to draw limited generalizations about the population by taking a sample size and formulating claims based on the results.

Research Design

The demographic portion of the survey instrument for this study was developed by the 2011 Pew American Life Project [32; 42] and altered by Breese-Vitelli and Borkovich [7] to determine which methods are being chosen to consume news. The remainder of the 16-question survey was based on the need to explore trust of news producers

on social media. This pilot study of 139 responses assisted in both honing the questionnaire and providing directional significance from the 26-question Pew Survey [32; 42] implemented by the authors [7], that specifically addressed how this population consumed their news. Several demographic questions were added for additional analysis, comparison, and segmentation completion. This survey differed from both Pew [32; 42] and Breese-Vitelli and Borkovich [7] to explore trust relationships in choosing which news posts to retrieve on social media rather than simply the tools used for consumption. The survey was administered via a web link to Survey Monkey and distributed through LinkedIn, Facebook, and email. A snowball sampling technique was employed through the request to share the survey with others and the results were correlated using SPSS, an analytical predictive software.

DATA ANALYSIS AND RESULTS

Data analysis was performed on the information collected in the survey by transferring the participants' responses downloaded from Survey Monkey to an Excel format. The responses were then coded and uploaded into SPSS for comparison. Additionally, an extensive review of the literature assisted in developing an explanation to determine whether a significant difference existed between the varying age populations and their trust relationships involving consumption of news-related material on social media sites.

A total of 139 survey responses were gathered during April and May of 2014. Overall participant responses based on age were 32% (18-34) and 68% (35+). To ensure a distributed comparison for older verses younger participants, the age groups were collapsed into categories of under 35 and 35 and above. The overall data were analyzed first and then the age groups were compared. While a need exists to look further into college students as a segment verses age, the inquiry of two research questions uncovered some surprising results that warranted a deeper dive.

Our overarching questions were developed to address whether or not Social Media "trust" with regard to news provided by "friends" online goes against traditional anthropological research findings in which actors trust their core group of family, close friends, and kinship affiliations first and foremost. We then explored whether or not users preferred their information sources from lesser known groups (i.e., classmates, organizational and team members, work colleagues to online acquaintances and anonymous sources). It is thought that the traditional model or paradigm is shifting in favor of "newer" models suggested by Palfrey and Gasser [33], Carr [11], and Turkle [48].

The results depicted in Table 1 found that regardless of age respondents stated that their first level of trust (1 = most trusted) without fact-checking on social media sites related to news were Subject Matter Experts (SME) followed by family members. Table 2 shows the sample size (n = 139) breakdown of trusted online adult relationships.

RQ1: Are adult online participants more likely to trust without verifying stories on their social media sites?

Table 1. RQ1: Summary responses for top trusted relationships for each age group

Adults: Ages 18 to 34		Adults: Ages 35+	
Group	% selected "1"	Group	% selected "1"
Subject Matter Expert (SME)	64%	Subject Matter Expert (SME)	65%
Family Members / Kinship Relationships	34%	Family Members / Kinship Relationships	30%

RQ2: What types of online relationships are adult populations more likely to trust without verification?

Table 2. RQ2: Summary responses for types of trusted adult online relationships without verification

Adults: Ages 18 to 66 (n = 139)			
Group	Adults	Group	Adults
Subject Matter Experts (SME)	51	Family Members / Kinship Relationships	37
Other Miscellaneous Sources	16	Facebook Friends / Twitter Feeds	35

When the younger and older adult groups were compared, the results did not vary indicating that age did not play a significant role. This was unexpected and supported Carr's [11] position but disputed the views of Prensky [41] and Bayne and Ross [3]. Not so surprising was the fact that overall 72% reported themselves to be employed for wages; and given the higher age levels the corresponding education levels were not surprising since 40% reported having a high school or some college education, 38% earned college degrees, and 23% had a graduate level education. The gender spread evidenced more male respondents (57%) than females (43%) within the sample population.

Overall respondents stated that 72% were likely to fact-check their online sources; with 23% stating they were not likely to complete fact-checking of Social Media sources. Correspondingly, 47% of respondents admitted to "getting it wrong" and repeating the information; while 24% said they "did not get it wrong;" and 30% said they "did not know" if they had passed on incorrect information. Furthermore, participants who believed their information should be trusted (1 or 2 on a Likert Scale), but admitted "having gotten it wrong," stated that they were more likely to "have gotten it wrong" 50% of the time. Respondents cited that the trust relationship was the number one factor to accept news as credible. Although this pilot study was limited, the results did show directional significance; therefore increasing the sample size could prove to be statistically significant in a follow-on study.

DISCUSSION

This research data clearly provides a nexus to our literature review confirming that adult audiences are accessing their news through social media; however, we learned that what people trust has both bright and dark moments. Misinformation and propaganda have always been central to both sides of social movements and wars. While technology is neutral, people are not [44]. Connectivity can and will help upend power imbalances, expose corrupt officials, and other malevolent forces including where freedom of the press is limited or non-existent. However, our study also evidenced that the darker side of news personalization, echo chambers and trolling, have the ability to narrow one's focus, distort perceptions, and influence one's worldview by controlling and limiting the push content to the agendas of online news curators funded or backed by their respective advertisers, sponsors, lobbyists, and political activists. Our findings suggest that continued internet trust and naïveté, without second sourcing of news and other content, may manifest itself in trends toward loneliness, abandonment, and alienation by trading human companionship for online sources that feed us a quagmire of limited directed data *within a controlled closed loop*.

Personalization, Echo-Chambers, and Trolling

Personalization. "Personalization" of our news and its sources will continue to play an important role in handling this digital information overload and deserves further scrutiny. Filtering tools, such as rich site summaries (RSS), aggregate searches, newsgroups, email lists, blogs, community feeds, YouTube alerts, etc. continue to allow us to screen out the information we do not want by requesting packaged news to match our personal interests. Carr [11] warns that "narrowcasting," also has hidden dangers that may present future dilemmas for the newsreader. Instead of editors and producers deciding what news is important, the user can access interactive web tools to gather only the material that s/he finds interesting, thereby giving an individual tremendous control over a personalized news flow. But with this empowerment, rejection of unlimited access to news-worthy current events and world headlines may be overshadowed by the customization of limited daily alerts and highlights of specific topics. A common information term, the feedback loop, also applies and is cause for concern in that the more an individual seeks news personalization and becomes enamored with a subject; the greater the desire for more of the same information gradually excluding all others. Festinger [19] coined the concept of "selective avoidance" or "selective exposure" as a desire to produce consistency in our lives; but Carr [11, p. 109] argued that we may be inclined to use these tools to narrow our horizons and limit our worldviews.

When discussing the results with college students, a pattern developed that suggests they are relying on a community of discourse for their information such as social media "apps" rather than "trusted" media news "apps." Turkle [48, p. 295] argued that we are overwhelmed by an influx of data, drawing us to digital media solutions that are convenient, responsive, and speedy. Further development of the trusted advisor status or Subject Matter Experts, could assist in understanding the social network hierarchy of news distribution and may have other benefits outside of simple consumption leading to dramatic changes in news production. Although the Internet opens our eyes to new perspectives and experiences, experts [2; 34; 39; 40] argue that we are moving away from that premise as the web becomes increasingly tailored to the individual serving personalized content that keeps us clicking. Martin [29] offered that this marked content seldom challenges our viewpoint, presenting a risk that this perspective may distort or limit our view of the world outside our browser. *Sometimes the only online feedback we hear merely echoes our own preconceived beliefs.*

Echo-Chambers. The premise of the virtual echo-chamber effect is simple, although there has been little academic study [34]. If you surround yourself with voices that echo similar opinions to those you're feeding out, they will be

reinforced in your mind as mainstream, to the point that they can distort your perception of what is the general consensus. Examples of echo-chambers are prolific, some more subtle than others. Netflix pushes films based on viewing habits, Twitter suggests whom you might like to follow by cross-checking your peers, Facebook tailors your newsfeed based on whom you routinely interact with, and Google offers dramatically different search results based upon interconnected and matrixed algorithms [29]. Superficially being surrounded by like-minded people and sheltered from certain aspects of life is easily achieved by accepting web personalization. By insulating ourselves from viewpoints that differ from our own, we inadvertently reinforce our view of the world, and close our minds to new ideas and experiences. Business management theorists often call this phenomenon "siloing," but others refer to it as a "virtual echo chamber" [23; 29].

A virtual echo chamber is really another form of a social-cultural network of like-minded folks. Jones [23] argues that an echo-chamber effect is a part of social constructivism [4] and how we shape the world around us differently from others reflects bias. Internet bias can spawn from anywhere, from forums devoted to conspiracy theories to the rivalry between football fans, but it's most obvious in the world of traditional journalism where newspapers make no secret of their political affiliations or that of their readership. A cursory glance at the comments under a *New York Times* or *Guardian* article covering exactly the same topic will show a distinct contrast of opinion, but users crossing the political divide to comment against a host's beliefs are often dismissed as "trolls" [29]. Ironically, highlighting a dissenting voice as "trolling" is another possible example of the echo-chamber effect in action because it is assumed that this voice is so outrageous that it can't be genuine, so the credo of the community continues unchallenged. And since online anonymity tends to offer a false sense of security, biased thinking remains strong.

Trolling. According to Lanier [28, p. 60]: "Troll is a term for an anonymous person who is abusive in an online environment." And anyone who is a Blogger, Friender, Liker, or Twitterer can attest to this unpleasant phenomenon. Facebook and Instagram users notoriously create successful online fictions about themselves, albeit doppelgängers; however trusting naïve members of online communities may not realize the false connections they are making. And personalized online Web 2.0 introductions tend to filter and classify people into bubbles, once again pushing content so that one tends to continually meet like-minded individuals.

Admittedly, people respond differently to content and design, and personalization is a way to operationalize the technology tool. Web sites, advertising, RSS feeds, and other aggregate news sources need not look the same to everyone. To some extent, we all want convenience and efficiency through filtering rather than continually sifting through mounds of data to make tiresome selections and choices. Filtering content by personalization provides the customized content the user wants and recognizes. In *The Filter Bubble*, Pariser [34] proffered that pushed personalization permits the user to bask in a comfort zone, without the distractions of other opinions, worldviews, and conflicting positions. Today's Digital Native needs to strike a balance between the perceived comfort and safety of directed customized content and the distracting information overload [6] of infinite search possibilities. Lanier [28, p, 117] suggests that: "Net's interactivity gives us powerful new tools for finding information, expressing ourselves, and conversing with others. It also turns us into lab rats constantly pressing levers to get tiny pellets of social or intellectual nourishment." More distressingly, Digital Natives may soon pay the price of loneliness, abandonment, and alienation by trading human companionship for a life almost entirely online. Most surprisingly, our research evidenced that Digital Immigrants may be well on their way to joining them.

LIMITATIONS AND FUTURE APPLICATIONS

Our pilot study was comprised of only 139 adult respondents and requires a much larger sample size to generate hard validity and generalization of the results. As the lines continue to blur between professional and private lives on social media, trust in personal brand is becoming necessary. Our future research will explore the idea of online personal branding to determine the impact it may have to portray the average citizen reporter as a subject matter expert on social media platforms. Further questioning of naïveté and skepticism in addition to branding might give us further insight into how and why traditional trusted anthropological kinship relationships are radically changing into preferred virtual relationships. We propose not only the pursuit of larger-scale quantitative studies, but encourage exploration of social media "trusted sources" through qualitative approaches to inquiry that will research the influences of social-cultural online behavior regarding our perpetual need to always be connected. Equally important will be future qualitative studies to address the constructs of cultural relativism and ethnocentrism in concert with the influences of personal branding and web news customization on social and other online media.

CONCLUSIONS

Digital Natives and Immigrants [41] alike are in the midst of a paradigm shift from the trusted hard copy and broadcast journalism sources to the rapid response digital social media sources and RSS feeds. The "fourth estate" will always have a place, but in the 21st century market the audience for its current information format is dwindling. Nevertheless, on a very small scale, we confirmed the theories of several subject matter experts that young and older adults alike are willing to sacrifice trust, reliability, and credibility for short-term, efficient results when soliciting real-time online news. We also learned that families and close friends are beginning to take a backseat to online, often anonymous news sources, as online participants are willing to trade-off verification and credibility of sources to satisfy their needs for instant gratification, convenience, and rapid-response. Contrary to our expectations, this limited pilot study showed that all online age groups were flocking to news sources originating from social media, blogs, personalized feeds, and other purported subject matter experts, often anonymous. In this exponentially increasing digital environment, continuing this research will also contribute to our understanding of ever-evolving anthropological underpinnings toward new online sources that heretofore rested upon our core values of trusted familial and kinship relationships. The prognostication of Schmidt and Cohen [44, p. 47] was never more pertinent: "Where we get our information and what sources we trust will have a profound effect on our future identities."

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