

ONLINE INTERACTIONS AND THE DEVELOPMENT OF SOCIAL AND EMOTIONAL
INTELLIGENCE

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INTELLIGENCE

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STATEMENT OF THE PROBLEM

Research has shown that humans have multiple types of intelligence (Albrecht, 2004), and that the development of social and emotional intelligence is a large contributor to successful

integration into society (Goleman, 1995). Social and emotional intelligence, in turn, can either enhance or inhibit the ability to learn. Further, the development of social and emotional intelligence hinges on interactions with others, largely face-to-face interactions.

As technology continues to advance, students have become more dependent on virtual interactions to create, maintain and develop relationships with others (Ellison et al, 2007, 1144). These online relationships have broadened the number and types of relationships students have, but have also decreased the amount of face-to-face interactions students have with others.

Through the review of multiple studies on the development of social and emotional intelligence, as well as identifying trends in technology and social media, this paper will examine the impact of online relationships on social and emotional intelligence, focusing on college-aged students.

SUMMARY OF RESULTS

The development of social and emotional intelligence, as well as the development of the social brain is a key factor to the success of students in a college environment and beyond. While to date, the development of these constructs has largely come from offline, face-to-face interactions, trends show that civilization is moving toward more online interactions. Therefore student affairs professionals need to create learning environments where students develop social and emotional intelligence while embracing online interactions.

In order to create that type of intentional learning environment, more research must be conducted to determine student affairs professionals can adapt existing and future technologies to foster social and emotional development through online interactions.

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CHAPTER 1 THE IMPORTANCE OF DEVELOPING SOCIAL AND EMOTIONAL INTELLIGENCE

The development of the human brain is a complex process, and throughout the years, a seemingly endless number of theories have been developed discussing both physical and cognitive development. Many of these theories specifically focus on the development of intelligence. For a number of years, intelligence was thought of as a singular trait, measured by the Intelligence Quotient, or IQ. However, as intelligence became more fully explored, some scholars have theorized that intelligence is not a single attribute, but a larger spectrum of competencies (Albrecht, 2004). These competencies have been broken down into multiple categories by Harvard Professor Howard Gardner.

According to Gardner, the multiple intelligences can be categorized into the following competencies: verbal-logical, mathematical-symbolic, spatial, kinesthetic, interpersonal, intrapersonal, and musical (1999). However, with additional work from other scholars, including another Harvard professor Daniel Goleman, Gardner's categories have been re-arranged into the following intelligence competencies: Abstract, Social, Practical, Emotional, Aesthetic, and Kinesthetic (Albrecht, 2004). For the purpose of this paper, I'll focus on both Social and Emotional intelligence in college-aged students.

The earliest definition of social intelligence noted is "the ability to understand and manage men and women, boys and girls – to act wisely in human relations", as stated in 1920 by E.L Thorndike (Heggstad, 2008). Since then, social intelligence has been further broken down into various constructs, including social skill, interpersonal intelligence, social self-efficacy, and political skill. To this day, a universal definition of social intelligence has not been adopted. In fact, depending on which study is referenced, the term "social intelligence" itself has not yet

been universally adopted, and is often interchanged with terms such as “social effectiveness” and “social competence” (Heggstad, 2008). In order to better define social intelligence, Goleman further broke down social intelligence into two broad categories, social awareness and social facility.

According to Goleman, social awareness is the “sensing and perceiving of important social cues including others’ emotions, thoughts and intentions, and understanding complicated social situations” (Goleman, 2006). In contrast, social facility is made up of factors such as self-presentation, influence and concern. In other words, social awareness is the ability to understand interactions while social facility includes the abilities to interact. People with highly developed skills in the areas of social awareness and social facility are able to strategically form interactions with others, leading to a greater number of successful interactions. While Goleman’s breakdown of social intelligence gives a simpler view of a complex construct, it is important to have an even more complete understanding. To achieve that understanding, author Karl Albrecht has reviewed the works of a number of scholars and, based on their theories, identified five key dimensions of social intelligence (Albrecht, 2004).

According to Albrecht, the key dimensions of social intelligence are:

Social radar – the ability to understand an interaction, recognize the context of the behaviors shown, and choose the strategy most likely to successfully navigate the situation.

Presence – a person’s confidence and self-respect, as sensed by others.

Authenticity – behavior that gives the perception that one is honest with others.

Clarity – the ability to clearly express ideas and feelings, explain concepts clearly and persuade.

Empathy – the ability to create a connectedness with others.

A person with high social intelligence has the ability to connect with others, creating better understanding, collaboration, motivation, persuasion, and conflict management. These are skills that have been attributed to effective leaders (Goleman, 2006).

While social intelligence focuses on interactions with others, emotional intelligence focuses more on the processing of emotions within a person and others. Emotional intelligence has been defined as a construct of skills focusing on the ability to recognize emotions within oneself and others, attach meaning to those emotions, and use that knowledge to solve problems (Liff, 2003). In order to better understand emotional intelligence, psychologists have attempted to break down emotional intelligence into the following five domains:

Knowing One's Emotions – self-awareness and ability to monitor feelings from moment to moment.

Managing Emotions – handling feelings so they are appropriate for a given situation.

Motivating Oneself – emotional self-control to work toward a goal.

Recognizing Emotions in Others – basic people skills and empathy.

Handling Relationships – managing emotions in others.

In essence, those with high emotional intelligence can form more in-depth and healthy relationships. Individuals with high emotional intelligence most likely show more interest in the moods and well-being of others as well (Albrecht, 2004).

When looking at the definitions of social and emotional intelligence, many similarities can be noted, as both include the recognition of the status of others as well as the management of others. Social intelligence, and more specifically social awareness, hinges on the ability to recognize various facets of a situation and then use social facility, or strategically act in a way that makes the interaction successful. In order to be truly socially aware, one must possess

enough emotional intelligence to be able to recognize and manage the emotions of others. In addition, to properly use social facility and act in a socially acceptable manner, one must have the emotional intelligence to know one's own emotions and be able to manage those emotions. Both types of intelligence include a factor of self-awareness; social intelligence requires being aware of Clarity and Authenticity while emotional intelligence includes the knowledge of and management of one's own emotions. They each also include a factor of managing others; social intelligence includes Empathy, as does emotional intelligence in the form of Recognizing the Emotions in Others and Handling Relationships. Many major proponents of the idea of emotional intelligence believe that social intelligence is merely a component of emotional intelligence (Albrecht, 2004).

However, as the constructs of social and emotional intelligence are continue to be broken down, one can see a slightly clearer divide. The divide is best explained by looking at someone that is strong in one type of intelligence, but not the other. For example, most people know someone that they would describe as a "real charmer"; someone who can get along with everyone and has the persuasion skills that make them a natural salesman. However, that person can also be characterized as seeming fake at times, with mostly shallow relationships, and the inability to truly care about how others are doing. That person who is the life of the party, but not who would be called in a crisis. In terms of social and emotional intelligence, the person described above has a high social intelligence, but a lower emotional intelligence. Conversely, there are a number of people who are very in tune with their own emotions and the emotions of others. These people are great listeners and confidants due to their high level of emotional intelligence. However, these are also the people that just do not seem to say the right things at the right times. They are awkward in social gatherings, and often use language in a way that

confuses others, requiring further explanations of the point they were trying to make. These people have high emotional intelligence and low social intelligence. While the relationship between social and emotional intelligence cannot be ignored, these examples show that one is not necessarily based on the other.

In order to fully understand the development of social and emotional intelligence, it is important to note the biological factors that influence the level of intelligence a person acquires, otherwise referred to as the development of the social brain (Goleman, 2006). For the past few decades, the search for the biological basis of social behavior has just begun to be explored, largely due to technological breakthroughs that have allowed researchers to monitor brain activity using functional magnetic resonance imaging, or fMRI. Before magnetic resonance imaging was available, research on the brain could only occur post-mortem. The use of fMRI technology has resulted in evidence that the brain systems that manage primary reward processing may also handle the processing of social reward information. For example, a number of studies have shown that the striatum, which is involved with the processing of trust, is also activated by the reception of compliments, and that the level of activation is dependent on the social context of that compliment. Further, the orbitofrontal cortex has been shown to activate when processing the faces of others (Lebreton et al. 2009). This shows that the people view the facial expressions of others as a type of communication, and therefore the brain attempts to find a meaning for the facial expression. That process is a component of both social and emotional intelligence, as correct processing of facial expressions can lead to an increased Social Radar, as well as increased Recognition of Emotions in Others.

These studies have helped lead to the recognition of neural mechanisms know as mirror neurons. Mirror neurons allow humans to emulate the emotional status of those with whom they

are interacting. Neuroscientists believe these neurons lead to the development of empathy and greater interpersonal understanding. In essence, mirror neurons change a person's current brain state to align more closely with the brain state of the other person or people in an interaction (Goleman, 2006). Therefore, in an interaction, these neurons set up a conduit to transmit and receive emotions from person to person, impacting each person's own emotional status and stress level. Examples of this process can be seen through a number of social interactions. At times, a person will approach a group of people laughing, and immediately begin to laugh with them, although that person has no idea what is funny. Someone is smiling and laughing while talking on the phone, and then walks into a room of somber faces and tears. That person immediately stops smiling and feels more serious and less cheerful. Those reactions are mirror neurons creating a similar reaction to the others in an interaction.

So this begs the question: What is the importance of social and emotional intelligence? As stated prior, social intelligence helps people regulate their interactions with others while emotional intelligence helps people regulate their own emotions and recognize the emotions of others. Without the enhancement of social skills through increased social and emotional intelligence, one would not be able to manage interactions with others as effectively, as they would not have the ability to understand the interaction or manage the emotional state that may be created due to mirror neurons. Studies conducted by Ashcroft and Kirk have gone on to suggest that emotions can either enhance or inhibit the brain's ability to learn (Ashcroft, 2001). This builds on the belief that the brain functions best when experiencing high motivation and manageable stress levels. As a person feels more stress, their body is put into a heightened state of emergency. In a state of emergency or high stress, the body releases additional hormones to help the body persevere through the stress. One neurological side effect of this is the shutting

down of emotional centers in the brain, leading to decreased ability to think at ones best (Goleman, 2006). Further, when there is little motivation or increased boredom, the brain is under-activated, and therefore also not ready to maximize learning. However, when stress levels are at a level where there is high motivation and attention, but not to the point of emergency, a person is more likely to reach maximum cognitive efficiency (Damasio, 2003).

Because the emotional status of a person can affect many learning functions such as the ability to focus, to remember and to problem solve, some researchers have gone as far as to say that a person's IQ only contributes about 20% to the factors that determine life success (Liff, 2003). Further, others, including Elias, have concluded that pure academic achievement is based not only on IQ, but that up to 50% of it is based on social and emotional intelligence instead (Liff, 2003). When looking at college-aged students and the dimensions of social and emotional intelligence, the importance of each becomes clearer.

Students with the ability to know and manage their own emotions are better equipped to navigate through the constant stresses of college life. They have a better chance of containing their reactions, and therefore are less likely to feel overwhelmed (Liff, 2003). There are also expectations of college-age students to have the ability to clearly express their needs, motivate themselves to achieve, and act in socially acceptable ways. Without the ability to advocate for themselves, many students are unable to have their needs met. Further, those that act in a socially unacceptable manner find themselves even more alienated and unable to find the support necessary to be successful in college (Liff, 2003). Students with high social and emotional intelligence are also able to delay gratification. This was emphasized by Goleman, stating "There is perhaps no skill more fundamental than resisting impulse." Resisting temptation and setting up one's own reward system for staying on task and avoiding distraction can contribute

greatly to success in college (Liff, 2003). Without the development of social and emotional intelligence, the chances for students to develop these abilities and subsequently be successful in college and in society drop greatly (Goleman, 2006). This assertion fits well with the student development theory proposed by Arthur Chickering, though the development of Chickering's theory pre-dates this more recent research. When looking at Chickering's theory, there are many inherent ties to social and emotional intelligence.

Chickering's theory of student development is made up of seven vectors: Developing Competence, Managing Emotions, Moving through Autonomy toward Interdependence, Developing Mature Relationships, Establishing Identity, Developing Purpose and Developing Integrity (Evans et al. 1998). When examining a number of vectors, dimensions of social and emotional intelligence can easily be identified. Developing Competence includes the enhancement of intellect, physical and manual skills and interpersonal competence. The enhancement of interpersonal competence includes the development of strong social skills, which in turn hinges on the development of social intelligence. Managing Emotions is a vital component to overall emotional intelligence, as it is one of the five domains of emotional intelligence. In order to achieve the vector of Moving through Autonomy toward Interdependence, one must be able to control the need for comfort and affirmation from others, and become emotionally independent. This leads to a more healthy interdependence. Developing Mature Relationships includes the management of relationships, identified above as a key factor of emotional intelligence. While students work toward Establishing Identity, the key factors of emotional intelligence necessary include Knowing One's Emotions as well as Managing One's Emotions. In addition, once identity is established, one becomes more Authentic and should have a more developed Presence, both key dimensions of social

intelligence. Developing Purpose includes a key factor of emotional intelligence, Motivation, as the achievement of that vector includes a motivated commitment to a purpose. Developing Integrity is the development of personal values and congruence in behavior, influenced by Knowing One's Emotions as well as Social Radar, as Social Radar includes the choice of how to respond to a situation. To promote student development, and specifically the development of social and emotional intelligence, Chickering's theory has been put into practice, largely in the area of campus programming.

Students can develop socially and emotionally through a number of avenues. Many colleges offer non-academic based programming over various topics to further student development. Some examples of topics that relate specifically to social and emotional development include healthy decision-making, communication, goal setting, stress management, time management, healthy relationships, and group dynamics (Liff, 2003). Beyond specific programming, student support services are often offered to help students that are struggling, including counseling services, advising services, and orientation services. Social intelligence is enhanced as students interact more with faculty and peers. By learning about group dynamics, the Social Radar of a student is increased. Many programs on healthy decision-making include aspects designed to increase self-confidence and feelings of self-worth. This leads to increased social intelligence in the area of Presence. Additionally, workshops on proper communication can help students enhance their Clarity and Authenticity. Lastly, Empathy can be learned through reflection activities during the debrief of any of these programs or services, as long as that reflection includes discussion on how others were impacted as the program ensued. Emotional intelligence is also increased through these programs and services. Programs on stress management, as well as use of counseling services, students can increase their emotional

intelligence through the development of the key areas of Knowing Ones Emotions and Managing Emotions. By developing time management skills and learning how to set goals, students gain the key factor of Motivating Oneself. Again, through group dynamics as well as reflections on the programs, students can increase their ability to Recognize Emotions in Others. Lastly, healthy relationship programs, as well as discussions with staff during advising or counseling services can help students learn to Handle Relationships. However, the greatest asset colleges have to help students develop socially and emotionally are their faculty and staff.

Increased interaction with others offers increased opportunity for growth of social and emotional intelligence. By designing curriculum to include interactions with faculty and peers, significant growth in both social and emotional intelligence can occur (Liff, 2003). Such interactions can be created through moderated large and small group discussions, peer work group projects, and reflection exercises based on class work. Through moderated discussion, students can develop skills such as assertiveness and persuasion, which in turn develop their Social Radar, Clarity and Presence, as well as work on Managing Emotions, Recognizing Emotions in Others and Handling relationships. Peer group projects take this development a step further by removing the faculty moderation, putting students in a position to practice some of the skills they've developed in past experiences and in small and large group discussions. Lastly, and possibly most importantly, students need to have an avenue to reflect on their experiences and receive feedback based on those reflections. Through this process, faculty and staff can help build Empathy as well as Recognizing Emotions in Others, as they can help students realize the impact that others felt during the activities. This may also help students continue to develop their Social Radar, as increased empathy leads to increased understanding of situations. Beyond curriculum, other strategies to promote growth include setting expectations for behavior,

attendance, and professionalism. By setting these expectations, students learn behaviors that are socially acceptable in the classroom and become better communicators, therefore increasing their social intelligence.

Most experts in higher education agree that students' informal interactions with faculty members have a positive relationship to personal growth as well as academic achievement (Halawah, 2006). It is important to emphasize informal interactions, as a study was conducted asking successful students to rate different roles that their faculty played in their lives. In the study, successful students were asked to rate different roles they felt faculty played in their lives. The results indicated that faculty were rated first as friends, second as helpers and third as teachers. In other words, students with strong informal relationships with faculty, to the point of considering faculty as friends, were more successful. Further, the students' ranking of the different roles of faculty showed a strong preference for friendship over the more formal role of "teacher", or information-giver. This leads to increased satisfaction with college and personal development (Halawah, 2006). To further prove this point, according to a study by Peglow and Walleri, successful students report good relationships with faculty, while students that failed to report college success also reported few strong relationships with faculty. For many students, informal contact with faculty and staff can help provide the student more direction and stimulation (Halawah, 2006). Faculty and staff need to provide students opportunities for private, one-on-one interactions; and in those interactions encourage students to reflect on their own goals and past experiences. Through reflection, students can increase their capacities in almost all key dimensions of social and emotional intelligence, as long as that faculty or staff member is willing to both support and challenge the student as they reflect (Liff, 2003).

Overall, faculty and staff need to realize that they serve as role models both in and out of the classroom. Students tend to seek out interactions with professors and staff members beyond formal business and by allowing informal interactions, those faculty and staff can model proper behavior, teaching more than just their academic curriculum (Halawah, 2006). Faculty and staff are active teachers of Empathy based on how they acknowledge and manage student issues. They promote healthy relationship building by allowing informal interaction, but still setting boundaries. By setting expectations with students, students can learn to self-monitor, and increase their capacities for Managing Emotions and Motivating Oneself. They can be a model of Presence and Authenticity by showing confidence and being honest and real with students with whom they interact (Liff, 2003). Lastly, by forging relationships with students, they can challenge students when a student does not show social or emotional intelligence (Goleman, 2006).

By cultivating social and emotional intelligence, students will gain stronger relationships with others, and in turn accumulate more social capital. Social capital can be characterized as resources gained through relationships among people. It has been found that increased social capital has led to a variety of positive outcomes for those sharing it, including better public health, lower crime rates and stronger financial markets (Ellison et al. 2007). In addition, individuals can draw from their social capital to increase their access to information and psychological well-being.

CHAPTER 2 THE RISE OF ONLINE INTERACTIONS

Recently, a new generation has been identified. They are called Generation C, and they were born after 1990 and lived their adolescent years after 2000. This generation is characterized as being realists and materialists, culturally liberal but not always politically progressive, and while they are upwardly mobile, many live with their parents for more years than any generation before them. They received the moniker of Generation C because they are connected, always communicating, computerized, and community-oriented. Over 95% of the people in this generation have computers and have owned different handheld devices their entire lives. Over 50% use text messaging as much, or more, than actually calling people, and the majority use social media sites such as Facebook or MySpace (Friedrich et al. 2011). Unlike generations before them, members of Generation C will not adapt to new technology, but instead will adapt technology to meet their exact needs (Brown, 2011). This generation, in conjunction with continued advances in technology, is expected to re-define the meaning of interpersonal interactions.

Over the past few decades, the social lives of people have changed greatly due to the internet. As the internet became more widely used, it has evolved from basic information sharing into creating an entire virtual world. In this world, many things are different from our traditional thoughts of human interactions and relationships. People will meet, exchange ideas, make connections, and forge strong feelings such as hate and love for others, all while never meeting each other face-to-face (Brown, 2011). Privacy concerns will fall and people will not only feel comfortable, but have an urge to express their opinions, attitudes and feelings online for the mass consumption of everyone. This willingness to not only be open, but essentially

advertise personal information, has led to and will continue to create some interesting trends regarding the types of interactions humans have with one and another.

In order to understand how rapidly technology has changed things, it is best to look at a few statistics. Currently about 67%, or 4.6 billion people worldwide are mobile users, and about 1.7 billion use the internet on a regular basis. In a survey of younger European users of mobile devices, 52% already state that they feel disconnected if they do not have their mobile phone, leading the vast majority (91%) to keep their phones within reaching distance at all times. Based on current trends, by 2020 it is projected that close to 80% of world's population will be mobile users, amounting to nearly six billion people. That is in addition to an increase in internet users up to 4.7 billion people, many accessing the internet through the use of their mobile device (Friedrich et al. 2011). However, the youth of the world is not the only demographic changed by technology. Currently, the average 65-year-old only spends about 2-3 hours online per week. It is projected that by 2020, that age group will be spending closer to eight hours or more per week online (Friedrich et al. 2011). This does make sense though, as currently over 20 million social networking users in the United States alone are over the age of 50 (Brown, 2011). Futurists have also predicted a number of changes to how society will look and operate over the next decade.

Due to technological advances, by 2012, people will begin to become working nomads – people with the ability to complete their work from anywhere. There will be increased flexibility in work hours, and more global work groups. By 2015, there will be standards in place for worldwide mobile communication and all new homes will be equipped to handle online information sharing. In addition, all new cars will be complete with information sharing technology to allow people to connect to other vehicles on the roadway. By 2020, national elections will be held via e-voting, eliminating the need to even go to the polls. Students will

attend lectures, do research, collaborate with classmates and take exams without leaving their homes. Technology will increase to a point where traditional face-to-face interactions will be limited to a level wanted by individuals, rather than by necessity to complete life functions (Friedrich et al. 2011). But what impact will increased online usage have on the quantity and quality of human interactions?

Exploring the nature of online interactions has yielded conflicting results over a number of studies. Understanding the different types of human relationships best explains the differing results. According to Brown, sociologists have identified two kinds of social ties – strong ties and weak ties. Examples of strong ties include family members, close friends, and others that share similar ideals, beliefs and identities. Weak ties include acquaintances, friends of friends, and other more shallow relationships (Brown, 2011). Online interactions have had a distinct impact on both types of social ties.

When examining the impact of online interactions on strong social ties, studies have shown that, for the most part, technology has increased the ease of solidifying and maintaining strong social ties (Ellison et al. 2007). In a study of the usage of the social media website Facebook in particular, Ellison and her colleagues found students largely used their online interactions to stay in touch with those they had already forged a relationship with offline, such as friends and family members that they would not see as often after relocating to college. Through currently existing technologies such as Facebook, Skype, and text messaging, students have both increased quantity of interactions with existing relationships, but also increased quality of those online interactions, as they can now send images in addition to verbal telephone or written communication. This led to less homesickness and a greater amount of social capital (Brown, 2011). Beyond gaining another way to interact, and therefore more easily maintaining

relationships, it was also found that online interactions led to more face-to-face interactions with strong ties, as the ability to organize such interactions increased (Husley, 2011). However, the benefits of online interactions did not stop with strong social ties.

Social media has greatly increased the amount and quality of weak social ties. Through social media and online interactions, people are able to vastly increase the size and diversity of their social networks. On average, those currently online have a virtual network of 200-300 through a variety of avenues (Friedrich et al. 2011). This network is made up of a majority of weak social ties, such as a person met briefly at a social event, in class, at the grocery market, or purely online that shares a similar interest. It is important to remember that all relationships carry with them social capital, and therefore even the weakest of social ties can bring positive results (Brown, 2011). An example of this could be a student who meets an alumnus from their college briefly at a sporting event. Later on, that student connects with the alumnus through some type of social network and the two forge a relationship, though a shallow one, through a number of small online interactions. As that student graduates, they now have another relationship to call upon when looking for a job. That resource increased that student's social capital. Another benefit of weak social ties is the opportunity to receive a large number of different viewpoints from a large network of ties. This can expose students to a number of different perspectives, preparing them for larger conversations surrounding topics such as diversity and multiculturalism (Brown, 2011). In fact, the more weak social ties a person can forge and maintain, the greater their pool of resources and thus social capital (Ellison et al. 2007). There are also opportunities to use online interactions to transform weak social ties into strong social ties.

As humans become more attuned to utilizing social media and online interactions, relationships forged and maintained online will become stronger. Even now, many members of Generation C view virtual relationships in the same light as relationships forged face-to-face. In fact, most believe that the use of Facebook is the same as interacting face-to-face (Husley, 2011). Virtual relationships have been found to be just as powerful and meaningful as offline relationships. A demonstration of this point can be found in China, where the use of role-playing games led to strong online relationships. These relationships were considered strong enough to constitute adultery, leading to offline divorces, even though no face-to-face interactions occurred (Brown, 2011). Further, with the amount of information shared via social media, such as online status, physical location, interests and passions, people are encouraged to self-disclose at very high levels. With this increase of information sharing, the opportunity for more open and honest virtual relationships increases (Friedrich et al. 2011). However, the great increase of online interactions can raise concerns regarding the development of social and emotional intelligence.

CHAPTER 3

THE IMPACT OF MORE ONLINE INTERACTIONS ON THE SOCIAL BRAIN

As discussed in Chapter 1, the development of the social and emotional intelligence hinges greatly on the interactions between people. Further, the development of the social brain is based on mirror neurons in the brain of one person creating a replica of the emotional status of the person being interacted with. To date, the majority of research on the social brain has been based on face-to-face interactions. For example, the most widely accepted study of the social brain was based on the brain's response to pictures of various facial expressions depicting various emotional states (Lebreton et al. 2008). Using current social media, the majority of which is done via written language, concerns have arisen regarding whether the increased use of social media and online interactions will decrease the development of the social brain, as well as lessen social and emotional intelligence. Until social media includes an increased number of images of similar non-verbal coding of emotions, like facial expressions, this will continue to be a concern.

Communication skills are essential to social and emotional intelligence, as well as the development of the social brain. People must have the opportunity to develop social intelligence and perfect the key dimensions of Social Radar, Presence, Authenticity, Clarity and Empathy within online relationships. Further, they must have interactions that allow an increase in aspects of emotional intelligence, namely Managing Emotions, Recognizing Emotions in Others, Motivating Oneself and Handling relationships. Research has shown that each of these dimensions have been affected by positive and negative aspects of online interactions (Albrecht, 2004).

One aspect of online interactions noted in research is the idea of disembodiment. Disembodiment is the idea of a lack of physical presence during online interactions (Kang,

2007). As communication moves away from traditional face-to-face styles toward continued text-based interactions, people lose the opportunity to both send and receive physical nonverbal communication (Kang, 2007). Due to this, current online interactions are less complex than face-to-face interactions, as people do not need to process nonverbal communication in the form of facial expressions and body language. This has multiple implications for people that rely heavily on online relationships and interactions.

There are positive effects associated with disembodiment. For people that have trouble with nonverbal communication, and therefore struggle to forge strong social ties in face-to-face interactions, social media and online interactions provide opportunities to develop relationships that were not possible before (Ellison et al. 2007). In Kang's study, results showed that those people with a large usage of online chats showed a decreased amount of depression and greater happiness than similar individuals with less usage. However, Kang's results also showed that those that embraced disembodiment reported feelings of being more alienated, reported less confidence and had fewer people they felt they could rely on. In other words, those individuals were lacking in the key dimension of Presence. In addition, people that prefer disembodiment showed a loss of nonverbal communication abilities, making it difficult to correctly interpret face-to-face interactions – a deficiency in Social Radar (Kang, 2007). This also allows for both an increase and decrease in Clarity. People that spend a great deal of time interacting with text-based social media systems have the opportunity to increase their Clarity in regards to language use and word-choice. In contrast, Clarity can be decreased as text-based interactions are misinterpreted by the person receiving the message. For example, aspects of communication such as sarcasm are often lost without the accompaniment of non-verbal cues or changes in pitch or tone of verbal communication. This also limits the opportunity to practice Recognizing

Emotions of Others. Although a person can often infer the emotion of someone based on how a text interaction is written, similar to sarcasm, emotions can be more easily hidden or lost in written correspondence.

Kang's research goes on to identify that the more time spent online, the more uninhibited people feel. The feelings of freedom that come with both named and anonymous interactions online can increase a person's Authenticity. This leads to the argument that virtual relationships via social media are in fact more honest than face-to-face interactions with people, largely due to a lack of ability to filter messages to certain people. For example, most people know someone who acts differently depending on who they are interacting with. While some would classify that type of behavior modification as successful use of the Social Radar, others argue that it may be a lack of Authenticity, believing that inconsistent behaviors are a sign of not being honest. In many types of social media, a person's interactions will be seen by all, therefore, all will see the multitude of behaviors, beliefs and values that person espouses online. However, in order to have appropriate social interactions, one must combine Authenticity with Social Radar to ensure that their authentic response is the best strategy to handle the situation. Because of the impairments that increased online interactions have on Social Radar, people that have more interactions online tend to struggle in face-to-face interactions, and suffer from greater loneliness and depression when offline (Kang, 2007). People may also struggle the aspect of Managing Emotions when online, due to the decrease in inhibitions felt when interacting anonymously not in real time. A good example of this using current technology is the "angry email," which occurs when someone responds immediately to a situation while they are still highly emotional. In that email, the person says things they regret, and had they needed to wait for a face-to-face interaction, most would have reacted with less emotion and more in conjunction with their Social

Radar. In addition, the example above also illustrated another challenge presented due to the 24/7 nature of online interactions – Motivating Oneself.

As discussed prior, Motivating Oneself is a dimension of emotional intelligence that includes the aspect of emotional self-control and the delay of instant gratification. Already students are looking for instant answers and resources to address their issues or concerns. As people become more connected through various types of technology, expectations change regarding the acceptable response time for inquiries. A prime example of this can be illustrated by examining how students have interacted with faculty and staff over the years. Originally, when a student had a question, they had to wait until the following class to ask the question. If the professor did not know the answer, it was delayed until the following class. In order to combat that delay, some professors held office hours for students to come between classes for answers and support. Even then, if the professor did not know the answer, the student would have to come back at a future day or wait until the next class. Along came the telephone – now students did not have to be in the same physical location as the professor to ask a question or receive an answer. However they did have a limited amount of time that the professor was available to answer the telephone. Enter email – now students had a forum to ask the question at any time, though they still have to wait for a reply from the professor. Now in addition to telephone and email, students can use online chat, text messages, Facebook and Twitter, along with any other avenues made available by the professor. If students do not hear back immediately, they move on to the next option. Eventually, the professor has five of the exact same message on five different means of communication, as the student eagerly awaits a response. This scenario demonstrates a lack of the ability to delay gratification, or lower emotional intelligence, an unfortunate result of the lowering of inhibitions via online

communication. Lowered inhibitions when online can also affect Authenticity when examining online identities.

The beauty of online interactions for some is the opportunity for anonymity. While the majority of social media websites require personal information about the user, there are limited checks to ensure that information is factual. Because of this, people have the opportunity to create any type of identity they choose online (Brown, 2011). Beyond that, using technology, a person can continue to re-create themselves in an infinite amount of ways. This has obvious implications on Authenticity, as relationships forged online without any offline component are limited to the information presented by each individual. Further, as colleges attempt to help students develop their own identity, there are both positive and negative effects present. Students do have an increased ability to explore various identities, as the ability to drop an identity and start over is increased. However, in order to maintain relationships created during different identity attempts, students may attempt to maintain a number of completely different identities, leading to confusion and a lack of necessity to discover their true identity. Currently, there are very few people with an online presence who have not encountered someone that misrepresented themselves via an online interaction. This lack of Authenticity can be linked to what some say is the loss of Empathy through online interactions.

Empathy is a large part of both social and emotional intelligence, as it revolves around the ability to perceive the emotions of others and care about their well-being. As technology allows more and more weak social ties, experts worry that it will lead to a loss of empathy in online interactions. While an advantage of social media is a lowering of barriers of self-disclosure, the opposite side of that coin is that people may know more and more about many different people and care less and less about them (Hulsey, 2011). In addition, with the use of

existing social media such as Twitter, people can become very knowledgeable about the lives of people they have never met or with whom they have no type of relationship without much effort. This may lead to false ideas of what social ties are. Currently, an aspect of a strong social tie is an increased knowledge about the person that tie is with, and thus stronger empathy with that person. As people know more about all social ties, whether strong or weak, empathy, or lack thereof, becomes more universal. Empathy in offline situations may also suffer, as more attention is given to online interactions and less time is spent with those in close physical proximity (Hulsey, 2007). Another side effect of lowered social intelligence, specifically Empathy, is the avoidance of unpleasant interpersonal tasks that should be handled face-to-face through the use of online interactions. For example, the infamous break-up via text message (Brown, 2011).

Overall, more challenges have been noted for the development of the social brain and social intelligence via online interactions than benefits, and therefore, as the world continues to shift online, these challenges must be overcome.

CONCLUSION AND RECOMMENDATIONS

As shown throughout this paper, the development of social and emotional intelligence, as well as the development of the social brain is a key factor to the success of students in a college environment and beyond. Through the enhancement of the key factors of social intelligence (Social Radar, Presence, Authenticity, Clarity and Empathy) as well as the key dimensions of emotional intelligence (Knowing One's Emotions, Managing Emotions, Motivating Oneself, Recognizing Emotions in Others, and Handling Relationships), students gain the comprehension needed to develop strong social skills. While to date, the development of these constructs has largely come from offline, face-to-face interactions, trends show that civilization is moving toward more online interactions. While there are certainly benefits to the use of online interactions, there are concerns regarding how people develop social and emotional intelligence through online interactions. This leads to the question of how student affairs professionals can create learning environments where students develop social and emotional intelligence while still embracing online interactions. Based on the information presented thus far, the following recommendations have been created:

1. Colleges must include social and emotional intelligence building explicitly in their curriculum. As colleges shift online, strategies must be developed to include these skill sets during online interactions. Even in virtual environments, faculty and staff can create moderated discussions that are open and honest. They can also provide methods for students to work as a group in online environments, as this will also help prepare students for such occurrences within the workforce. Faculty should also require students to provide an online journal of reflections with the ability for the

- faculty to provide feedback on those reflections to help challenge and support students as they enhance their social and emotional intelligence.
2. In order to help create an environment similar to traditional interactions to develop the social brain, colleges should investigate the benefits of video conferencing as a central online interaction tool, as it best re-creates face-to-face interactions. Colleges will however need to address limitations of this technology, such as availability of web cameras for all students, programs to allow interaction between a large number of people, and availability of required bandwidth and internet service for students. Colleges can also explore additional types of technology that allows students to both express and receive emotional responses from each other if video is not available.
 3. Studies have shown that informal relationships between students and faculty or staff have led to increased success for those students. Therefore, student affairs professionals and faculty members must be prepared to establish meaningful informal relationships with students via online mechanisms. These mechanisms must allow professionals to role model appropriate behavior to students. Some current examples of this are the use of Facebook, Twitter, and other existing social media. Through open use of these technologies, faculty and staff have the ability to interact with students informally. At the same time, students can view how professionals use these technologies and model their behavior. Further, depending on the rapport between the student and staff member, there is also an opportunity for faculty or staff to challenge the student when unacceptable behaviors are seen via social media. This in turn will help students realize what they are sharing online and give them an opportunity to increase their Social Radar in regards to social media use.

4. Technology trends show that future generations will value online interactions equally with offline interactions, and therefore most students will be online 24/7. With that in mind, students will come to expect instant responses to any interactions they have with faculty and staff. As discussed, a key factor of emotional intelligence is Motivating Oneself and showing self-control. Boundaries and expectations must be set with students to deny instant gratification to prepare them for life after college.
5. According to Chickering's student development theory, a large part of the college experience revolves around the development of a student's identity. A challenge of increased online interactions is that students can create false identities. Therefore, student affairs professionals need to provide avenues for students to solidify their identities in a safe environment. They must also be prepared to work with students that may show more advanced identity confusion due to possible multiple online identities.
6. Colleges must continue to monitor and utilize new technologies. Instead of waiting for a new technology to become popular before utilizing it, colleges must embrace it as it is released and increasing in popularity. New technologies could solve the problem of limited social and emotional intelligence development in online interactions through the creation of neural devices able to create a true virtual reality. Such devices are already in existence, but limited to uses such as controlling electronic equipment such as televisions or wheelchairs. The next step is for these devices to trick the brain into believing that online interactions are the same as offline interactions, or perfect simulators of face-to-face interactions (Brown, 2011).

With knowledge of future trends, student affairs professionals can continue to offer life-altering college experiences to students, and prepare them to be successful in their lives after graduation. While these changing times will produce challenges never seen before, that is the cycle of the profession as time goes on. Student affairs professionals must continue to focus on student development, and embrace an ideology from Generation C – do not adapt to new technology, but instead adapt that technology to meet the developmental needs of students.

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