Rethinking Technology's Impact on Empathy

Rachel Bonnette

Loyola University Chicago, School of Law

Summer 2014

Empathy allows us to understand the people around us, form relationships, and proceed with compassion when tragedy strikes. It is integral both to the ability to form a society and to work together for survival. And yet, in the Information Age, empathy seems to be atrophying. In this article, I will show how technology has played its part in stifling empathy in the modern world, and how we can instead use it to strengthen our ability to empathize with others. I will explain how empathy works, discuss its importance and purposes, and explain how technology can be used either to teach us to harness empathy, or as a weapon that allows us to ignore our own humanity. I have chosen to use images and hyperlinks to make this information readily available to the broadest audience, to make this article more interactive, and to remind those who read it of the benefits modern technology has to offer.

Empathy is a reaction to the perceived or anticipated emotions or feelings of others, and although perhaps viewed as a weakness in a culture that promotes focus on the self over society, Konrath, Obrien, and Hsing's research on the recent decline in empathy suggests that empathy is the key to maintaining and improving human society. Empathy allows people to develop and maintain relationships. In a school, empathy permits students to socialize, develop friendships, begin to understand social constructs, and work with peers in groups. In a job, empathy is necessary to effective teamwork, collaboration, negotiation, and the skills needed

for the job itself. Increased empathy reduces the likelihood of recidivism, creates safer societies, and makes compassion possible. It is also thanks to empathy that we can enjoy the thrill of adrenaline when we watch heroes narrowly defy death in films, or stop ourselves from destroying a relationship when we see the first signs of anguish in a friend's face.

We can use empathy to act with compassion, feel others' pain or joy, or even manipulate and deceive. This is because there are different kinds of empathy, and although all kinds of empathy are valuable, innate human traits, we can excel at one kind of empathy and yet ignore, stifle, or simply lack others. In 1759 a theorist named Smith initially distinguished cognitive or instinctive empathy from emotional or intellectual empathy, a distinction Spencer reiterated in 1870. Research on empathy since then has, for the most part, kept this distinction and studied the two as separate functions. The two categories distinguished unemotional, unplanned reactions, like a gasp of pain at seeing a stranger cut themselves, from emotional, built-up reactions, such as crying with a loved one. Davis' research (1980) on multidimensional approaches to measuring empathy discusses a method of measuring empathy which expands the categories for the purpose of more accurately seeing how the different types of empathy correlate to one another. Davis' Interpersonal Reactivity Index (IRI) measures an individual's capacity for empathy on the four following scales: fantasy, perspective-taking, empathic concern, and personal distress.

The first category, the fantasy scale, measures the tendency to "imaginatively transpose oneself into fictional situations (e.g., books, movies, daydreams)." This factor asks participants to rate whether they feel they "really get involved with the feelings of the characters in a novel"

or if they are usually objective when watching a movie or play and do not often get completely

caught up in it, and other related factors. This quality allows people to relate to and "fall in love

with" characters on the screen, and hopefully then relate better to others in reality. According

to Konrath, Obrien, and Hsing's research, this skill weakens as people read fewer works of

fiction and use their imaginations less frequently to interpret emotion and reactions. Persons

who empathize well with characters in books will not necessarily socialize better with real

people, however, and tend to be more shy and withdrawn, because subjects who score highly

on the fantasy scale tend to be more emotionally vulnerable and sensitive to others'

perceptions of them.

The second category, the perspective-taking scale, attempts "to reflect an ability or

proclivity to shift perspectives -- to step 'outside the self' -- when dealing with other people."

This portion of the questionnaire evaluates participant's tendencies through rating criteria such

as "Before criticizing somebody, I try to imagine how I would feel if I were in their place" and "If

I'm sure I'm right about something, I don't waste much time listening to other people's

arguments."   This skill is valuable in resolving conflicts, maintaining peace, developing

relationships, and working in teams, and according to Davis generally goes hand in hand with

low social dysfunction, low anxiety, and high self-esteem.

Konrath, Obrien, and Hsing's research hypothesizes, however, that a rise in narcissism

has resulted in a diminished willingness and capacity to use perspective-taking empathy.

Studies have confirmed that narcissism and empathy are antithetical in nature, and as

narcissism climbs, the capacity for empathy in young adults and children has taken a steep

decline in the last thirty years; less than 25% of the test subjects rated themselves as being as empathetic as subjects thirty years prior. The last decade has seen the sharpest decline, indicated in Konrath's graph of perspective-taking scores below. Many "millennials" expressed

a belief in the value of community service or donations but would, given the choice, watch television, play games, or do something more fun and self-oriented. Parents and families play a big part in whether children grow up to be empathetic or narcissistic. Parents, demonstrating their own narcissism, "have become more controlling and less warm and responsive, less focused on teaching children
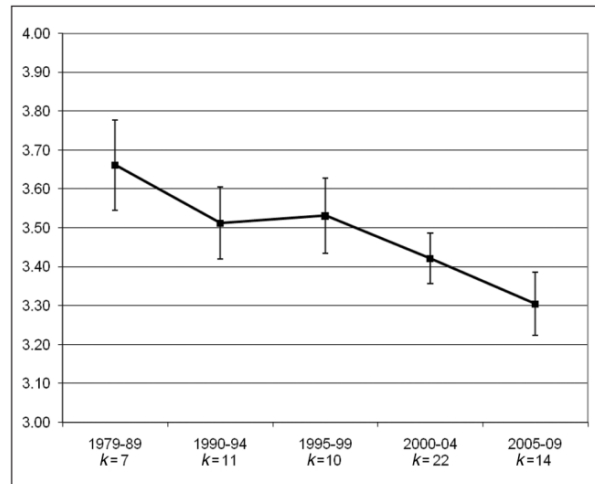

Figure 2. College students' Perspective Taking scores by period Capped vertical bars denote ± 1 *SE*.

to imagine others' feelings, less willing to promote their children's emotional expressiveness, less tolerant of dependent behavior, more unhappy with the sacrifice that parenting requires, and more accepting of their children's aggression." Furthermore, children without siblings only learn to cooperate with children their age in schools, and do not see the dynamic at home, where they can compare it against their parents' feedback. The cycle of narcissistic behavior continues and narcissism increases with each passing generation.

Konrath's study also suggests that with more Americans living alone than ever and the increased focus on the self, perpetuated by technology's turn towards social media, isolation and self-focus have helped to diminish the current generations' ability to empathize. Cohen's video, based on Sherry Turkle's book "Alone Together" and Dr. Yair Amichai-Hamburger's

Hebrew article "The Invention of Being Lonely," agrees with Konrath's hypothesis. Social media, Cohen says, has not only contributed to the aforementioned narcissism, but has also compounded the problem of isolation and self-obsession. This is because social media puts pressure on the user to edit and correct their self-image to a state of perfection, corrupting the ability to form real, unedited relationships. With impersonal communication like posts, pictures, and texts, today's youth have a diminished capacity for real-time conversations and understanding body language, facial expressions, and the mindsets of others. Because they do not know how to form real relationships, their isolation increases. Social media then rewards the isolating behavior with "likes" and other forms of attention that act as a temporary, shallow balm to the user's loneliness. With the help of technology, isolation and self-obsession then become a self-perpetuating cycle.

The problem of the inability to take others' perspectives when using social media and technology that limits the scope of communication is a pervasive one. Heirman and Walrave's study on cyberbullying found that children and teenagers using social media like Facebook and Twitter not only felt that they had impunity because of anonymity, but also that they were unsure of the impact their words had. Subjects indicated that they thought their actions were only a joke, something funny to say or do, or else had simply not given thought to the impact it would have on the victim. Once again, the form of communication had cauterized away human reaction, so the aggressors could not put themselves in the victim's place, and were uncertain of the impact of their words.

The third or empathic concern scale assesses "the degree to which the respondent experiences feelings of warmth, compassion and concern for the observed individual." Distinct from the fantasy component of empathy, empathic concern specifically corresponds to compassion or concern for real persons who the subject perceives. The test asks participants to rate how well they identify with statements such as "When I see someone being treated unfairly, I sometimes don't feel very much pity for them" and "When a friend tells me about his good fortune, I feel genuinely happy for him." Like perspective-taking, Konrath's study shows that narcissism and isolation have taken their toll on empathic concern (see Konrath's graph below), but technology has had an additional role in the decline of empathic concern.

Heirman and Walrave's study on cyberbullying highlights the effect of the internet on empathic concern. Social media has allowed teens and young adults in recent years to communicate to broad audiences without ever seeing the body language, facial expressions, or psychological reactions of their targets. Like fighter pilots killing by the

Figure 1. College students' Empathic Concern scores by period Capped vertical bars denote ± 1 *SE*.

dozens or hundreds, the research states that they are so distant from their victims that their sense of empathic concern diminishes to a point where they do not see, know, or care the extent of the damage their words and images have done. Games and media have a similar effect when they celebrate violence and aggression while minimizing the reality of others' pain, such as the Grand Theft Auto franchise, where players are encouraged and rewarded for
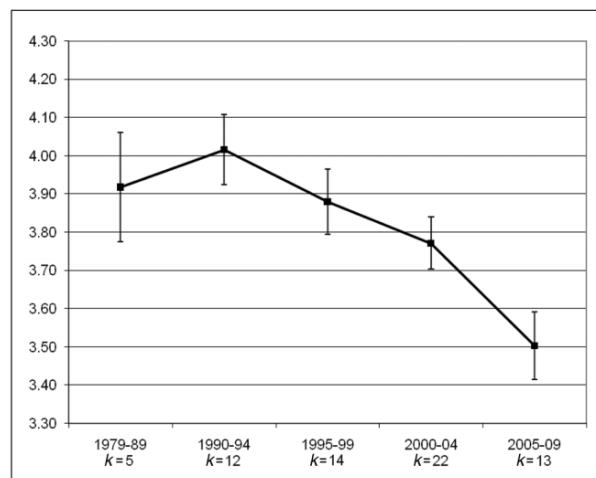
6

committing various violent crimes, and violent comedies like South Park, which make pain, anguish, humiliation, and even murder a source of humor and entertainment.

The fourth and final category, the personal distress scale, measures "feelings of fear, apprehension and discomfort at witnessing the negative experiences of others." The questionnaire for personal distress empathy in Davis' research asked participants to rate themselves on criteria such as "I tend to go to pieces when I see someone who badly needs help during an emergency" or "I stay calm when I see that others are hurt." Morrison, Lloyd, di Pellegrino, and Roberts' study speaks to the neuroscience behind this phenomenon; they found that human brains are programmed to react similarly whether the subject is only witnessing or actually experiencing a sharp pain. Magnetic Resonance Imagery (MRI) showed subjects' brains

reacting in the right dorsal anterior cingulate cortex (ACC) both when subjects' fingers were pinpricked with sharp needles and when they perceived another person to have experienced the same pain. The image to the left demonstrates how a when a child sees a person smashing their hand in a car door on film, the child's brain reacts throughout the pain matrix as if the child was harmed as well.

Multiple factors impact the innate sense of empathy, including one kind of empathy's correlative effect on another. For example, test subjects who demonstrated a greater ability to take others' perspectives generally had a greater feeling of empathic concern for others, but likewise tended to have less personal distress at another's negative experiences. In the example of a doctor or caregiver, these qualities might be most prudent; whereas the first two kinds of empathy would allow them to better aid and care for their patients, experiencing pain at the sight of another's wounds could prohibit the professional from being objective and helpful during an emergency.

Other factors, which include but are not limited to the subject's sex, egocentric bias, time, and emotional connections, can cause the person's ability to empathize to fluctuate. Davis found that females tested significantly higher than males in most categories and had higher or equal ability to males in all others. Silani, Lamm, Ruff, and Singer's study explored the egocentric bias's impact on empathy. This study found that although the instinctive focus on one's own feelings (the egocentric bias) can prohibit him or her from correctly interpreting the feelings of others, parts of the brain try to temper that with empathy. In this study, subjects were asked to rate each other's feelings of disgust or comfort upon touching and seeing something that appeared either to be maggots or bunnies. Subjects might both touch the same thing, in which case they would accurately judge the feelings of the other, or would have opposing experiences, in which case their rating would be inaccurately tempered by their own experience. When researchers used magnetic waives to impact the part of the brain responsible for instinctive empathy (most similar to the personal distress response), they could increase or decrease the inaccuracy.

Even without the ability to feel personal distress for another sentient being, however, the study showed that, given enough time and careful consideration to react empathetically, one's emotional understanding of others is heightened (more reflective of perspective-taking and empathic concern types of empathy). As Konrath points out, however, we live in a society where time is limited and where technology has created an expectation of efficiency and speed. People have less time to be empathetic, and easily grow bored with trying to understand others.

Morrison, Lloyd, di Pellegrino, and Roberts' study found that our emotions have an impact on how empathetically we will react to stimuli. Loved ones the subject perceived as injured triggered a greater empathic response than strangers. This could explain why we also have stronger empathetic responses to victims perceived as vulnerable; Levin's research questioned whether humans have more empathy for animals than for humans, and found that while subjects had more empathy for animals than adults, they did not have more empathy for dogs than for children.

The "empathy deficit," as President Obama has so dubbed the current problem, is creating generations who cannot connect with and support each other. As Konrath points out, even though crime has decreased in the last decade over all, violence against the homeless have seen dramatic increases in the last ten years, hate crimes against Hispanics, immigrants, homosexuals, and transgender individuals have increased significantly, and hit-and-run accidents are up 20% since 1998. All of the victims of these crimes are the stigmatized, the marginalized, and defenseless groups, and as Konrath's study states, this information supports the claim that empathic concern and perspective-taking are on the decline. An estimated 11.7

million unauthorized immigrants lived in the United States as of March 2012 according to Pew Research Center, 53 million Hispanics lived in the United States as of July 2012 according to the U.S. Census Bureau, around 633,000 homeless persons lived in the United States as of January 2012 according to the National Alliance to End Homelessness, and the Williams Institute's 2011 analysis estimated that approximately 9 million Americans identify as lesbian, gay, bisexual, or transgender. Upwards of 75 million potentially stigmatized, marginalized Americans lived in the United States as of 2012; and these are just the targets of the crimes mentioned above. Bullying, especially pernicious with the help of technology, threatens children of all ethnicities in schools throughout the world.

While certainly not the only perpetrator, technology seems to be at the heart of this social devolution into isolation, narcissism, and the atrophy of empathy. Konrath suggested that because of technology, Americans suffer from an overload of information, an increased pressure for efficiency and speed, and a narcissistic self-absorption fed by social media. The study also pointed out that rather than do charitable, compassionate, or selfless activities, the college students the study surveyed would opt to play games, watch television, and absorb media, among other things. Heirman's cyberbullying cites the ability to communicate with anonymity, without real interpersonal connections, and a numbing distance from the victim as the way in which technology has crippled empathy. Cohen's video pointed out that social media creates the illusion of having an unlimited supply of friends, attention, and freedom from loneliness, effectively discouraging the teens and young adults who grew up on technology from seeking another solution to their isolation.

Media like games, movies, television shows, and the internet provide an addictive source of entertainment, a fictitious replacement for human companionship, and a warped sense of socialization, but removing media or technology is not necessarily the answer. Heirman's cyberbullying study also touts the benefits of anonymity, for example; without the pressure of rejection or humiliation, persons suffering from anxiety can make friends online, socialize, or speak their mind in an uninhibited way. Outside of the context of bullying or violence, the internet and social media can serve as ways to organize, reach larger audiences, and disseminate information. Furthermore, removing technology from schools generally means that schools have less opportunity to change children, teens, and young adults' views towards technology.

Promising methods exist for using technology to teach empathy, particularly empathic concern and perspective-taking. The video game in development called That Dragon, Cancer allows users to step out of themselves and their comfort zones into the shoes of a father dealing with the inevitability of losing his four-year-old son. The interactive content forces players to make decisions, deal with consequences, and think about harsh realities in a very real way while still looking for hope and a way to cope. Similar video games are designed to help the families of depressed persons and autistic children understand and empathize with the suffering loved one. Still others put the player in the position of a sexually harassed woman, or force the player to deal with hate speech. Empathy games like Thomas was Alone focus on younger audiences, teaching children to empathize as well. Like all

industries, video games require funding and audiences to continue production, however, which is where government grants, school support, and public libraries could cooperate to provide children and young adults with the means to learn more about empathy.

The internet is also a rich source of information, and while not all of that information is helpful to fostering empathy, the internet also makes it possible to view pictures, videos, and stories. This media can provide insight to others' lives and way of thinking, or even teach viewers more about empathy and how it works. Cohen's video highlights the problem in a thought-provoking, visual way that high school students can both understand and want to see. The same is true for Riess's TED Talk on the power of empathy, which includes both information on the power of empathy and strategies for training oneself to be better at empathizing. Reiss suggests following the steps of an acronym, "EMPATHY" to remind the audience to make **e**ye contact with others, pay attention to **m**uscle movement in the face, notice **p**osture, make note of the **a**ffect or expressed emotions, listen to the speaker's **t**one of voice, **h**ear what the person is saying without judging or half-listening, and be careful of **y**our own response to the other person's emotions and feelings. The popular show Lie to Me also provides the audience with a bit of loosely scientific insight into expression and emotional cues, as it is based on the work of Paul Ekman, a professor of psychology at UCSF, while still providing entertainment to a wide audience.

Finally, we can rethink social media itself. Microphones, cameras, and other human interface devices make it possible to connect on a more empathetic level from great distances. Incorporating those techniques into social media might, if Konrath, Heirman, and Cohen's suspicions are correct, turn the tide on empathetically disconnected communication. Forums with moderators can also not only provide places of online communication that are less of a free-for-all, but increase bullied, confused, or social impaired persons' abilities to talk anonymously about their problems and find solutions, like at Alliance of Hope's suicide survivor's forum.

Empathy is on the decline in the modern world, particularly on the scales of perspective-taking and empathic concern. Technology seems to have played its part in crippling this innate human function, but removing technology from school or children's hands is not necessarily the answer; technology is too prevalent, and serves valuable purposes as well. Instead, we should focus on devoting resources to using the technology already in the hands of youth throughout the world. If we can make games, forums, and other forms of empathy-promoting media readily available, we should be able to turn this trend of narcissism, isolation, and loneliness towards empathy and interpersonal connection.