Empathy: Design tool and outcome

by Dave McColgin
If there is any one secret of success, it lies in the ability to get the other person’s point of view and see things from his angle as well as your own.

— Henry Ford

...The ability to see the world through somebody else's eyes and to stand in somebody else's shoes... strikes me as the most important quality we need in America right now and around the world right now.

— Barack Obama

“A human being is a part of a whole, called by us “universe,” a part limited in time and space. He experiences himself, his thoughts and feelings as something separated from the rest... a kind of optical delusion of his consciousness. This delusion is a kind of prison for us, restricting us to our personal desires and to affection for a few persons nearest to us. Our task must be to free ourselves from this prison by widening our circle of compassion to embrace all living creatures and the whole of nature in its beauty.

— Albert Einstein

What Is Empathy?
Empathy is a modern word, but not a modern influence. It was coined in 1909, based on ideas from around the turn of the century. Definitions vary, but generally share two components: 1) intellectual identification with the situation of another person, and 2) experiencing a shared emotional state. It is often described as walking in someone else's shoes.

Empathy is rare among animals and may have developed in humans for evolutionary advantage. After all, we aren't the biggest or strongest. Evolutionary biologist Richard Dawkins called the preference to promote others with similarities to oneself the Selfish Gene (Dawkins, 1976). Survival of a trait expressed by a group may be even more important in our evolution than survival of an individual. These similarities give rise to a sense of 'in-group' - ourselves, our family, our friends, and people who share any trait/value/goal/idea with us. Jeremy Rifkin described these in-groups growing over our history from shouting distance among tribes to groups defined by religion and later to countries (Rifkin, 2010).

Why Is It Essential?
Whether we feel empathy or not, the truth is that we are all connected in myriad ways. As the modern world has shrunk, not only can we communicate in near real time with people anywhere on earth and travel there quickly, we’ve begun to realize that everything is tightly connected. You are connected in innumerable ways to Kevin Bacon but also to someone halfway around the world living in completely disparate circumstances. Dissident activity in the Middle East can increase the price of oil, send markets downward, and prolong local recession. Desertification in
Africa may be partly caused by pollution in China and the resulting dust clouds may influence hurricane development in the Atlantic (“Dust...” 2006). Business and politics have tended to think of the world as a zero-sum game, in which the gains of the winners equal the losses of the losers, but in fact, increasingly in this century, consequences ripple to affect everyone involved. In many important ways, we are actually all part of the same in-group.

Many facets of society are affected by empathy, from Middle East conflict to public policy. The economic divide between the wealthy and poor has grown globally to the highest disparity in decades, and this divide breeds out-group mentalities on both sides. Immigration has sparked discussion of national identity and security in our own country and caused violence even in parts of developed Europe. But perhaps the most important impact is on the countless interactions each of us has every day, which contribute to these larger patterns. Recent studies have shown a drop in empathy in the past 30 years among college students, and especially in the last 10. And narcissism is on the rise (Konrath et al., 2011). There are theories about why. For example, far fewer people are reading for pleasure, which has been shown to correlate with stronger empathy. And Robert Putnam’s book, “Bowling Alone: America’s Declining Social Capital,” describes the increasingly solitary life of the average American as participation in in-person events and organizations has gone down (Putnam, 2001). Socially isolated people “evaluate others less generously after interacting with them, and Kenneth J. Rotenberg of Keele University in England has shown that lonely people are more likely to take advantage of others’ trust to cheat them in laboratory games.” (Zaki, 2011.)

Empathy reduces strife and promotes collaboration. Focus on others can lead to a sense of personal fulfillment and purpose, and therapists routinely prescribe community service. Empathy emphasizes long-term focus. It seems requisite for equality of opportunity and for functional pluralistic society. And so we argue that on top of its virtues, empathy is simply pragmatic in order to deal with the problems we face.

An Inherent Capacity
Neuroscience and behavioral science have started to probe the nature and relationships of empathy. We have been able to measure it through behavior, questionnaires and self-report, but more recently through correlates in the brain. Frans de Waal found ‘mirror neurons’ in monkeys that responded when watching others perform an action (Preston and de Waal, 2002). Seeing someone open a nut activated corresponding motor areas of the monkeys’ brains, suggesting that the capacity for empathy is innate.

Subsequent studies in a few other animals and in humans have extended these findings. MRIs show that watching someone step on a thumbtack activates pain patterns in our brain, while hearing a sad story activates our corresponding emotional structures. Similar results have been found in babies 6 months old (Zaki, 2011). The more contact we have with another person, the more sensory information about them activates corresponding experience in our own brains.

Empathy Is Personal
Levels of empathy vary within societies and within individuals. Most importantly, empathy evolved with highly social contexts and it is hard to stimulate with impersonal information. Research in philanthropy has shown that focusing on the stories and imagery of individuals is far more compelling to donors than even the starkest statistics that describe the scale and importance of a cause (Small, 2007). This helps to explain the power of anecdotes and storytelling over facts and figures.

In-groups and Out-groups
For individuals it is easier to empathize with someone perceived as similar to oneself and harder the more dissimilar they seem to be. We can extend our empathy for physical pain to dissimilar ‘out-groups’ or even people with whom we are in conflict, but emotional empathy is much reduced. Amazingly, simple contextual queues can be enough to influence our judgment. As a society we seem to shut off, for example, our emotional empathy with criminals. Adding small biographical details to fictional characters can prime people to feel less or more (Bjorand and McPherson, 2011). Physiologically, we don’t even empathize well with our future selves, backing up findings in behavioral economics that we can’t predict what will make us happy and that

Accidental discovery Mirror neurons were discovered when brain recording was left on while a monkey watched a lab worker crack a nut.
we have a bias toward enjoying the present more than preparing for the future (Roller, 2012). Why make things better for a future self we think of as a stranger?

**Power and Conflict**

Power relationships reduce capacity for empathy on both sides, which applies to personal relationships, consumer-business relationships, negotiations, politics, ethnic groups, and national conflicts. For those in power, empathy with the weaker group can be built by collaborating toward a shared goal. For the weaker groups, forcing the group in power to listen to them and restate their position boosts empathy more than trying to understand their counterpart’s position (Vezina et al., 2011). Situations of conflict and violence seem to bypass our empathic capacity altogether – think about the language of McCarthyism or the notion of the “Evil Empire” during the Cold War.

**Collaboration**

An experiment at the Max Planck Institute for Evolutionary Anthropology had telling results. If two children were randomly given a different number of marbles, they didn’t share. The one who got more didn’t do any more work – it was the luck of the draw.

However, if they both had to pull cords at the same time in order to get marbles, they would consistently share the spoils. The sense of shared work was the key (Hamann et al., 2011). Think of it in the context of society. Our circumstances partially depend on factors outside our control, but the Haves naturally feel entitled, like the children that received random marbles. Both the Haves and the Have Nots want a sense of shared contribution from the other group.

These findings demonstrate our growing knowledge about the influence of empathy in our daily lives and the biological and cognitive ways that it can change in context. We can use this knowledge to help understand situations we observe and also to create more influential designs.

**Practical Effects: Better Designs and Stronger Ethics**

Despite the world seemingly becoming a smaller place, business is further than ever from its customers. For thousands of years people made things for themselves and people they knew. These other people were close by and had very similar lives, making it easy to design for all the nuanced knowledge they shared. In contrast, modern businesses have global customers who may be very different from company staff. Businesses have rapid and detailed supply chain intelligence and market research conclusions, but lack empathy, which could help them more quickly respond to needs and design better products based on shared knowledge and experience rather than abstract models and PowerPoint bullets. Shared experience makes design and business decisions more intuitive (Patnaik, 2009).

This separation of business from the consumer has ethical effects as well. Consider the famous Enron tapes, which demonstrated an extreme separation and lack of identification with customers. Enron illegally manipulated the energy market, causing massive price increases and record profits. Two Enron executives watched California wildfires exclaiming, “burn, baby, burn!” because it caused energy prices to rise. Two Enron traders discussed

“**So the rumor’s true? They’re fuckin’ takin’ all the money back from you guys? All those money you guys stole from those poor grandmothers in California?”**

“**Yeah, grandma Millie, man. But she’s the one who couldn’t figure out how to fuckin’ vote on the butterfly ballot.”**

“**Yeah, now she wants her fuckin’ money back for all the power you’ve charged right up – jammed right up her ass for fuckin’ 250 dollars a megawatt hour.”**

California’s legal action against them this way:

It is hard to imagine these conversations taking place about the Enron employees’ own community, neighbors, and family. In related experiments, Dan Ariely has systematically shown how people are more willing to steal non-monetary objects than money. For example, taking drinks from the fridge, backdating stock options, taking supplies from work, or claiming extra business expenses are far more likely than taking equivalent cash more directly. He extends these findings to Wall Street to explain how traders may be much more likely to be risky and unethical the more abstract and convoluted the financial instrument they are working with (Ariely, 2008). Some, like the now infamous mortgage-backed securities, are so complex and abstract that it is very difficult to trace back which homes, homeowners, and even investors are actually involved. This helps to explain how traders could risk millions of dollars for personal and bank profit, far removed from the homeowners whose lives were affected and investors whose retirement funds contain innumerable complex and shifting assets. The same traders would behave far more ethically with cash in hand and investors they know personally. It is no stretch to imagine that if it were easier for traders to know and empathize with the parties involved, a global recession could have been averted.
How to Build Empathy

Clearly, personal contact and shared experience are the most direct factors. We’ve discussed more specific factors in power relationships where different approaches help different parties, and subtle, even unconscious cues that trigger in-group versus out-group responses. But are there more generic ways to foster empathy?

Fostering more diverse relationships in workplaces and social events, and even immigration and travel could contribute to more empathy. A library in Canada started a trend of lending people – having a library of people with different knowledge and characteristics available to schedule meetings. As previously mentioned, it has been suggested that reading novels may boost empathy and improve world citizenship (Keen, 2010) and indeed, adults who read more fiction and preschoolers who read more storybooks are better able to understand the emotions of others (Mar et al., 2009 and Mar et al., 2010). There are even efforts to specifically train and educate for empathy. As Matthew Taylor describes, the goal is to “have a relationship to our own reactions rather than be captive of them... [and] resist our tendencies to make right or true that which is merely familiar, and wrong or false that which is only strange” (Taylor, 2010 link). This isn’t as easy as it sounds; research from Harvard and its partners called Project Implicit has shown that even people who self-report a lack of bias in race, music, and politics (types of out-grouping) can have measurable cognitive bias against others. Take a test for yourself here: https://implicit.harvard.edu/implicit/research/. This shows that boosting empathy is not about changing stated opinions, but gets all the way down to our basic wiring.

Can We Take It Too Far?

Is there such a thing as too much empathy? Could it, for example, decrease autonomy or impair decision making? Donor fatigue is the phenomenon of reduced contributions to causes or disasters that happen too close together, even if the later ones are larger in scale. It shows that we can exhaust our empathic resources over time.

Certainly it is possible to create undesirable designs based on empathy. For example, it is pleasurable to dwell in the familiar and reinforce our sense of importance with in-group relations. If we created an app that was all about meeting strangers who were different from you it might not succeed; empathy may involve risk and discomfort. Empathy may also have political implications. Empathy is often a word embraced by the American left and sometimes disparaged by the right as a synonym for guilt and a concept opposed to ethic of work.

A Few Proven Ways to Build Empathy

- Spend face-to-face time with new kinds of people
- Change your appearance or behavior to those of another kind of person to experience their relationship to other people and the world – for example, there are suits that simulate pregnancy
- Find ways to restrict or enhance physical performance to match a target group, such as wearing gloves to simulate the dexterity of someone with arthritis
- Read fiction and stories dealing with personal experiences
- Collaborate with others on shared goals
- Practice paraphrasing the points of view of others to reflect back and experience their perspective
- Play a role, such as in a game. The moving Titanic exhibit and the Holocaust museum provide visitors with a name and biography of a person when they enter.

HMS Titanic exhibit. Visitors are given a boarding pass and background on a specific passenger with colorful details that help them identify with the passenger. At the end, they find out the passenger’s fate.
Finally, empathy and action are not the same. Boosting empathy alone may do little if we don’t also design to prompt behaviors.

Relevance to Technology and Design
A good outcome should relate to the impact of technology and even address a wrong that technology has proliferated. It is stronger if it affects our process and the impact of conducting our business in addition to the products we design.

Empathy in Our Process
In Wired to Care, Dev Patnaik argues that empathy gives companies a sense of purpose. If we can articulate who it is we are designing for and make it a larger part of our work experience, it surrounds us with the real world benefits of our work. Zildjian makes musical cymbals. Their office has a sound-proof studio for musicians to try out the latest products and give feedback. They routinely hang out backstage at concerts to talk about music and develop ideas — many of their product lines were collaborations that started with musician requests. They created a professional society and an award for drummers, who they felt were under recognized musicians. Harley-Davidson takes another approach by blurring the lines with its customers. It has a lot of employees who are riders. They post photos, letters, and material from their own and customers’ rides in their offices, prioritize motorcycle parking in the lot, name their conference rooms after engines, and go to rallies all over the country to always be sharing experiences with their customers. IBM was turned around by a CEO who had been a client at AMEX and intuitively played up the competitive strengths he had experienced. Zipcar was founded by a woman who knew there was a huge demand — “I knew because I was the target market” and encourages its staff and job candidates to use the service. Burton is staffed with avid snowboarders who bring their experience to work. The challenge for companies like Artefact is the diverse nature of our products and the fact that they take circuitous paths to market.

When You Are the User
Successful design for people requires an understanding of their lives and needs, and there is no shortage of design companies talking about empathy, notably Ziba and Jump Associates. Business figures recognize its importance too; look at the Henry Ford quotation at the start of this paper. At Artefact, for many of our technology products like phones and media devices we are squarely in the target market ourselves. Our intuition can help us make great design choices, although we should be careful to consider other users who may not be like us in certain ways. For example, we once designed a video on demand system for a foreign country without visiting, and we don’t know if there were local factors that might have led to a better design. Ask yourself — are you like your customers for the project you’re working on? Even if so, what are some key ways customers may vary from your team’s experience?

When You Are Not the User
We don’t have an intuitive sense for the needs of many of our customers in more diverse domains where we lack first-hand experience. We have to work to cultivate it. True depth may take years and is never finished, since people change over time. So we need processes and tools that maximize empathy in shorter time frames in order to make decisions based on shared experiences and contextual knowledge beyond secondary sources and analytics alone. Established user-centered design process is a good start, as it typically begins with techniques such as visiting people in their environments, recreating tasks, discussing topics, and shadowing them.

However, there is room for greater empathy. Getting users involved in participatory design processes or iterative deployments of prototypes in actual usage environments could help build shared experiences and knowledge of users as well as leverage their direct contributions. Even more powerful would be planning to have more time with users for discussion, observation, and even active participation in their lives — “going native,” to borrow the extreme term from ethnography. Both of these directions might build implicit knowledge and empathy more than more frequently used techniques like interviews, short contextual inquiries, and contrived activities like ride-alongs, card sorts, and concept value tests. They are designed to build the kinds of knowledge that people can’t express about themselves and may not even realize and to translate that knowledge into our frame of reference. The abstractions we use, like personas, could also aim for more context and depth. In the end, there is no substitute for spending more time with people. Specific approaches aside, it’s clear that there is room to explore the techniques available to us from our own discipline and others that could offer closer empathy with our users and a better understanding of their context and needs, which should help us make better products. Ask yourself — are you investing in upfront user-centered design research, and could you find new ways to do so?

Communicating Your Insights
We must also communicate our findings and recommendations to decision makers and disseminate it to other stakeholders. Building user empathy among these new audiences can be key to success. We have used empathy-building techniques like storytelling videos
and narratives (in scenarios, research findings, product presentations) and immersion (activities and challenges). We have held scavenger hunts in the past and gotten clients to use their own products in realistic situations. We have helped them focus their design down from ‘everyone’ to specific targets we can understand. We have focused on individual anecdotes that represent larger insights but have more emotional impact. Having our audience use their own products in real-world situations directly creates shared experiences with customers. We found in a project focused on families that the decision makers made negative judgments about certain ideas because they were all young, single professionals without families. Taking them into the field with us was enlightening. Ask yourself – are you providing dry data alone? Could you do more to make a connection between your audience and your customers?

Improving Business Empathy
It isn’t all about our customers. Our success depends on many business partners here at Artefact and in the business world more broadly. Can we make our work more impactful by building empathy between these associates? Here at Artefact we strive to feel more like partners and less like vendors, so that we have a better sense of what will make clients successful, and so that they feel like they have a stake in advocating for our results. Many of the stories we tell about bad client relationships involved a lack of knowledge about their internal business context or a task-oriented cadence where we are instructed to execute on a series of narrow scope requests. In order to help them succeed we need to know and potentially even influence what is expected of them. Ask yourself – what other groups does your team’s success depend on, and how can you increase empathy between you?

Empathy from Our Products
The Good
As we have discussed, we feel more responsible for people we perceive as closer to us. With our existing bonds, the Internet helps to make up for the lack of face-to-face contact due to growing geographic separation.

Technology promotes understanding across groups as well. Narrative media like documentaries attract our attention because they deal with differences but ultimately underscore our connections to the common experiences of others.

The international response to Haiti, the Chilean Miners, and Arab Spring was caused by recognition of shared humanity in the suffering of others. This was possible due to global instantaneous media like television, Facebook, and Twitter, and supported by satellites, the internet, cellular connectivity, and more. These technologies also pull back the curtain on authoritarian regimes, with technology-enabled anonymity playing a key role in communicating one’s experience to the world. These experiences may lack depth, however, as we have somewhat forgotten about the experience of the miners and most of them are now suffering from psychiatric distress stemming from our capricious attention as much as from the mine. Our sense of similarity extends to non-physical traits like ideas. We have always gravitated towards relationships with somewhat like-minded people and subscribed to magazines that reinforce our existing ideas and patterns. This reinforcing of social capital among existing similarities is called Bonding (Putnam, Bowling Alone: America’s Declining Social Capital). Technology has made this easier. Before, members of minority groups might have felt alone or unique but technology now lets them find information.

FaceTime
Apple’s is one of many products supporting richer connections within existing relationships through video.

Babies
The documentary followed four infants from birth through early development. Through vastly different cultures and environments, it was easy to spot our similarities.
Gay teens, rare disease communities, and enthusiasts of all stripes can find meaningful bonding experiences and feel like part of a larger community; this may be impossible in their physical location.

All the way back to text-based dial-up MUDs, the ability to have alternate identities in online communities like games and message boards let us play act and experience being treated like another person. (Sherry Turkle, Life on the Screen)

There are more concrete examples as well. Mobile apps like Glancee or Color, or even the Street Pass feature on Nintendo’s 3DS all have an opportunity to connect and find commonality with people based on location, event attendance, or shared attribute, regardless of the details that might normally keep them apart in different out-groups. And Facebook is a strong new source for social recommendations on music, media, news, and more, injecting diversity into one’s consumption (to the extent that one’s connections are diverse).

The Bad

But technology has also sinned. Detached from the emotional reactions and environmental influence of in-person relations, people are much more likely to be cruel online, as evidenced by numerous cases of cyber-bullying, some of which have led to high-profile suicides. That includes the ongoing trial of a Rutgers student accused of contributing to his roommate’s suicide with callous texts and sharing webcam videos taken without permission. It also includes a 14 year old girl from Vancouver, Washington, who committed suicide the week this article was written after enduring cyber-bullying for 2 years (Taylor, 2012). Anonymity has been shown to make people less restrained and less reasonable online.

Perhaps more subtle but insidious is the Echo Chamber that technology has made stronger. Digg, Delicious, Amazon, and Netflix surface what other people like. They also, like Pandora, play to what they predict you will like based on...
existing habits. It's easy to be reading, seeing, hearing only ideas that confirm the beliefs of you and your in-groups and feed on them to recommend more. You can find masses of people with similar and more extreme views, making you seem like the reasonable moderate and a clear member of the mainstream even if neither is true. The result is an overdeveloped sense of correctness or even righteousness. There is a large wedge separating people who differ in characteristic or opinion (James Carville and Mary Matalin notwithstanding). In this way, technology prevents the complement to Bonding social capital: Bridging (Putnam, 2001). The Echo Chamber isolates you from those different people, making them an abstract out-group rather than complete humans with many similarities to oneself and perspectives to consider.

Take the books by Ann Coulter. They demonize an out group (liberals). But there's another wedge being driven by the recommendations underneath. This is an example of a self-reinforcing loop of finding people, media, content, web pages, everything that's based on what you've already done. Search results can personalized, along with ads, media and friend recommendations, and much more. Our digital lives need an injection of fresh air or they can become toxic. In fact, we need to actively balance Bridging rather than just Bonding.

There is another, simpler way in which technology isolates us: we're less approachable in public. At a bus stop there can be quite a diverse group gathered to wait, but they are all face-down into their phones for music, books, games, and interacting with remote friends. If it were a paper book, seeing the cover might actually start a conversation. But with technology the user could be doing anything, and headphones signal inaccessibility. Of course, it isn't just bus stops. It's coffee shops, business meetings spent isolated from colleagues sitting in the next chair, neighborhood jogs isolated from the neighbors, and even dinner tables isolated from family members. Try eating dinner without the TV and see how much you didn't know about those closest to you. Bridging and bonding are still happening in ways new and old, but many of the most powerful in-person ways are becoming less common and even more difficult.

To identify an opportunity to increase empathy among the users of our products, consider the broader design space. Promoting empathy doesn't mean creating world peace with every product. The following questions are example prompts. They may sound abstract but they all come from practical examples discussed above.

- Are there areas of conflict between individuals or groups?
- Are there power relationships or hierarchies of people that don't consider each other equals?
- Are people making decisions about the future, in which case we know they have difficulty empathizing with themselves and others beyond the current situation?
- Is there an opportunity to promote richer connections between diverse people, especially in-person?
- Is your product reinforcing the echo chamber and can it be more balanced?
Technology and Progress

We have seen that empathy may have helped us survive as a species. A sense of connection or similarity drives it - ourselves, our family, our friends, people who share any trait/value/goal/idea with us. But everyone shares this biological proclivity to create in-groups and out-groups. Everyone is in someone else’s out-group. And there is no evidence that certain groups are more valuable. We are realizing intellectually how interconnected the world is, but we haven’t expanded our emotional relationships in accordance with our shared problems. Technology is a two-edged sword, acting to bring people together in many ways but also fostering the creation of ever more tribes and emphasizing their differences to increase individual satisfaction. Our goal with technology should not be to limit the bonding opportunities it is so good at, but to balance it with bridging to give people broader connections and experiences. In-groups and out-groups should not go away and each person will continue to live in many of them at the same time, but the desired outcome is having more people feel like a part of large in-groups that include diverse members. “Progress” means expanding the circle of people we feel responsible for.
References


Project Implicit. Retrieved from https://implicit.harvard.edu/implicit/research/


