

Finding Our Heart

Using lessons from Peter Drucker to improve technology and society

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Today, we are all the Tin Man. The story of the Tin Man from Frank L. Baum's beloved book *The Wizard of Oz* is about a human who is combined with a decidedly inhuman element—tin—through magic. The Tin Man's great weakness is that in the process of becoming a man of metal, he loses his heart. His quest in the *Wizard of Oz* is to regain that heart.

Millennials face a similar challenge in modern times. We are each the Tin Man in that elements of technology have latched on—and in some instance overtaken—us. Personally, my cell phone is pretty much attached to my hand. It's almost a vital organ for me. In the morning, it's the alarm on my phone that tells my brain that it's go time. Most of my communications are facilitated through my phone with text and email consuming greater amounts of time that used to go toward face-to-face communication. When I run, while my heart pumps blood, my phone pumps out some beats. And I'm ashamed to admit that more than once I've fallen asleep with my fingers clenched around the device.

"Managing Oneself" by Peter Drucker, while presented as a theory for career management, also provides a recipe for how humans can stay human. Drucker's essay serves as a guide to what separates humans from artificial intelligence ("AI") and how humans might use these distinctive strengths to improve AI and society as a whole.

I've never been a big time video-gamer but as a kid I had a Nintendo 64. My favorite game to play on the Nintendo 64 was this women's soccer game, *Mia Hamm Soccer 64*. In playing the game, I learned a trick. If I directed a player with the ball to run in a circle, the artificially intelligent defender would become confused and my player could blow right past her. In the beginning, the discovery of this trick was exhilarating. I never lost a match. But soon the winning became repetitive. The challenge was gone. While I could learn from my mistakes and adjust my gameplay, the AI player could not.

As Drucker explains in *Managing Oneself*, humans have a unique ability to learn from their mistakes. People can participate in "feedback analysis" where they first determine expectations for a project, then perform, and compare the results of the performance to the original expectations. If the results don't measure up to the expectations, a person can adjust her performance to improve the results (Drucker 164-165). In short, Drucker's "feedback analysis" model is all about making mistakes and learning from those mistakes.

Computers, though fallible like humans, are not capable of learning from their mistakes in the same way. While we're far past the days of *Mia Hamm Soccer 64*, we're equally far from

a world where machines can independently learn from their errors. The New York Times reported in 2013 that researchers and engineers were just beginning to create machines that could adjust to stimuli, but acknowledge that it might be some time before machines can learn from their gaffes. “Designers say the computing style can clear the way for robots that can safely walk and drive in the physical world,” John Markoff wrote for The Times. “[T]hough a thinking or conscious computer, a staple of science fiction, is still far off on the digital horizon.”

Humans’ ability for feedback analysis provides a certain leverage in their relationship with machines. Not only can humans use Drucker’s feedback analysis to improve themselves, people can also use feedback analysis to improve the technology that is now such an essential part of life. Machines are reliant on humans to learn from the machine’s mistakes and adjust the machine’s programming. Without human, machines can’t evolve at all.

When a person identifies a machine’s strengths and weaknesses using the Drucker method, the person is not only strengthening the computer, but also strengthening the person. As recognized earlier in this essay, human reliance on machines has reached Tin Man status. Technology is in many ways a part of us and so by improving machines we are also enhancing ourselves.

When Google rolled out the web browser Google Chrome in 2008, searching became faster than ever before. The evolution of the web browser helped humans evolve too. As Drucker notes in his essay, “one can usually acquire enough of any skill or knowledge not to be incompetent in it,” (Drucker 166). If humans are able to find the information they need more quickly, they can fill in the gaps that result in their weaknesses, and thereby improve their own weaknesses more quickly.

Taking this theory to a larger scale, by improving technology using feedback analysis, we improve ourselves, and ultimately this pattern improves society. Society is the sum of its parts, where people are the parts. If each individual is able to shore up his or her weaknesses by improving technology, then the totality of those people—society—also evolves.

This sort of development can already be seen in some places. I would argue that recognition of racism in America is the product of improved technology, which in turn improved individuals. In January 2014, Facebook’s engineers changed the site’s algorithms to focus more on including journalism in newsfeeds. In 2015, Twitter followed suit, changing the way information was displayed on the site from chronologically (starting with the most recent posts of accounts a user follows) to algorithm-based. As a result of these changes, when an important news story breaks, social media users are flooded with news and information related to that story.

Following a racially-fueled shooting in Charlotte, North Carolina in June 2015, social media feeds, as a result of the new Facebook and Twitter algorithms, were flooded with articles about the Confederate flag, its history and connection to racism in the United States. This

information filled in a knowledge gap many individuals had regarding the full history of the Confederate flag and its meaning. Within days of the social media inundation of these stories, many people, including politicians came forward to request that the Confederate flag be taken down from its perch atop the South Carolina capitol building.

This change in society's acceptance of the Confederate flag can not be attributed exclusively to the social media algorithms, but there's certainly an argument to be made that this change in technology played a huge role. The alteration in the social media algorithm technology provided individuals with information they were lacking. This information then helped these individuals figure out what their "contribution should be," as Drucker would say (Drucker 182). In this situation they realized their contribution should be to demand the removal of a racist symbol from a government building. Such a stand against racism is a positive improvement for society. Applying the principles of *Managing Oneself* to managing technology (today, for better or worse, a part of oneself) we actually improve society as a whole.

The Confederate flag example brings to light another element of Drucker's theory of management that humans must apply in developing and interacting with technology. This is Drucker's advice to determine one's values. Just as technology does not have the ability to learn the way humans do, technology does not have a moral compass. The type of stories that make it to the top of the newsfeed on Facebook and Twitter are not controlled by the site. The product of social media algorithms are the result of human interaction with the technology. In the Confederate flag example, if social media users had promoted articles expounding the wonders of the Confederate flag, the algorithm's affect on society would have been decidedly more negative. Technology is neutral—it is how humans program technology and how they use technology that can have sinister results. But if humans apply Drucker's mirror test when dealing with machines, such sinister results can be reduced or eliminated.

If humans solidify their values, as Drucker suggests, those values will trickle into both the programming and use of technology. Ethics and morals are complex ideas, personal to each individual. However, in order to demonstrate the potential benefit that Drucker's mirror test could have on technology and society, I put forth this moral premise: Stealing without justification is bad. Let's say that an individual in looking in the mirror, per the Drucker mirror test, realizes that she could not be involved in the business of stealing because to take something belonging to another out of greed is morally repugnant. This individual then puts this internalized value-judgment into practice by making sure not to create technology used for stealing or use technology for the purpose of stealing. The more individuals that are able to solidify this as a value, the less technology will be created to aid in thievery and the fewer people who will use technology for stealing. As a result, society on the whole would have less digital thievery. Through their choices in the use and development of technology humans control how the future looks. Individuals solidifying their values before participating in the creation of technology can have a positive impact on society and create a more ideal future world.

We are all the Tin Man. At the end of the Wizard of Oz, we learn that the Tin Man had his heart all along and only needed to look inside to find it. It's essentially the same with individuals today. No matter how much technology becomes a part of our lives, if we look inside ourselves using the tools given to us by revolutionary thinkers like Peter Drucker, we'll find our heart. It's the recognition of this purely human element, the heart, that will allow us to develop technology in ways that will benefit society.

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