July 8, 2019

THE NEXT TERMINATOR: THE GROWING ADDICTION TO TECHNOLOG

Recently I was in a furniture store standing in line behind a mother and her young son who was getting impatient waiting for his mother to purchase some pillows, lamps and a few other décor items. The son told his mother you should have ordered this stuff online because now we won't be able to get lunch at the restaurant. His mother looked at her phone for the time and said, " You're right, we don't have time to go to the restaurant but, I will make it up to you by having it delivered by Doordash. It should arrive by the time we get home; that way we can still get to eat together like I promised before I drop you off. While I pay for the stuff, will you use the App to order our food?"

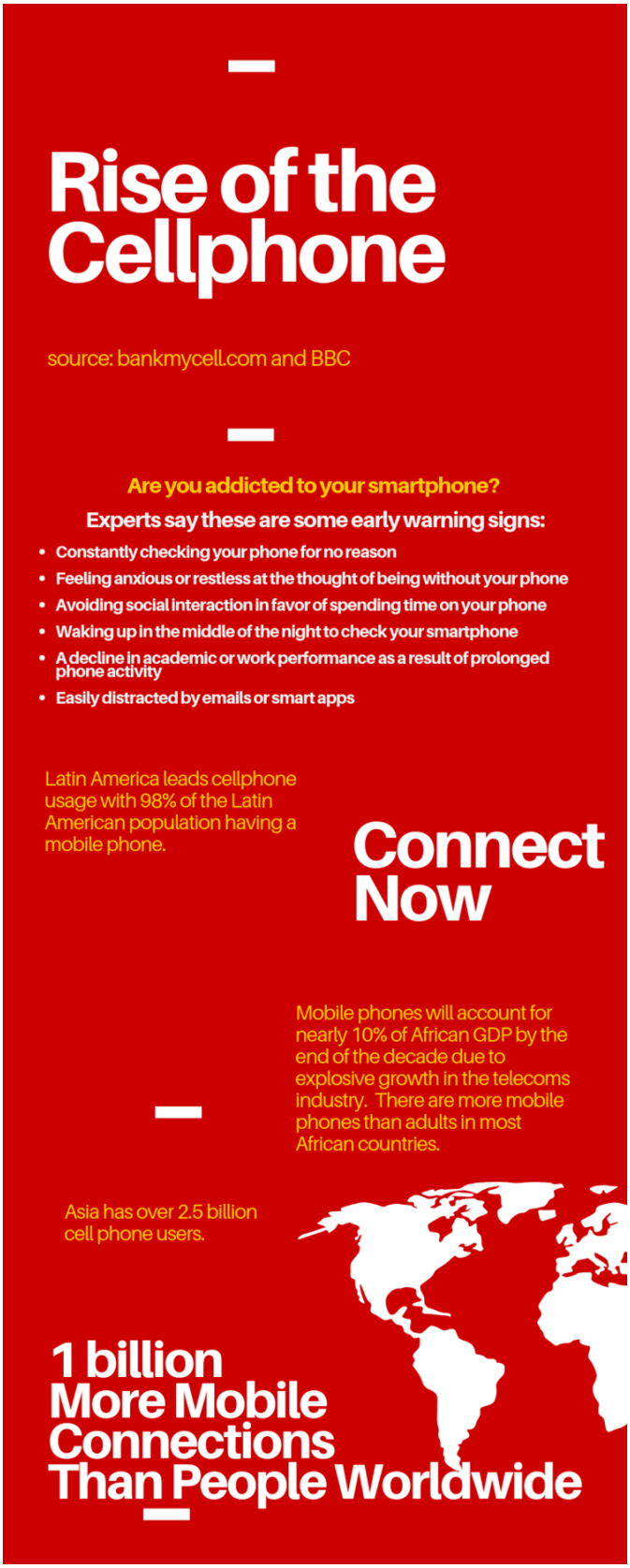
Being able to multi-task is almost everyone's favorite thing about technology. You can now be anywhere, it can be anytime, and you can get almost anything done on the spot. This "microwave culture" is amazing as it is scary.

According to Bank My Cell, an electronics recycler, the machines have officially taken over with almost 1 billion additional mobile connections than there are people (https://www.bankmycell.com/blog/how-many-phones-are-in-the-world), mobile device connections have surpassed the number of people in the world, making it the fastest growing man-made technology phenomenon ever.

The latest Pew Research fact sheet on internet and technology (https://www.pewinternet.org/fact-sheet/mobile/) noted that 96% of Americans own a cellphone and nearly three-quarters of U.S. adults now own desktop or laptop computers, while roughly half now own tablet computers and half own e-reader devices. In addition, a growing share of Americans now use smartphones as their primary means of online access at home and one-in-five American adults are "smartphone-only" internet users.

The explosive growth in technology has obviously changed how we function day to day but, it has been said that it is also changing our minds. Humans along with the human-experience and technology are beginning to merge into one. People are developing mental health conditions as

noted in an online article by the BBC which highlighted the growing problem of Nomophobia (https://www.bbc.com/news/world-asia-33130567) - or no mobile phone phobia - the onset of severe anxiety on losing access to your smartphone. The effects of technological disconnection on mental health and being able to function at work are widely known and documented. This can easily lead many of us to question. Are we spiraling out of control with technology and will being human be redefined?



I contacted Kate Drazner Hoyt an Assistant Professor of Communication in Film and Media at Pacific Lutheran University to answer questions about our growing technological evolution. Dr. Drazner Hoyt holds a Master of Fine Arts in Emergent Digital Practices from the University of Denver and a Ph.D. in Communication Studies, also from the University of Denver. Her research interests lie at the intersection of critical rhetoric, media and technology studies, and affect. Through her work, she explores the materiality of the virtual -- how virtual worlds come to impact our physical worlds and how these virtual-physical entanglements intersect with varying systems of power and marginality. Specifically, she is interested in how the virtual implicates the physical body, through both representation and the affective register. Dr. Drazner Hoyt produces traditional scholarship as well as creative research, specializing in projection mapping, wearable technology, 2D/3D animation and installation.

How has technology affected human development?

That's a huge question, but it is undeniable that technology has affected human development. For one, our memory and processes for recall have shifted to a dependence on external devices. I can still remember my best friend's phone number from when I was growing up and didn't have a cell phone, but I cannot tell you any of my current friends' phone numbers. There is also an expectation for immediate answers and solutions, due to our ability to search for and find information so easily. As a result, I would say that the pace of human life has sped up exponentially and that our tolerance for performing tasks that take extended periods of time and prolonged periods of focus has decreased. We've also become more influenced by the media that is constantly in our faces, on our devices, and in our personal spaces. There are also smaller peculiarities in terms of unintended effects of technology use. Smartphones, for example, have changed the way we physically navigate the world: our fixation with virtual happenings, aided by the never-ceasing pings of notifications, have rendered "tech neck"—a flattening of the cervical spine that develops from constant smartphone use—the ergonomic conundrum of the 21st century. Similarly, phantom vibrations—imagined haptic signals emanating from smart devices—plague users even when devices are nowhere around. Finally, "smartphone insomnia" has ushered in a new generation of sleepless people kept awake by their device's blue light emanating from their beds.

It's been said a text message can provoke a sensory reaction due to its personalized nature and is proof that technology is begging to become more. Essentially that technology is becoming an extension of what it means to be human. Do you agree?

Well, there is a theory introduced by the "grandfather of Media Studies (https://www.marshallmcluhan.com/)," Marshall McLuhan that says, "Media are extensions of Man". Meaning that media technologies act as extensions of our bodies' sense-making organs — our eyes, ears, nose, tongue, skin, etc. An obvious application of this would be the telescope acting as an extension of our eye. Scholars that follow McLuhan's philosophy go on to say that the human desire to add on and combine mediated sensemaking technologies — think about Facebook's 360

degree or panoramic photo features, where if you move your phone, the position of the photo rotates, which adds movement to image — is a desire to actually experience the virtual as unmediated, or basically as if we were "actually there." In this theory, the authors say that through hyper mediation (or the combination of many kinds of mediated sensemaking into one experience), humans want to "recreate the rich sensorium of life." So, yes, I would say that when we experience a text-based messaging system, there is a desire to make it become more, which one could argue is why we've invented things like emojis, bitmojis, and gifs.

Do you feel technology has granted us greater connection or has it diluted the culture by diminishing inter-personal relationships and interactions?

Well, interpersonal relationships and interactions still exist aplenty through technology, but perhaps it is the type of interaction that has changed. Malcolm Gladwell, the author of Tipping Point (http://www.wikisummaries.org/wiki/The_Tipping_Point), once argued that social media changes the types of relationships we have from strong to weak ties. Meaning, we have a lot more connections, but many of them are shallower than the connections we have offline. There's also the tribalism that occurs in online discourse, where all grey areas disappear, and it often becomes a black and white type of battle — you're either my ally or my enemy, and nothing in between. Certainly, our relationships have changed as a result of technology, but I tend to be wary of arguments that claim technology is always one thing, either good or evil. A lot of good has come from the connections we make through technology — and a lot of hazards, too.

How do you think social media will change in the future? What will be different from now?

Getting Through the Day

It's interesting to see the calls for more transparency and privacy happening both within the general public and from governments. This call may take hold, securing privacy and transparency in social media platforms. But what I think is more likely is that social media companies will find other, subtler, and more intrusive ways of capturing user data and selling it to advertisers. And I don't see society protesting this. The disturbing trend I see, which my students think is no big deal, is what is happening with the trend of so-called "social media influencers." People's entire identities become wrapped around selling products in

order to receive kickbacks from sponsoring corporations. The reason I find this disturbing is because users are blending their intimate, personal lives and their personal relationships with market capitalism in a way we've never seen before so that their identity becomes inseparable from the products they sell. I can also see social media platforms expanding to encompass more and more features and uses in order to make users dependent on it. In China, there's a "Superapp" called Wechat that encompasses chat/messaging, social media posts, payment, a "City Services" feature where you can book doctors' appointments, pay utility bills, pay fines, book transportation, the list goes on. We can already see Instagram adopting the features of Snapchat, Twitter stealing from Instagram, and Facebook stealing from all of them. It's reasonable to predict that soon these platforms will be so bloated with added features that it will become impossible to navigate society without an account.

The Good, the bad and the ugly. Can you pick and explain examples of how this has or will apply to technology use?

How about if I take the example of video technology? The good is that, with those with means walking around with high-quality video recording devices in their pockets, we can capture instances of injustice, such as police violence, for posterity. Aesthetically, video recording techniques such as drone videography or video effects technology can make for some visually stunning film making.

The bad is that, with the mass availability of video recording devices, such as smartphone cameras or video drones, we no longer have the expectation of privacy - even in our homes. Privacy, while a big concern among Americans, is still being sacrificed easily by everyday folks who willingly post recordings of their most intimate moments for all the world to see. Finally, the ugly can be seen in the "fake news" phenomenon - fake news referring to falsified reports, propaganda being peddled as news, and "news outlets" that are little more than mouthpieces for an extreme ideological spin - and how this interacts with cutting-edge developments in video and audio-manipulation tools. Radiolab (https://www.wnycstudios.org/podcasts/radiolab)has a great podcast episode on tools currently being developed that learn a person's speech pattern from 20 minutes of video or audio, which can then manipulate the person's voice and image to appear to be saying anything that you can type. They demonstrate how dangerous this can be with a test they did on the image and voice of President Obama, whom they made appear to be saying that he's giving up politics for golf.

How do you define Technoculture?

I think of technoculture (https://www.youtube.com/watch?v=tBDc3GCBbFs) as the culture (norms, rituals, practices, etc.) that grow out of technological developments within communities or within society at large. It's important to bear in mind that technology is developed within already existing cultures, often as a response to a need or a market that presents itself within these cultures. So, really, we shouldn't think of technology creating cultures from scratch, but rather cultures adapting to the technological developments that emerge.

Is there still a definite separation of technology and culture?

I would argue that there never was. Technology has basically defined humanity from its evolution — we are technology-using animals, from the prehistoric spears used to hunt, to fire, to the technology of writing. Human culture was borne out of the practices and rituals associated with technology use, for example, pre-writing, we lived in "oral cultures," whereas after, this shifted to a "writing-based culture." So, I argue that culture is inseparable from technology use.

Is technology an equalizer?

Not necessarily. Technological practices are still subject to the cultures, structures, and inequalities that predate them. Going back to my example of cellphone videos capturing police violence, these videos haven't really made a dent in the number of officers who are prosecuted following a fatal encounter with a civilian — particularly a civilian of color — because our overall culture still puts these victims at a disadvantage, still puts the burden of proof for convicting a police officer incredibly high, and still values the lives of white police-shooting victims above those of color. For technology to be an equalizer, there must be changes to the culture that the technology grows out of.

Is technology causing a class divide between those who have access and those who do not have access?

Of course. As technology becomes more embedded in everyday life, it becomes an expectation that people have access to these technologies. This disadvantages those on the other side of the "digital divide" — think about how hard it would be to even get a job if one doesn't have a computer or smartphone and therefore can't correspond via email. On the other hand, communities are developing innovative and creative ideas to equalize access in areas where access is limited. In the 2009 protests in Iran, for instance, the government cut off or intentionally slowed down internet access so that protesters couldn't post updates to Twitter as the government's militia brutally cracked down on them. So, people started using a service called "text-to-tweet" using cell signals to

communicate developments on the ground to Twitter, which were then picked up by the Western media and broadcast. While lack of access to technologies can disadvantage communities, sometimes this lack can lead to ingenuity in developing workarounds.

There has been an argument that technology is enforcing stereotypes in society, what are your thoughts?

If this is referring to algorithms made to personalize our media use from the user profiles companies create from our data, then absolutely. For example, in a chilling episode from the technology podcast Note to Self (https://www.npr.org/podcasts/452538677/note-to-self), that does an in-depth exploration of Facebook's hidden user profiles that the company sells to advertisers. They put each user in various categories designed to attract certain advertisers. For example, Facebook has a category of user type they call "African American affinity," meaning you are either African American, or you consider yourself an ally for black causes. And those with the "African American affinity" tag are often added into another sub-category called "interested in Jewish American culture." Which is a bit of a leap and relies on very odd assumptions and broad-sweeping generalizations. While allyship can be a good thing, when this category is sold to advertisers, it can affect their advertising tactics, which may reinforce stereotypes when marketing to this label or category. Safiya Umoja Noble (https://safiyaunoble.com/) wrote an amazing book called Algorithms of Oppression, and out of the many examples she gives, and out of the many instances of algorithmic stereotyping she gives, there's a really profound one that links Google searches for "black girls" with higher rates of sexually-explicit content in the results than if one were to search for "white girls." At one point, Google would boost results for arrest records to the front page of any search for a black-sounding name. Imagine what these linkages to images of blackness in the collective imagination of American culture, and how damaging that can be. However, it's important to note that it's not necessarily the technology enforcing these stereotypes, it's the people engineering the algorithms that make these choices, whether intentional or unintentional.

How can we harness technology to help the underprivileged in the world?

I think providing access to the flow of information, along with digital-literacy training in under-served communities and developing countries, can go far in empowering communities to improve their situation. I'm always wary of the paternalist approaches to global aid that the developed world often carries out - coming into a community, implementing a band-aid solution that doesn't even involve the people who live there and then leaving without enabling people to keep the solution sustainable. That's why I think empowering folks with technology to create their own solutions is a

better approach. There is the now-famous story of William Kamkwamba (https://www.ted.com/speakers/william_kamkwamba), who taught himself to make a wind turbine for his town after researching in the local library. Imagine what he could have done with the world's information library at his fingertips! I think that access to a free flow of information can be an invaluable resource for people to make incredible changes in their own communities, rather than being subject to the paternalist actions of the powerful.

What's the most effective use of technology you have seen?

This question is so big, it really made me draw a blank, but ultimately what I thought of was CRISPR (http://www.crisprtx.com/), which is an incredibly complicated genetic mechanism, but ultimately what it does is allow scientists to edit DNA. It can be used to correct genetic defects, treat and prevent certain types of diseases, and even improve crops' growth. But it also raises concerns about ethics, and how, in the wrong hands, it can be used to create "designer babies," where parents can edit things like height, eye and hair color, and other characteristics of their offspring. This obviously can create a slippery slope when used in extremes, leading to a type of engineered genocide, where certain traits could be entirely wiped out in communities. The most efficient technologies can also be the most dangerous when used with malicious intent.

What do you see as the greatest impact technology has had on society?

That's a very difficult question to answer! If pressed, however, I think that the proliferation of and access to infinite amounts of knowledge and information, as was ushered in by the commercial availability of internet-based technologies, has had a tremendous impact on the way humans think, communicate, and relate to one another. First, the almost immediate availability of answers to almost any question that comes to mind has changed the way that humans store memory. We no longer feel the need to remember things internally, and instead can be said to "outsource" our memory onto devices. With this infinite storage of knowledge, however, humans have the ability to pick and choose information that conforms to their belief systems, which has led to the wholesale rejection of fact-based reality in some communities - think of Flat Earthers, climate science deniers, or anti-vaxxers, who reject long-standing, confirmed science about the world in favor of a reconstructed worldview that conforms to specific ideology.

What does the future look like to you with technology?

Unpredictable! It's funny to look back on older media depictions of "the future" — many of these depictions feature flying cars but, could not predict the internet. I suspect that any attempt to paint a picture of our technological future may end up looking just as funny when we look back on it.

About: Dr. Drazner Hoyt

Dr. Drazner Hoyt's Academia profile: https://plu.academia.edu/KateDraznerHoyt (https://plu.academia.edu/KateDraznerHoyt)

Dr. Drazner Hoyt is also the co-director of MediaLab, a pre-professional creative media agency where select PLU students are afforded the opportunity to provide media products and services to outside clients. MediaLab also produces one long-form, investigative documentary each year, which have won numerous award and accolades, including three College Emmys: https://medialab.plu.edu/ (https://medialab.plu.edu/)

About the Author

Annmarie Hylton-Schaub, Head Marketing Strategist and Content Developer at Project Good Work a boutique marketing group focused on helping individuals who want to launch social impact projects, charities, and change-making initiatives. The marketing group works to develop branding, marketing strategy, and content to connect clients with the people who believe what they believe so that their project and business can thrive.

If you have a passion for an unserved community, a social justice problem, or simply want to change minds contact Project Good Work at ProjectGood.Work to start your project of change today.

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