

Digital Revolution:

How Smartphones and Tablets Affect Language, Health and Social Interactions

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### Abstract

The following composition questions the impact of digital devices in modern society, with a special emphasis on smartphones and tablets. There are three key sectors which the analysis targets: language, health and social interactions. Through research of online sources including journals, news articles and surveys, the thesis discusses how state of the art mobile devices have changed present times. Handwriting, grammar and spelling are suffering from the excessive use of keyboards, colloquial language and slang, brought about by digital communication. Furthermore, smaller gadgets can cause health problems, specifically on the eyes and body of frequent and obsessive users. Finally, social relations are becoming less personal because social networks allow people to interact with each other through the World Wide Web. The purpose of the paper is to point out that not every recent invention should be left unchallenged, but rather to be used responsibly and enjoyed with care.

## Digital Revolution:

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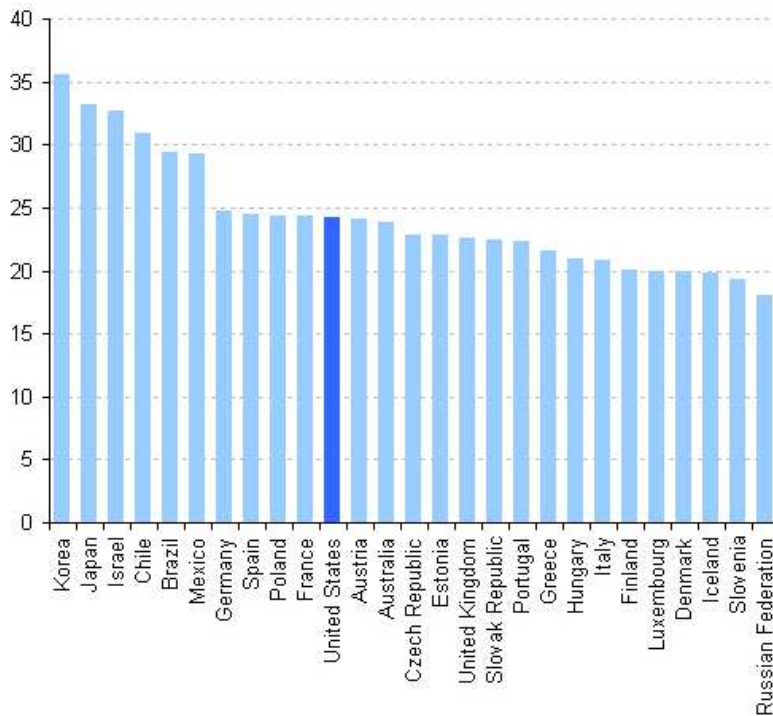
Numerous geniuses, recruited by the world's leading companies in the mobile industry, work every day to ensure that people can enjoy life more comfortably. Consumers on the other hand are faced with the great task of choosing among the multitude of devices and services that can seem unnecessary and redundant. However, the never-ending story of continuing progress, evolution, is what has created robots which have taken over complex manufacturing processes or even simple house chores. The traditional way of life is starting to become archaic and is being replaced by the digital life more each day. But is it possible to consider the technology in the palm of a hand as a revolution?

Merriam-Webster (n.d.) defines revolution as, "a sudden, extreme, or complete change in the way people live, work, etc." With these words in mind, smartphones and tablets have undeniably reformed life of the current era. This revolution has assisted citizens to be available at almost every minute of the day, via mobile phones, e-mail, chat services or social networks. Network providers have caught on and are expanding boundaries by increasing the amount of services for cellular technology. Personal preferences of almost every age group are met and thus mobile end users are tempted to connect to the internet at every given moment. Global Positioning Systems built into phones make localization a problem of the past. Years ago this would have been beyond belief and something the public did not have access to. If they had, then it surely would not have fit into those tight slim jeans partygoers wear to clubs at night. The smaller technology gets, the better it can be brought along anywhere and become a more effective and helpful friend. Therefore, the excitement for new technology is understandably high. Yet, there is an opposition. Is it because there might be dangers involved which gradually make their way to the surface and alter our way of living for the worse? Focusing on three major elements in life: language, health and social interactions, the subsequent paragraphs will discuss strengths and weaknesses of the digital revolution that is just a finger swipe away.

It is hard to believe that paper was invented centuries ago and is still being used today, in a time where keyboards and displays rule our daily routines in life. This groundbreaking invention, gave humans the possibility to store ideas and feelings into something concrete. The bible, one of the most read books until this day, would not exist in its current form if paper and printing had not been invented more than half a millennium ago. This novelty gave way to a new form of communication, as spoken language manifested itself into written words. Paper spread like wildfire and began appearing all over the world. On the other hand, people had to learn how to read and write. Being literate was a privilege and only the most profound scholars mastered this skill set. And what has become of such a valuable ability today?

According to Barsch (2014), the amount of letters and postcards being sent have reduced with the introduction of telephony, short message services and e-mails. The late 1990's and early 2000's saw the mobile phone, as well as the text messaging service known as SMS, make its way into the consumer market. The new service had parties texting each other across oceans in mere seconds. No more using pen and paper, envelope and airplanes to send a simple "happy birthday" or "merry Christmas" postcard to your loved ones enjoying their holidays in the far away regions of the world. The same applies for laptops and tablets. It is truly wonderful to be able to cherish those "once-in-a-lifetime" experiences with friends and family via e-mail. Sending them pictures of yourself next to the Wonders of the World, followed by a nice couple of words at the end is trouble-free and thoughtful. Nevertheless, is it necessary for children to be fluent with computers or tablets? By the time they reach high school, they will have typed countless words. Shortened sentences from the overuse of text messages and the use of keyboard symbols to express their feelings will become second nature. The fact that many younger people pay less attention to grammar and spelling, indicates that a dangerous threat towards conventional writing is being posed (Deleo, 2008). Even though typing is becoming faster and more efficient for the digital generation, there is another notable flaw of mainly typing on keyboards in or out of school: handwriting.

Take a moment to consider the class sizes in figure 1. The amount of handwritten compositions to be read and corrected from each student in just a few days seems impractical, especially if teachers have other subjects to attend to as well.



*Figure 1. Lower Secondary Education Class Size: Public and Private Institutions, 2007.*

Adapted from *Class Size Around the World* by C. Rampell, 2009, Retrieved August 30, 2014, from <http://economix.blogs.nytimes.com/2009/09/11/class-size-around-the-world/>

So the idea to let students take tests or write essays on computers, be it in college or even school, gain popularity due to the greater ease of correcting with the very advanced software tools at disposal. Grammar and spelling are checked almost immediately in office software. Along with the before mentioned benefits, copying and pasting from the internet becomes almost impossible as software tools nowadays can scan for plagiarism. There are so many ways to profit from today's word processors that it becomes almost unreasonable to argue against them.

In no way should instructors be held guilty for this change but as stated by Wolff (2010) there will always be compromise:

Our fate, then, is to read and grade student essays, whether produced by pen or printer. And maybe this isn't such a bad thing. After all, any reform that reduces the academic load is very likely, ultimately, to reduce not the load but the academics. Be careful what you wish for.

Apart from losing the competence of handwriting, what else is there that gadget users should be concerned about?

Well, for one it is their health. With the current thrive for compact smartphones and tablets, displays will not be getting any bigger, at least not to the size of a laptop's screen. On the contrary, the ideal comrade on your way to your lectures is probably not any larger than the size of your jeans back pocket. So with consumers wanting the most out of their digital companion, which usually boasts a four to five inch screen for smartphones and up to ten inches for the latest tablets, reading and typing is becoming ever so agonizing.

According to the article written by Jaslow (2012):

Computer, tablet and smartphone screens are typically held close, which causes eye strain. Also, these screens always show pixilated images, which cause our eyes to shift in and out of focus without us even realizing it. That's weakening the eye's focusing muscles, the doctor says, causing the eyes to work hard to maintain focus. As for iPad and smartphone fans, Bazan says if the screen is small, people tend to hold it even closer to their eyes.

Although the market offers modernized, larger screens with higher resolutions to ease the strain put on your eyes, the trend is definitely in favor for smaller devices as noted by Cheng (as cited in Gartner & Gartner, 2013), "The release of several high-profile -- but low-cost -- tablets and the expansion of their capabilities has only accelerated the adoption of tablets at the expense of the traditional laptop and PC business." Be that as it may, the ultimate barrier of having a light weight and small computer do all your favorite tasks remains. The pain of reading blogs, posts and the news online with bright, unnatural light shining into your eyes will continue and technology will take its toll.

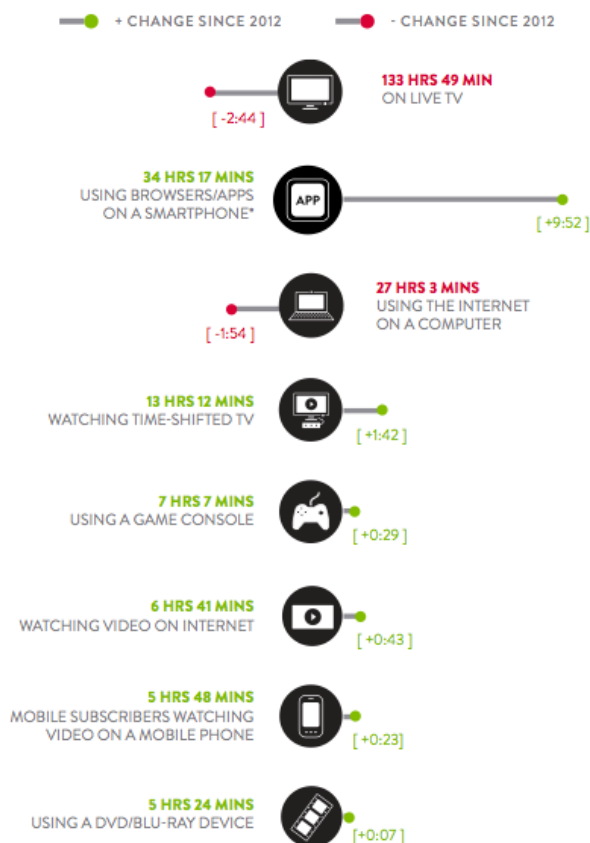
Sample (as cited in Czeisler, 2013) states that:

Technology has effectively decoupled us from the natural 24-hour day to which our bodies evolved, driving us to bed later. And we use caffeine in the morning to rise as early as we ever did, putting the squeeze on sleep.

Thus, having your beloved smartphone with you every single minute, having it lie next to your head in bed, does not only appear like an addiction but also deprives you of your precious sleeping time which you will undoubtedly miss on your way to school or work. Still, people ignore this fact and, "As a result, many people are still checking email, doing homework, or watching TV at midnight, with hardly a clue that it is the middle of the solar night" (Sample, as cited in Czeisler, 2013).

What about during daytime? Since most users have data flat rates from their local network provider, it is very likely that they will stay connected to the internet most of the day.

Figure 2 gives an image of how much time an average consumer in the United States spends on different devices connected to the internet per month and how it has changed since 2012. According to Sterling (as cited in Nielsen, 2014), “US adults spent on average 34 hours per month using the mobile internet on smartphones. By comparison, they spend 27 hours on the PC internet.”



*Figure 2.* HOW CONSUMERS SPEND MEDIA TIME (HH:MM) EACH MONTH. Adapted from Nielsen: More Time On Internet Through Smartphones Than PCs by G. Sterling, 2011, Retrieved August 30, 2014, from <http://marketingland.com/nielsen-time-accessing-internet-smartphones-pcs-73683>

The disadvantage of sitting in front of your mobile device for extended periods of time and not daring to step outside of your house means that playing sports or just being out in the nature is becoming less of a first choice to many citizens these days, most notably among the young. Yet, there is an increasing number of sport and health applications trying to counteract the drift and, “Global installations of mobile apps used for sports and fitness activities are set to rise by 63 percent from 2012 to 2017” (El Segundo, 2013).

Nonetheless, a study conducted by the Essex University in the United Kingdom, covered by Campbell (2011), found out that between 1998 and 2008:

- The number of sit-ups 10-year-olds can do declined by 27.1% between 1998 and 2008
- Arm strength fell by 26% and grip strength by 7%
- While one in 20 children in 1998 could not hold their own weight when hanging from wall bars, one in 10 could not do so in 2008.

This phenomenon is not just bound to one country, it crosses borders and changes can be seen all over the world. Children increasingly enjoy playing video games more than outdoor activities and it's becoming easier than ever since games, that were reserved for their bulky gaming console at home, have now found their way into the mobile market. And how exactly does this affect the young?

As reported by Cauchon (n.d.):

The change can be seen in children's bodies. In the 1960s, 4% of kids were overweight. Today, 16% are overweight, according to the CDC. It can be seen in their brains. Studies indicate that children who spend lots of time outdoors have longer attention spans than kids who watch lots of television and play video games, says Frances Kuo, director of the Human-Environment Research Laboratory at the University of Illinois at Urbana-Champaign.

Surely the loss of concentration cannot only be said for children, especially when adolescents and adults are the main targets of the industry. College students are requested to log onto their university's e-mail server at least every week to check for mail. Failure to do so may carry consequences. Hundreds of friends in chat services, on Instagram and Twitter followers demand the attention of individuals at any point in time or you might lose one of them. Imagine what would happen if an executive officer in charge of a leading business, who faces hundreds of mails each day, which all have to be answered to greater or lesser extent, simply ignores this task. Managers need to be aware that a big deal might have just slipped through their hands because that one specific mail was not checked and replied to. It does not matter what time of the day it is, it needs to be taken care of. In addition to the aforementioned precedence, every time a sound goes off on your widget your concentration tends to shift towards your device immediately. The possibility to lose track of what you were working on before it rang is not that unlikely. We've become so fixated on our little gadgets that we alienate ourselves.



Take night outs and dinners as an example. Going out as a couple used to be a way to get to know one another through verbal communication. This has become increasingly difficult due to the regular peeks on your smartphone. It does not really matter if you check the time or get a WhatsApp message, but since everything you basically need is packed into your phone, it is hard to ignore the device. Some individuals might act subconsciously, but if you are paying less attention to your partner at the other end of the table, sooner or later that person will start to feel obsolete. Others might want to let the date know that they are being too quiet or unappealing and if this is going to continue in one direction, it might as well stop right here. Either way, mobile phones are constricting emotions and feelings because: “People possess an obsessive need to constantly check their e-mail, even when on vacation with the family. It's as if we're afraid we'll miss something important or be out of the loop.” (Deleo, 2008). Regardless of the endless assaults of news feeds, devotees cling onto social networks like documents held together by staples. How is it possible that the Facebook app on smartphones take up so much valuable time? Because social networks make people feel good and frankly there's nothing more rewarding than being happy. Sharing pictures of wedding ceremonies, your pet or spreading articles which are meant to generate attention to worthy causes, give a sense of satisfaction to yourself.

As recorded in an article by Gross (as cited in Valenzuela, Park & Kee, 2014):

In 2009, a survey of 2,600 college students by researchers at the University of Texas showed that those who were the heaviest users of Facebook were the most satisfied with their lives. They also were more likely to be engaged socially and politically.

Since not everyone is a chatterbox and an open book, social networks might just grant introvert people the ability to uncover themselves. Instead of going out, getting to know one another online can be less daunting for them. There is a great variety on social apps and online platforms available where individuals can either be true to themselves or live a life no one can ever approve of. So why go through all the hassle just for a glass of wine and a few hours spent at a nice restaurant? The answer is quite simple: because hiding behind a screen does not convey feelings and thoughts in an acceptable fashion. There is a reason why people have come up with the quote “actions speak louder than words”. It is easy to be misunderstood and this can lead to outcomes no one ever wishes for. So it is important for us to know if someone is being genuine and serious or merely sarcastic. How is that be possible when you never get to see another person's cheeks and eyes move or hear their voice tremble? The person could be lying and you would not have a clue if the words were actually heartfelt.

A smiley or a couple of emoticons at the end of a text can enlighten instant messaging but maybe it is time we go back to the good old days. As Deleo (2008) states, “Technology tends to make communication drag out more than it has to, too; sometimes it's quicker to just get out of your seat and walk to the person, or simply pick up the phone.” The likelihood of someone experiencing total exhaustion because of a quick stroll down the hallway at the office is low. In fact, a little exercise will do you good and prevent your body from becoming stiff by stretching your muscles and helping you get up and out of your comfort zone. Everyone should be a risk taker once in a while and see where life outside the screen can take them.

### Conclusion

Smartphones and tablets have come a long way to reach the status they enjoy today. It is truly remarkable that technology has created a global village, bridging time zones and continents, allowing us to live in a digital community as opposed to a real life community. Being able to communicate and interact by all means of technology saves time, increases productivity, leads to new forms of work and working hours. But for all the convincing factors it offers, the coin has a flipside which often tends to be overlooked. To challenge oneself not succumbing to peer pressure may not be simple, it is however worth taking a shot. Even though evolution takes place every day, it does not imply that we must board every train that is bound to the future. We never know what to expect racing into the unknown head first, so should we not be extra careful of the evolved mind and body that we were given?

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