How Has the Internet Affected Us?

by Graeme Watson

We are living in a phenomenal time. The speed of acceleration along the information highway is breathtaking. We are in overload. The Internet has created collaborative sharing of data on a scale the likes of which has never existed in human history. According to the experts, knowledge increase will soon be doubling every 12 hours (Lewis, 2016).

In my industry, knowledge is power. In the *Access to Information* or *Freedom of Information* field, requesters obtain valuable documents about the inner workings of government. This helps keep government accountable, but it is also an immensely valuable tool for requesters to use for a variety of purposes. Some requesters are academics, the public, business leaders, heads of organizations of all kinds and still others have refused to identify their background.

Under Prime Minister Trudeau's leadership, a new era has dawned in terms of government accountability. He is seeking to instill greater transparency in government institutions all across Canada. This will serve Canadians well because knowledge *is* power. The *Open Government* initiative harnesses the power of information by providing the public with vast datasets covering topics as broad as geographic maps, financial information and demographic data. Companies and civil society can use this seemingly limitless information to achieve productive ends, develop unique products and generally improve the lives of Canadians.

The other major upshot of Open Data, besides being good for corporate Canada, is that it has a democratizing effect. Combined with social media, Open Data has allowed the development of mobile applications both from within the government and members of the public. So long as these applications are properly vetted, this allows for a high degree of engagement with Canadians on the part of the government.

Nevertheless, Access to Information and Privacy (ATIP) has had its challenges. One of the biggest has been that of vexatious requests, or more simply, requests that bog down the operations of ATIP shops. While, through proactive disclosure, government tries to release as many documents to the public as possible, there are many instances where voluminous requests can clog up the smooth functioning of the ATIP system.

This treatise is not explicitly about Access to Information in Canada or abroad. It is about how Information Technology (IT) has shaped our lives and affected us all. None of us in the West, and increasingly in the developing world, are immune to its impact on our daily lives. Canada has made the transition from an agrarian or rural society to one with a manufacturing base to an electronic, information-aged country.

In this treatise, I will examine from a business perspective, social and spiritual outlook the ramifications that our digital age has had on Canada. I will then take a look at the future and posit how 'big data' and the *Internet of Things* might change our future. The last part of my treatise will dissect, from a spiritual point of view, the times in which we live. As a Christian, I believe that we are living in interesting times. What does the Bible have to say, if anything, about the era in which we are living? Hint: I believe the Bible, and my faith, has a lot to say about the epoch in which we find ourselves…

Where We Came from Before the Web

In order to understand the affect that the Internet has had on us, we have to understand where we came from before the Web. On a personal level, I take the beginning of the Internet era to be around 1995. Sadly, it was the year my grandmother died. But I remember earlier that year she posed me the question over the phone, "Have you heard of the movie *The Net*?"

In all honesty, I wasn't sure what to make of it. As a nine-year-old, I couldn't really follow the thread of the plot that my grandmother explained over the phone. I did, however, remember him mentioning how it involved computers and the Internet. Back in 1995, the widespread use of the technology was in its infancy. The big debate was who was going to win marketshare: AOL or Netscape Navigator.

The year 1995 was also a special year for me because it was the first year my father struck out on his own. That's right, he started his own company. After nearly fifteen years rising through the ranks of the company he was working at, he decided to fulfill his dream of starting a Canadian company.

I say this to illustrate the fact that when I cleaned the office weekly for my dad, we didn't have an Internet hook-up at home. Eventually, we got a modem and had dial-up, a little bit after my best friend did, but Saturdays at my dad's work was always the time I remember using the Internet, at least around the time of turn of the new millennium. I could surf the web: check my email, look up the

news and even get complete research assignments that were assigned to me as homework.

My friend's mother was soon trading collectibles online. Ever since the introduction of the Internet, there has been the commercial aspect of its use. It has empowered people in ways they haven't been empowered before. Yet those communities that have been slower to adopt access to the Internet have suffered disproportionately. For example, we no longer rely on the classified section of the newspaper to locate our jobs. Increasingly, we turn to the Internet to find jobs, and those who don't have access to it at home must go to the library or use it at a friend's house.

Canada's North has not yet fully come on board with Internet access. There are efforts underway to bring the net to our North, but work remains. I know Trudeau's government as of late has made a great effort to bring basic services, including adequate housing to Northerners, and this is a step in the right direction. Large swaths of Africa, especially Sub-Saharan, have yet to experience the Internet. For these people, access to reliable energy sources, medical services and lodging are all precursors before they can tap in to what the Internet can offer them.

How the Internet Has Changed Us

I believe the Internet has changed us in some pretty profound ways. Later in this treatise, I will be taking a deeper look at the way we have been changed by this technology, from social, business and spiritual perspectives. From a psychological perspective, though, the Internet has changed us dramatically.

For those who have an addictive personality–you know who you are–the type who are obsessive-compulsive, the ubiquity in Western culture of the Web has become an issue. If you take 1995 as the starting point of the Internet revolution, much of culture has changed in the last 22 years, since the time of writing this treatise.

Since its start in the mid-twentieth century as a way of connecting the military, through to the current state of the Web, our culture has shifted to be more instantaneous. At one time, we would send letters to one another via 'snail mail.' That wasn't so long ago. In my lifetime, I went from sending letters to relatives during my high school years in the early 2000's to almost exclusively sending emails to keep up with friends and family members.

Lovers used to write letters to one another. Now, text messages are the norm for such communications. Granted, texts aren't the Internet, but those who send a lot of text messages 'plugged in' to their mobile devices with Internet access much of the time. Instant messaging used to be the rage like ICQ and MSN Messenger. Now, Twitter is quite popular for getting quick, fast messages across to people on the other end.

But technology is like building blocks. We always add on to knowledge that we had previously. For example, the Internet necessitated computers; before computers, we had typewriters, and so on. In a similar way, the Canadian economy has moved from agricultural base to a service-based one in the digital age. That's not to say that Canada doesn't have manufacturing anymore, it's just that the manufacturing has become more sophisticated due to our high-cost labour living in our high-cost society.

Meanwhile, China and India are headed in that direction, after having moved from an industrial to service economy. Maybe one day all countries will achieve relative parity in terms of economic activity. However, given the trends in recent years of the growing gap between the world's rich and poor, I'm not so sure how far that parity will go. The world's richest people have wealth greater than the Gross Domestic Product of smaller countries. Christians, such as myself, believe that the poor we will always have among us, as Jesus famously said.

Later in this treatise I will dig more deeply into what *big data* is and how this will build on the Internet and become part of the progression of this technology. Canada is becoming a leader in this technology and Justin Trudeau is pushing us in this direction, continuing the work that was started under former Industry Canada Minister Tony Clement. Lastly, I will attempt to correlate some of the recent develops in technology with what the Bible has to say about the times we're living in…

How the Internet Has Affected Us Socially?

The Internet has affected us in many ways. One of the most profound ways that it has done so from a social sciences perspective, which is my educational pedigree, is how it has created community around the world.

As a side note, when I was researching this treatise and doing my research at the library, I was surprised that the technology section of the library I went to did not contain the type of treatise that I was expecting to find. Rather, it contained practical "how-to" treatises about Java programming, Web blogging and HTML

coding. The purpose in my writing is not to examine the Internet from a technological point of view, but to enlighten the reader through a social sciences lens of the affect the Internet has had on us.

In her treatise on the topic of helping parents navigate the challenges of Web-based devices like tablets, laptops and cell phones present in their children's lives, Koch (2015) elaborates on many good points. One idea that I found particularly compelling is that teenagers can have issues with their *identity* in their use of technology (p. 20). This applies to adults as well. We easily can derive our self-worth and value, if we're not careful, from how many people "like" us on Facetreatise, how many people visit our website or how many followers are tracking us on social media.

Christianity teaches us that Christ is our identity. He has paid for our sins on the cross and loves each one of us dearly. When we follow His lead, we do not need to be concerned with being popular or even being appreciated by our network of individuals present via social media. What counts is that we're faithful to following Jesus.

Another aspect that resonated with me from Koch's work is just how impatient we are as a culture today, thanks to our digital technologies (p. 106-112). I find that is true with myself. When I don't get my online refund from my insurance as quickly as I thought I'd get it, I'm biting at the chomp to figure out what went wrong. If my tablet freezes and it won't restart I freak out. Now, some may say that is a quick temper, but I think technology has conditioned us to be a little more impatient than we used to be.

So many people are mindlessly on their smart phones on the bus, or blissfully disconnected from life with their headphones. I'm not saying these technologies are bad per se, but is it really necessary to constantly check up on your friends' statuses on the latest social media site, or have to remove yourself socially from your surroundings with your earbuds? We've lost what it means to lose yourself in a really great treatise, or to read the newspaper on the bus.

As Kathy Koch has correctly brought to our attention throughout her treatise *Screens and Teens: Connecting with our kids in a wireless world*, it is primarily the younger generation that has been shaped the most by the Internet. Younger minds are starting to form and to adopt habits that will stick with them later on in life. Older people, on the other hand, are more set in their ways and rigid. Those who are older than the millennial generation simply are not used to using technology to the extent that younger folks are familiar with it.

In addition, much valuable time can be wasted on the Internet. If students are procrastinating, constantly "surfing the net," texting or updating their social media technology, they can't be busy studying hard, serving others or engaging in Bible study. After all, there are only so many hours in a day! We still need to make time for about eight hours of sleep (depending on the person), time to eat and time to get to and from our responsibilities, not to mention allotting time toward any chores or errands we have to run.

I opened this section suggesting that the Internet has created some sort of a community. It can be argued that some social media sites have fostered a level of general civil engagement and achievement of societal good (Díaz-Ortiz, 2011). As the same time, though, I would suggest that without a spiritual understanding of how technology affects us, this civic engagement doesn't mean much. I will discuss this topic later on, but in the next section I will turn to how the business world has been transformed through recent technological innovation, namely in information technology.

Connectivity & the Business World

Probably one of the most influential companies of the digital age has been Google. From the late twentieth century to the present time, Google has grown at a tremendous rate and weathered the dot-com bubble of the early 2000's. As a search engine that has dominated the industry, it is a portal into much of what the Internet has come to offer the public.

Through listening to TED talks and reading *Google Speaks: Secrets of the World's Greatest Billionaire Entrepreneurs, Sergey Brin and Larry Page*, it struck me how Google has not only innovated technologically, but that it has redefined the goal-post of what a successful corporation looks like (Lowe, 2009). Through their philanthropic endeavours, Google has sought to use its wealth and clout in the global marketplace as a force for good in the world.

Certainly, in recent years the number of Non-governmental Organizations (NGOs) has proliferated. I think this is what has contributed to Google's "giving back" to the world community and the disenfranchised. There is, I believe, another element that has been crucial to the whole formula that has dictated why Google has pursued this policy of corporate social responsibility. Google connects, by nature. As a company, its products bring people together. Similarly, its charitable arm connects the developed world with resources for teaching that help students to learn more easily, as well as connecting with local non-profits to help closer to home.

As an enabling company and service-oriented firm, Google has done a great job of using its scale and reputation to assist those less fortunate, those who are further down on the technological food-chain. In doing so, it has created a more equitable world. Social media has contributed much potency to many modern companies, in this Internet era, to increase the charitable wing of their organizations. Twitter, YouTube and other online platforms are modern day soapboxes for engaging citizenry to take up a common cause.

This is a heartening trend, given the increasing disparity between the world's richest and poorest individuals. Bill and Melinda Gates have given back so much to combat HIV/Aids, Malaria, promote maternal health and spearhead many other initiatives through their foundation's work, for the common good. It is very interesting to note Bill's pedigree. He made his fortune in the technology world. Now he is seeing the fruit of this labour and choosing purposefully to give back to others through strategic investments around the globe. Bill Clinton, through his work at the Clinton Foundation, has been a pioneer at advocating for societal, grassroots change. Initiatives that have supported range from sustainable development in Africa to health in the younger generation of Americans. President Clinton was in power during a time that harvested much wealth due to the development of the United States *information superhighway* of information. Many, many jobs were added to the U.S. economy, and the nation prospered.

So we can see a pattern that has developed as companies and leaders from the IT community use their wealth to rally around global concerns. Energy, health, agricultural are all areas of international concern in the twenty-first century. In the treatise *Twitter for Good: Change the World One Tweet at a Time*, the author highlights how one person can affect change with the power of social media (Díaz-Ortiz, p. 2). I do believe this is one of the ways that the Internet has shaped us, and I will explore this idea further in the following section in which I discuss how big data will rock our world when it comes to the next wave of technological innovation.

Big Data and Beyond

This part of the treatise is where I put a shameless plug in for the line of work that I am in. *Access to Information and Privacy* is a field that is burgeoning worldwide. More people, journalists and businesses than ever want access to relevant information that can be used to buttress more intelligent decision-making.

You see, it's not just raw information that is always in need. The datasets that are being posted online now by the government are rich datasets with detailed

information useful for all types of research undertaken by people from all parts of Canadian society. Former president of the Treasury Board Tony Clement had launched the *Open Government* with the intent of making Canada more competitive in the global marketplace. Concurrently, he expanded the access of broadband Internet availability to remote areas in Canada. This IT strategy plays to our country's strengths, as we have traditionally had a strong telecommunications sector, including major players such as Nortel.

Another technological advance in computing has been the Internet of Things (IOT) as well as cloud computing. IBM has been particularly active in pursuing these markets, as well as the general field of more advanced computing, with machines being able to understand more of the way humans think, so that better results can be achieved. Rather than having computers performing simple, menial tasks, the complexity of such functions has increased exponentially over time.

To further complicate matters, advances in nanotechnology has gained ground in the technological arena. By working at the size of nanometres, this new *Internet of Nanothings* technology can apply to many sectors of the economy, with the advantage of having sensors that relay information so that machines can run as smartly as possible, giving an ever-changing environment (Karsten and West, 2015). For example, there may be a new device that you can wear that would monitor more precisely any health conditions you may have.

Cloud computing is another area that has grown in popularity. At one time, we had floppy disks and CD-ROMs, as well as internal and external hard drives. But now, everything is stored in the cloud. But what about our privacy? If information is all collectively stored together at an off-site location, there will have to be some very detailed policy agreements drafted up to ensure that the rights of each individual or organization is upheld and that only those who store the information would have access to it.

Some people think that with technology comes transparency. This is not always the case. You can tailor your message to what you think the public should know. The managing of the message constitutes a manipulation. This past U.S. election cycle, there has been much talk about *fake news*. It is not surprising that this is a trend that is starting to occur in the media. We need to be vigilant to look for honesty and trust in the information being conveyed. These qualities should be celebrated in our public life.

The last point I wanted to make in this section, which will segue-way nicely to the following one, pertains to the nature of privacy. My belief is that we were created by God and that we turned away from His perfect order during the occurrence of

what most have entitled *the fall*. The result? Chaos. Disorder. Conflict. Disunity. Only Christ could set us free. The in-between period clearly showed that the Israelites could not indefinitely stay faithful to God. They messed up. We all became utterly conscious of our brokenness, and lacked security about who we are: our natural reaction was to clothe ourselves.

Neat connection to privacy isn't it? But what does this have to do with technology, the subject of this treatise? More specifically, how does this relate to the Internet, the phenomenon I've been honing in on?

Well, in the following section, I will explore some of the spiritual implications of the Internet, how we have all been affected and what we can do to combat the negative implications of the discovery of this technology.

Spiritual Implications of the Internet

Grappling with the spiritual significance of the information age starts with the sheer amount of it, and the pace of change. In one of the prophetic books, in Daniel 12:4, God's Word says, "*But you, Daniel, roll up and seal the words of the scroll until the time of the end. Many will go here and there to increase in knowledge.*"

There it is! Right in Scripture. Although the New Testament church and writers of the Epistles believed we were in the end times, the book of Daniel reminds us that we are that much closer to this period of time. We also know that the Great Commission will be fulfilled before Christ returns (Matthew 28:19-20). This has most likely been accomplished in part by the Internet and satellite television.

There are many other prophecies which I will not go in to, and truly no one knows exactly when Christ will return (Matthew 24:36), but I do believe we can know the signs of the times we are living in, and that the fig tree is ripe and is in bloom (Matthew 24:32). The fact that the land of Israel was re-established again in 1948 fulfilled so many prophecies.

My friends, come to know the Lord, I pray… His burden is easy and His yoke is light (Matt. 11:30)! Now is the time to yoke up with Christ and tell the nations about His saving grace.

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