# Off the Grid
## Maintaining the Human Connection in the Age of Technology

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# Dedication

To my friends for their constant encouragement,

and my family who motivated me to succeed

# Acknowledgements

Many thanks to my peers who provided me with support throughout this project, my advisors who gave me advice, and the jurors who encouraged throughout my research

# Abstract

Today's society is strongly driven with technological innovation and advancement. Although these advancements have brought us to place where anyone can learn virtually anything, there is one big downfall with it. The generation of youth today and the future, according to multiple studies, will be lacking in one main thing: face-to-face communication.[1] Children today are learning to use an iPad before they learn to draw or paint. Their eyes are seeing more screens instead of the real world. They are becoming so transfixed with the virtual world that they are beginning to lack in understanding the real world. Unlike a tattoo, where a person spends time thinking about how they want to portray themselves, social media has given people a false sense of who they really are. Furthermore, looking at how a tattoo is permanent mark on the body, this project aims to create a place that leaves an imprint in the form of creating core memories that become part of the users' lives.

Communication skills are a measure of success in society, and with the advancement in technology, children are losing a key component of communication skills and technology is becoming a permanent crutch.[2] The space I am proposing to create is an adaptive space that serves a large-scale obstacle course that encourages teambuilding practices to incorporate communication skills within the environment. A second aspect of this facility would be to have an interactive library that uses the most advanced technologies that will help users engage one on one with researchers

[1] Adler, Iris. 2013. *The Effect of Technology on Face-to-Face Communication.* 01 17. Accessed 12 05, 2015. http://www.wbur.org/2013/01/17/digital-lives-i.

[2] Ibid.

throughout the world, as well as using it as a platform that encourages conversation with people in different parts of the world.

The objective of this thesis project is to design a space that becomes the platform for teens to transform themselves by building strong communication skills without the traditional smartphone and social media aspect of technology. By providing a setting where teens are able to learn communication-building skills, this space creates an opportunity that both challenges and encourages them to learn how to engage with real people without relying solely on technology.

This project will focus on teens of Generation Z. This generation, specifically in the United States, has grown up in a time where modern technology has guided the way of life and is impacting communication skills within this group.[3]

[3] Weinstein, N., and A.K. Przybylski. 2012. "Can you connect with me now? How the presence of mobile communication technology influences face-to-face conversation quality." *Journal of Social and Personal Relationships* 1 - 10.

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# List of Abbreviations, Symbols, and Key Terms

- **AORTA:** Always On Real Time Access – a term coined by Mark Anderson to describe a future in which people are constantly able to access information and news from anywhere on the planet

- **Digital immigrant:** concept that describes the generational switchover where people are defined by the technological culture which they are familiar with

- **Digital native:** a term coined by the U.S. author Marc Prensky in 2001 to describe post-millennials that is emerging as the globe's dominant
- demographic, while the "digital immigrant," becomes a relic of previous time

- **Gen X:** Generation X, is the generation born after the Western Post-World War II baby boom; birth years range from early 1960s to early 1980s

- **Generation Z:** The cohort of people born after the Millennials

- **Millennials:** Generation Y, the demographic cohort following Gen X, and the first generation to come of age in the new millennium; birth years range from early 1980s to early 2000s

- **Post-millennial:** Generation Z, cohort of people born after the *Millennials*; birth years range from mid 2000s to the present day

- **Real time:** the actual time during which a physical process under computer study or control occurs

- **Viral:** relating to or involving an image, video, piece of information, etc., that is circulated rapidly and widely from one Internet user to another

# Thesis Statement

Every culture at some point has used tattooing as a form of expression. The meaning of self-expression has changed today with modern technology evolving into a dominant form of expression. While technology has made our lives easier, more productive, and efficient, it has also degraded certain aspects of communication and interpersonal relationships.

Using the concept of tattooing and social media in terms of permanent and impermanent forms of expression, this project aims to create a place for the youth of Generation Z to incorporate communication and teambuilding skills without relying on technology. The development of a youth engagement center that focuses on integrating communication and technology in a positive way will become a permanent manifestation of self-expression and communication skills, just like a tattoo

# Chapter 1: The Modern World

In the 21st Century, people are growing up with change being the driving force of society. From technology to political adversaries, the world is a changing place. As we become more and more advanced as a society, there becomes an issue of losing site of what's important. Take the constitution of the United States of America for example. Would it be as valuable if it were written digitally? Books are read on screens instead of paper, students take notes on laptops instead of notebooks, and so on. The question arises as to what this means for society? The way humans connect and communicate with each other today is so vastly different from even a few decades ago. Much of North American society for example has begun to revolve around *real time.* Social media has changed how people share their personal life, world events, and social matters. There is a shift between the digital world and the paper world and the differences of permanence versus impermanence.

An important aspect of my thesis ascends from the concept of tattoos. "A tattoo is a form of body modification made by inserting indelible ink into the dermis layer of the skin to change the pigment."[4] From the moment the ink from a tattoo machine is embedded into the skin it becomes a permanent pigmentation on oneself. Tattoos have shown to carry some stigma within North American society. According

[4] Pew Research Center, T. F. (2015, 09 27). *Tattoo Statistics* . Retrieved 10 28, 2015, from Statistic Brain Research Institute : http://www.statisticbrain.com/tattoo-statistics/

to the Pew Research Center, about 14 percent (Figure 1) of Americans (all ages) have at least one tattoo.[5] That amounts to approximately 45 million Americans.

*Table 1: Tattoo Statistics*

| Tattoo Statistics | Data |
|---|---|
| Annual amount of U.S. spending on tattoos | $1,650,500,000 |
| Total percent of Americans (all ages) who have at least one tattoo | 14% |
| Percentage of U.S. adults 18 – 25 who have at least one tattoo | 36% |
| Percentage of U.S. adults 26 – 40 who have at least one tattoo | 40% |
| Total number of Americans that have at least one tattoo | 45 million |
| Number of tattoo parlors in the U.S. | 21,000 |
| Percentage of people with tattoos who claim they are addicted to ink | 32% |
| Percentage of people who have some regret after getting their tattoo | 17% |
| Percentage of people with a tattoo who are getting or have had one removed | 11% |

*Source: Pew Research Center, Tattoo Finder, Vanishing Tattoo*

It is important to try to understand why people feel a need to put a permanent marker on their body, and why there is a social stigma behind it in North America. Firstly, about 43% of people with tattoos believe that it should have a personal meaning behind it.[6] According to my own research 4 out of 6 people had a tattoo for a personal reason, and 2 out of the 6 had it simply because they enjoyed the aesthetic of it. The social stigma behind tattoos is fairly evident when looking at the number of people who cover their tattoos while at their workplace.

[5] Pew Research Center, T. F. (2015, 09 27). *Tattoo Statistics* . Retrieved 10 28, 2015, from Statistic Brain Research Institute : http://www.statisticbrain.com/tattoo-statistics/

[6] Ibid.

It is interesting to note, that a tattoo, which represents something about a person is so often hid from society (especially in professional environments). Although people today have different reasons and meanings behind tattoos, the question that can be asked is, 'Why get it if you don't want to or can't show it?' Although there can be many answers to this ranging from people who do choose to show their tattoos from those who are very private about them, it comes down to personal choice and how one feels about his or her tattoo. What the purpose of that too is and what it represents about an individual. This is where this project will gain momentum of the importance of self-expression, what it means, and how that transforms individuals with importance to permanent and impermanent expression.

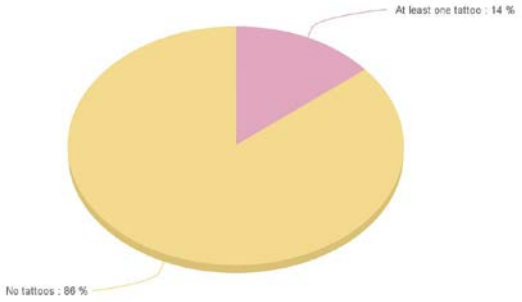


*Figure 1: Number of American's with at least one Tattoo (Info: Pew Research Center)*

# Chapter 2: The History of Tattoos

*The Beginning*

The term tattoo can be described at present as being "a mark made by inserting a pigment into the skin: in technical terms, tattooing is micro-pigment implantation. Tattoos may be made on human or animal skin. Tattoos on humans are a type of body modification, while tattoos on animals are most often used for identification."[7]

Tattooing has been in existence throughout the globe, and goes back centuries. In fact, the earliest artifacts that link to tattooing can be dated back to the Upper Paleolithic era. Red ochre disks and clay were used alongside sharpened bones were used together to puncture the skin and insert dye.[8] Additionally, during this time, clay and stone figures were found with patterns engraved on them that could be seen as being representative of tattoos.[9] The first concrete evidence of tattooing can be marked back to the 3300 BCE, to mummified remains that were preserved in the glacial region of the Alps, and was later identified as being a warrior.[10] The warrior is known *Ötzi the Iceman* (Figure 2), and his body shows evidence of sixty-one tattoos on his body.[11] Although the cultural implications of *Ötzi's* tattoos is still unknown, although there are indications that they may relate to therapy for physical ailments, ethnic markers, or identification.[12]

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[7] Smith, M. (2015, April). *A Brief History of Tattoos.* Retrieved October 2015, from Tattoo School Training Academy: http://www.training.tattoo/pdf/TattooSchoolTrainingAcademyHistoryOfTattooing.pdf

[8] Cains, G. E., & Byard, R. W. (2008). The Forensic and Cultural Implications of Tattooing. In *Forensic Pathology Reviews* (Vol. 5, pp. 197-220). Totowa, New Jersey: Humana Press.

[9] Ibid.

[10] Green, T. (2003). *The Tattoo Encyclopedia: A Guide to Choosing Your Tattoo.* New York: Fireside.

[11] South Tyrol Museum of Archaeology. (2013). *The Tatoos*. Retrieved November 2015, from South Tyrol Museum of Archaeology: http://www.iceman.it/en/node/262

[12] Cains, G. E., & Byard, R. W. (2008). The Forensic and Cultural Implications of Tattooing. In *Forensic Pathology Reviews* (Vol. 5, pp. 197-220). Totowa, New Jersey: Humana Press.

In the early Bronze Age, figurines decorated with colorful geometric patterns were discovered in Egypt.[13] The figures with these patterns on it were found only on the female figurines (Figure 3), and not on the male figurines during this period. This body ornamentation was interpreted as being representative of clothing, tattoos, or a combination of both. A more solid representation of tattooing became known to be during the Middle Kingdom, with evidence of actual tattoos on a mummy of a woman named Amunet (Figure 4). Her tattoos consist of abstract patters of dots and dashes placed randomly upon her body.[14] Research indicated that these markings were that of tattoos, and it was found on other mummies as well in similar patterns.

*Egypt*

Egyptians became the first culture to establish tattooing in the 1500s BCE, and were the first community to imbed images to the skin that were representative, especially of deities.[15] The dwarf god, Bes was one of the first images depicted in tattoo form (Figure 5) several remains of female dancers from this period.[16] Bes was considered a deity and a demonic fighter, and associated with humor, music, dancing, and sexuality. Additionally, it was believed that by tattooing his image on the body it not only protected people from mishap, but many dancers and performers had it as a form of symbolism of music and dance. Another hypothesis on the tattoo of Bes was

[13] Bianchi, R. (1988). Tattoo in Ancient Egypt. In A. Rubin, *Marks of Civilizations; Artistic Transformations of the Human Body* (pp. 21-28). Los Angeles.
[14] Bianchi, R. (1988). Tattoo in Ancient Egypt. In A. Rubin, *Marks of Civilizations; Artistic Transformations of the Human Body* (pp. 21-28). Los Angeles.
[15] Gilbert, S. (2000). *Tattoo History.* USA: Juno Books, LLC.
[16] Hill, J. (2010). *Bes*. Retrieved Novmber 2015 , from Ancient Egypt: http://www.ancientegyptonline.co.uk/bes.html

that sacred prostitutes tattoos his image near their pubic area to ward off venereal diseases.[17]

*The Pazyryk Warrior*

As traditions of tattooing evolved, more evidence was and research of tattooing was found in 1948 by Sergei Ivanovich Rudenko, a Russian Anthropologist. Remains that were dated to roughly 400 BCE were found of a man decorated with tattoos on his body.[18] Many of that tattoos found on the remains were depictions of animals native to that region (which was representative of the Pazyryk culture), such as donkeys, ram, deer, fish and goats, as well as griffins and other unidentifiable carnivores (Figure 6). Moreover, it seemed by his tattooed markings that this Pazyryk man was a warrior, and as further evidence formulated with goods found alongside him, that he was a "man characterized as chief."[19] This shows yet another example, of tattoos have been a constant source of representation and symbolism throughout history. What the Pazyryk man shows, is how his character was represented with a permanent marking. It is interesting that many of those values still apply today in terms of what certain tattoos represent or mean for an individual or a community.

*Irezumi*

Similar to Egypt, Japan also shows a vibrant history of tattooing that dates to 5000 BCE.[20] Japan also acknowledges the first type of tattooing being done shown on figurines that depict tattoos, differing from Egyptian figurines however, in that the

[17] Ibid.
[18] Rudenko, S. I. (1970). *Frozen Tombs of Siberia: The Pazyryk Burials of Iron-Age Horemen.* (M. W. Thompson, & J. D. Ltd., Trans.) Los Angeles: University of California Press.
[19] Green, T. (2003). *The Tattoo Encyclopedia: A Guide to Choosing Your Tattoo.* New York: Fireside.
[20] Gilbert, S. (2000). *Tattoo History.* USA: Juno Books, LLC.

Japanese figures had tattooing on the face instead of the torso.[21] Decorative tattooing, also called *irezumi*, in Japan can be traced back to 247 BCE.[22] Earlier in Japan's tattooing history it was said that, "man young and old, all tattoo their faces and decorate their body with designs."[23] This transformed later in imitation of the mentality of China, where tattoos were looked at as being barbaric, and from the seventh to seventeenth centuries tattooing became a form of punishment (Figure 7) in Japan, marking outcasts of society in shame.[24] Between the seventeenth and nineteenth century decorative tattooing began to be popularized, and decorative Japanese tattooing became prevalent. This did not last however, because decorative tattooing faded out of society, and tattoos became associated with societal outcasts by the nineteenth century.[25] In more recent history, *irezumi* is portrayed on the bodies of mafia members, (Figure 8) specifically the Japanese Mafia, *Yakuza*, who have created a permanent mark of outcasts within Japan.[26] Similarly, in North America there are certain symbols that represent gangs or things not accepted by society, such as the Swastika which holds negative connotations due to the Nazi's using it, although ironically the Swastika symbol itself represents good fortune or well-being.[27] This shows how a mere sign or symbol can hold a very powerful meaning behind it. This also shows what type of thought goes into getting certain

[21] Ibid.
[22] Ibid.
[23] Ibid.
[24] Ibid.
[25] Gilbert, S. (2000). *Tattoo History.* USA: Juno Books, LLC.
[26] Cains, G. E., & Byard, R. W. (2008). The Forensic and Cultural Implications of Tattooing. In *Forensic Pathology Reviews* (Vol. 5, pp. 197-220). Totowa, New Jersey: Humana Press.
[27] Holocost Teacher Resource Ceneter. 2015. *The Swastika: A Sign of Good Luck Becomes a Symbol of Evil.* Accessed 01 22, 2016. http://www.holocaust-trc.org/the-holocaust-education-program-resource-guide/the-swastika/.

tattoos, and how people can choose to define themselves as outcasts by imprinting a mark on their body.

*Identity*

As the concept of tattooing traveled throughout different parts of the world, Greece and Rome are important to note in the history of tattoos. Rather than body ornamentation, the people of Greece and Rome saw tattoos in a more practical way; to be used as identification, differentiating slaves, criminals, prisoners, and soldiers from the rest of society.[28] Tattooing essentially became a way to see the status of others in society. Furthermore, it became a symbolic way to shame or mark those of lower class. [29] This is where it is important to understand how physical transformation of the body can allow judgements to be passed by society, and how people began to identify with their tattoos and it shows that sometimes bad circumstances can enable shame. This is where it becomes critical to understand how society often tries to label one person from another, whether that be through a body marking, or social class. A key component of this project is to fight that stigma, and encourage uniformity within different individuals. By bringing people together from different backgrounds, social statuses, cultures, and education levels, it creates an opportunity for growth and understanding of one another.

*The Americas*

Numerous Native American tribes, such as the Cree used tattooing on their face and body as a form of symbolism. A group of six Inuit women from Greenland

[28] Gilbert, S. (2000). *Tattoo History.* USA: Juno Books, LLC.
[29] Ibid.

were found as mummified bodies in c. A.D. 1475, with evidence of facial tattooing.[30] Another tattooed mummy was found on St. Lawrence Island, Alaska with evidence of tattoos on her arms and hands.[31] It can be said that many tribes have used tattooing as a form of symbolizing character and strength, and was used heavily among warriors.[32]

*Moko*

One of the traditions that really focused on telling a story through tattoos was that of the Maori people in the Polynesian Islands, specifically the indigenous people of New Zealand.[33] The Maori people took pride in tattooing the face with what is known as the *moko*. The *moko* form of tattooing followed the natural contours of one's face, and reached from the hairline down to the throat with distinct patterns.[34] Although *moko* was done more dominantly on males, females would often tattoo their faces, concentrating it around their chin and mouth, as it was believed by them that it prevented wrinkles and kept their appearance looking young.[35] What is interesting about these facial tattoos is that every single *moko* told a story of the person's rank and status, and it was exclusively for what chiefs and warriors of the upper class.[36] *Moko* also went a step further than just tattooing as it was incorporating scarring with

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[30] Lineberry, C. (2007, January). *Tattoos: The Ancient and Mysterious History.* Retrieved November 2015, from Smithsonian: http://www.smithsonianmag.com/history/tattoos-144038580/?no-ist%2F=&page=4

[31] Lineberry, C. (2007, January). *Tattoos: The Ancient and Mysterious History.* Retrieved November 2015, from Smithsonian: http://www.smithsonianmag.com/history/tattoos-144038580/?no-ist%2F=&page=4

[32] Ibid.

[33] Gilbert, S. (2000). *Tattoo History.* USA: Juno Books, LLC.

[34] Brain, R. (1979). *The Decorated Body.* New York: Harper and Row Publishers, Inc.

[35] Lineberry, C. (2007, January). *Tattoos: The Ancient and Mysterious History.* Retrieved November 2015, from Smithsonian: http://www.smithsonianmag.com/history/tattoos-144038580/?no-ist%2F=&page=4

[36] Gilbert, S. (2000). *Tattoo History.* USA: Juno Books, LLC.

tattooing (Figure 9) so the face was not smooth.[37] Upon the discovery of this kind of tattooing by explorers, there was a record of documentation of traditional tattooing. However, many of these witnesses were coming from those unfamiliar with the way of life, and rituals of these cultures, resulting in gaps within research.[38] Furthermore, since only physical evidence of tattooing was recorded by colonial explorers, the cultural aspect of it was left out, causing misunderstanding and shock. This eventually resulted in banning tattooing practices as it became seen as being a form of opposition to colonial aims, and colonizer labeled tattooing a "native way of life."[39] Although the introduction of colonial explorers to tattooing marked a loss of Polynesian cultural ritual, it also began the Western process of documenting tattooing. In many ways the break of the Maori population's cultural ritual also marked the place of origin in history for the commencement of Western tattooing.[40]

Before this period, the action of tattooing was referred to as "pricking," and it was the interactions between the Maori and the colonizers that the term *tattoo* came to be.[41] The term came about from Tahitian words, "ta-tu," "tatau," "tattaw," or "tattow," which respectively mean "knock," "strike," prick," or "mark."[42] In its native language the words represent that sounds made by the tapping sounds of the

[37] Brain, R. (1979). *The Decorated Body.* New York: Harper and Row Publishers, Inc.
[38] Gilbert, S. (2000). *Tattoo History.* USA: Juno Books, LLC.
[39] Ibid.
[40] Ibid.
[41] Sanders, C. R., & Vail, A. D. (2008). *Customizing the Body: The Art and Culture of Tattooing.* Philadelphia: Temple University Press.
[42] Brain, R. (1979). *The Decorated Body.* New York: Harper and Row Publishers, Inc.

tattooing instruments.[43] The well-known Captain James Cook who essentially "discovered" in 1769, recorded the following in his journal.[44]

> *"I shall now mention their method of painting their bodies or "tattow" as it is called in their language. This they do by inlaying the color black under their skins in such a manner as to be indelible; everyone is marked thus in different parts of his body according maybe to his humor or different circumstances of his life. Some have ill-designed figures of me, birds or dogs, but they generally have this figure "Z" either simply, as the women are generally marked with it, on every joint of their fingers and toes and often round the outside of their feet, or in different figures of it as squares, circles, crescents, etc., which both sexes have on their arms and legs. In short they have an infinite diversity of figures in which they place this mark and some of them, we are told, had significations but this we never learnt to our satisfaction."* (from Gilbert 2000, p. 36)

*Then and Now*

As history shows where tattoos originated from and how they have always been a tool used to represent a moment, story, or symbolism, it can be said that tattoos have been the ink of history since their discovery. Different cultures throughout time have various representations of tattoos, both positive and negative,

[43] Sanders, C. R., & Vail, A. D. (2008). *Customizing the Body: The Art and Culture of Tattooing.* Philadelphia: Temple University Press.
[44] Gilbert, S. (2000). *Tattoo History.* USA: Juno Books, LLC.

and they have either carried a depiction of stigma or pride. Additionally, tattoos have a robust affiliation to culture throughout history, as well as expression. From Egyptians using it to represent dance or the Maori using it to tell a story, tattoos have had an underlying notion of self and cultural expression in the past, present, as well as future.

The way tattoos enable a form of physical expression manifest on the body, it is important to understand that expression is not only a purely physical form. In fact, expression is a deeply rooted concept that has been a vital part of development, growth, and learning. Expression is a global characteristic, and it can be broken down in so many different ways that it makes it impossible to pinpoint it. Furthermore, this project calls into question if expression can be positive or negative. By enabling expression to coexist with self-growth and confidence, it can have a positive impact. However, if expression begins to allow a false sense of self, then it can create a barrier that allows people to hide behind someone they really are not. It comes down to being true to oneself.

The way that tattoos stay with an individual forever, there are moments in one's life that can also leave an imprint forever. Similar to a tattoo on the body, core memories within the human brain become a strong part of development that in a symbolic way tattoo themselves within a person. This project aims to create a platform for these types of memories and moments to occur in the lives of the teenagers using it. The positive environment throughout the facility will encourage confidence, communication and individuality which provides a stepping stool for a healthy outlet of expression.

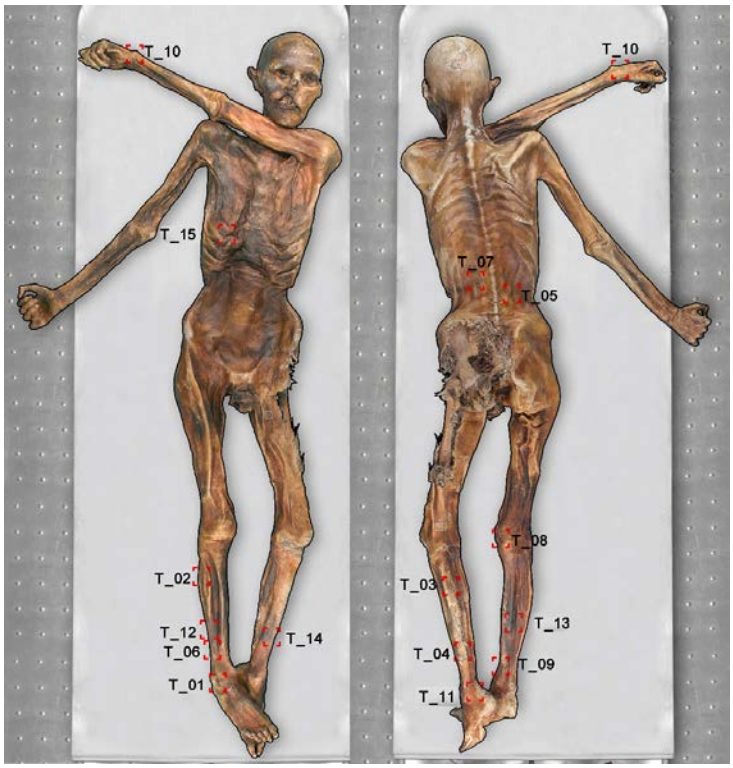


*Figure 3: Ötzi the Iceman (Photo: http://www.iceman.it/en)*

*Figure 2: Female figure from the Predynastic Period. Metropolitan Museum of Art 07.228.71, New York (Photo: Bianchi, 1988)*

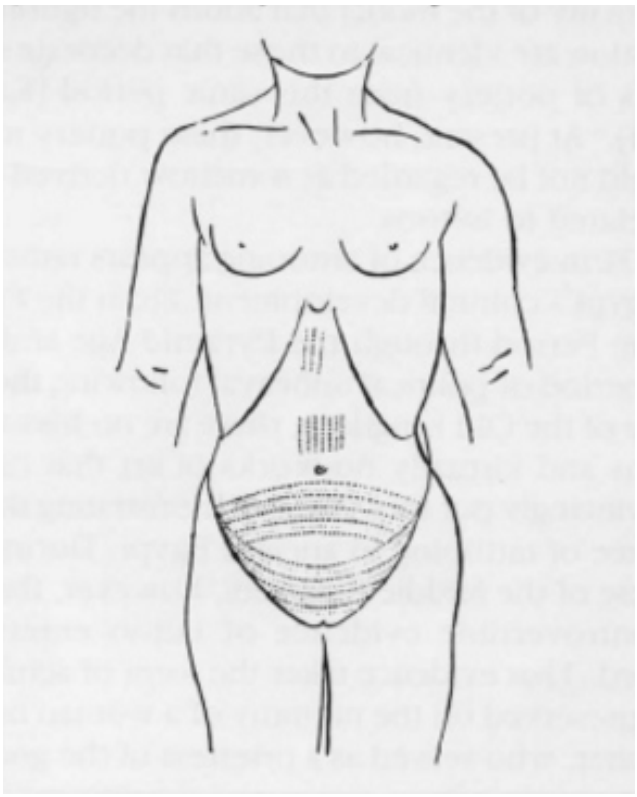

*Figure 4: Configuration of the body decoration of the mummy from the Middle Kingdom (Photo: Bianchi, 1988)*

*Figure 5: Depiction of Bes in tattoo form (Photo: Gilbert, 2000)*

*Figure 6: Mythological creatures found on Pazyryk Warrior (Photo: Gilbert, 2000)*

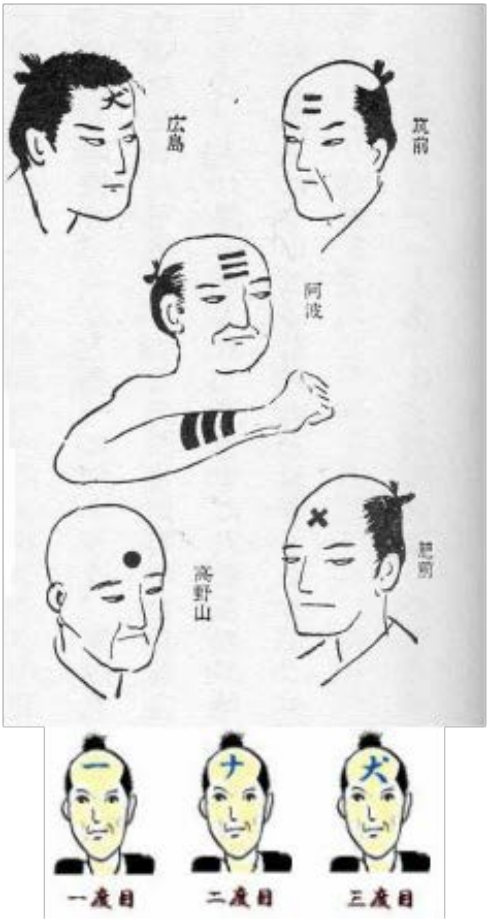


*Figure 7: Japanese tattooing as a form of shame and punishment*

*(Photo: http://irezumihorimonodesign.weebly.com/history-of-irezumihorimono.html)*

*Figure 8: Irezumi artist tattooing a Yakuza member with the traditional hand poking method*

*(Photo: http://rattatattoo.com/yakuza-tattoos-japanese-gang-members-wear-the-culture-of-crime/)*

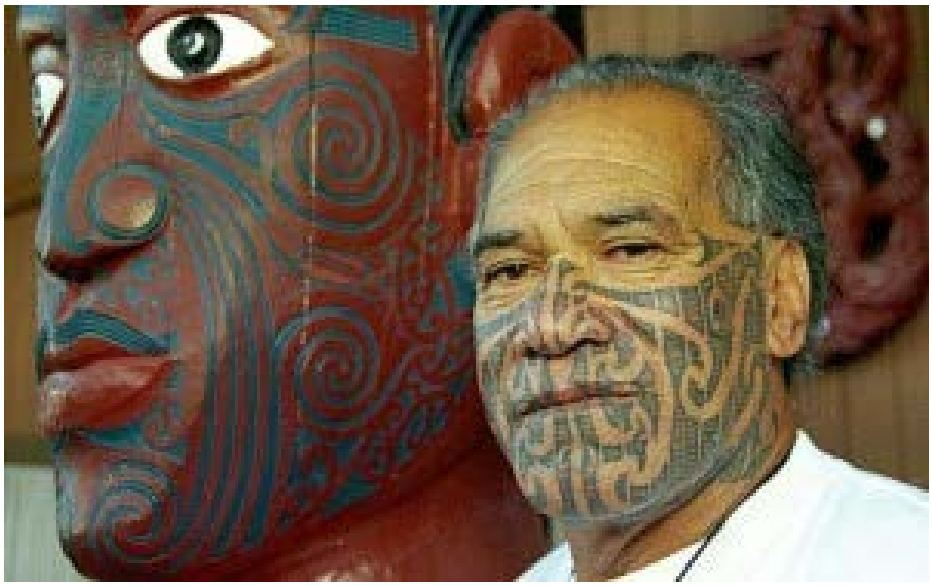

*Figure 9: Ngapuhi Maori elder Kingi Taurua's traditional facial tattoo*

*(Photo: http://www.zealandtattoo.co.nz/tattoo-styles/maori-tattoos/)*

# Chapter 3: Technology

*Tattoos and Technology*

As tattoos transformed throughout time, one of the things that coincided with that change is that of technology. From the traditional method of using a sharp needle-like object to inject ink into the skin, technology brought the art of tattooing a long way. The first major advancement in this history of tattoos came about in 1891, when Samuel O'Reilly patented the first electric tattooing machine (Figure 10).[45] O'Reilly essentially adapted the perforating pen machine (Figure 11) invented by Thomas Edison, which used a needle point to puncture paper or fabrics.[46] The way O'Reilly's machine worked used Edison's concept of puncturing but developing it further (Figure 12) in order to use it for tattoos. The rotary tattoo machine, which was originally referred to as the tattaugraph, moved the needle at a high speed at the end of a fixed shaft. By adding multiple needles and an ink reservoir, tattooing became possible without the traditional "pricking" method.[47] Not only did this lower cost, but it also saved time due to its speed, resulting in greater efficiency in tattooing.

Initially, American tattoo culture comprised of the elite society with is unaffordability to the lower class.[48] Although, the tattooing machine patented by O'Reilly made tattooing faster, it was when Charlie Wagner improved his design that it became more widespread in the Western world. In 1904, Wagner changed the body

[45] Sanders, C. R., & Vail, A. D. (2008). *Customizing the Body: The Art and Culture of Tattooing.* Philadelphia: Temple University Press.
[46] Ibid.
[47] Ibid.
[48] Ibid.

design by implanting "two electromagnetic coils to the tube and needle assembly" (Figure 13), which allowed for the ability to be even more efficient in tattooing.[49] For the most part, the lower and middle class were still unable to easily afford tattoo, and the upper class remained exclusive to them. That changed in 1929, when Percy Waters patented a design which is very similar to the modern tattoo machine.[50] Waters' invention of the electromagnet tattooing incorporated what is referred to as *frame* geometry, which takes into consideration various angles and distances with their respective distance to the machine itself.[51] The newest form of the electric tattooing device (Figure 14) allowed tattooing to become more accessible in different socio-economic classes, and the lower and middle class population began to get tattoos on their bodies.[52] This new invention changed how the elite viewed tattoos, and when tattooing became popular throughout different classes, the elite became uninterested in them, and there was a demographic shift in who tattooed themselves.[53]

Similarly to how the form of tattooing changed throughout history, so did the concept of communication. From telegrams to texts, the way humans have communicated with each other has changed vastly. In the past, communication was not a luxury anyone could afford, similar to when tattooing was only accessible to the elite population. Now however, tattooing has turned into a very accessible form of

[49] Gilbert, S. (2000). *Tattoo History.* USA: Juno Books, LLC.
[50] Sanders, C. R., & Vail, A. D. (2008). *Customizing the Body: The Art and Culture of Tattooing.* Philadelphia: Temple University Press.
[51] Ibid.
[52] Ibid.
[53] Ibid.

body art, with approximately 21 000 tattoo parlors across the Unites States.[54] Similarly, communication, which was once saved for the elite, is now a commodity most people can afford. In fact, the number of phones in the United States exceeds the total population of the United States.[55]

Today, technology has changed the human civilization, and the integration between man and machine is more fused than ever. From a needle and poking process, modern technology is now on the brink of implementing 3D printers into a tattooing machine. Recently, a French tattoo studio called *Appropriate Audiences*, figured out how to use a 3D printer as a tattoo machine (Figure 15).[56] The founders of Appropriate Audiences, Pierre Emm, Piotr Widelka, and Johan Da Silveira, detached the extruder from a MakerBot 3D Printer and replaced it with a tattooing needle. The machine was then tested on silicone and worked flawlessly.[57] The machine worked alongside Autodesk computer programs to create the design and then using the 3D printing technology was able to use the upmost precision to duplicate it on the arm of a real person.[58] There are still challenges with 3D printing tattoos, such as how it can precisely recognize skin texture, different sizes of body parts, and currently being unable to use it in other areas of the body (since presently the arm has to go inside the printer). All of these mechanisms have been taken on as design challenges, but

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[54] Pew Research Center, T. F. (2015, 09 27). *Tattoo Statistics* . Retrieved 10 28, 2015, from Statistic Brain Research Institute : http://www.statisticbrain.com/tattoo-statistics/

[55] Kang, Cecilia. 2011. *Number of cellphones exceeds U.S. population: CTIA trade group.* 10 11. Accessed 02 12, 2016. https://www.washingtonpost.com/blogs/post-tech/post/number-of-cell-phones-exceeds-us-population-ctia-trade-group/2011/10/11/gIQARNcEcL_blog.html.

[56] Scott, C. (2015, November 9). *French Tattoo Studio Turns a 3D Printer Into a Tattooing Machine*. Retrieved December 2015, from 3DPrint: http://3dprint.com/104488/3d-printer-tattooing-machine/

[57] Ibid.

[58] Ibid.

enthusiasm for the invention is resilient among designers and there is a lot of motivation to overcome the technical obstacles. Although the machine has not been popularized yet, technology is at a level advanced enough that prototypes have begun to revolutionize tattooing in the modern world.[59]

> *"Making the machine more accessible is a challenge, and there are many possible future applications – in medicine or in fashion – but our priority is a third version of the machine, which will be able to tattoo any part of a the body using specific architecture. We are currently working on this."* (from Appropriate Audiences, 2015)

Interestingly enough, when it comes to tattoos today, one of the main places that designs and tattoo art ideas are shared is in the digital world. Tattoo artist's and people getting tattoos use various search engines and social media tools to connect with others and find inspiration online. Whereas once upon a time, tattoos were regarded as art forms, now many people just find tattoo designs on the internet and proceed to show it to a tattoo artist and get it placed on their body. The digital world has managed to bring the tradition of tattooing into a new form of expression.

Looking at the concept of tattooing in the modern world today, it is, for the most part, a uniform sequence of events. The process of planning a tattoo in the modern world usually turns into a journey from an obscure idea to a finalized permanent mark. The process of wanting to get a tattoo starts with a general idea that a person wants to get it, and possibly what they want it to be. It then evolves as one ultimately decides what they want it to look like, where it will be placed on the

[59] Ibid.

body, the sizing, orientation, and so forth. All the these seemingly minor decisions have a big impact overall because they reflect who an individual is, their thoughts, opinions, feelings, as well as how they portray themselves to others. Getting a tattoo becomes a form of self-expression, as well as a change in perception, either self-perception or the way others perceive an individual. Overall, tattoos proceed from a shadowy, hazy idea of what a person wants and who they will be when they have this tattoo through a process of refinement and choices until the finished product is a representation of them as a person and how they choose to express themselves to the world. This modern day interpretation of the usefulness of tattoos draws on the rich history of tattoos as status symbols, belonging to a group, holding an identity and the symbolism that portrays forth that has been seen with the historical significance of tattooing. This global history that led to tattoos being an icon of self-expression makes it the perfect platform to explore a project in building character and encouraging self-expression within a hyper-modern context.

*There's an App for That*

As we discuss how technology has been changing the way of life for people, especially in first world countries, it has been an ongoing debate as to whether these technological advancements are a positive or a negative part of life. On one hand, machines have made life easier, but on the other hand, the question arises as to whether the implementation of machines in everyday life have also made people be reductive, and lacking in originality. For example, DJ's often use old songs and simply add some beats and create a remix, which is a way of simply sampling the old and making it new, which may not be a bad thing, however if everyone began doing that,

there would be nothing original in music anymore. Technology has been empowering upon the digital native generation, and it has implemented the term that this generation is a "multi-tasking generation," reliant on "digital juggling" of their daily lives.[60] It is also argued that the digital native generation will learn faster and differently than any other generation before them.[61]

Although technology overall can be viewed in a positive light, there have been arguments that the increased independence that comes with digital technology is also learning the digital native to a *dis*advantage and *dis*empowerment, and young people are exposed to risk factors that come with technology.[62] The post-millennial generation, or *digital native* is so vigorously in tune with technology that they have become reliant on technology for entertainment, education, and communication.[63] GPS's have taken the role of a paper map, typing has taken over writing; scanning and emailing has taken over sending letters in the mail. Although Gen X and Millennials are presently reliant on technology, the difference is that the key technological movements ensued during their life, versus the digital native population who have grown up with technology at their disposal. Although there is evidence of technology providing faster processing skills in young people, it also uses one main method to teach, and that is with digital technology, thus the term, "Google generation" has described the digital native generation as incapable of independent critical thought.[64] Additionally, there that have been certain inventions from Gen X and Generation Y

[60] Wallis, C. (2006). The Multitasking Generation. *Time, 167*(13), 48-55.
[61] Prensky, M. (2001). Digital Natives, Digital Immigrants. *On the Horizon, 9*(5), 1-6.
[62] Selwyn, N. (2009). The Digital Native - Myth and Reality. *Emerald in Sight, 61*(4), 364-379.
[63] Selwyn, N. (2009). The Digital Native - Myth and Reality. *Emerald in Sight, 61*(4), 364-379.
[64] Ibid.

that Generation Z will not experience. An example of this can be given by looking at the simple concept of a landline telephone. A number of Generation Z have not grown up with landlines in their homes anymore (Figure 16), yet it's interesting that the iconic symbol for phone has remained a landline telephone (Figure 17). In fact the number of cellphones are increasing as the number of landlines are decreasing.[65] Similarly, the icon for "email" is an envelope, which is representative of sending letters by post mail, which is no longer the common way to keep in touch or communicate with others.

As we get into specifics now about the negative effects of technology, it is important to understand that technology isn't the problem per se. The problem stems from the inability to use technology in a positive and healthy way. Currently people between the ages of 16 and 24 are spending an average of almost 200 minutes online via mobile phones daily (Figure 18).[66] This is not even taking into account computer usage, television, etc. Additionally, social networking sites have become the main way teens and young adults communicate and network with one another (Figure 19) with Facebook, Instagram, Snapchat and Twitter being the top four sites used in this age group.[67]

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[65] Catalano, Frank. 2015. *Landline death watch? Wired phones now in only half of U.S. households.* February 24. Accessed October 2015. http://www.geekwire.com/2015/landline-death-watch-wired-phones-now-in-only-half-of-u-s-households/.

[66] Pew Research Center, T. F. (2015, 09 27). *Tattoo Statistics* . Retrieved 10 28, 2015, from Statistic Brain Research Institute : http://www.statisticbrain.com/tattoo-statistics/

[67] Ibid.

*Table 2:* Facts on Social Networks

| **Overview** | **Values** |
|---|---|
| Number of social network users worldwide | 1.79bn |
| Global social network penetration | 29% |
| Percentage of U.S. population with a social network profile | 73% |
| Year-on-year audience growth of LinkedIn | 80% |
| Facebook's number of active users worldwide | 1.55bn |
| Share of time spent on Facebook via mobile device | 68% |
| Number of monthly active Twitter users | 307m |

*Source: Statista*

Technology has both positive and negative aspects, so the question arises as to how to use technology in a positive way. Firstly it should be understood that technology can be very beneficial when used as a tool, but not as a necessity. By becoming reliant on technology for tasks, it turns into a crutch without which it would be difficult to walk. Social media invokes the same concept.

> *"MySpace and Facebook are creating a youth culture of digital narcissism, open-source knowledge sharing sites like Wikipedia are undermining the authority of teacher in the classroom; the YouTube generation are more interested in self-expression than in learning about the insider world; the cacophony of anonymous blogs and user-generated content is deafening today's youth to the voices of informed experts and professional journalists; kids are so busy self-broadcasting themselves on social networks that they no longer*

*consume the creative work of professional musicians, novelists, or filmmakers."* (from Keen, 2007)

Keen's description of "self-expression" being used to describe modern-day YouTuber's, is an interesting point. The point that can be looked at deeper here is how a YouTube video online can be considered as self-expression, and in many ways it is very similar to the expression behind modern-day tattooing. Many YouTube artists often create a brand about themselves, whether that be comedy, blogging, fitness, makeup, etc. In this, they think their ideas through, edit them, perfect them, and then share it with the digital world, similar to how a tattoo begins with an idea and develops into a final piece. The difference between these two scenarios however is that the content put on YouTube is being perceived by others, and the creator of that content most likely had that in mind, causing them to think about how they wanted to be *perceived*, instead of really expressing their personal feelings or thoughts.

Alongside this concern, there is another thing to consider with the digital native generation, and that is the gap between the digital native, and the digital immigrant. For many adults, learning the language of technology is equal to learning a new language altogether.[68] This can create gaps between communications among the two different digital populations, and has often sparked debates and controversy about the positive and negative aspects of technology.

[68] Joy, O. (2012, December 8). *What does it mean to be a digital native?* Retrieved October 2015, from CNN: http://www.cnn.com/2012/12/04/business/digital-native-prensky/

*Tattoos, Technology & Transformation*

The process of developing who a person is and how they represent themselves through technology is similar to that of getting a tattoo; there is an idea of who one thinks they will be, but it slowly evolves and adapts as it is created. With technology constantly evolving, and platforms changing people tend to change how they portray themselves to others. For example, Facebook used to allow its users to not publicly show a profile picture, and that changed in 2007.[69] As privacy settings continue to change, people begin to rethink what goes on social media, as it can attract unwanted attention, or it can be used as a bigger platform to gain popularity. Furthermore, individuals tend to craft a public persona of each other on social media platforms, and it gives people a direct hand in how the outside world views them through technology. Similarly, you can control how people will perceive you based on tattoo decisions, for example, lower back tattoos tend to signify a "tramp stamp"[70] versus a less judgmental placement such as the back of the neck. Although both technology and tattoos have expressive forms, one allows for a more public perception than another.

Facebook, Twitter, Snapchat, Instagram, Tumblr – all social media, all different platforms, yet they all have one thing in common: human interaction. Without people, none of these technological applications would be successful. These platforms have ways of getting people to spend a vast amount of time and energy crafting who they are (Figure 18). The problem with this is that more often than not, the "digital version" of themselves is not a real or a true representation of who they are, but

[69] (Bruhn 2014)
[70] (Urban Dictionary 2016)

merely shows a lifestyle of what they want others to see. This online account of their lives usually has no lasting effect on them, so as a result people seem to put less though into how they represent themselves; unlike tattoos that that are a lifelong decision and have a permanent impact on how one is perceived. Technology can (to an extent) be erased with the click of a button, and suddenly you can change yourself as a person, so there is less pressure to how people represent themselves, and in actuality it become how one wants people to perceive them.

*Generation Z*: *The Digital Natives*

Generation Z, which is considered to be the first generation to be true digital natives, will be the population of people who have never known their life to be without internet or smartphones.[71] This generation has grown up with the phenomenon of technology and social media as a significant part of their lives. They see how people can create false personas online and gain fame, or get recognized for a brief period of time, often for doing something without much regard for the repercussions. In fact, Generation Z has grown up in such an instant, on-demand society that seemingly encourages as much self-expression as you can but in the reality of it, none if it is real. A person can delete something that doesn't portray them in the way they want, retake a picture or video, edit it, filter it, and alter it in a way that may be a stretch from the truth. The problem with this is that it begins to give this group false pretenses about what is real, and it doesn't quite teach them anything about the real (non-digital) world in the way that it does not force them to figure out

[71] (White 2015)

who they really are because they are so distracted trying to show others a certain version of themselves.

The irony of the current social media period is that people think it is a great tool for self-expression. The problem with this however, is that people are seldom being true to themselves. They are learning how to show the world what they think it wants to see instead of focusing on becoming the person they are pretending to be. Popularity comes with likes, and the number of followers one has. Hitting the lottery for fame can now mean doing something on social media that goes viral.

Overall, social media is create a false form of self-expression, taking the focus away from developing who a person is in real life. It feels impermanent and is so easily changed or manipulated that a person can completely alter the way the world sees them by simply making a few clicks. People, and especially those of Generation Z, need to learn to put more thought into their choices, actions, who they are, how people really perceive them, and they need to plan to explore all of this and figure it out in a healthy manner.

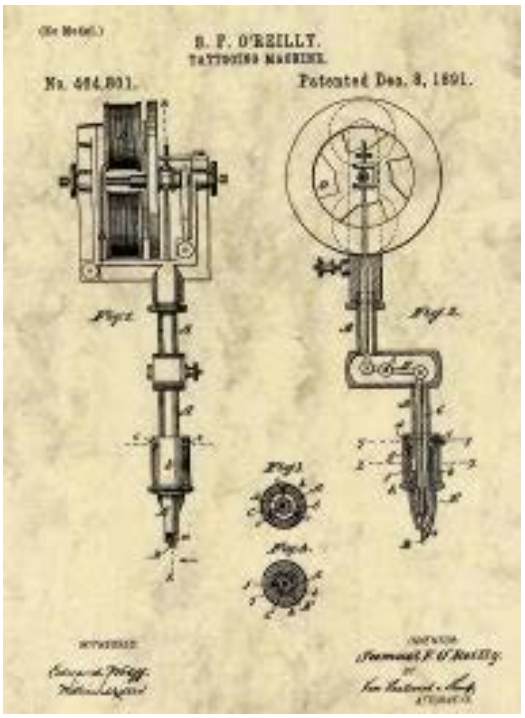


*Figure 10: Samuel O'Reilly's electric tattoo machine (Photo: http://www.jinxiboo.com/blog/2010/1/22/history-of-the-tattoo-machine-how-thomas-edison-samuel-oreil.html)*

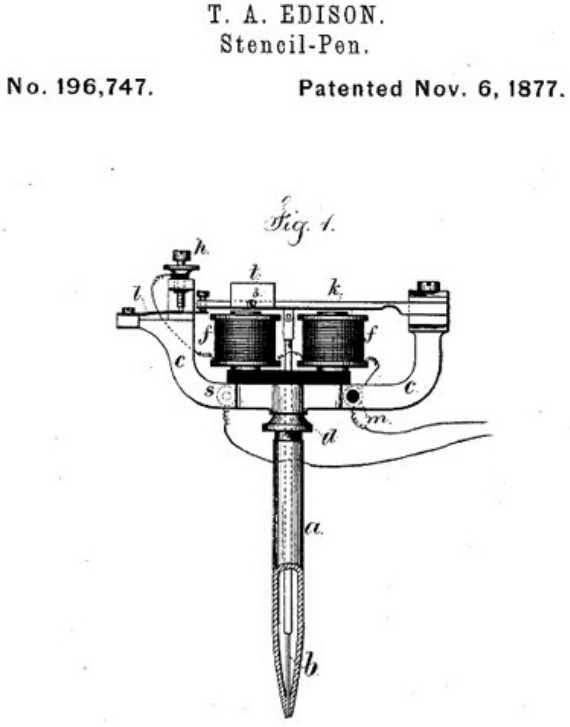


*Figure 11: Thomas Edison's Stencil-Pen Machine (Photo: http://www.rockandroad.de/tattoo/motive/taetowiermaschinen_1112.html)*

*Figure 12: Edison and O'Reilly's machines (Photo: http://www.britishinkdc.com/tattoo-machine-history/)*

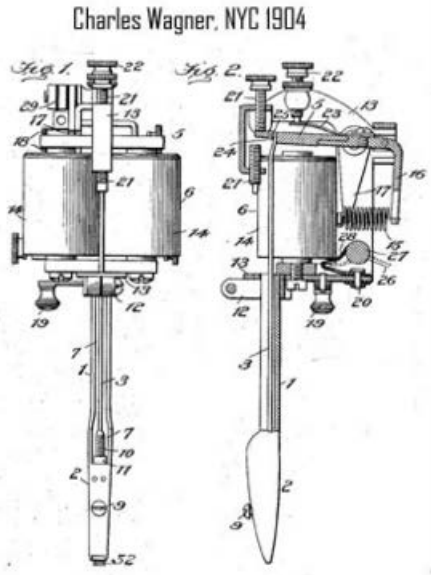


*Figure 13: Charles Wagner Tattoo Machine (Photo: http://www.britishinkdc.com/tattoo-machine-history/)*

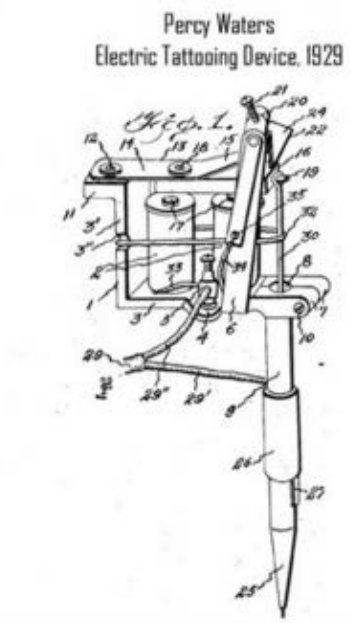


*Figure 14: Electric Tattooing Device by Percy Waters (Photo: http://www.britishinkdc.com/tattoo-machine-history/)*

*Figure 15: MakerBot 3D Printer using 3D and computerized technology to tattoo (Photo: http://3dprint.com/104488/3d-printer-tattooing-machine/)*

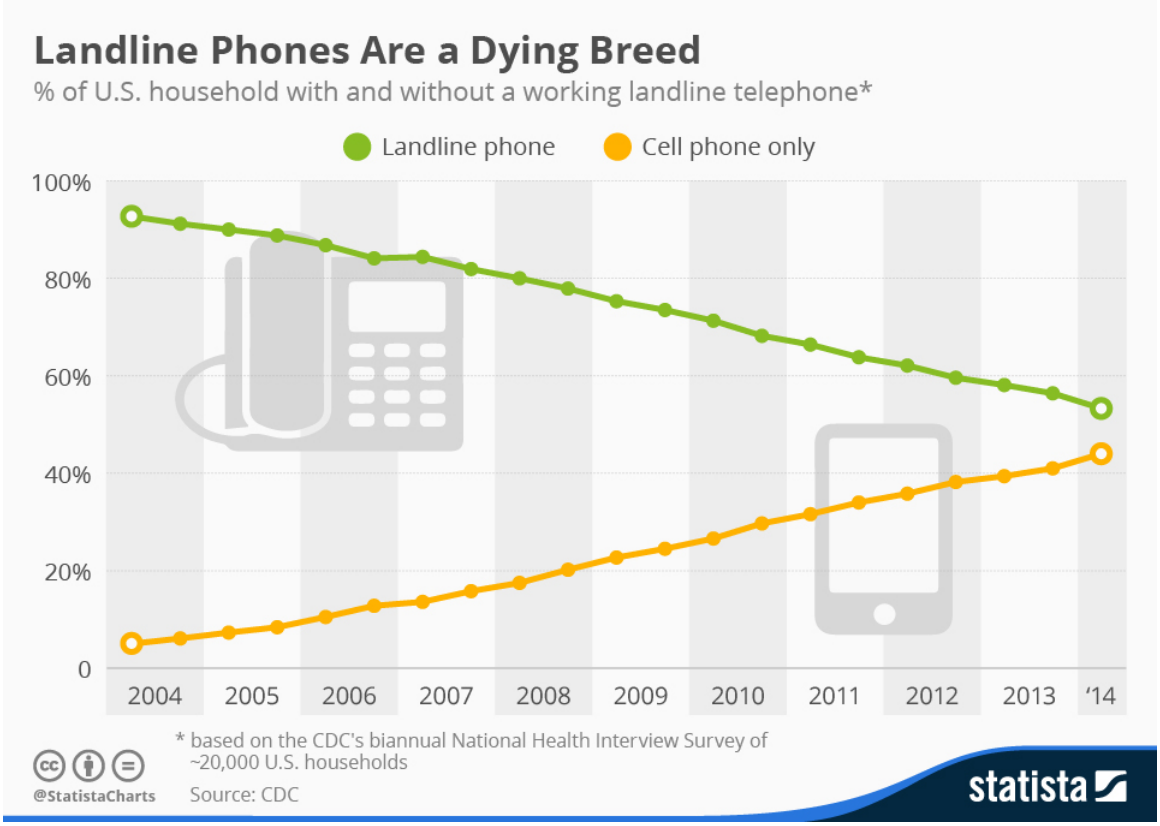


*Figure 16: Chart depicting Landline and Cellphone use in the U.S. (Photo: http://www.statista.com/chart/2072/landline-phones-in-the-united-states/)*

*Figure 17: The phone icon from an iPhone showing a landline (Photo: http://www.iphonehacks.com/2014/12/how-to-record-iphone-calls-mac.html)*

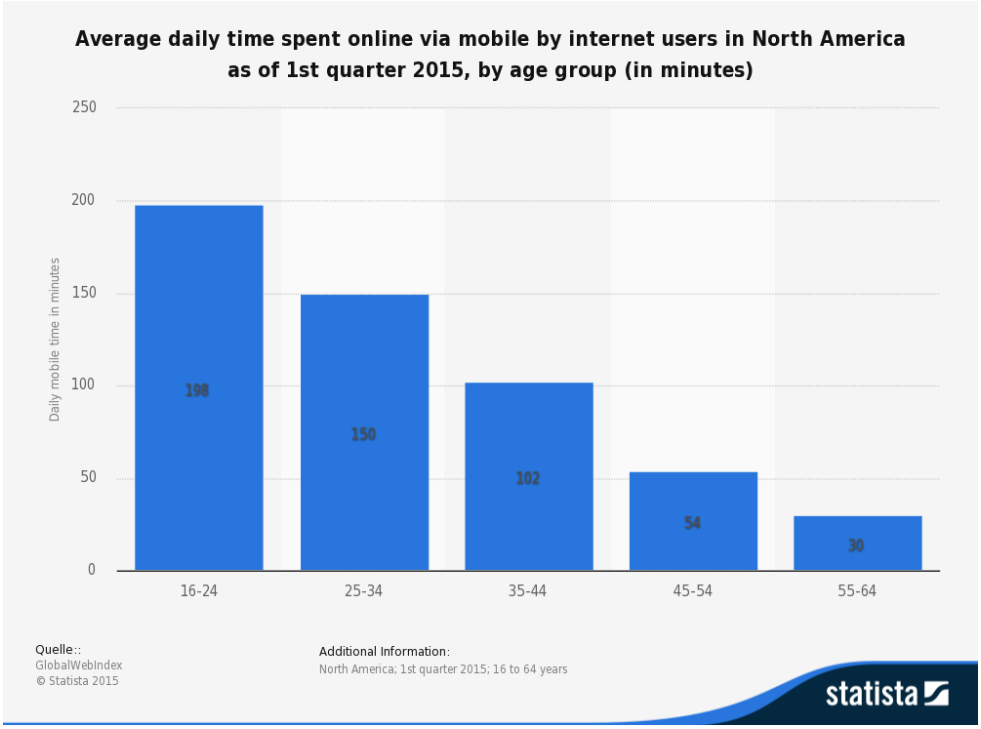


*Figure 18: Time spent online via mobile (Photo: [http://www.statista.com](http://www.statista.com))*

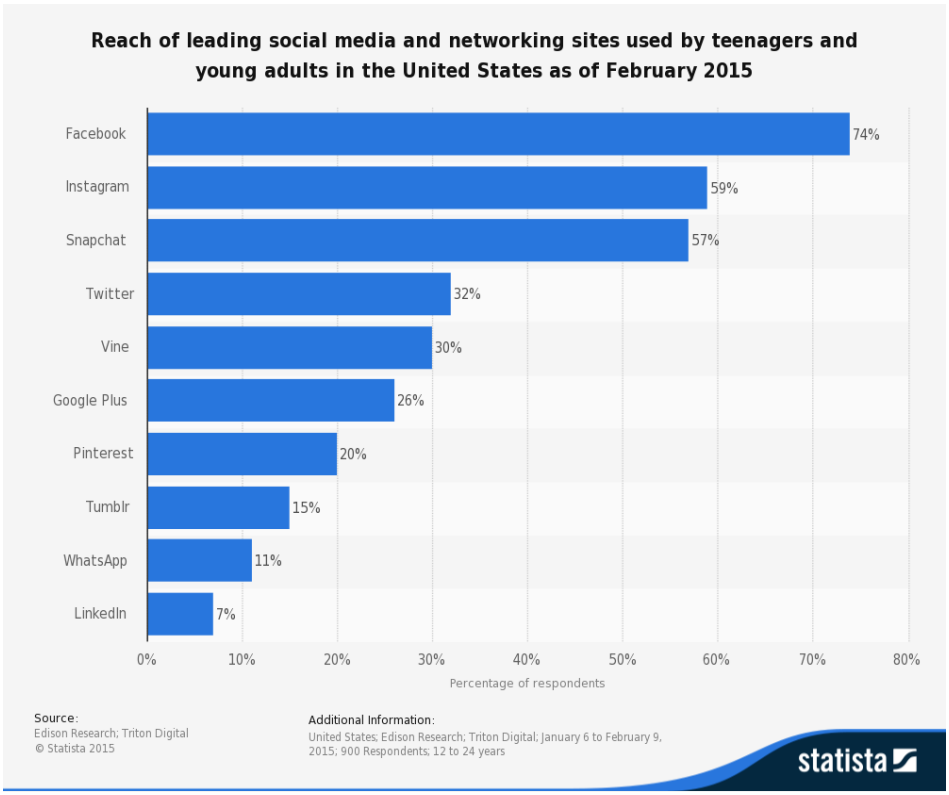


*Figure 19: Social Media usage by teens and young adults (Photo: http://www.statista.com)*

# Chapter 4: Off the Grid

*Concept*

Off the Grid is project that represents a changing the way people connect with one another. It's about integrating positive aspects of technology with physical realness of being with others. It's about contradiction and changing the way the digital native communicate and express themselves. The idea behind *Off the Grid* is to use modern technology in a healthy manner by incorporating balance and embracing interpersonal engagement. To do this it is also important to implement a physical aspect into the project by creating a place where youth are engaging with one another, and learning how to communicate with others. The way this will be done is by separating the facility in terms of physical, social, and mental components. These three elements will work in a connected way to encourage expression and learning, and doing so by utilizing technology, but in a non-traditional way.

The objective behind creating the youth engagement center, *The Broken Network* is to integrate the digital world with the non-digital world in harmony. This facility is targeted towards the digital native generation in order for them to learn how to communicate with others and be able to express themselves without the *need* for technology. It will incorporate technology as a positive educational tool to communicate and learn but it will have a strong component in physical activities that will implement communication and team-building skills.

# Chapter 5: Site and Area Analysis

*Site Analysis*

The site chosen for this project is the Divine Lorraine Hotel (Figure 20), located on 699 North Broad Street, Philadelphia, PA. The building is a 10 story high building that totals to 108,740 $sq^2$.[72] The Divine Lorraine Hotel stands among modestly scaled adjacent blocks with "a front-facing areaway that extends about halfway back into the edifice mass and divides the western oriented façade into two parts linked by two stacked monumental archways (Figure 21). The split façade is underscored by a pair of unique temple-like parapet walls facing Broad Street. The exterior walls are predominantly of buff-colored roman brick embellished with generous quantities of decorative brick and stone detailing. Along with stacked arches, triple stone pediments over what were the primary entrances to the building and its original commercial spaces reference the triumphal arch of Roman classicism."[73]

The site was chosen due to its location, specifically its proximity to public transit, as well as nearness to multiple amenities (Figure 22) including higher educational instructions such as Temple University. This location is within an inner city area of Philadelphia, and is housed near commercial and residential properties, which will provide more opportunity for the project to function. It's is located alongside the Orange metro line, specifically the Fairmount Station (BSL). The walkability and accessibility was an important aspect of choosing this site since the

[72] DOMUS. (2015). *Divine Lorraine*. Retrieved December 2015, from DOMUS Builds Confidence: http://www.domusinc.net/under-construction-album.aspx?pgcid=15&pid=119&name=Divine-Lorraine-

[73] National Park Service. (2000). *Historic American Buildings Survey; Divine Lorraine Hotel.* Washington, D.C.: U.S. Department of the Interior.

primary users are teens and young adults, therefore the site needed to be near public transit or within walking distance so that it could be accessed.

*Historical Context*

The Divine Lorraine Hotel was built constructed between 1892 and 1893 by Willis G. Hale, and it is considered to be one of the most luxurious and best preserved late nineteenth century apartment houses in Philadelphia.[74] It was in 1900 the building became the Lorraine Hotel, purchased by the Metropolitan Hotel Company. At the time was used as apartments.[75] In 1948, the Divine Lorraine Hotel was acquired by the Reverend Major J. Divine, who was a 1930s civil rights leader, hear of the Divine Peace Mission Movement, and founder of the Cooperative Economic Plan established to provide the needs of people at minimal prices.[76] Additionally, the Divine Lorraine was on the first integrated hotels of its caliber in the U.S.[77] Father Divine property was the largest owned among African American's in Philadelphia, and the Peace Mission employed many black Philadelphians in restaurants, hotels and small businesses, and also provided meals, clothing, barber services, transportation, and lodging at lower prices.[78] Father Divine passed away in 1965, however the Peace Mission continued to operate until it was sold in 1999.[79]

*Current Site*

[74] The Divine Lorraine Hotel. (2003). *Building History*. Retrieved October 2015, from Divine Lorraine Hotel: http://thedivinelorrainehotel.com/history
[75] Ibid.
[76] Ibid.
[77] Ibid.
[78] Ibid.
[79] Ibid.

As North Broad Street looks into a rejuvenation process, the Divine Lorraine Hotel with create life between the City Center and Temple University. Furthermore, it is planned on being redeveloped into a unique residential community that will be situated above a consortium of restaurants and retail spaces.[80] The project currently has a completion date of March 2015, and is being funded by the Philadelphia Redevelopment Authority.[81] Currently, the structure is under the ownership of EB Realty Management Corporation, and the project architect is Bill Alesker with Alesker & Dundon Architects.[82]

*Neighborhood History*

Broad Street in Philadelphia holds a record of being the longest straight city street in the world with a distance of over 12 miles and a width of 113 feet the entire length through.[83] Railroad tracks were removed from Broad Street in the 1860's and development began. A number of churches, synagogues, hotels, schools and private clubs were built, making it a major boulevard in the nineteenth century.[84] The neighborhood holds a rich history of being the center of social life for the upper class.

*Area Analysis*

To name some of the major points near the Divine Lorraine Hotel, Spring Garden is a nearby neighborhood that is economically and ethnically diverse. Originally, the area of Spring Garden was the City's original Victorian neighborhood,

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[80] The Divine Lorraine Hotel. (2003). *Building History*. Retrieved October 2015, from Divine Lorraine Hotel: http://thedivinelorrainehotel.com/history

[81] DOMUS. (2015). *Divine Lorraine*. Retrieved December 2015, from DOMUS Builds Confidence: http://www.domusinc.net/under-construction-

[82] Ibid.

[83] DOMUS. (2015). *Divine Lorraine*. Retrieved December 2015, from DOMUS Builds Confidence: http://www.domusinc.net/under-construction-

[84] Ibid.

and was initially developed for residences for the newly emerging class of "well-to-do" industrialists in the mid to late nineteenth century.[85] Currently, the neighborhood has been designated as part of both City and national historical districts.[86] Today, the neighborhood is mainly comprised of low-rise single-family homes, condos and rental units. It is bordered by major cultural institutions such as Eastern State Penitentiary Historic Site, and the Philadelphian Museum of Modern Art.[87]

Temple University is another impactful institution in the area. The university is a comprehensive public research university in Philadelphia, and was founded in 1884.[88] Presently, the university hosts approximately 37,000 students, and over 400 academic degree programs are offered.[89]

The neighborhood in which the Divine Lorraine Hotel is located is called West Poplar, and it is bordered inside North Broad Street, Wet Girard Avenue, North 6th Street, and Spring Garden Street. Figure 23 shows an area map with key components marked. A study of the neighborhood demographics can be seen on Figure 24.

*Plans, Elevations, and Sections*

The plans, elevations and sections (Figure 25) allow the project to work with the existing architecture, and keeping the majority of the current shell. What will change however is the interior look and aesthetic. What is currently a Victorian style

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[85] The Divine Lorraine Hotel. (2003). *Building History*. Retrieved October 2015, from Divine Lorraine Hotel: http://thedivinelorrainehotel.com/history

[86] The Divine Lorraine Hotel. (2003). *Building History*. Retrieved October 2015, from Divine Lorraine Hotel: http://thedivinelorrainehotel.com/history.

[87] Ibid.

[88] Ibid.

[89] Ibid.

will shift to more modern. Furthermore, the materiality and colors will be changed in regards to the program. The existing facility, a permanent structure, similar to a tattoo, will see a unique rejuvenation that will give the building new life.

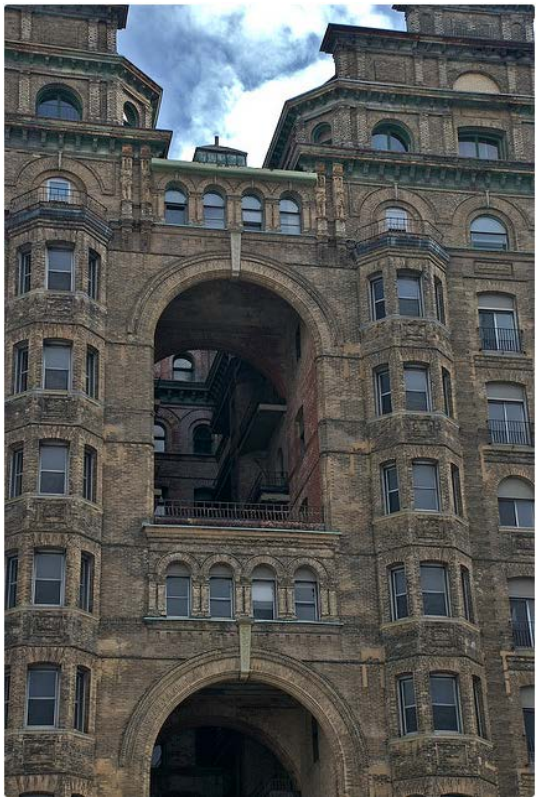

*Figure 21: Divine Lorraine Hotel (Photo: http://www.loc.gov/pictures/item/pa3878.photos.362691p/)*

*Figure 20: Archway close up of the Divine Lorraine (Photo: http://thedivinelorrainehotel.com/)*

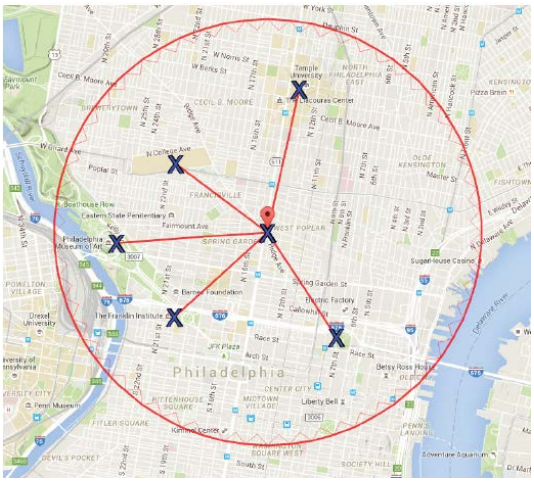


*Figure 22: Nearby attraction points (Photo: Google Maps)*

*Figure 23: Neighborhood Map (Graphic: Ramzah Khan)*

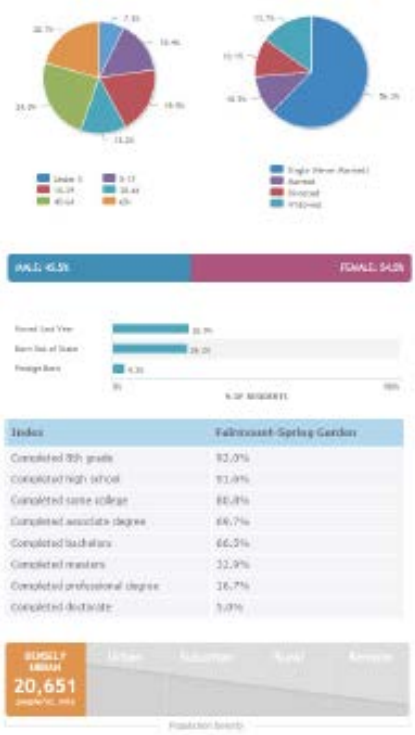


*Figure 24: Neighborhood Demographics (Info: http://www.neighborhoodscout.com/)*

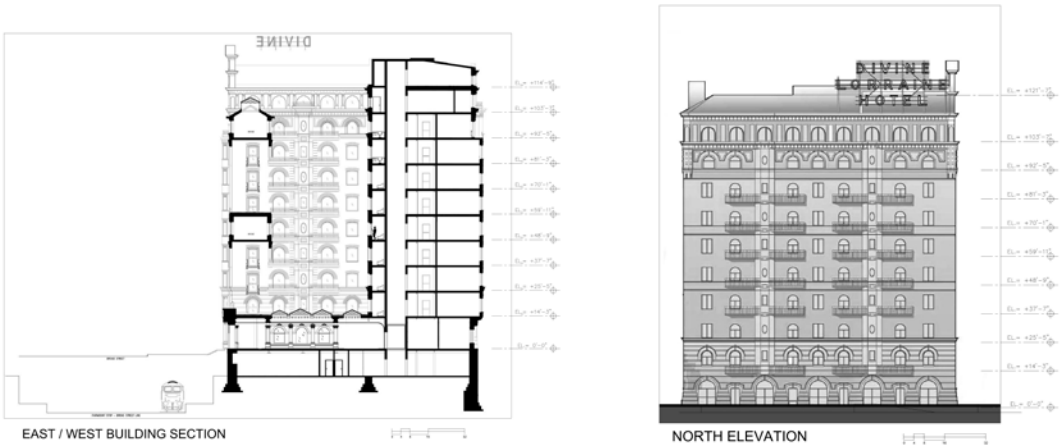


*Figure 25: Plans, Elevations and Sections of Current Divine Lorraine Hotel (Source: DOMUS)*

# Chapter 6: Case Studies and Campaigns

*Case Studies*

Three individual case studies were looked at for this project. The first one is the Taylor Family Digital Library (Figure 26) at the University of Calgary, located in Alberta, Canada. The building is a total of 258,333 $sq^2$, and has become a hub within the University of Calgary for students and general public to come for a variety of needs.[90] From work rooms, to computers, game rooms, social areas, and quiet study areas, the Taylor Family Digital Library uses flexible architecture to create a highly functional space. With 24/7 wireless access, natural day light, acoustic control, and ergonomic furniture (Figure 37), the space is able to accommodate all types of needs. Furthermore, the interior of the building includes 60% of movable walls that accommodate multi-use spaces.[91] This project will take into consideration the flexibility of the library as well as use of technology and improve it even further by taking a better consideration for future users.

One of the negative aspects of the Taylor Family Digital Library is that at peak times, it becomes difficult to find a place to study simply due to the high volume of users. If there was a way to accommodate more usable space while still maintaining an open floor plan it would be beneficial to the students, faculty, and public that use it. This project will be looking at the Taylor Family Digital Library for the technological aspect of the Youth Engagement Center at the Divine Lorraine Hotel. It

[90] University of Calgary. (2011). *Taylor Family Digital Library*. Retrieved October 2015, from University of Calgary: http://tfdl.ucalgary.ca/tech

[91] ibid

will also take a consideration to the use of flexible architecture and ergonomic furniture.

The second place that was looked at as a case study for this project is the City Museum (Figure 28) in St. Louis, Missouri. The 600,000 $sq^2$ space is essentially, an indoor urban playground.[92] Everything about this place screams imagination. The 10 floor structure includes a five-story jungle gym with two real life airplane the people can climb on. There is a "Monster Slide" that goes down three floors (Figure 29), and a rooftop Ferris wheel. The founder of the City Museum, Bob Cassilly had stated that, "the museum is about first-hand experience, a "computer-free zone" where rules are kept to a minimum."[93] Although there are often injuries here, where an average of 700,000 people attend yearly, it is a form of wilderness in the urban area. Where rules don't dictate everything you do, and in today's society, that can be a nice break. While the City Museum offers a variety of adventurous aspects, this project will maintain a component for safety and security. The project will however, be looking at the City Museum as a source of inspiration in the zones with minimal to no technology.

The final case study that will be looked at for this project is the outdoor park called Go Ape Zip-line & Treetop Adventure (Figure 30). Although Go Ape is a chain that has various locations across the United States, the one this project has chosen to focus on is located in Rockville, Maryland. Go Ape as an experience that provides the

[92] Dougherty, C. (2010, May 1). This Museum Exposes Kids to Thrills, Chills and Trial Lawyers. *The Wall Street Journal*. Retrieved from http://www.wsj.com/news/articles/SB10001424052702304159304575183463721620890

[93] Ibid.

users with fun an exercise through obstacle courses and challenges. The users navigate through the park without the use of technology and engage in activities that take them away from the digital world that American society has become so accustomed to. By creating a place where the activities revolve around problem-solving, communication, and physical activities, people are immersed in an environment where they are not reliant on communicating with each other through technology or social media, but through real human interactions. That is something that this project aspires to do in all of its zones, the ones that use technology and the ones that do not.

In 2013, the French National Railway Company (SNCF) teamed up with TBWA Paris (an advertisement company) and launched a campaign called "Europe. It's Just Next Door".[94] The campaign was a genius interactive marketing strategy that promoted travel to neighboring European countries of France via the railway system. Essentially, the way it worked was that there were doors placed in public areas (Figure 31) within Paris. Curious participants would open the door to reveal an interactive screen inside that basically guided them through a different city, in real time. It was done in a way that made people feel like they were really in this other part of Europe by having people interact with them on the other end (Figure 36). The doors placed throughout Paris were painted brightly and had the name of its respective city on it. When opened, the participants could see what was happening in

[94] Yong, J. (2013, November 04). *In Paris, Interactive Doors 'Transport' Pedestrians To Other European Cities*. Retrieved November 2015, from Design Taxi: http://designtaxi.com/news/361896/In-Paris-Interactive-Doors-Transport-Pedestrians-To-Other-European-Cities/

that city at the same time. These virtual portals gave the participants an opportunity to explore a different city in Europe and also participate in local event. For example, people were able to interact with street performers, tourists or locals, have their picture drawn, etc. It was almost as if they really had visited the place.

The campaign, *Europe. It's Just Next Door,* is a very positive way of using technology to explore new places and interact with other people. It is an element that will be included in this project in its interactive library. By using real-time technologies, humans have the ability to communicate and interact with other people throughout the world. This is an opportunity for teens to develop communication and engaging skills. A similar idea was done throughout the United States in the last year. Shared Studios is a multi-disciplinary arts, design, and technology collective that is focused on carving wormholes throughout the world.[95] Basically they have taken shipping containers, (Figure 36) and painted them gold. Every single one of them looks the same. These shipping containers become *portals*.[96] When you step inside, you come face-to-face with someone in another container. The portals use immersive audio and video technology inside, make the two people feel as though they are inside the same container. The portals have connected people from the United States to other individuals located in Afghanistan, Iran, Herat, Havana, Cuba, and even Syrian's in a Syrian refugee camp in Jordan.[97] (Translators are available upon request.) Not only do initiatives like this help people embrace different cultures

[95] Shared Studios. (2015). *About Us*. Retrieved September 2015, from Shared Studios: http://sharedstudios.com/about/

[96] Murphy, T. (2014, December 3). *A New Exhibition Offers a Virtual Link to Tehran*. Retrieved November 2015, from The New York Times: http://tmagazine.blogs.nytimes.com/2014/12/03/amar-bakshi-portals-tehran-art-project/

[97] Ibid.

and backgrounds, but they also give people an opportunity to express themselves. This is how technology can be beneficial to society. By getting rid of the void that separates people from one another, technology can help humans focus on their similarities instead of their differences. Furthermore, initiatives like the ones discussed educate people in a way that social media fails. It is important to see how technology helps break down barriers that often separate humans from one another. By creating *portals* throughout this project, the youth engagement center will hope to build incentive for the users to get to know one another and achieve stronger communication skills among the youth.

*Figure 27: Taylor Family Digital Library (Photo: www.ucalgary.ca)*

*Figure26: Interior of Taylor Family Digital Library and ergonomic furniture (Photo: www.ucalgary.ca)*

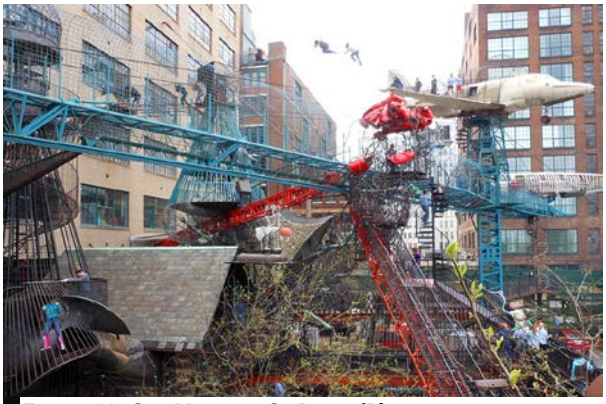

*Figure 28: City Museum, St. Louis (Photo: http://www.thisiscolossal.com/2015/06/city-museum/)*

*Figure 29: City Museum Slide (Photo: https://www.flickr.com/photos/zokuga/6934028161)*

*Figure 29: Europe, It's Just Next Door Campaign (Photo: http://travelbetweenthepages.com/2013/11/07/europe-its-just-nextdoor/)*

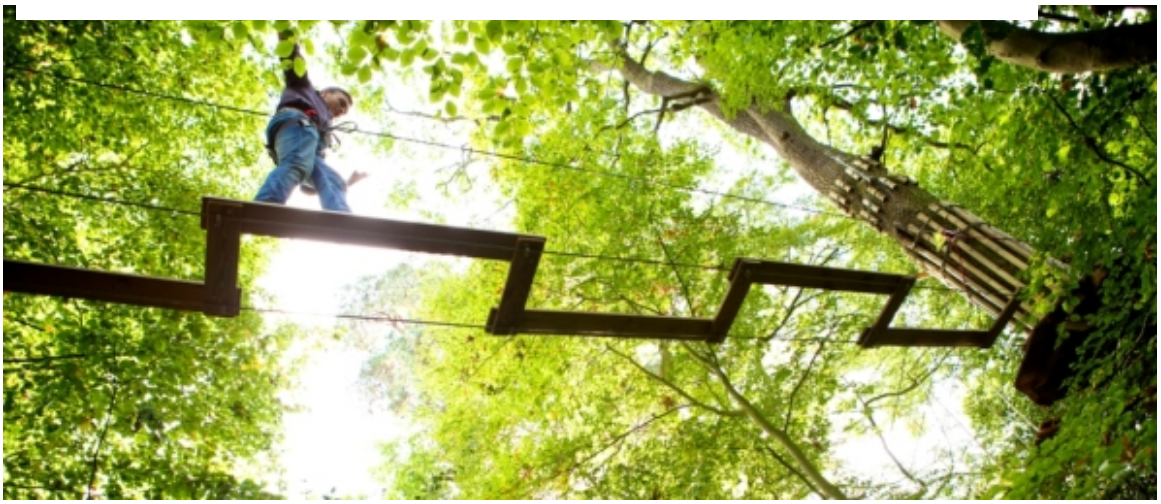

*Figure 28: Go Ape Treetop Adventure (Photo: http://goape.com/zip-line/maryland-rock-creek-regional-park)*

*Figure 31: Europe, It's Just Next Door interactions (Photo: http://travelbetweenthepages.com)*

*Figure 30: Shared Studio shipping container/portal (Photo: http://tmagazine.blogs.nytimes.com/2014/12/03/amar-bakshi-portals-tehran-art-project/?_r=0)*

# Chapter 8: Expression

*Imagine A Place*

Pretend technology didn't exist tomorrow. How would people react? Most likely there would be a different effect around the globe, but focusing on America, people probably wouldn't know what to do. Think about a person's day, start to finish. Waking up to an alarm, usually on one's phone, checking their phone for calls, texts, and emails. Using social media apps as they begin their day, occasionally checking the day's weather to decide whether or not a jacket is needed. Then proceeding to the car or bus, where people often use apps like Spotify or Pandora to listen to music, (adding that people with cars are most likely connected via Bluetooth). Using your phone to check the fastest route to work on the GPS, or the transit mobile app to check if the bus is on time. Our work days revolve around emails and computers (depending on what occupation one has, but nevertheless). People then proceed with a similar routine home at which we often relax, eat, watch TV, or use the computer, possibly do some chores, and then end our day, making sure our phone is on charge and alarm is set for the next morning, where a similar routine will occur. Now, take technology out of the mix. Imagine, not knowing what the weather will be like, unless you get a newspaper, or what the traffic will be life, unless you have a radio. Imagine not having a smart phone at all to check emails. From 1989 to 2015 society has seen a change from dial-up internet, (where someone would often get screamed at for accidently picking up the landline phone and breaking the internet

connection), to broadband wireless internet 24 hours a day, 7 days a week.[98] Although there is no question about technology giving people a better quality of life, it can be asked if it's necessarily a better *kind* of life.

It isn't to say that technology is all bad. In fact technology has allowed society to connect and make breakthroughs that were once a mere imagination. That being said, there are positive ways of using technology, and the balance comes from using it but not requiring it for everything. For example, just because most homes have dishwashers, it does not mean that you shouldn't learn how to wash the dishes by hand. Everything comes with a price, and technology is no different. If the price one is paying becomes addiction to social media and technology, or poor interpersonal skills, or low self-confidence, then the value in technology is lost. This project aims to demonstrate how there is a time and a place for the digital world, and how we need not rely on it. This project will show how technology can be used in a positive way, in fact in a way that encourages expression and confidence, a way that instills communication with other people.

*Freedom of Speech*

People often justify the need for freedom of speech, and social media has been a strong platform for it. It has become a form of expression for many people. Some expression is healthy, and some may not me. Expression of speech on social media platforms has become a very controversial topic lately, as things that can be posted

[98] International Data Corporation; W3C Consortium; Nielsen/NetRatings; Internet Society. (2015). *Internet Timeline*. Retrieved November 2015, from Infoplease: http://www.infoplease.com/ipa/A0193167.html

as "freedom of speech" can turn into offensive comments. Cyber bullying for example, has become a forefront for younger individuals to harass or threaten others.[99] This is becoming a huge problem (Figure 37) in American youth, and it is important to understand the root of it in order to solve it. Cyberbullying, simply, has become easy to do and difficult to control. Caretakers cannot always look after every text that is sent or view a tweet or photo that was posted. Freedom of speech cannot be understood in a way that justifies hurting other people emotionally.

This project aims to protect children from emotional abuse by giving them an opportunity to be heard. Not in a traditional sense of one-on-one therapy per se, but in a way that the youth that come to this place feel safe. They feel like they have a voice, and they can make a mark here. That they can learn something, strive towards their potential. This youth engagement center is a place that can be looked at as a vision of hope for the youth that want to show their individuality and uniqueness. The youth that want an opportunity to learn, be heard, and instill a feeling of being present, and of being important. The physical nodes of this project will implement problem solving and team building skills by creating zones where a person needs to collaborate with another person in order to get through it. An obstacle course that encompasses the need for teamwork and communication among the users; where a person will feel a sense of accomplishment and presence. Society may see the tattoo as a negative form of expression, but the physical manifestation of the tattoo's permanence is the reason why many choose to put it on their bodies. A reminder, a

[99] NoBullying. (2014, March). *Cyber Bullying*. Retrieved November 2015, from NoBullying.Com; The Movement Against Bullying: http://nobullying.com/cyber-bullying-facts/

sense of expression, which will always be with them. This project will enable this same idea of permanence, where they feel they can leave a permanent mark, a reminder, and an expression of their presence. They will feel acknowledged, understood, and permanent.

*Digital Spaces*

One of the important things about Generation Z is how they are growing up in a world where technology has manifested around them, and it is something they relate to easily.[100] There is a key aspect in this project about how technology can really enhance an experience that can change the way people think and act. This project aims to do that in a positive and integrated way. Technology has allowed humans to sense their feelings in a very unique way, and an example of this is the Museum of Feelings exhibit.

A pop up exhibit opened on November 24th, 2015 in New York City. As this project revolves around expression, this is a highly unique exhibit, and one that uses technology to express feelings. The Museum of Feelings Exhibit (Figure 38) is the first museum that reacts to emotions, and turns them into art. The exterior of the exhibit reacts to social media, and real-time data to reflect New York and its constantly changing moods.[101] Although not everyone feels optimistic about this exhibit presented by Glade, it is interesting to see how Glade has marketed fragrance with emotions. There are five rooms that use five different senses to represent specific

[100] Adler, Iris. 2013. *The Effect of Technology on Face-to-Face Communication.* 01 17. Accessed 12 05, 2015. http://www.wbur.org/2013/01/17/digital-lives-i.

[101] SC Johnson. (2015). *The Museum of Feelings Exhibit*. Retrieved November 2015, from Museum of Feelings: https://www.themuseumoffeelings.com/visit

emotions (Figure 39). Although the mood of the city as an overall is determined by Twitter conversations, weather, local news reports, stock exchange, flight delays, etc. it is interesting how technology can determine an emotion of such high volumes of people.[102] Whether or not this museum captures the true essence of human emotion, one of the things it has been successful at is getting people to interact with their bodies and use their senses. The youth engagement center will implement the use of people senses throughout different zones within in the space.

*Exploring Emotions*

This project will devise a method to create different zones throughout the building in order to separate the use of technology. It will act as a way of using technology in a positive way instead of relying on it all the time. By creating certain voids where the users will need to communicate with one another, it will implement self-confidence. Another important element in the space is how the users can express themselves in a positive way. Thinking about the tattoo as a concept of expression and how that is looked at with negative connotations, this project aims to use that permanence in a positive way; by giving individuals a feeling of presence. By making the user feel visible, it provides them with the opportunity to leave their mark and be able to express themselves in a healthy manner. This will be accomplished by creating pockets within the space where the user is free to explore different forms of permanent expression, whether that be through physical activity, art, communication, or learning.

[102] Butler, A. (2015, November 26). *Measuring the mood of NYC at the Museum of Feelings*. Retrieved from Lonely Planet: http://www.lonelyplanet.com/news/2015/11/26/measuring-the-mood-of-nyc-at-the-museum-of-feelings/

*Figure 32: The Museum of Feelings (Photo: https://www.themuseumoffeelings.com/)*

*Figure 36: One of the rooms inside the Museum of Feelings (Photo: https://www.themuseumoffeelings.com/)*

# Chapter 9: Design & Program

*Design Research*

*Program*

This project will incorporate a traditional program as well as a broad one that uses zones to describe the overall layout. The program will take into consideration the overall size of the building and proportionally distribute the allocated square footage respectively. The main breakdown of the building is done in three parts: physical, social, and mental (Figure 37). Additionally, this project will use some of the current architectural features, such as the courtyard, and integrate it into the program. Table 3 shows a detailed list of how the program will be allocated.

*Table 3: Preliminary Program*

| **Space** | **Sq. Footage Allocated** | **Zone** | **Proportion (%)** |
|---|---|---|---|
| Library | 7593 | Public | 7 |
| Lecture Theatre | 7593 | Public | 7 |
| Work Rooms | 8700 | Public | 8 |
| Computer Area | 10 874 | Public | 10 |
| Washrooms | 5437 | Public | 5 |
| Offices | 8700 | Private | 8 |
| Staff Room | 2175 | Private | 2 |
| Courtyard | 10 874 | Public | 10 |
| Obstacle Center | 18 485 | Public | 17 |
| Ball Pit | 5437 | Public | 5 |
| Media Center | 8700 | Public | 8 |
| Locker Room | 3263 | Public | 3 |
| Café | 6525 | Public | 6 |
| Storage/Misc. | 4350 | Semi Public/Private | 4 |
| **Total** | **108,740 sq. feet** | | **100** |

*Physical, Social, Mental*

The purpose of the three sections of this program is to provide an area of focus for the users, as well as create a form of wayfinding throughout the building. The first two floors have a combined elevation of 50'. This will be where the majority physical aspect of the project will be incorporated. Obstacles, climbing walls, etc. The purpose of this is to engage an activity area where teens can learn to work with others by using the built structures and solving puzzles, and being active. The following two floors will for from 50' in elevation to 86', and this will house the social area of the building. This is where kids will have the opportunity to really have the ability to socialize, eat, relax, and so forth. The last area of the building will have three floors going from elevation 86' to 122'. This is where much of the learning will take place. There will be presentation rooms, where they can record and replay themselves live, which will help them gain confidence in public speaking. There will be rooms with live digital screens that show different parts of the world in real-time where they can interact with people in a different part of the world, (similar to the Europe, It's Next Door campaign). There will be places where they can just read, or feel like they have a space to be by themselves, which is an important aspect of self-reflection.

*Program Objectives*

The goal of this program is to create an open floor plan with flexible spaces that can be used in a variety of ways. Although some areas will be stationary, such as the computer area, locker rooms, washrooms, café, offices, lecture theatre, etc. the obstacle course and interactive library will be changing. The obstacle areas will change within its zones throughout the year, and the interactive library will be made

as a multi-use, flexible space. This program is subject to change throughout the design process.

*Connections*

With the size of this building being larger in scale, it was important to take a look at the connections throughout it. Using the stairs as a ribbon throughout the project, it will serve as a way to develop personal growth and transformation. The way this will take place is by creating each connection from one floor to another in a way that starts off simple, and slowly develops into a story of sorts. In doing this, it will not only engage the teens, but it will also show them to look at things from a different perspective. It is important for them to have a chance at understanding who they are, and why it's important to be able to express themselves in a healthy way. The first set of stairs aim to represent comfort. With two sets of typical 3' wide stairs (Figure 38), it allows the user to not give them much thought. A typical stair, comfortable, and far from unique. The second connection is a typical u-shape stair (Figure 39). So just a little different, but not different enough to stand out, much like an average teenager that might be feeling that way in life. The third connection (Figure 40) begins to take a little more risk in terms of placement. Rather than being enclosed in a stairwell, the stairs go across the courtyard. This is where the users in the building will begin to take a little more risk, while still being safe for use. The fourth connection (Figure 41) begins to mix the typical stair with one that allows for creativity. It allows the user to know that there is a regular stair attached which maintains an aspect of staying within ones comfort zone, but the stadium seating attached gives a feeling of hanging out and socialization. Each riser

is 4' in height which enables the user to climb on it. The material will have an under pad of foam to prevent injuries. The fifth connection (Figure 42) really begins to engage the users with each other, and is located within the courtyard. The width of the stair is 6' wide, which enables more people to use it at one time, something the first connection didn't allow as much. This was purposely done as the connection following the beginning of the social zone. The fifth connection also wraps itself around the elevator, which enables them to begin to see others, as well as the previous courtyard connection below them. The sixth connection (Figure 43) is not a stair but a ramp that circles around the center courtyard. This changes the way the users think about the connections, and how it isn't necessary to use a stair itself to climb up, but a slight slope can achieve the same goal. This is done in order to allow the users to see different ways of completing a task ahead. The seventh connection (Figure 44) is the real highlight of the connections. Being 8' in width, it really enables interaction among the users. Furthermore, its elevation makes it something that the users may have to overcome nervousness or fear to use. It spans across the courtyard as a bridge with a landing in the center. One the interesting elements about this connection is that it doesn't actually take you to the next floor, instead it only takes you to the opposite side of the building. This was done on purpose to create a bridging connection that allows the user to have no real need to use it, but to want to do it for themselves. The final, and eight connection (Figure 45), is the last set of stair, which is a wide spiral stair that takes you to the most relaxing place of the building. The highest floor is a place of tranquility that creates an environment for the user to reflect. The reason a spiral stair was chosen for this

was that it's different enough from the very first stair, but at the same time it's not unusual. The purpose of the variety of connections throughout the building is to lead the users through it with different emotions being achieved at each connection, but allowing the final connection to be peaceful in order for them to have a mental break and just be able to think about their own feelings.

*Conclusion*

Overall, the building connections, programs, and functions will allow the users to fulfill a variety of needs. From relaxation, to exhilaration it will create a place for teens to work together, find friends, and learn different methods of self-exploration and expression. The connections transform from one area to another, and this youth engagement center is centered on the theme of self-empowerment and growth. In an age where social media is a huge component of these teens' lives, there is a need for a place where they can get off their smartphones and social media accounts, and they can interact with real people. Whether it be that those people are in the same building, or halfway around the world, this project aims to open the door to the potential that technological advancement and innovations have made. It proposes to limit the negative aspects of technology and encourage the positive ones instead.

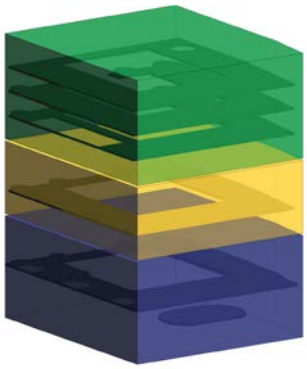

*Figure 37: Separation of Physical (blue), Social (yellow), and Mental (green); Ramzah Khan*

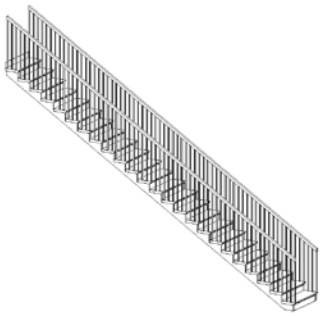

*Figure 38: Connection 1*

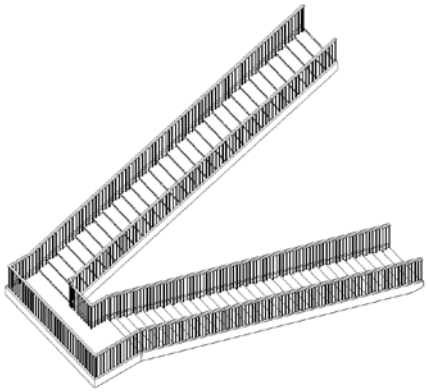

*Figure 39: Connection 2*

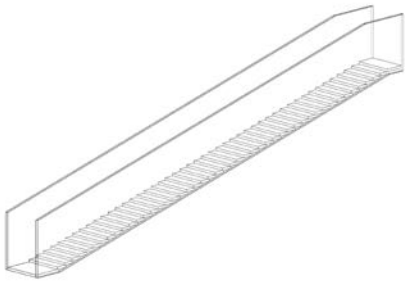

*Figure 40: Connection 3*

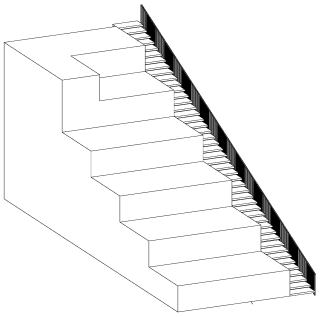

*Figure 41: Connection 4*

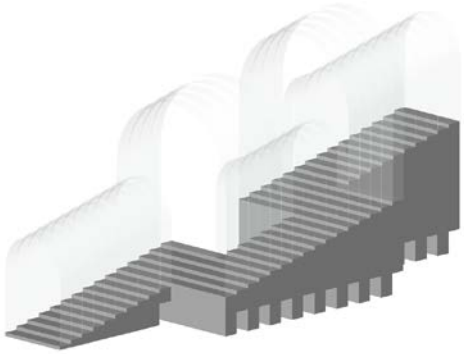

*Figure 42: Connection 5*

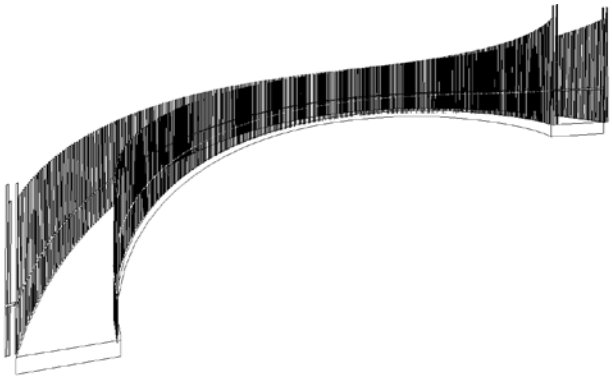

*Figure 43: Connection 6*

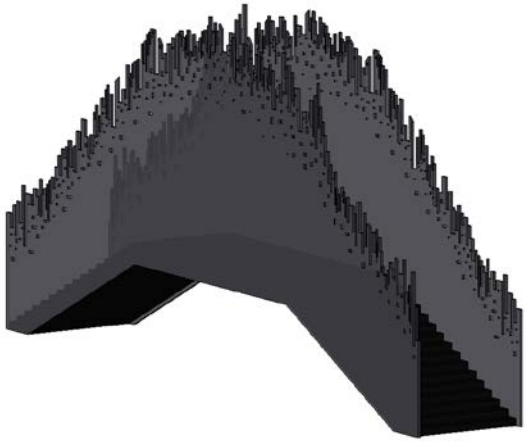

*Figure 44: Connection 7*

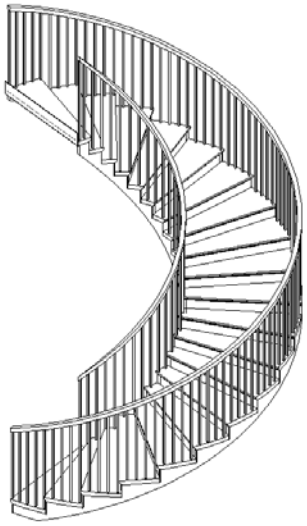

*Figure 45: Connection 8*

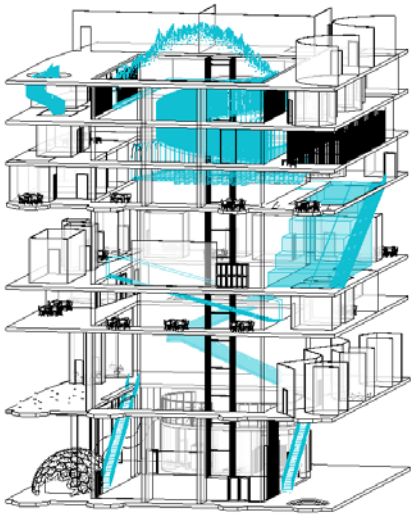

*Figure 46: Axon of building, highlighting all connections*

# Bibliography


Adler, Iris. 2013. *The Effect of Technology on Face-to-Face Communication.* 01 17. Accessed 12 05, 2015. http://www.wbur.org/2013/01/17/digital-lives-i.

Bianchi, Robert. 1988. "Tattoo in Ancient Egypt." In *Marks of Civilizations; Artistic Transformations of the Human Body*, by Arnold Rubin, 21-28. Los Angeles.

Brain, Robert. 1979. *The Decorated Body.* New York: Harper and Row Publishers, Inc.

Bruhn, Judith. 2014. *A short history of disappearing privacy on Facebook.* 08 29. Accessed 02 24, 2016. http://freespeechdebate.com/en/discuss/a-short-history-of-facebooks-default-privacy-settings/.

Butler, Alex. 2015. *Measuring the mood of NYC at the Museum of Feelings.* November 26. http://www.lonelyplanet.com/news/2015/11/26/measuring-the-mood-of-nyc-at-the-museum-of-feelings/.

Cains, Glenda E., and Roger W. Byard. 2008. *The Forensic and Cultural Implications of Tattooing.* Vol. 5, in *Forensic Pathology Reviews*, 197-220. Totowa, New Jersey: Humana Press.

Catalano, Frank. 2015. *Landline death watch? Wired phones now in only half of U.S. households.* February 24. Accessed October 2015. http://www.geekwire.com/2015/landline-death-watch-wired-phones-now-in-only-half-of-u-s-households/.

DOMUS. 2015. *Divine Lorraine.* Accessed December 2015. http://www.domusinc.net/under-construction-album.aspx?pgcid=15&pid=119&name=Divine-Lorraine-.

Dougherty, Conor. 2010. "This Museum Exposes Kids to Thrills, Chills and Trial Lawyers." *The Wall Street Journal.* http://www.wsj.com/news/articles/SB10001424052702304159304575183463721620890.

Gilbert, Steve. 2000. *Tattoo History.* USA: Juno Books, LLC.

Green, Terisa. 2003. *The Tattoo Encyclopedia: A Guide to Choosing Your Tattoo.* New York: Fireside.

Hill, J. 2010. *Bes.* Accessed Novmber 2015 . http://www.ancientegyptonline.co.uk/bes.html.

Holocost Teacher Resource Ceneter. 2015. *The Swastika: A Sign of Good Luck Becomes a Symbol of Evil.* Accessed 01 22, 2016. http://www.holocaust-trc.org/the-holocaust-education-program-resource-guide/the-swastika/.

International Data Corporation; W3C Consortium; Nielsen/NetRatings; Internet Society. 2015. *Internet Timeline.* Accessed November 2015. http://www.infoplease.com/ipa/A0193167.html.

Joy, Oliver. 2012. *What does it mean to be a digital native?* December 8. Accessed October 2015. http://www.cnn.com/2012/12/04/business/digital-native-prensky/.

Kang, Cecilia. 2011. *Number of cellphones exceeds U.S. population: CTIA trade group.* 10 11. Accessed 02 12, 2016. https://www.washingtonpost.com/blogs/post-tech/post/number-of-cell-phones-exceeds-us-population-ctia-trade-group/2011/10/11/gIQARNcEcL_blog.html.

Keen, A. 2007. *The Cult of the Amateur.* London: Nicholas Brealey.

Lineberry, Cate. 2007. "Tattoos: The Ancient and Mysterious History." *Smithsonian.* January. Accessed November 2015. http://www.smithsonianmag.com/history/tattoos-144038580/?no-ist%2F=&page=4.

Murphy, Tim. 2014. *A New Exhibition Offers a Virtual Link to Tehran.* December 3. Accessed November 2015. http://tmagazine.blogs.nytimes.com/2014/12/03/amar-bakshi-portals-tehran-art-project/.

National Park Service. 2000. *Historic American Buildings Survey; Divine Lorraine Hotel.* Written Historical and Descriptive Data, Washington, D.C.: U.S. Department of the Interior, 1-10.

NoBullying. 2014. *Cyber Bullying.* March. Accessed November 2015. http://nobullying.com/cyber-bullying-facts/.

Pew Research Center, Tattoo Finder, Vanishing Tattoo. 2015. *Tattoo Statistics .* 09 27. Accessed 10 28, 2015. http://www.statisticbrain.com/tattoo-statistics/.

Prensky, Marc. 2001. "Digital Natives, Digital Immigrants." *On the Horizon* 9 (5): 1-6.

Rudenko, Sergei I. 1970. *Frozen Tombs of Siberia: The Pazyryk Burials of Iron-Age Horemen.* Translated by M. W. Thompson and J.M. Dent & Sons Ltd. Los Angeles: University of California Press.

Saisan, Joanna, Melinda Smith, Lawrence Robinson, and Jeanne Segal. 2015. *Internet and Computer Addiction.* September. Accessed October 2015. http://www.helpguide.org/articles/addiction/internet-and-computer-addiction.htm.

Sanders, Clinton R., and Angus D. Vail. 2008. *Customizing the Body: The Art and Culture of Tattooing.* Philadelphia: Temple University Press.

SC Johnson. 2015. *The Museum of Feelings Exhibit.* Accessed November 2015. https://www.themuseumoffeelings.com/visit.

Scott, Clare. 2015. *French Tattoo Studio Turns a 3D Printer Into a Tattooing Machine.* November 9. Accessed December 2015. http://3dprint.com/104488/3d-printer-tattooing-machine/.

Selwyn, Neil. 2009. "The Digital Native - Myth and Reality." *Emerald in Sight* 61 (4): 364-379.

Shared Studios. 2015. *About Us.* Accessed September 2015. http://sharedstudios.com/about/.

Smith, Mark. 2015. "A Brief History of Tattoos." *Tattoo School Training Academy.* April. Accessed October 2015. http://www.training.tattoo/pdf/TattooSchoolTrainingAcademyHistoryOfTattooing.pdf.

South Tyrol Museum of Archaeology. 2013. *The Tatoos.* Accessed November 2015. http://www.iceman.it/en/node/262.

The Divine Lorraine Hotel. 2003. *Building History.* Accessed October 2015. http://thedivinelorrainehotel.com/history.

University of Calgary. 2011. *Taylor Family Digital Library.* Accessed October 2015. http://tfdl.ucalgary.ca/tech.

Urban Dictionary. 2016. *Tramp Stamp.* Accessed 02 24, 2016. http://www.urbandictionary.com/define.php?term=Tramp+Stamp.

Wallis, C. 2006. "The Multitasking Generation." *Time* 167 (13): 48-55.

Weinstein, N., and A.K. Przybylski. 2012. "Can you connect with me now? How the presence of mobile communication technology influences face-to-face conversation quality." *Journal of Social and Personal Relationships* 1 - 10.

White, Shelley. 2015. *The Canadian University Report 2016: The Generation Z Effect.* 10 23. Accessed 01 22, 2016. http://www.theglobeandmail.com/news/national/education/canadian-university-report/the-genz-effect/article26898388/.

Yong, Jogn. 2013. *In Paris, Interactive Doors 'Transport' Pedestrians To Other European Cities.* November 04. Accessed November 2015. http://designtaxi.com/news/361896/In-Paris-Interactive-Doors-Transport-Pedestrians-To-Other-European-Cities/.