

# ***Graphic Design as an Outlet for Social Change***

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## Abstract

This research paper focuses on the intersection and powerful relationship between graphic design and social change. Graphic designers are in a position where they have the opportunity to explore, utilize, and should thereby employ interdisciplinary research approaches to better empower their audience to act.

The paper studies graphic design by considering six aspects: the discipline of graphic design and its process; the different functions it serves; its impact on society; the role it plays in misinformation; its role for social good; and the evolution of graphic design and research. This will confirm the research gap that exists within the discipline.

To set the context, the research continues to explore the realm of social change through its definition, its relation to wicked problems, and its driving factors. The paper will then explore the field of design activism by offering different perspectives on it and outlining examples of graphic design's role in the field; this will confirm the suspected gap between awareness and action within the context of social change.

Next, the paper will discuss design research and highlight areas of opportunities where the graphic design process could be advanced. To target these areas, this paper will suggest interdisciplinary research approaches including: Human Factors, Causal Layered Analysis, Co-design, and STEEPV analysis. In addressing this gap in research, one can draw their attention to the awareness-to-action gap, ultimately leading to more empowered design solutions.

**Keywords:** *Graphic design, social change, design activism, design research, awareness-to-action gap, interdisciplinary research*

*To anyone who is trying to play their part in  
making this world a better one.*

*No act is too small.*

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## Part 1: Introduction

1.1 – Context

1.2 – Research Question

1.3 – Defining Empowerment

1.4 – Defining Terminology

## 1.1 – Context

**Design has the potential to create spaces where social healing can take place.** I was first introduced to the concept of designing spaces when reading Michael Warner's article, "Publics and Counterpublics". According to Warner, a public is something that is going to happen in the future and has not been formed yet (Warner, 2002). It is something that we have to create. For example, when you design something, you are preparing that space for someone to encounter. Once that space you have created is encountered, a public is formed (Warner, 2002). This is what I mean when I say that as designers, we have the ability to design spaces for social healing. Within the field of Graphic Design, I believe these spaces can be created via the outcomes we produce for others to encounter, whether it is physical or digital.

However, what is important to note is that everyone's public is unique. This is because every individual lives within a unique context, as a result of his or her personal lived experiences ("Influences on Perception", n.d.). This concept can be better understood through semiotics – the study of meaning and how signs and symbols are interpreted (Curtin, 2006). Semiotics understands images and objects to be dynamic in the sense that they are "not understood as a one-way process from image or object to the individual but the result of complex inter-relationships between the individual, the image or object and other factors such as culture and society" (Curtin, 2006, p. 51).

### Everyone's public is unique

French theorist, Roland Barthes, then applied the concept of semiotics to visual images (Curtin, 2006). This is where the value lies for graphic designers as a visual discipline. Barthes explored how the meaning that is attributed to images is not universal in the way it is interpreted by individuals (Curtin, 2006). He labelled two different levels of meanings as the denoted and connoted; the denoted is the initial visual recognition that is registered and the connoted is the interpretation of the image that remains open to different meanings beyond the main intention (Curtin, 2006). As visual designers, Barthes' application of semiotics to visual images offers a useful lens from which we can better understand how meaning is interpreted by those who interact with our designs. This is also representative of the arbitrary nature of communication, which is evidence of the fact that a design will likely not be interpreted by the audience in the way that was intended by the designer. Therefore, the way in which the audience ascribes meaning from graphic design pieces is heavily reliant on the context in which they approach it from. This ultimately results in a unique public for everyone who interacts with a visual communication piece. This is important to keep in mind as designers; because everything we design is going to have unintended consequences, regardless of whether it is positive or negative.

### The power of visual communication

For this, graphic designers need to be aware that we can do just as much harm as we can do good. Therefore, we need to try and minimize as much of that harm as we can and be mindful in our designs and their outcomes. After all, as graphic designers, we have the ability to create very powerful visual communication pieces that influence society. Evidence of this is seen everywhere we look from advertisements to signage to the screens we interact with everyday (Barnard, 2013). While graphic design has a heavy hand in the commercial world, it is a field that is constantly evolving. More designers are recognizing the strength of their abilities and are exploring what they could do to better the societal problems that many face every day (Markussen, 2013).

Currently, graphic design's involvement within the realm of social change falls within the space of design activism. Within this space, graphic designers use their visual communication skills to raise awareness on important social issues, which leads me to wonder whether there is potential to go beyond awareness.

### Is raising awareness enough?

There is an assumption that raising awareness will automatically change the audience's behaviour in regards to the topic (Gorman & Gorman, 2018). However, research shows that simply giving people more information does not necessarily change their behaviour or beliefs (Christiano & Neimand, 2017). Humans make decisions about their behaviour in an irrational and messy way, which pokes holes in the effectiveness of raising awareness (Gorman & Gorman, 2018).

In the past decade, there has been an increase in graphic designers taking an interest in design activism and many graphic design studios dedicating their business to social good (Markussen, 2013). While raising awareness is a form of action on the designer's part and can play a significant role in shifting audience perspective, how large is the impact that this truly has on inducing change in one's attitudes and behaviours regarding social issues? In other words, **could bridging this suspected gap between awareness and action create a bigger impact in empowering social change?**

This raises a question of a larger caliber – how can we measure the impact our designs have on our audiences? Can it be measured at all? In reality, no. We cannot measure the impact because as discussed above, content is relative to context. Everyone's unique interpretation and interaction with a design piece makes it very difficult to try and measure the level of impact a piece has.

Importance of research

While it is difficult to measure the impact graphic designers can have, it is easy to see when a design may not be successful. There are several examples of ill-informed designs that have been put out into society, only to receive extreme backlash and be accused of being culturally, socially, or politically ignorant (Pater, 2016). This is where it is important for graphic designers to understand that we need to design with humility. We need to admit to not knowing and acknowledge that it is difficult to separate biases and prejudices from the designs we create. If designers are ignorant on the topic they are designing for, this will be reflected in the outcome. Hence, it is important to understand the gravity of the discipline and the work being put out for people to interact with. This is why research plays an impactful role in the outcome of a design.

While graphic designers have come to know the importance of research and incorporate it within their design process, I believe that it could play a bigger role. Graphic design’s initial popularization as a discipline placed a lot of emphasis on good visual design; as a result, it was heavily influenced by intuition and aesthetics over research (Bennett, 2006). It was not until graphic designers moved beyond commercial design that they saw the importance of understanding their users, which resulted in including user research within the design process (Bennett, 2006).

However, I find that graphic designers still fall short when it comes to incorporating research in their design process, which I will explore further in the literature review. Furthermore, this research paper is centered in designing for society and the problems it possesses, which requires a higher level of sensitivity, awareness, and research.

1.2 – Research Question

I believe focusing on research is how we could begin closing the gap between awareness and action, which leads me to main research question:

How might graphic designers utilize research methods to better inform their design decisions in empowering individuals to enact social change?

My research question consists of two main parts, which aim to tackle two gaps that may exist within the realm of graphic design for social change:

- 1. How graphic designers can utilize research approaches to better inform their design decisions, which highlights a potential research gap within the discipline.
- 2. How graphic designs can empower individuals to enact social change, which highlights a potential awareness-to-action gap within the space of graphic design for social change.

While I am not able to bridge the awareness-to-action gap throughout this paper, I do find that this gap can be better tackled by addressing the research gap (see Figure 1). I believe that more in-depth research, through interdisciplinary research approaches, will allow graphic designers to gain a deeper understanding of the problem space and its stakeholders, which will allow them to make better informed design decisions. This is because they would be able to better situate their efforts towards the right causes and people within that space as a result of research that does not only rely on client intel or what designers think their audience needs, but goes deeper. This could increase the chances of their design solution making their audience feel heard and understood. By making that connection, designers could impact their audience at a deeper level than they would have with their traditional way of practice and will ultimately place themselves in a better position to offer their stakeholders/audience agency to feel more empowered to act.

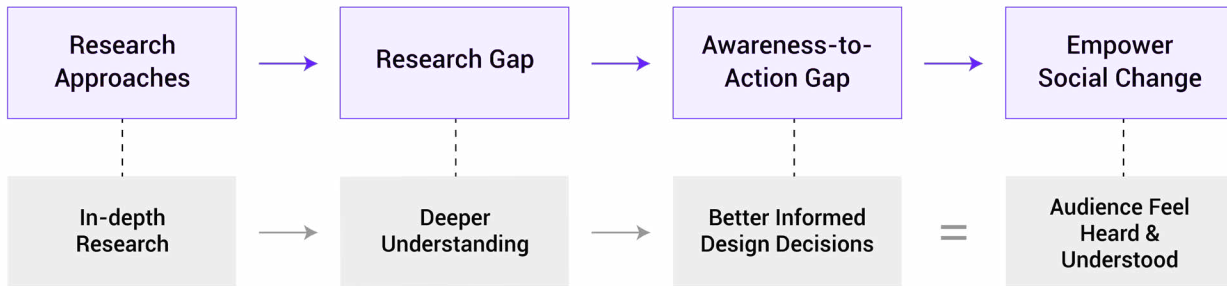


Figure 1. Addressing the research gap through in-depth research could lead to creating a deeper connection with the audience, which could ultimately place designers in a better position to empower their audience to act.



### 1.3 – Defining Empowerment

To empower is defined as to “give power or authority to” (“Empower”, n.d.). Judi Chamberlin is an activist for patients’ rights in the psychiatric survivor movement, who outlined a list of qualities that characterize empowerment (Chamberlin, 1997). In her article, “A Working Definition of Empowerment”, Chamberlin (1997) states the following qualities,

- 1. Having decision-making power.
- 2. Having access to information and resources.
- 3. Having a range of options from which to make choices (not just yes/no, either/or.)
- 4. Assertiveness.
- 5. A feeling that the individual can make a difference (being hopeful).
- 6. Learning to think critically; learning the conditioning; seeing things differently; e.g.,
  - a. Learning to redefine who we are (speaking in our own voice).
  - b. Learning to redefine what we can do.
  - c. Learning to redefine our relationships to institutionalized power.
- 7. Learning about and expressing anger.
- 8. Not feeling alone; feeling part of a group.
- 9. Understanding that people have rights.
- 10. Effecting change in one’s life and one’s community.
- 11. Learning skills (e.g., communication) that the individual defines as important.
- 12. Changing others’ perceptions of one’s competency and capacity to act.
- 13. Coming out of the closet.
- 14. Growth and change that is never ending and self-initiated.
- 15. Increasing one’s positive self-image and overcoming stigma.

Keeping in mind that these qualities were developed from a self-help practitioner perspective, I excluded qualities I found were more specific to that space. Instead, I aimed to offer a more general definition of empowerment when addressing my research question. As a result, I found that many of the qualities could be grouped:

Quality one (1), two (2), three (3), and four (4) could all fall under having “decision-making power”. Quality eight (8), nine (9), and ten (10) could fall under having a “sense of community”. This leaves quality five (5), which can be labelled as its own quality under having “motivation/ hope”. As for quality six (6) and fourteen (14), I found they were more intrinsic qualities that an individual needed in order to be open to empowerment and drive it to action. This is because being open to unlearning and the act of being self-driven are deep-rooted qualities that I do not believe can be easily influenced; instead I find that an individual needs to do the inner work to be able to achieve these qualities on their own.

Therefore, based on the definition of “empower” and using Chamberlin’s (1997) list of qualities that define it as a guide, I found that empowerment falls within the intersection of three main qualities: having decision-making power, motivation/hope, and a sense of community (see Figure 2), with an underlying need for an individual to be self-driven and open to unlearning or seeing things differently.

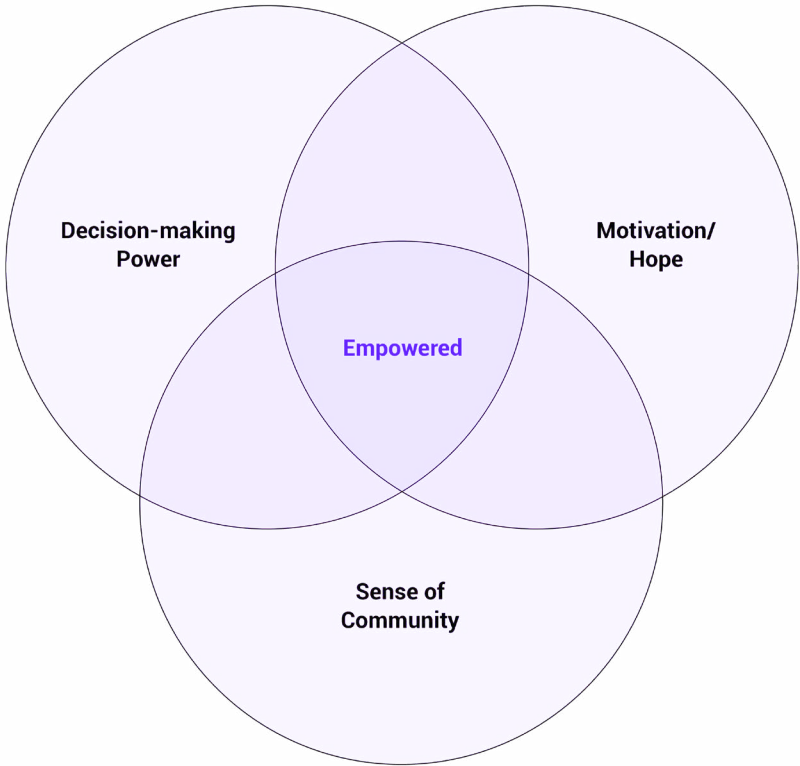


Figure 2. An individual is more likely to feel empowered if they are given decision-making power, motivation/hope, and a sense of community.

Ultimately, empowerment is not about pressuring someone into taking action, but about giving them the tools they need to find it within themselves to want to make a change. Therefore, we cannot assume that by offering these three qualities, we are automatically empowering someone. However, if the “publics” that people interact with are shaped by the three qualities outlined above, then I believe designers are able to better set the conditions for empowerment. That being said, if someone has not done the inner work to be self-driven and open to unlearning, then it is less likely for them to feel empowered to act when interacting with those spaces. In the end, people need to work on themselves before they can work towards enacting change.

I believe graphic designers can be better equipped to design spaces that are shaped by the above three qualities if they were to introduce more interdisciplinary research approaches that aim to gain a deeper understanding of the problem space and its stakeholders.

## 1.4 – Defining Terminology

### **Empower**

Give capability/authority to by offering decision-making power, motivation/hope, and a sense of community (“Empower”, n.d; Chamberlin, 1997).

### **Graphic Design**

The use of images and text to visually communicate an idea (Arntson, 2011).

### **Social Good**

Practices that aim to better the overall society (Kenton, 2019b).

### **Social Issues/Problems**

Social conditions or behaviours that are harmful to society (Best, 2019; “What is”, 2016).

### **Social Change**

The change in social structure, which can also be characterized by change in cultural patterns (Leicht, 2018; Form & Wilterdink, 2019). Social structures involve social relationships that have become repetitive, and culture refers to shared social behaviour and ways of thinking (Leicht, 2018).

### **Design Activism**

Using design skills for activism through the combination of disruption and aesthetics to create an impact (Markussen, 2013; Fuad-luke, 2013; Thorpe, n.d.).

### **Design Research**

The combination of design and research, which results in a meaningful merger that equates to “the investigation of knowledge through purposeful design” (Faste & Faste, 2012, p.1).

## Part 2: Literature Review

2.1 – Graphic Design

2.2 – Social Change

2.3 – Design Activism

2.4 – Design Research

2.5 – Areas for Opportunity

## Methodology for conducting literature review

This literature review was conducted by reviewing a variety of scholarly journals, articles, and books from the field of design. I conducted my literature review using a narrative approach whereby I narrowed down the literature using key terminology such as: graphic design, social change, design activism, visual communication, wicked problems, disruptive aesthetics, design research, human factors, causal layered analysis, co-design, STEEPV analysis, and awareness-to-action gap. I also referenced select web articles and blog sites that address more detailed definitions, types of activism, and causes for social change.

The latest literature was used where possible; however, there were key articles that were used concerning the concept of wicked problems and design thinking that are a bit older. I also traced articles through the bibliography of key readings on the topic of design activism. In this way, I discovered common authors within the design activism literature which in turn determined the articles used in this research.

In addition, I accessed more in-depth books on the topics. While most books offered valuable information concerning the topic of design activism and graphic design, certain books served as motivation and inspiration throughout the research project, which put me in a design for social change mindset. These books include: *Ruined by Design* (2019) by Mike Monteiro, *Citizen Designer: Perspectives on Design Responsibility* (2018) by Steven Heller and Véronique Vienne, and *The Design of Dissent* (2017) by Milton Glaser and Mirko Ilic.

## 2.1 – Graphic Design

This research will begin by exploring graphic design in six parts: graphic design as a discipline, its process, the different functions it serves, its impact on society, the role it plays in misinformation, its role for social good, and the evolution of graphic design and research.

### Defining Graphic Design

Graphic design is the use of images and text to visually communicate an idea. It is also used as a form of problem solving (Arntson, 2011). There are several different applications for graphic design including communication design (advertising and marketing), web design (websites and apps), editorial design (magazines, books, and newspapers), environmental design (wayfinding and signage), corporate design (branding and logos), and package design (Arntson, 2011).

The first instances of graphic design practice have been seen in the form of cave paintings; however, it was not until the late 19th century that it was separated from fine arts and became popularized as its own discipline (Ellis, 2018). The actual term “graphic design” was coined in 1922 by William Addison Dwiggins who used it to describe himself; at the time, he was involved in lettering, typography, calligraphy, and book design (Flask, n.d.). Throughout graphic design’s history, there has been a constant evolution of what the graphic design discipline is and what it can be applied to. However, at the root of it, graphic design’s purpose is to address problems in the most concise way by aiming to target the root of the problem rather than offering a band-aid solution (Arntson, 2011).

### Graphic Design Process

Design thinking is an iterative process that encourages a creative way of thinking to tackle complex problems. It promotes reframing and rethinking the problem in order to make sure the root of the problem is being addressed (Buchanan, 1992). Design thinking is typically the basis of the methodology that graphic designers use as their design process; however, there is some controversy surrounding this labeling in the graphic design community. This is a result of the popularization of design thinking among non-creative disciplines to encourage a more user-centered way of thinking. By doing so, it created a very linear series of steps to represent the design thinking process, which describes it as more straight forward than it really is (see Figure 3). Natasha Jen is a graphic designer and partner at the leading design firm, Pentagram. She criticises the absence of the “critique” step in the design thinking process (Jen, 2017). Any graphic designer is familiar with the process of gathering around with their team and presenting their concepts only to have it excessively critiqued. Within graphic design, doing “crits” plays a massive role in the outcome of the design solution. However, this step of the process could also easily fall under the prototype and iteration step of design thinking (Kim, 2017).

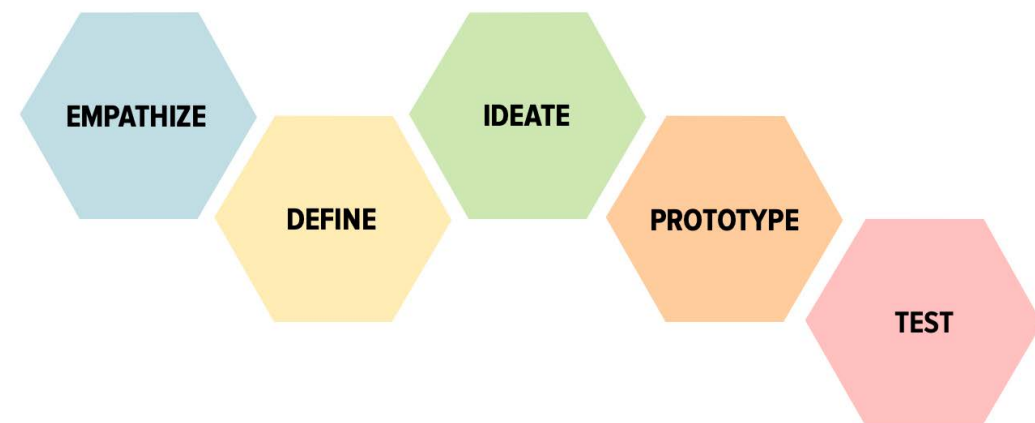


Figure 3. Design thinking methodology (Institute of Design at Stanford, n.d.)

The design thinking process is just another reframing of the design process in order to accommodate non-designers. The essence of design thinking remains the same, regardless of how the steps are laid out or represented. The main emphasis of design thinking is to encourage user-centered designing, which focuses on “building with empathy, working collaboratively with multi-disciplinary teams, and iterating on prototypes” (Kim, 2017, para 25).

The double diamond is a more recent development of the design thinking process, which I find is a more accurate representation. The double diamond approach presents design thinking as a non-linear and iterative process that both diverges and converges until the final design is achieved (Design Council, n.d.), as seen in Figure 4. The exact process and level of depth that designers go through in each stage varies based on the project and scope; however, the basic stages of the process remain the same. Furthermore, the designer will likely go through multiple iterations during each phase of the process as needed.

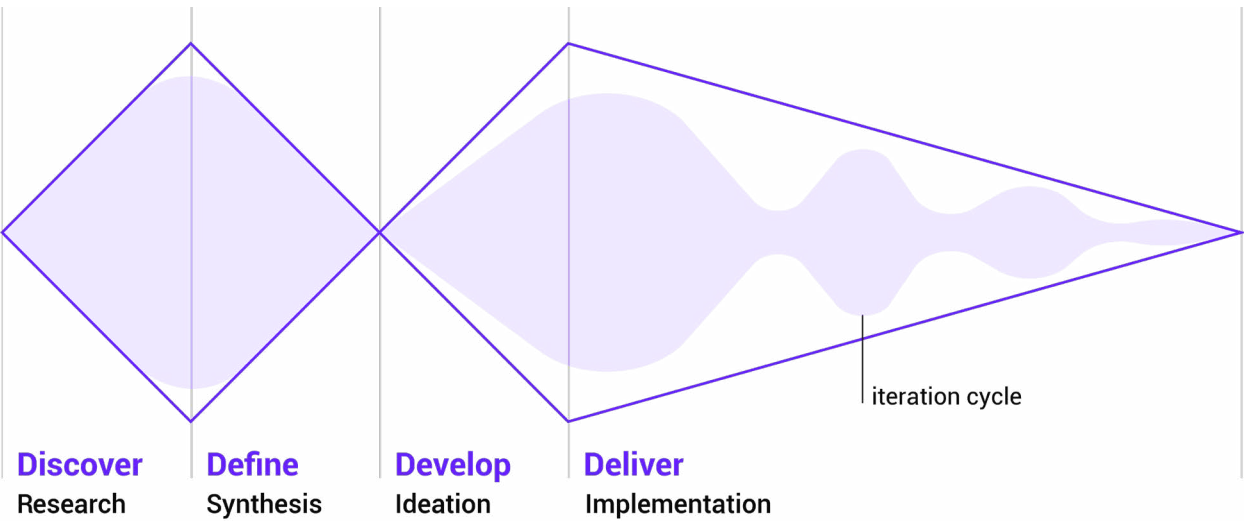


Figure 4. Double diamond design process

### Discover

During this divergent phase, graphic designers go through an in-depth research of their subject matter. This is typically done by first gathering as much information as needed from the client, and then conducting their own research in terms of competitors and market research. This helps graphic designers understand the space in which they are working and gives them a better idea of what has and has not been done. Typically tools would involve online and possibly in-store research. It could also include stakeholder interviews if it serves beneficial to the project.

### Define

During this convergent phase, graphic designers synthesize the research in order to reframe or confirm the problem in attempts to make sure they will be designing something their clients need instead of only want. This stage could involve another meeting with the client to go over findings and receive confirmation that the designer is heading in the right direction before beginning the next stage of the design process.

### Develop

The start of the second half of the double diamond begins with another divergent phase where graphic designers begin the ideation phase. They brainstorm and explore various solutions to the problem. There are various tools that could be used during this phase such as creating sketches and layouts. In this phase, quick methods are used to be able to capture a wide range of ideas in a fast and effective manner.

### Deliver

Upon coming up with various solutions, graphic designers will then converge on a final set of solutions in which they will implement and prototype for the client. The final designs will be presented to the client, who will then offer their feedback. This is where the main iteration cycle of the double diamond begins, as the designer will make the revisions and the client will give feedback until the client is happy with the final design.

As seen through the above process, graphic designers center their process and solutioning around the client/user. It is a very user-oriented field, where every decision made by a graphic designer is purposeful and meant to benefit the users' needs. However, this does not mean there is no room to enhance the process even further, especially when it comes to research. I will explore this further in the “Evolution of Graphic Design & Research” section of this literature review.



## Functions of Graphic Design

The nature of graphic design allows it to play a role in how we process and interpret information and the world around us; it plays an important role in communication and connecting with the target audience (Barnard, 2013). When used for communication design, there are different functions that aim to serve various needs.

There have been a myriad of terminologies describing the functions of graphic design by different graphic designers and writers. However, the basis of these functions boils down to informing, persuading, and entertaining (Barnard, 2013). In his book, *Graphic Design as Communication*, Malcolm Barnard (2013) explores the different functions of graphic design, and through the functions others have discussed, he derives his own set of four functions: informative, persuasive, decorative, and magical.

**The informative function** includes graphics that play a role in providing information. Examples of this include signs, diagrams, corporate logos, and packaging labels. Advertising also has an informative function to it as it plays a role in informing people what products exist (Barnard, 2013). **The persuasive function** is also known as rhetorical function. It plays a role in persuading the audience with the aim of either convincing them of something or to change their thoughts/behaviours (Barnard, 2013). Examples of this include corporate logos and advertising. **The decorative function** is also known as the aesthetic function. It plays a role in entertaining the audience with the intent of offering pleasure and enjoyment (Barnard, 2013). An example of this is poster designs. Lastly, **the magical function** aims to bring together two actions of graphic design: making absent things present and transforming one thing to another (Barnard, 2013). To elaborate, the first action is similar to how people keep pictures of loved ones near – making absent things present. The second action is similar to when students are asked to draw a garden and how each of them will draw a different version of a garden – transforming one thing to another (Barnard, 2013). This is a result of the unique context/lens that each student is drawing the garden from, which results in the transformation of the original object based on each student's interpretation of it. For these reasons, Barnard decided to call the last function 'magical'.

Barnard also talks about how functions do not necessarily work individually (Barnard, 2013). Different design pieces could have a combination of different functions when the audience is interacting with it (Barnard, 2013). For example, when looking at an advertisement piece people are not exclusively entertained by the piece or exclusively persuaded. They are both entertained and persuaded. Also, the functions do not take turns, the audience experiences the entertainment and the persuasive function at the same time (Barnard, 2013).

It is important to understand how graphic design is able to influence an audience; it is through these functions that one will be able to play a role in impacting society and culture. The impact graphic design and society can have on each other will be observed further in the following section.

## Graphic Design & Culture

Before we can move forward and determine how graphic design can play a role in social change, we must first look to the past in order to examine whether graphic design has already played a similar role in society. Exploring the connection between graphic design and culture helps us understand the impact graphic design can have.

Graphic design heavily influences society. Its omnipresence constantly guides society as it informs, instructs, persuades, and entertains (Marsh, 1983). There are several examples throughout history that demonstrate the different ways in which graphic design has influenced individuals and shaped society through its functions. Just like art, architecture, and other creative forms, design has been greatly influenced by art movements that arose as a result of significant moments in society. These design movements can be traced back to the 18th century with the start of the Industrial Revolution, which introduced a paradigm shift that changed the way society produced and consumed goods (Kenton, 2019a).

### Art Nouveau

Art Nouveau is an art movement that greatly influenced the work produced at the start of graphic design as its own discipline. It came about in the late 19th century as a result of the Industrial Revolution (Eskilson, 2012). The generation of designers at the time believed that the world of the Industrial Revolution lacked beauty (Eskilson, 2012). As a result, designers wanted to introduce a fresh vocabulary to the design world that aimed to represent a vibrant urban life. Art Nouveau represented an optimism for the new world of innovation that was reflected through this emotional style ("Art Nouveau", 2016). The design pieces created during this time were filled with vibrant colors and stylized, but organic, elements (Fuad-luke, 2013). Graphic designers played a role in the spread of the style as it became known as the golden age of the poster ("Art Nouveau", 2016). Posters were used to promote various products and sources of entertainment. An example of this type of design work is Jules Chéret's *Bal au Moulin Rouge* (1889) poster (see Figure 5) (Smithfield, 2016). Art Nouveau flourished due to the booming economy, so it was only natural that it began to die down with the onset of the First World War.

The use of graphic design to help spread the art movement, Art Nouveau, and the positive message it held is an example of how graphic design played a role in influencing society in a positive manner. It served as one of the sources of entertainment and energy that made people optimistic for what the future held at the time.

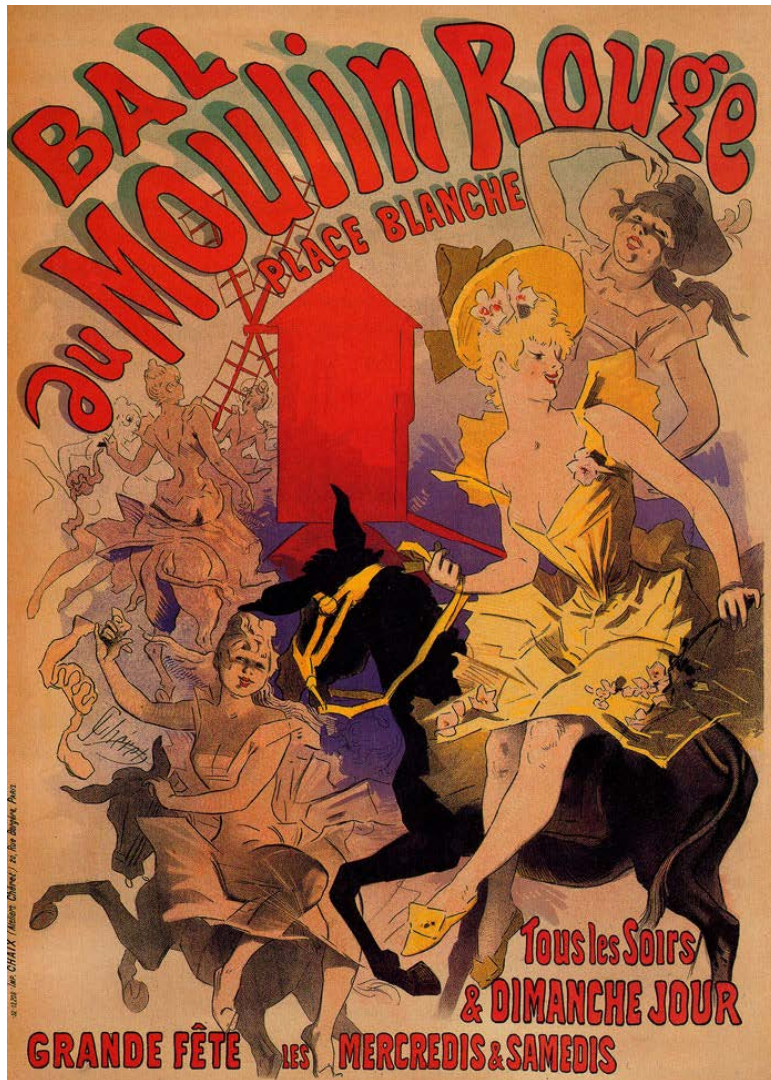


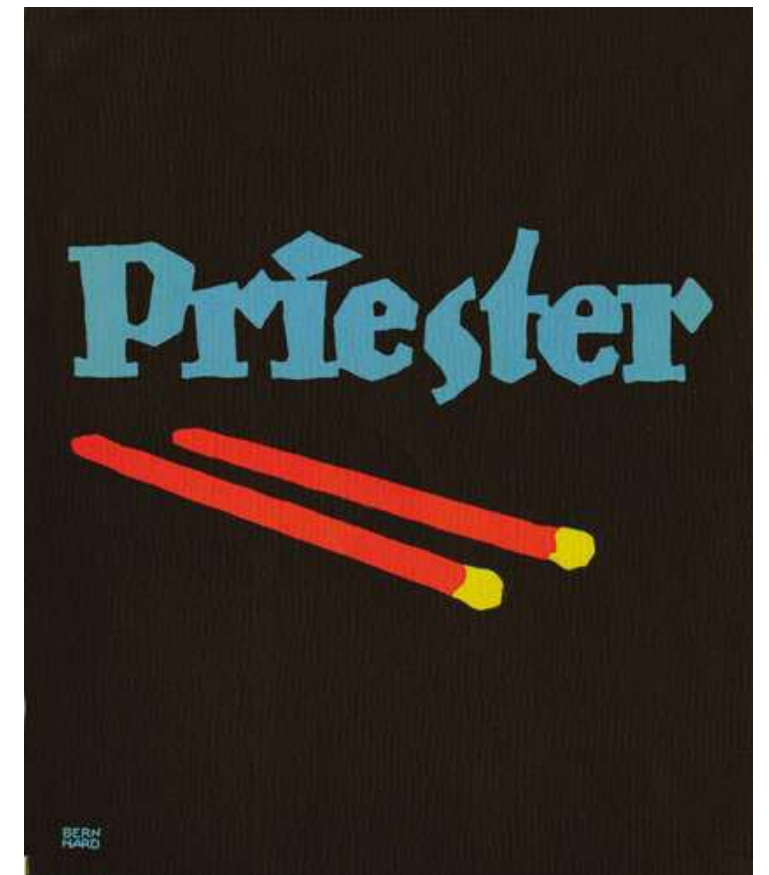
Figure 5. Jules Chéret,  
*Bal au Moulin Rouge*, 1889

© Minneapolis College of Art and Design Library (CC BY 2.0)  
Photo (Chéret, 1889)

### Sachplakat

One of the reasons for Art Nouveau's decline was a change in client needs as graphic designers expanded their customer base from mainly entertainment to more corporate. Companies were interested in presenting their image and products attractively to customers (Eskilson, 2012). Before the onset of World War 1, there was already a shift in the way posters were designed. The most notable example of this was the German poster style "Sachplakat", which translates to "object poster" (Eskilson, 2012). It was invented by Lucian Bernhard who rejected the stylized components of Art Nouveau and instead offered a more simplistic design that targeted corporate clients. He saw that visual complexity did not achieve the results that corporate companies were looking for and applied the technique for Priester matches in 1905 (see Figure 6). As soon as the poster was released, Priester became the only match brand that attracted customers (Heller, 2012). The simplicity of the poster presented the audience with a significant contrast to the norm at the time. This different style served to be more appealing and attractive, due to the uniqueness of it, which in turn popularized the brand further. This is an example of how graphic design served as a tool of attraction in society as it was able to play a role in influencing customer decisions on the brand of match they bought.

Figure 6. Lucian Bernhard,  
*Priester matches*, 1905



From Collection of Philip B. Meggs  
Photo (Bernhard, 1905)



Dada

With the First World War came the birth of a new art movement called “Dada”. The anti-war movement was formed by a small community in Zurich, Switzerland who opposed the war. It came about as a negative reaction to the war horrors that also brought many changes to graphic design principles in the 20th century (Tate, n.d.; Eskilson, 2012). Dada was based on satire and nonsensical designs that embraced the confusion of the war time and aimed to mock what existed (Tate, n.d.; Trachtman, 2006). An example of this style is Raoul Hausmann’s The Art Critic (1919-20) (see Figure 7), where the confusion and satire is prominent. The design piece also exerts a negative aura that offers a glimpse of the horror people were feeling during the war. The use of graphic design in this way, demonstrates its ability to capture a feeling that individuals within society can relate to and make them feel like they are not alone. It can also play a role in influencing how people feel about a situation when they are on the fence. For example, if one were to see the The Art Critic (1919-20) (see Figure 7) piece, it could further act as fuel by either stirring or confirming negative feelings about the war.

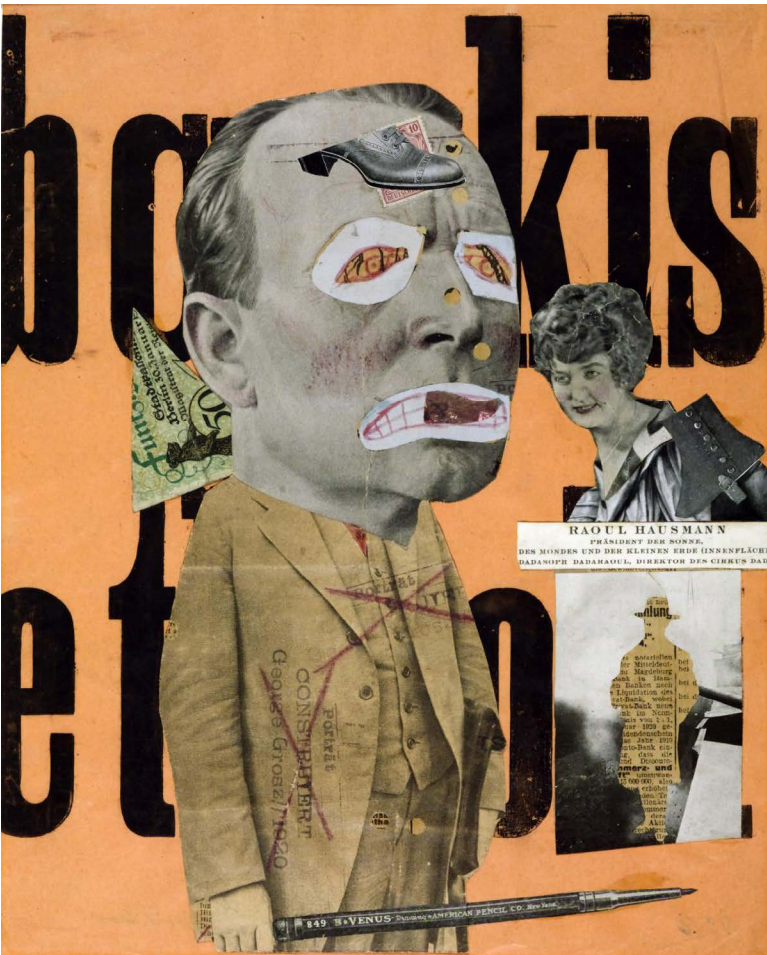


Figure 7. Raoul Hausmann, The Art Critic, 1919-20

© ADAGP, Paris and DACS, London 2020  
Photo © Tate (CC-BY-NC-ND 3.0) (Hausmann, 1919)

Propaganda Posters

The war also brought with it a rise in war propaganda. It was crucial for graphic designers to create posters that influenced financial backers, potential recruits, and gain the general support of the public (Eskilson, 2012). The shortage of journalists and the citizens' limited knowledge of what was happening at the time, made it even more important for posters to be put up and serve as the one form of consistent communication. However, the content of the posters were regulated by government officials making it easier for governments to control and distribute information that benefitted them (Eskilson, 2012). There were a million propaganda posters that were put up across the country and while there was already a strong social pressure for men to enlist, these posters played a role in furthering the existing social pressure. As a result, Britain managed to enlist 2.5 million men. The most memorable of the posters was Alfred Leete’s Lord Kitchener Wants You (1914) (see Figure 8). Lord Kitchener was the Secretary of State for the War in Britain and overall national icon (Eskilson, 2012).

Figure 8. Alfred Leete, Lord Kitchener Wants You, 1914



Photo © IWM Art.IWM PST 2734 (CC BY-NC 4.0)  
(Leete, 1914)



War propaganda posters aimed at targeting the potential recruits' emotions and sense of nationalism – and it worked. This form of propaganda through posters was in effect across many countries involved in the war (Eskilson, 2012). Each country tailored the design style to their audience and what would generate the most impact. For example, France involved a higher level of artistic images, which was a result of them using professional painters to create them (see Figure 9). As for the Germans, Sachplakat became a staple style among their propaganda posters (see Figure 10). Although there were many different types of propaganda posters in circulation during World War 1, they all served as manipulative attractions. The different forms of poster design that were used to target different audiences is an example of how graphic design is very intentional and purposeful.



Figure 9. Lucien Jonas,  
*Emprunt de la Libération – Souscrivez*  
[Liberation Loan – Subscribe], 1918

Photo © IWM Art.IWM PST 10661 (CC BY-NC 4.0)  
(Jonas, 1918)

Figure 10. Lucian Bernhard,  
*Das ist der Weg zum Frieden*  
[This is the way to peace], 1917

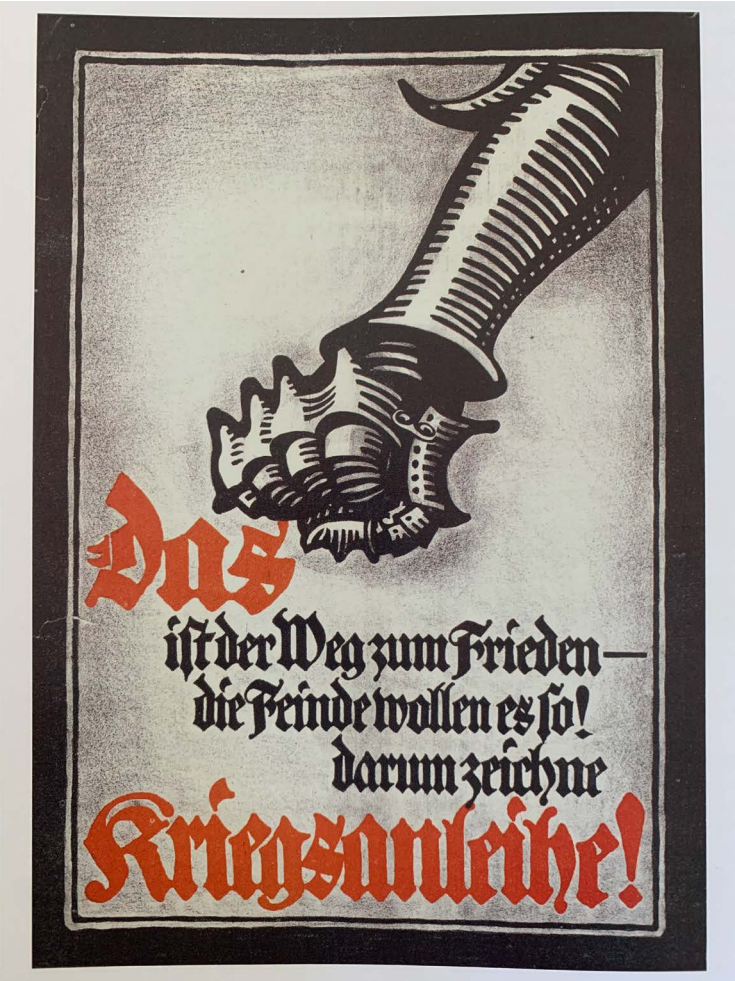


Photo © 2007, 2012 Laurence King Publishing  
(Bernhard, 1917)

These examples of art movements and design pieces that came about as a result of major social changes are aimed to emphasize the undeniable bond and connection between society and design. This exemplifies the strong influence graphic design can have on society through the use of its functions. This is seen through graphic design's ability to successfully entertain viewers and make them feel optimistic through Art Nouveau style posters (decorative & informative), the ability to attract customers for corporate purposes seen through the Priester poster (informative & persuasive), the ability to capture the feeling of chaos and horror felt throughout the war time with Dada style posters (magical), and lastly to persuade potential recruits to enlist as seen through war propaganda posters (persuasive). The last point, however, does offer a negative side to graphic design and the danger it could have on society through its spread of false information.

## ***Graphic Design & the Risk of False Information***

While graphic designed things can be effective at targeting different emotions, reactions, and opinions, they can also be used to create and spread false information. Graphic designers are responsible for putting out various informational pieces from infographics to informative posters. If the wrong information is placed within those design pieces, it could easily reach a wide range of people and influence their opinions and behaviours accordingly.

The two main forms of false information is misinformation and disinformation (Wu et al., 2016; Kujawski, 2019). Misinformation is false information. The intent is not malicious, and can involve someone putting out information that is no longer relevant without realizing it (Wu et al., 2016; Kujawski, 2019). Whereas disinformation is used to intentionally cause harm; an example of this would include someone purposely distributing false information about a company in order to discredit them (Wu et al., 2016; Kujawski, 2019).

Although misinformation is not intentional, it can still cause harm, especially because we live in the age of information. Information is the source from which people establish goals and create their lives (Mason, 1986). The omnipresence of the digital world and social media has made it easy for people to take in information and spread it with a click of a button (Wu et al., 2016). For this, digital visuals that can easily be produced and spread online have become the modern day propaganda posters (Hasic, 2019). This ease of spread and openness makes it the perfect tool for the spread of misinformation, which can heavily impact users and create undesirable outcomes when there is a lack of research (Wu et al., 2016).

There are several examples of ignorant designs that could have been avoided if only there was a greater emphasis on research. One example of this is a marketing video that was released in 2013 called "Discovering the Inuit" (Kassam, 2016). This video was problematic, as it reflected several inaccurate imagery about Inuit (Kassam, 2016). As a result, it received backlash for cultural appropriation, which could have easily been avoided if in-depth research was conducted. Furthermore, it likely spread misinformation about Inuit to the wider public who may be less knowledgeable about the culture.

It is easy for personal bias, stereotypes, and cultural ignorance to find its way into a design, regardless of how well-intentioned the designer is (Pater, 2016). It is very difficult for a designer to be able to separate their biases and prejudices from their designs, which is why designers need to be aware of how easy it is to spread misinformation and the importance of conducting in-depth research.

Ignorant designs in society also show us the importance in gaining a more holistic perspective on the information we absorb from digital sources. It is necessary to understand the bigger picture before spreading or passing on informative visual communication ourselves. Often by having a narrowed perspective on the information can aid in the spread of misinformation and ignorance. Research shows that seeing the bigger picture could help make decisions that are

more beneficial (Grabmeie, 2018). The shift in perspective can help see things more clearly that were not as obvious with a more narrow perspective on the situation. This is another space for opportunity to explore how graphic designers could better address this in their practice.

## ***Graphic Design & Social Good***

### **First Things First Manifesto**

Despite graphic design's potential to spread misinformation, it also plays a role in social good. It was around the 20th century that graphic designers began to move away from purely commercial graphic design and began to consider the impact of their work and using it for social good. The First Things First manifesto (see Appendix A) launched by Ken Garland in 1964 inspired this transition of design from solely consumerism to social good. Garland, along with 20 other designers, photographers, and students, made a promise to put their design skills to good use by addressing social, environmental, and cultural issues (Flask, n.d.; Morley, 2017). The cultural revolution of the 1960s brought societies that challenged existing authorities on behalf of minorities and topics that needed protesting (Marwick, 2005). The manifesto was mainly a reaction to Britain's society at the time and encouraged a more humanistic approach to design (Flask, n.d.). In the manifesto Garland (1964) states, "By far the greatest time and effort of those working in the advertising industry are wasted on these trivial purposes, which contribute little or nothing to our national prosperity" (para 3). The manifesto encouraged designers to inform and educate society instead of only promoting capitalism through commercial work (Morley, 2017). Garland (1964) also writes,

We think that there are other things more worth using our skill and experience on. There are signs for streets and buildings, books and periodicals, catalogues, instructional manuals, industrial photography, education aids, films, television features, scientific and industrial publications and all other media through which we promote our trade, our education, our culture and our greater awareness of the world. (para. 4)

### **First Things First 2000 Manifesto**

While the message was very well received at the time, the urgency of the message quickly died down in the 1970s (Flask, n.d.; Fuad-luke, 2013). This was mostly due to the rise of popular culture, pop design, as well as the economic instability at the time (Fuad-luke, 2013). This is further evidence of the influence graphic design and society have on each other. To bring back the lost message and remind designers of their social duty, the manifesto was updated and republished in 1999 by Adbusters magazine as the First Things First 2000 manifesto (see Appendix B). The updated manifesto reiterates the original message but was rewritten in relevance to the current society at the time. The manifesto reminds designers that focusing on mainly commercial design work results in the world seeing designers as purely that ("Eye Magazine", 1999). It also highlights the impact graphic designers can have on society and



warns involvement in mainly commercial work is detrimental to society. This is due to the influence the commercial messages they put out have on the way consumers respond and behave (“Eye Magazine”, 1999).

Instead, similar to the original manifesto, the First Things First 2000 manifesto states,

There are pursuits more worthy of our problem-solving skills. Unprecedented environmental, social and cultural crises demand our attention. Many cultural interventions, social marketing campaigns, books, magazines, exhibitions, educational tools, television programs, films, charitable causes and other information design projects urgently require our expertise and help. (“Eye Magazine”, n.d, para. 4)

The updated manifesto was signed by 33 graphic designers, many who are notable figures within the design community (“Eye Magazine”, n.d.). Since then many organizations began to pop up between 1999 and 2008 with an activist purpose and many authors began to explore and write about the concept of “design activism” (Fuad-luke, 2013).

#### **First Things First 2014 Manifesto**

More recently, a 2014 iteration of the First Things First Manifesto was led by designer Cole Peters (Montgomery, 2014) (see Appendix C). By doing so, Peters aimed to acknowledge the impact of technology and media on design and society. He also opened up the manifesto to allow anyone to become a signatory, which is very different from the process of the last two manifestos (Montgomery, 2014). Peters’ reasoning behind this was due to the fact that the manifesto was going to be living on the Web. He saw it as an opportunity to “amplify the collective voice” (Montgomery, 2014). Not only that, but Peters has also opened up the manifesto to involve more than designers. He has updated it to represent “anyone using technology and creativity within the scope of a professional pursuit” (“First Things First”, 2014). This act is also representative of how society has evolved and become much more interconnected since the first manifesto came out.

The manifesto is important to this research paper because it highlights the importance of collaboration and using graphic design for social good. Regardless of the context, the manifesto's essence remains a call for all designers to focus on what truly matters – society and its people. This highlights an area of opportunity where graphic designers could do better in their design practice. There is room to involve more collaboration with the people that graphic designers are trying to design for. This is an area that graphic designers have yet to fully embrace in their constantly evolving discipline.

## ***Evolution of Graphic Design & Research***

### **From Production to Conception**

Traditionally as a discipline, graphic design tends to favour intuition and creativity over research; it has become known as an intuition-led practice and designers used that as their way to create their design solutions (Bennett, 2006; Barrett, 2008). According to graphic designer Paul Rand, intuition is a “flash of insight conditioned by experience, culture, and imagination” (Bennett, 2006, p.17). While the design process, outlined earlier in this section, shows user-research as part of the graphic design discipline, this was not always the case.

The main role of intuition within graphic design emerged partly due to the discipline's initial popularization as a strategic visual tool within the realm of business (Bennett, 2006). This placed graphic design's importance on successful commercial designs that aimed to win various competitions (Bennett, 2006). As a result, the epitome of graphic design became the production of good visual design (Bennett, 2006). It was not until graphic design began to evolve as a discipline and move beyond purely production within commercial design that they saw the importance of understanding their users (Bennett, 2006). With a greater awareness of the issues surrounding their designs and the impact it can have on society, graphic designers came to realize that understanding the audience was a valuable asset to their designs (Bennett, 2006).

Andrew Blauvelt (2011) is a notable figure in the design community, who outlined graphic design's evolution from a purely production-based discipline, to one that relies heavily on conception and problem solving in his article “Tools”. A significant paradigm shift in graphic design's history came about in the 1980s, with the launch of the personal computer (Blauvelt, 2011). It was believed that the introduction of the computer devalued graphic design skills because it allowed for more people to use those tools; so a new value for design was sought after (Blauvelt, 2011). This resulted in designers making a shift from production to conception, despite the fact that the computer did not completely blur the line between amateurs and professionals within the discipline (Blauvelt, 2011). This resulted in new sectors within the field of design that placed more emphasis on the verbal and businesslike qualities of design including management, strategy, and systems (Blauvelt, 2011). The introduction of these new sectors of design to the corporate world quickly gained popularity as businesses realized the creative potential to create better products and services. (Fuad-luke, 2013).

Graphic design's connection to these business-based sectors is an important element to understand because it shows graphic design as a discipline that can be both production-based and conception-based. The emphasis highlights its value for tackling social problems within the realm of activism. This shift from production to conception also introduced user-research to the discipline. The main goal of research when conducted by graphic designers is to simply gain the necessary insight to incorporate in their design artifact (Faste & Faste, 2012). This is in-part a result of design education not placing more emphasis on research in their programs.

## Education and Research

Graphic design education was first introduced in 1919 in the popular German art school, the Bauhaus (Graphic Designers of Canada, n.d.). The focus on form and function initiated design education, which evolved from the production of artifacts to encouraging creative thinking through multidisciplinary approaches (Graphic Designers of Canada, n.d.). The Bauhaus' way of teaching emphasized formal visual elements, as well as intuitive and critical thinking towards a problem; this became the model from which many design education/training today has developed from (Strickler, 1999; Swanson, 1994). When it came to research, it was introduced at the Bauhaus in the form of user-testing, where completed projects were tested by the users, who then offered their feedback and experience, which resulted in further exploration (O'Grady & O'Grady, 2017).

At the time, design studies that involved theory were non-existent, which made it difficult to understand why designers knew what they claimed to know (Strickler, 1999). Design education became very practice-oriented and students are trained to develop the necessary skills to be able to work within the design industry. Hence, it is fitting when Gunnar Swanson (1994) describes most graphic design programs as "vocational training programs".

Twenty years ago, Richard Buchanan (1998) had stated,

In my own institution, we have already begun to introduce a pathway in Design Studies for gifted students who are dissatisfied with the traditional liberal arts and sciences- and who do not intend to become professional designers. (p.66)

Today, design studies is a part of many design programs to teach students about design history and theory. Despite this progress in expanding the teachings of design students to involve design theory, today's programs still fall short in terms of emphasizing the importance of design research over production (Roth, 1999). While design studies offer perspectives on critical theory rooted in humanities and social sciences, design research is focused more on design methods and project-centered research (Roth, 1999). However, within design education, the research students are taught usually involves using a combination of information given by the client through a design brief, aesthetics and market research, and a designer's intuition and personal style to address a design problem (Barrett, 2008).

According to graphic design educator, Katherine McCoy (2006),

Throughout the years, any education policy discussion at a graphic design professional organization board meeting usually included forceful comments favoring the continuing tradition of the self-trained graphic designer as the best source of innovation and excellence. (p. 4)

Despite the fact that research plays an important role in professional design practice, many graduate programs continue to place design production as the greater importance in their

teachings (Roth, 1999). This does not mean that design education purely focuses on technical skills; it teaches students how to think about and address problems like a designer, which makes design students suited to face complexity and uncertainty (Swanson, 1994). However, it is still important for education to go beyond vocationally focused programs and place just as much emphasis on research. Even within the commercial industry, graphic designers are expected to do research at the beginning of a design project to better identify project goals, influence aesthetic decisions, and address client business problems and audience needs (O'Grady & O'Grady, 2017). Therefore educators need to start shifting the way they teach graphic design and place more importance on research; especially because graphic design is a continuously evolving discipline.

## Graphic Design's Evolution

Graphic design's role in society is constantly changing. As a discipline, graphic design's existence relies on other disciplines; it has no subject matter of its own, which makes it an integrative practice (Swanson, 1994). This means that it is constantly involved in the problems and subject matter of disciplines outside of its own (Strickler, 1999). This also makes graphic design a very fluid and flexible one, which is why it is constantly evolving and tackling more realms – from business to entrepreneurship to social issues (O'Grady & O'Grady, 2017).

Graphic design practice today does not look like it did when it first developed and graphic design practice of the future will not look like it does today (Swanson, 1994). Over the years of its existence as a discipline, graphic designers have assimilated the role of "designer-as-author; designer-as-critic; [and] designer-as-business-consultant" (Barrett, 2008, p.11). Today, designers still hold these various roles within their practice; however, there are also the more socially-conscious designers working within the realm of design for social good.

Given the nature of graphic design as an integrative discipline, introducing interdisciplinary research approaches would have seemed like the natural progression. However, we have yet to fully embrace this as a discipline as a result of an overemphasis on production, as demonstrated above. Ultimately, being a socially-conscious designer is one of the graphic design roles that should never be progressed away from. Therefore, designers need to begin embracing research as a bigger part of their design process, as a deep understanding of social issues is necessary to avoid spreading ignorant designs. Otherwise, practicing design in the traditional way, with basic user-research, will not be able to help in better addressing the gap towards empowerment, but rather will only lead to more ignorant designs (see Figure 11). Therefore, there is an opportunity to enhance the graphic design process to be more socially aware and be better suited to address social issues.

**Ignorant Design Examples**

Ruben Pater (2016) offers several examples in his book, *The Politics of Design*, to showcase how personal bias, stereotypes, and cultural ignorance can find its way into a design, regardless of how well-intentioned the designer is. It is very difficult for a designer to be able to separate their biases and prejudices from their designs, which is why conducting in-depth research is the best bet.

*Urban Outfitters (2009)*

In 2009, Urban Outfitters designed a 'Navajo' line of items using patterns that they claimed were inspired by textiles from a Native American tribe, the Navajo, in the U.S; the tribe was not consulted nor were any profits from the products shared with them (Pater, 2016). Urban Outfitters clearly did not understand that wearing these patterns meant something to the Navajo that was deeper than fashion, which is why they were not quick to pull the 'Navajo' products from their stores (Pater, 2016). It was not until extreme social media pressure that they finally discontinued and removed the products from their stores in 2011 (Pater, 2016).



© Urban Outfitters  
Photo (Urban Outfitters, 2009)

Figure 11. *Urban Outfitters' 'Navajo' line released in 2009*

Appropriation is problematic because the action involves stripping the original context of the cultural element and ultimately treating it with disrespect (Pater, 2016). This type of behaviour should not be tolerated, and designers need to be socially-conscious and do the necessary research to avoid disrespecting other cultures.

According to Pater (2016), "acknowledging that communication is not neutral puts everything in perspective. It is by realising that we are all culturally biased that we can understand why communication often fails" (p.2). It is necessary for graphic designers to understand that their designs are not separate from their biases and for that, in-depth research on the subject matter can be an invaluable tool in their process. However, due to graphic design's creative nature and intuition-based origins, it makes sense as to why designers may shy away from an increase in research. Regardless, it is important to try and address this research gap within the graphic design discipline.

*Research Gap*

*"The lack of an active research base that can disseminate strengths, address weaknesses and build new knowledge is a significant disadvantage in any field; in the case of graphic design this silence conceals its rich repertoire of practice and specialist ways of knowing" (Field & Logan, 2006, p.342)*

We need to begin informing our design decisions without relying mostly on intuition. While we have seen how research does play a role in graphic design practice, this type of research is mainly catered towards capitalism and design as a commodity. It is not enough to address society and its problems. This is because the level of complexity that surrounds social issues requires a much more in-depth understanding of the context and audience, which the current graphic design practice does not implement, as seen above. The following section will explore the complexity of society in regards to social change and how we can drive it.

## 2.2 – Social Change

Understanding social change can provide the insight needed to be able to make connections between the characteristics of both social change and graphic design. It can also help in identifying limitations and gaps in social change efforts. By doing so, we could better comprehend where and how graphic design can be of most use within social change. Therefore, this section will explore what social change is, the motivating factors, and the drivers of change.

### *Defining Social Change*

Social change is defined as the change in social structure, which can also be characterized by change in cultural patterns (Leicht, 2018; Form & Wilterdink, 2019). Social structures involve social relationships that have become repetitive, and culture refers to shared social behaviour and ways of thinking (Leicht, 2018). This ultimately means that social change requires some kind of disruption to social and cultural patterns.

Throughout history, transformative social change came about as a result of paradigm shifts, which led to a change in attitudes, social behaviour, and ways of living (Rosado, 1997). A paradigm shift in society involves a shift towards a new way of thinking and perceiving the world (Rosado, 1997). Society is not static – it is constantly changing, which is seen through the difference in worlds between our parents and ours. For example, two major paradigm shifts in society have been the shift from agriculture to industrial and then another shift from industrial to informational (Rosado, 1997). Both these shifts were a result of new technology that changed the way people lived, worked, and interacted with each other.

Ever since the Industrial Revolution, we have come to live in a heterogeneous society that is only becoming more pluralistic (Horst & Webber, 1973). This renders societal problems that arise even more difficult to address due to the increase of factors that need to be considered when addressing these problems, ultimately making them “wicked” (Horst & Webber, 1973).

### *Wicked problems*

A problem is usually labelled a wicked problem as a result of its social complexity. Wicked problems have a social or cultural basis from which they develop, which makes them extremely difficult to solve (Kolko, 2012). Popular examples of wicked problems include poverty, homelessness, and climate change.

The term “wicked problem” was first introduced by Horst Rittel and Melvin M. Webber in 1973 as a result of complex government problems that did not fall in line with traditional forms of policy at the time (Peters, 2017). Rittel and Webber (1973) offered ten characteristics for these problems in their article “Dilemmas in a General Theory of Planning”. These characteristics

basically communicate that all wicked problems have the same underlying concept of being so complex that social and political systems do not have the ability to deal with them (Peters, 2017). This makes it easy for the concept of these types of problems to be stretched due to its lack of specificity. However, because there is no precise definition for wicked problems, it is able to be used across different domains and not just within the realm of policy science where it originated (Peters, 2017).

These problems are “wicked” because they do not usually have a solution. Rather, they are constantly resolved while remaining chronic (Danken, Dribbisch, & Lange, 2016). There are four main reasons why it is very difficult to solve wicked problems. First, there is usually not enough knowledge or contradictory knowledge surrounding the problem. Second, there are too many opinions and stakeholders involved in the problem. Third, there is a large economic burden associated with the problem. Fourth, the root of the problem is extremely interconnected with other problems (Kolko, 2012).

Due to this intense complexity when it comes to these types of problems, it is important to gain a greater understanding of the problem through in-depth research. It is also valuable to break down these problems at different levels and attempt to address smaller parts of it. There is a lot of value here in asking the right questions in efforts to help better the problem instead of trying to solve it completely. Therefore, this is another opportunity to explore, where introducing the right research approaches could help graphic designers improve their design solutions by better understanding the problem, breaking down the complexity of the problem space, and narrowing the scope of their target area. The following section will discuss driving social change in more detail and the role graphic design plays within that space.

### *How to Drive Social Change*

A keyword within social change is “disruption” and there are different agents that can contribute to the disruption of society. While technology has proven to be a significant driver of social change, other agents of social change include changes in environment, social institutions, and population (Lumen Learning, n.d.).

One way individuals can intervene and play a role in social change is through activism. Activism is any type of action that is used to bring about some kind of change or transformation regarding a social, cultural, or political issue (Fuad-luke, 2013; “Activism”, n.d.). These actions are usually driven on behalf of a neglected or wronged group (Thorpe, 2008). While activism is a form of disruption, it is also a form of revealing and framing an issue (Thorpe, 2008).

People usually participate in activism because they do not have access to institutions and political leaders to create a systemic or policy change (Thorpe, 2008). Oftentimes, political leaders have fallen short in offering citizens the policies and systems they need or want. Therefore, citizens resort to expressing their frustrations and needs through other forms like



social movements (Thorpe, 2008). This is a great example of activism and how collective action can have an impact on social change. It suggests that common people who are not in power can put pressure on those in power to face realities and change laws accordingly. Examples of social movements that have pushed for change include those within the topic of women's rights, civil rights, and LGBTQ rights (Dunfey, 2019).

The use of graphic design within these processes only makes sense as words and images can play an important role in awareness, allowing individuals to physically manifest their unheard dissent. The use of posters, signs, T-shirts, buttons, and other forms of activist messaging have become a common part of social movements. Graphic designers can also play an important role in targeting more individuals and drive them to action. The use of design for activism is its own form of activism called "design activism".

## 2.3 – Design Activism

Throughout this section, I will be discussing the topic of design activism in terms of what it is, different perspectives on the topic, and outlining examples of graphic design's role in design activism. This will help deepen our understanding of graphic design's potential for social change and bring to light the gap between awareness and action within that space.

### *Defining Design Activism*

Design activism is all about designers using their design skills for activism. A common concept among design researchers who discuss the topic of design activism is the combination of disruption and aesthetics to create an impact (Markussen, 2013; Fuad-luke, 2013; Thorpe, n.d.). There are many designers who are involved in the design activism space; however, the three main design researchers I will be discussing are Alastair Fuad-luke, Thomas Markussen, and Ann Thorpe.

### *Perspectives on Design Activism*

In his book *Design Activism*, Alastair Fuad-luke goes through an in-depth exploration of design activism in order to better understand how it can be used to create a positive impact towards a more sustainable world (Fuad-luke, 2013). He draws attention to the importance of design aesthetics on the impact of a design piece for social change. He discusses aesthetics as a central discipline for design artifacts to promote social change through their aesthetic effect on people's sense, perception, emotions, and interpretation. To Fuad-luke, it is the connection of disruption and aesthetics that creates the most impact towards social change (Fuad-luke, 2013).

The importance of aesthetics resonates with another design researcher, Thomas Markussen, who describes design activism as the intersection/interweaving of the aesthetic and political (Markussen, 2013). His article "The Disruptive Aesthetics of Design Activism: Enacting design between art and politics" offers insight into the process of design activism and why it matters. He brings together elements of disruption from political activism and elements of aesthetics from art activism to offer the space for design activism to exist. The element of disruption implies the potential for design activism to disrupt social and political systems to raise awareness on how we live, work, and consume (Markussen, 2013). The element of aesthetic implies the potential for design activism to play a role in connecting people's behaviours and emotions (Markussen, 2013). According to Markussen (2013),

Design activism generally is defined as representing design's central role in (1) promoting social change, (2) raising awareness about values and beliefs (e.g., in relation to climate change, sustainability, etc.), or (3) questioning the constraints that mass production and consumerism place on people's everyday life. (p. 38)

Another design researcher who works within the space of design activism is Ann Thorpe. Thorpe offers another perspective as she highlights design activism as a generative act instead of resistant. This is because she believes that activism tends to have a negative connotation due to its resistant nature, as it is associated with stopping and prevention (Thorpe, n.d.). Throughout her article, "Design as Activism: to resist or to generate?", she aims to offer design activism in a more positive light as she contrasts it from activism. She contrasts the two by suggesting that activists have to be certain of their resistance decision when addressing an issue, while design activists can approach it with less certainty of the final solution and ask more questions (Thorpe, n.d.). This stresses design activism's generative nature, which places importance on diagnosing the problem and offering alternative solutions to the norm (Thorpe, n.d.). Due to the fact that the past century has seen the reforming of approaches to address complex problems instead of coming up with new ones, Thorpe believes that a new and innovative approach is much needed (Thorpe, n.d.). To her, this is what design activism can offer – a new outlook on existing problems that no longer has any room to be reformed. An example of this is extended rights for marginalized groups rather than coming up with new ones (Thorpe, n.d.). This brings to light a potential space for opportunity within a graphic designer's design process. Perhaps there is room to enhance the problem framing and solutioning process in a way that could help designers better identify barriers to innovation. In this way, Thorpe's call for new outlooks on existing problems could potentially be explored.

Graphic Design & Design Activism for Social Change

Now that we have a better understanding of design activism, let us explore graphic design involvement within this realm. Graphic design plays a significant role within design activism due to its heavy involvement in communication design. It can use different strategies to appeal towards specific causes. It achieves this through the use of its functions to elicit different reactions from the target audience depending on the aim. Many designers combine persuasive and informative design to try and create more of an impact on the audience (Bichler & Beier, 2015; Klassen & Neicu, 2011).

Offering Agency

"Graphic Design for the Real World" (2015) is an article that looks into graphic design's role in design activism and questions whether it can go beyond persuasion of social good. The authors, Katrin Bichler and Sofie Biere bring up different forms that graphic design takes in relation to design activism, the main being rooted in information design as a method of persuasion. They give an example of the leaflet, "I got arrested! Now What?!" (see Figure 12) that offers a step by step breakdown of a system and introduces different decisions that can be made throughout the story (Bichler & Beier, 2015).

Figure 12. "I got arrested! Now What?!" leaflet, 2010



© Center of Urban Pedagogy  
Photo ("I got arrested", 2010)



The leaflet is a great example of how informational graphic design can play a positive role in design activism. The designer presents complex information in a clear and simple manner that is supported by visuals that appeal to the viewers and make it easy to understand (Bichler & Beier, 2015). This simplification of information of how a system works aids in pushing the target audience to be able to address the problem on their own. Many times, people can be unfamiliar with the laws and regulations to know how to act accordingly, or even what their rights are. Therefore, by helping them understand, agency is offered for them to choose to act accordingly. This allows users to be their own advocate and puts them in a more empowered position (Bichler & Beier, 2015).

Another example of offering people the agency to make their own decisions instead of persuading them to make a particular one is the iSee project "Paths of Least Surveillance", designed by the Institute of Applied Autonomy (IAA). This project aims to both raise awareness on the increase of surveillance in cities and allow users to choose whether they are caught on tape or not. They do so by offering alternative routes that do not have surveillance cameras (Bichler & Beier, 2015). It combines wayfinding and interactive design to create a design activist tool that gives the power back to the people.

Bichler and Beier stress the importance of visual designers having the power to be of service to the readers through informative design instead of simply pushing their own agenda on them through persuasive design. They encourage designers to take advantage of that to try and empower viewers instead of only persuade (Bichler & Beier, 2015). The way they go about this is a step in the right direction to driving action from their audience; creating these types of design solutions also likely require a deeper level of research to be able to understand the problem space and its stakeholders enough to be able to better assess how to offer the agency.

CTRL-ALT-DESIGN by Roel Klassen and Maria Neicu also ties informational design to persuasive design. According to Klassen and Neicu, designers can offer agency to people by offering them a better understanding of the problem. They believe that designers should create a space that allows users to solve their own problems, making them meta-designers (Klassen & Neicu, 2011). However, designers can sometimes feel uncomfortable giving up control and allowing users to be the centre of their designs. To Klassen and Neicu, this is the last taboo for the design discipline – giving up control (Klassen & Neicu, 2011).

### Graphic Design's Potential

Madeleine Morley is another design writer that highlights design's gift of offering an inclusive and collective language to the world. She believes that design can play a central role in uprooting lies, displaying societal truths, and breaking down close-minded ideologies (Morley, 2017). In her article, "What Design Can Do: Spark Social Change", she outlines several other examples of graphic designers using their skills for social good (Morley, 2017). Examples include graphics used for the women's march, artworks being faxed to government offices to protest the Trump administration, political comics in newspapers, and even poster workshops

to combat syrian refugee dislocation (Morley, 2017).

Morley offers the idea of demonstrating the graphic design activism practices listed above as part of graphic design's potential rather than separating it to fall under the category of purely design activism (Morley, 2017). This will allow learning graphic designers to understand the full potential of graphic design capabilities instead of only learning about commercial graphic design. Morely suggests a shift in narrative from a client-designer relationship to that of a community-designer relationship (Morley, 2017). This shift and refocusing of priorities can offer a higher chance of graphic designers being mindful of their social responsibility.

The importance of genuine engagement is also discussed in the article, with an emphasis on functionality. An example of functional design is an activists' campaign's logo for Black Lives Matter (see Figure 13). Due to its open-source nature and high-contrast design, it becomes easy to quickly and cheaply reproduce the logo using any printer or photocopier. This is an example of functional design because it allows for easy and quick reproduction that can easily be widely distributed (Morley, 2017).



Figure 13. *Black Lives Matter logo is an example of functional design*

Photo ("Black Lives Matter", 2015)

All these are examples of designers in the graphic design for design activism space who aim to go beyond simple awareness to be able to offer their audience the agency they need to feel empowered enough to act. Their techniques consist of offering decision-making power to the audience and giving them functional designs that they can easily engage with. Importance is also placed on graphic designers giving up complete control over their designs enough to let others be a part of the disruption. These examples fall in line with my definition of



empowerment that requires the audience having decision making power, motivation/hope, and a sense of community. Unlike the above examples, below I have outlined examples of strong visual communication pieces that are effective in raising awareness (which in itself is still a form of social good), but lack it their ability to offer agency to their audience. These examples contrast the above and will also confirm the awareness-to-action gap (Berkman, 2018; Christiano & Neimand, 2017; Tan, 2008; Tully, 2018).

*The Design of Dissent* by Milton Glaser and Mirko Ilic is a book that compiles examples of graphic design pieces created for design activism since the 18th century. Glaser is also interviewed at the end of the book and offers some of his perspectives on design for dissent. He finds that graphic design is a powerful tool because people respond to powerful imagery and words, especially when they seek justice (Glaser & Ilic, 2017). He finds that having a sense of justice is a valuable component when creating design pieces. This is because the best form of dissent is based on empathy and compassion – the belief that if someone else is hurting, then we all are (Glaser & Ilic, 2017). Glaser is also questioned on how graphic designers can be a part of dissent and whether any amateur can produce design work for dissent. According to Glaser, graphic designers can play a very influential role in dissent because they know how to communicate (Glaser & Ilic, 2017). Below are two examples from the book (see Figure 14 and Figure 15).

*It's Not Happening Here, but It's Happening Now (2017)*

"The campaign demonstrates how human rights are violated daily, just a couple of flight hours away. It draws the attention of Swiss people to the subject of human rights and encourages discussion around the topic" (Glaser & Ilic, 2017, p. 248).

The strong imagery and the indication that what the audience is seeing is the current reality of someone in another country serves as a strong visual piece that raises awareness. It offers the audience a perspective and a piece of information they may have never known. However, while it succeeds in being a strong visual piece to raise awareness, it lacks the agency to push people to action.

*Your Death – Our Business! (2002)*

"War is good business, especially for news organizations. Sensationalistic news always attracts viewers and, thus, advertising dollars" (Glaser & Illic, 2017, p. 161).

This is another example from the book that demonstrates strong visual communication to raise awareness on news organizations. While it may push people to rethink their perception of news organizations, it does not go beyond awareness.

Figure 14. *Andreas Bissig, It's Not Happening Here, but It's Happening Now, 2017*



© 2017 Amnesty International (CC BY-NC-ND 4.0)  
Photo © 2005, 2017 Quarto Publishing Group USA Inc. (Bissig, 2017)



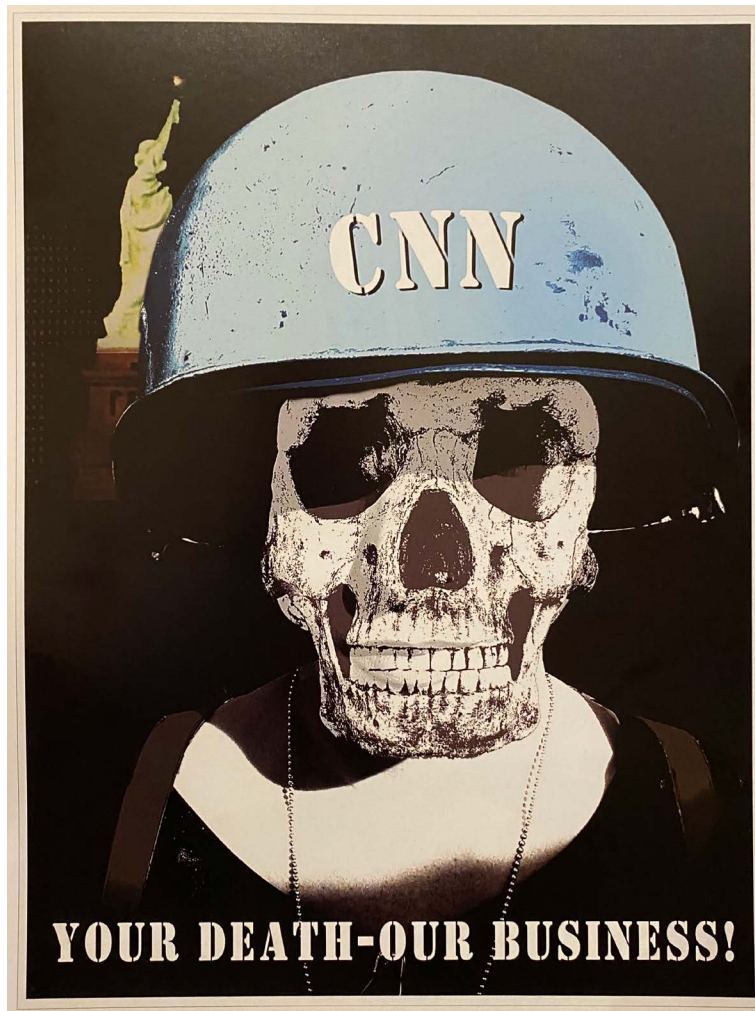


Figure 15. Agnieszka Dellfina & Thomas Dellert-Dellacroix, *Your Death – Our Business!* 2002

Photo © 2005, 2017 Quarto Publishing Group USA Inc.  
(Dellfina & Dellert-Dellacroix, 2002)

These examples from the book represent graphic design's ability to create powerful imagery that can create an impact on viewers. It represents the use of informative design that has an underlying persuasive element that challenges the viewers' beliefs. Although these design pieces can challenge the audience's perspective, the decision to do something about it is ultimately in the hands of the audience. You can also see a contrast between these examples and the examples prior where the audience is given some decision making power. While the decision to act still remains in the hands of the audience, options provide an additional surge to spur action. Ultimately, changing perception does not guarantee action – hence there is a clear gap between awareness and action. In the following section, I will discuss this gap a bit further in order to explore how and if graphic designers could potentially bridge this gap within their profession.

### ***Awareness to Action Gap***

To understand how graphic designers can better empower individuals, we need to identify gaps within the field. The first gap identified was the research gap within the graphic design process. The second gap, at the intersection of graphic design and social change, is graphic design's inability to push people to take action. At its core, graphic design is a form of visual communication. As outlined above in the "Functions of Graphic Design" section of the literature review, the main functions are for it to be informative, persuasive, decorative, and 'magical' (Barnard, 2013). When exploring the extent that these functions could go in terms of pushing its audience towards action within the realm of social change, I discovered that it fell short.

Throughout the graphic design examples outlined in the "Graphic Design & Design Activism for Social Change" section of the literature review, a commonality amongst them is the combination of graphic design's informative and persuasive functions to empower users to make a positive change (Bichler & Beier, 2015; Klassen & Neicu, 2011). This agency is aimed to be given to users through a better understanding of the situation and offering them the tools they would need to address a certain issue in hopes that it would give them the space to solve their own problems (Klassen & Neicu, 2011). However, how are graphic designers able to offer these tools in their designs unless they do the necessary level of research to understand the problem spaces and stakeholders/audience?

### **How have others addressed this gap?**

The awareness-to-action gap is not only a problem in the graphic design for social change space (Berkman, 2018; Christiano & Neimand, 2017; Tan, 2008; Tully, 2018). It is a continuous problem for any cause trying to motivate individuals to take action within society. Therefore, it could be beneficial to see how others are attempting to bridge the gap. An article published by the United Nations University online magazine discusses this gap. The article, "Closing the Awareness-Action Gap", sheds light on the vast difference in number between those who know about climate change and those who are taking action (Tan, 2008). A study at Yale University showed that 92% of Americans are aware of the issue at hand, yet it continues to be a low priority for them to address with no sense of urgency (Tan, 2008). The problem area has been placed on ineffective communication strategies, as typical approaches like persuasion through fear and moralizing, as well as offering information surrounding the topic, are no longer as effective. In fact, these tactics could create more denial and anxiety surrounding the topic.

The article goes on to use a successful campaign as an example on how to move forward in addressing this gap. The Japanese's Team Minus 6% campaign was successful in encouraging public participation in establishing an eco-friendly lifestyle. Through this, the United Nations University managed to identify seven techniques that were used by the Team Minus 6% team, which led to their success:

1. Localizing the problem.
2. Putting out easy to understand information.
3. Leading by example.
4. Creating a sense of teamwork.
5. Leveraging the strength of others to amplify gains.
6. Target what people need instead of telling them what to do.
7. Apply cultural and social values.

This list of techniques is evidence of the campaign organizers taking steps to try and truly understand the problem and stakeholders so they could in turn offer their audience the knowledge, decision-making power, motivation, and sense of community to better empower them towards action. This is another example of how offering these qualities could better encourage individuals to act.

#### **Why does this gap exist?**

In terms of graphic design, Madeleine Morely, the author of "What Design Can Do: Spark Social Change", brings up the idea of shifting the narrative of a designer's relationship from client-designer to community-designer in hopes that it could highlight graphic design's full potential that goes beyond commercial practices (Morley, 2017). However, despite designers attempting to find the best way to maximize graphic design's potential for social good when creating designs, the ability to push users to action lies in the hands of the users. Nothing will happen in response to these designs if there is no genuine engagement by the user (Morley, 2017). Even with the examples from *The Design of Dissent* by Milton Glaser and Mirko Ilic, we could see that although they are very powerful visual pieces, the impact they will have on users is relative to the context in which they are approaching the design from. As I have stated in the introduction of this paper, the impact of graphic design cannot be measured.

The article "Fear Won't Do It" by Saffron O'Neil and Sophie Nicholson-Cole (2009) explores the potential reasons for the suspected gap that exists in visual communication between awareness and engagement. It supports the idea that visual communication may successfully capture one's attention but does not necessarily motivate in taking action, as has been outlined with the design activism examples. To elaborate on why, O'Neil and Nicholson-Cole discuss how individuals can become distanced and disengaged by the awareness of the situation because they can feel helpless and overwhelmed by it (O'Neil & Nicholson-Cole, 2009).

The above examples suggest that there needs to be a kind of policy, systemic, or technological change that forces people to change. Evidence of this has been seen throughout history where social change came about as a result of paradigm shifts (Rosado, 1997). The unpredictability of human behaviour is a constant in all of this that makes it difficult to determine what form of activism will truly create an impact. This is where the true challenge lies.

#### **How can we begin to address it?**

Therefore, while it is difficult to bridge the awareness-to-action gap, we can better address it by addressing the research gap identified in the "Graphic Design" section of the literature review. As communicated above, in-depth research is necessary for designers to be able to offer agency to their audience in their designs. This is because it will allow graphic designs to gain a deeper understanding of the problem space and the audience, which in turn could provide them with a better basis to assess how they can empower their audience. As a result, they will be able to make better informed design decisions on how to offer agency throughout their process.

This in turn could better address the awareness-to-action gap. This is because graphic designers will be able to better offer the audience the decision making power and motivation they need to make them feel more empowered to act. This in turn will fulfill the empowerment qualities that I believe can play a role in influencing an individual and increasing their chances of enacting social change. Therefore, let us now explore the realm of design research to see how we can address the research gap.

2.4 – Design Research

Research is an important part of addressing any problem; it helps in framing and in offering context (O'Grady & O'Grady, 2017). Conducting research allows for a better understanding of the central issues surrounding a subject area and a level of empathy towards those involved (O'Grady & O'Grady, 2017). According to Mike Bond, co-founder and strategy director of the design studio Bond & Coyne, empathy is an important part of a graphic designer's job; it helps avoid design solutions that only satisfy the designer and is only a surface solution (O'Grady & O'Grady, 2017). As a result, it is important for designers to become somewhat of an expert of the subject area they may not be familiar with and the best way to do so is through research (O'Grady & O'Grady, 2017).

Upon getting a better understanding of graphic design education and the intuitive nature of the discipline (in the "Evolution of Graphic Design & Research" section of literature review), it is easy to see why research is often shied away from. Not only that, but as a creative, conducting in-depth research may seem quite daunting as a result of a misunderstanding that research means one form of activity (Buchanan, 2001). In reality, the field of research is quite expansive and consists of many different methodologies.

Acknowledge Your Bias

Before going deeper into the topic of design research, it is important to first understand that as a result of the unique context or "public" that everyone lives within, this will play a role in how research is conducted and interpreted. As a result, it is very difficult to separate one's bias from the process and be purely objective. A person's worldview, i.e. "a basic set of beliefs that guide action" (Creswell, 2014, p. 35), informs the type of information they collect as their research; examples of factors that can influence one's worldview include where they go, the kind of news articles they read, the types of websites they visit, and who they talk to. Hence, the sources of information that designers gather for their research will ultimately guide their outcome. For example, even if someone were to use a framework or method that promotes robust and diverse research, if the information they are gathering to inform those are all from sites that have similar perspectives, then their outcome will remain biased. Therefore, research bias (just like any bias) is something that is going to be very difficult to sidestep. For this, it is important for designers to acknowledge that they will have bias when researching and actively be aware and try to address it by consciously choosing sources from a variety of perspectives.

While the aim of any research is to be objective, we need to be open to accepting that it is not possible and instead try to understand our biases and the influence we have on our research (Wright, O'Brien, Nimmon, Law, & Mylopoulos, 2016). This can also be done through the process of reflexivity, which is "an acknowledgement, that, to make sense of the social world, a researcher will inevitably draw on his or her own values, norms, and concepts, which prevent a

totally objective view of the social world" (Wright et al., 2016, p. 98). However, I will not be going into details on this topic and instead, encourage anyone interested in better understanding their influences and biases to look into this process.

State of Design Research

Design research has been on the rise for the past 10 years, as it aims to continue informing the design development process (Sanders, 2008). It is the combination of two areas of practice (design and research) that result in a meaningful merger that equates to "the investigation of knowledge through purposeful design" (Faste & Faste, 2012, p.1). Liz Sanders (2008) developed a map that outlines the state of design research (see Figure 16). The axis of her map is divided into two dimensions of research: approaches (design-led and research-led) and mind-set (expert and participatory) (Sanders, 2008).

Research-led (south quadrants) is the common perspective of the two approaches. More disciplines, such as psychology, anthropology, sociology, and engineering, use this type of research in their practice (Sanders, 2008). As for design-led (north quadrants), these approaches are a more recent perspective (Sanders, 2008).

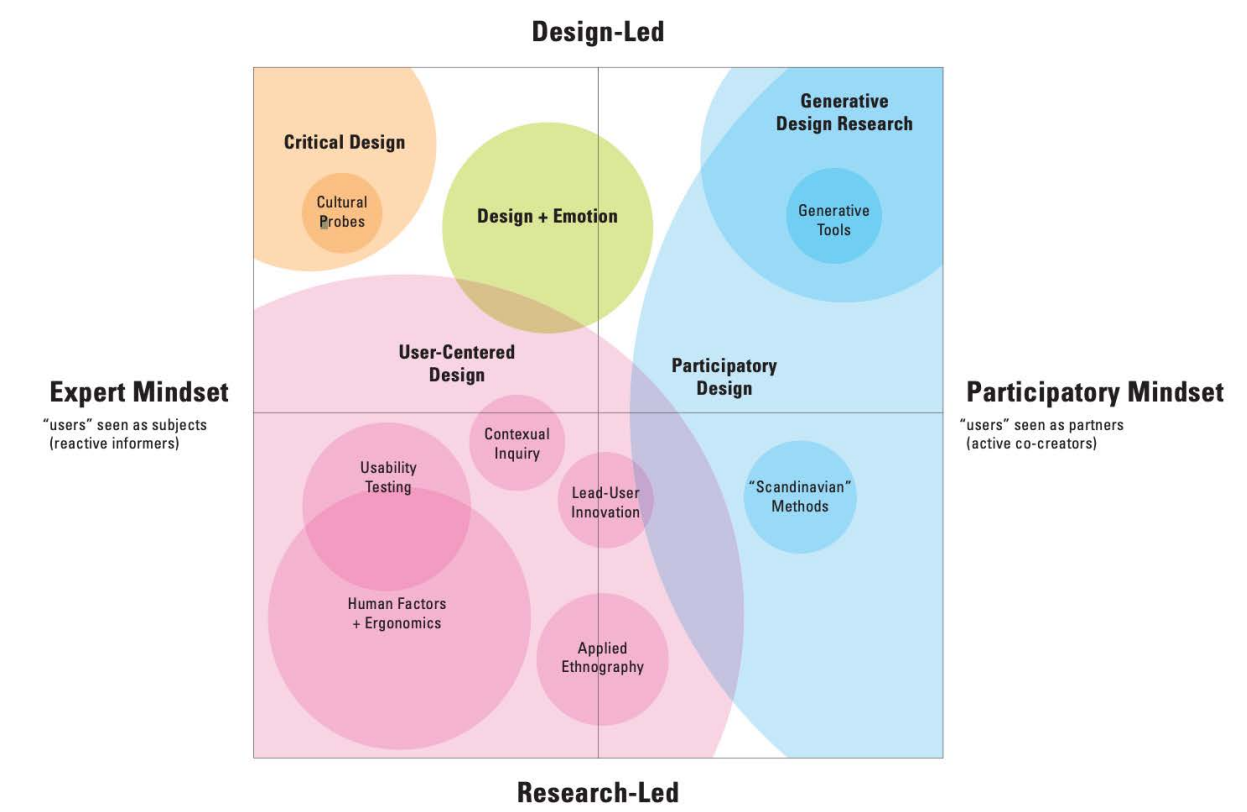


Figure 16. Liz Sander's design research map outlining research types Photo (Sanders, 2008)

Designers with an expert mindset (left side of map) are designing “for” people and those people are seen as their subjects, users, or consumers (Sanders, 2008). Meanwhile, designers with a participatory mindset (right side of map) are designing “with” people and those people are seen as their co-creators (Sanders, 2008).

**The user-centered zone**, which is guided by a research-led perspective with an expert mindset, is the most common and developed zone of the map (Sanders, 2008). Designers who work within this zone aim to offer better products and services that meet user needs through collecting and analyzing data; they also evaluate concepts and prototypes and may fall into three main categories: human factors, applied ethnography, and usability testing (Sanders, 2008).

**The participatory design zone** is guided by a research or design-led perspective with a participatory mindset, which aims to include the people they are solving for, in their design process. In doing this, one is designing with them to make sure their needs are met (Sanders, 2008). Designers working within this zone will typically use physical artifacts in their process as thinking tools.

**The design and emotion bubble** combines both research-led and design-led approaches in their practice.

**The critical design bubble** is guided by a design-led perspective with an expert mindset where the designer is considered the expert and creates designs that “makes us think” (Sanders, 2008). This arose in response to the user-centered zone and cultural probes are used as a method to inspire ideas and gain insight on the design process (Sanders, 2008).

**The generative design bubble** empowers people to offer alternative solutions to an existing issue by using a design-led perspective and participatory mindset (Sanders, 2008). Generative tools are used as a method in order to create a common design language for everyone to be able to communicate visually with each other; it is considered generative because those involved will be able to communicate several concepts using limited items (Sanders, 2008). Both critical design and generative design seek alternative solutions to a problem but come from opposite mindsets; despite this, several new tools that have come about in recent years have been derived from these two bubbles (Sanders, 2008).

### Moving away from traditional practices

Graphic design tends to fall on the design-led with expert mindset quadrant of the map; as a result, elements of the graphic design process can be seen within the critical, emotional, and user-centered design bubbles on the map.

Sander's map provides a basis to visualize the different research approaches and tools that exist. This allows us to see which spaces have been heavily used in the past and which spaces have yet to be explored further. It can also push designers and researchers to explore new territories that could enhance their process.

According to Sanders (2008), there is a lot of growth happening within the design-led approach; this is a result of industries recently looking for inspiration within the realm of art and design. After all, the future is evolving towards one more focused on creators and empathizers such as artists, designers, caregivers, storytellers, and inventors; our economy and society is shifting from that of logic and linearity of the Information Age to that of empathic and inventiveness of the rising Conceptual Age (Pink, 2006).

Furthermore, design critic Rick Poyner has argued that “since design is something fundamental to being human, it can't be left solely in the hands of designated practitioners” (Sanders, 2001, p. 2). This places value on a participatory mindset where designers are working alongside their users instead of for their users. Sanders believes that collaborating with non-designers as creative equals can strengthen the design profession; she finds that anyone who is affected by the design should play a role in its solution (Barrett, 2008; Sanders, 2001). There are others who also emphasize the importance of working with other disciplines and approaching design from a more interdisciplinary perspective (Friis, 2006; Lawson, 2006; Sanders, 2001).

Graphic designers can benefit from moving away from their expert mindset approaches towards a more participatory mindset. Given the nature of graphic design as an integrative discipline, it only seems fitting to introduce more interdisciplinary research approaches that encourage a participatory-led mindset towards design over the existing expert-led mindset.



## 2.5 – Areas for Opportunity

### Recap of Literature Review

Throughout this literature review, I have explored the areas of graphic design, social change, design activism, and design research to better answer the following research question: How might graphic designers utilize research methods to better inform their design decisions in empowering individuals to enact social change?

As a result, I was able to better understand the graphic design process and the significant and influential role that graphic design plays within society. This was illustrated through graphic design's functions, its role in culture, misinformation, and social good. Additionally, I was able to confirm the research gap that existed within the graphic design discipline. This was mainly a result of its intuition-based history and the lack of focus on research in design education that went beyond user needs.

I was also able to confirm the awareness-to-action gap that existed within the realm of graphic design and social change, also known as design activism. As a result, I outlined examples of designers who aimed to address this gap by properly informing their audience of their options, ultimately giving them the decision-making power. While this may not bridge the awareness-to-action gap, it can help address it to some extent by allowing users to be their own advocate and placing them in a more empowered position.

Lastly, I will highlight four areas of opportunity within the realm of graphic design for social change, where the design practice can be further advanced through the introduction of more research approaches. This could result in more meaningful design outcomes that could better empower individuals to enact social change.

### Areas for Opportunity

#### 1. A New Outlook on Existing Problems

One area for opportunity was brought to light in the "Perspectives on Design Activism" section of the literature review. Design researcher, Anne Thorpe, places emphasis on the importance of introducing a new outlook on existing problems that can no longer be reformed. Graphic designers could benefit from approaching a problem with a new lens that could help them better identify barriers to success within the problem space.

##### *Why is this important?*

Identifying barriers to success could help tackle factors that could get in the way before the solution is developed and put out into society.

#### 2. Breaking Down Complexity

Another area for opportunity aims to address the complexity of wicked problems. As most social issues are considered wicked problems making it very difficult to solve, graphic designers tackling them need to break down these problems to better understand the problem space and its roots. This can help determine where in the problem space they can focus their efforts.

##### *Why is this important?*

This could help ensure that designers are focusing their efforts in the places they could actually benefit and not where their efforts would serve to be futile.

#### 3. Encouraging Greater Inclusivity

A third area for opportunity addresses the expert-led mindset that graphic designers approach their practice from. When addressing social issues, we are trying to help the people being affected by those issues. For this, we should be encouraging the inclusion of stakeholders/audience in the solution process. This can help graphic designers better understand them beyond basic user research.

##### *Why is this important?*

Using the right tools could help designers understand what could significantly impact and drive their audience to action by having the audience show them what they need instead of solely vocalizing their needs.

#### 4. Looking at the Bigger Picture

A fourth area for opportunity highlights the importance of looking at the bigger picture. Just as it is important for graphic designers to learn about the problem and its stakeholders, it is just as important for them to understand the space that problem lives in and look at the bigger picture to gain a more holistic perspective. This could help graphic designers see the different parts of the system at play.

##### *Why is this important?*

In doing this, graphic designers will be able to better assess the situation and bring to light any other systems at play that could impact the problem space or stakeholders, which they could try and tackle.

The following section will outline how graphic designers can address these areas of opportunities through interdisciplinary research approaches.

## Part 3: Suggested Research Approaches

### 3.1 – Human Factors

### 3.2 – Causal Layered Analysis (CLA)

### 3.3 – Co-design

### 3.4 – STEEPV Analysis

### 3.5 – Enhanced Graphic Design Process



## Importance of taking an Interdisciplinary Approach

Challenges in society involve the relationship between humans and their environment, which means a single disciplinary approach towards these challenges is too limited to be able to properly address them (Tobi & Kampen, 2018). Rather, it requires collaboration across different disciplines where various knowledge and research methods could be shared (Tobi & Kampen, 2018). At its core, interdisciplinary is the coming together of different disciplines (Robertson, Martin, & Singer, 2003). In order to properly address social issues, we need to gain an understanding by reassembling all the pieces (Robertson et al., 2003).

### *My Suggestions*

In the following pages, I have outlined four research approaches used within the realm of design, strategy, foresight, and innovation that work towards creating more human-centered solutions. These approaches fall within the other quadrants of Sander's (2008) design research map as opposed to the design-led with expert mindset quadrant that graphic design currently falls within. They are flexible enough to be used within various disciplines and applied for different needs. This paper argues that focusing on these approaches to research is a good way for graphic designers to incorporate outside perspectives in their design process when addressing social issues. Ideally, with any social change initiative, it is important to work with a team. This offers more diversity and perspectives, and can also speed up the research process. However, if working alone, these approaches are shaped in a way that pushes designers to consider various factors within a problem space.

By using these suggestions in their design-for-social-change process, graphic designers could better identify the agency they need to offer their users to be able to empower them into action towards their targeted cause. This is because these frameworks and methods offer a deep analysis of the problem space and the stakeholders.

## 3.1 – Human Factors & A New Outlook on Existing Problems

### *What is it?*

Human factors is an area of study that emerged from the discipline of ergonomics. It involves the study of human characteristics and limitations in order to create human-centered designs (Australian Radiation Protection and Nuclear Safety Agency [ARPANSA], n.d). This is achieved through the analysis of human relationships with their environment and other humans, as well as through the application of scientific knowledge on the human body to determine human capabilities and limitations (Civil Aviation Safety Authority [CASA], 2020).

By the end of the 19th / early 20th century, there was more demand for human factors to become a science as it slowly became part of everyday safety management. This was a result of the nuclear accident at Three Mile Island (TMI), as the root of the accident seemed to be human-related and not due to the equipment (ARPANSA, n.d.). With the advancement of technology, it was easier to see the human contributed accidents because of the increased reliability of softwares and hardwares (ARPANSA, n.d.).

### *What problem does it address?*

The main goal of human factors is to reduce human error, improve human safety and comfort, and increase productivity (ARPANSA, n.d.). It places more emphasis on creating user-centered designers, which can ultimately increase productivity and lower the risk of injury (ARPANSA, n.d.). It also guarantees that we are seeing the best work from users, as applying human factors will consider the existing strengths and weaknesses users have in terms of the project, technology, and/or process being designed (ARPANSA, n.d.).

### *How does it address this problem?*

The "SHELL theoretical model", by Hawken, illustrates the interactions between the different elements of the human factor (see Figure 17). The components of the model include: Software (procedures and symbols), Hardware (machines), Environment (the context in which the system works), and Liveware (humans).

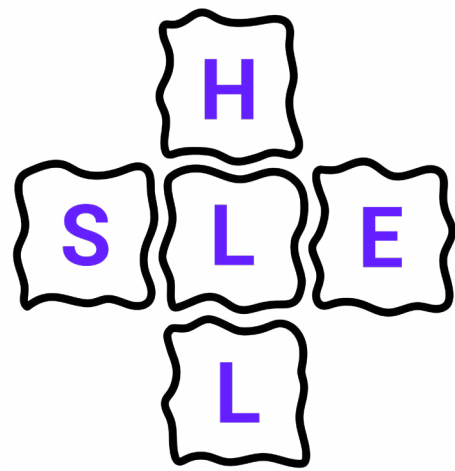


Figure 17. Hawkins' Model ("ICAO SHELL", 2019)

In this model, the match or mismatch of the blocks (or components) is just as important as the characteristics of the blocks themselves. This is because a mismatch between the components can be a source of human error ("ICAO SHELL", 2019). Therefore, it is important to be considerate of all the interactions between the different components that could help identify the barriers to success.

**Vicente's Framework**

The Human Factor by Kim Vicente explores the mismatch between technology and human needs, as he highlights the unrealistic expectations designers make about humans, which leads to a mismatch between humans and technology (Vicente, 2004). This is because there is a lack of consideration for human factors within the realm of technology. It has always been expected that humans cater to technological advancement, when in reality it should be the other way around (Vicente, 2004). Vicente aims to bridge this gap through his introduction of the Human-tech ladder (Vicente, 2004). The term "Human-tech" was derived to represent the equal importance of both within a given system. It was created to encourage designers to be more considerate of human characteristics when designing to address a problem (Vicente, 2004).

Vicente's framework (2004), offers a multi-faceted outlook on human factors; he organized human factors into five categories: physical, psychological, team, organizational, and political (see Figure 18). These different perspectives are stacked at different levels beginning with the physical at the bottom level and political at the highest level (Vicente, 2004).

Outlined below is Vicente's different perspectives on human factors (ordered from lowest level to highest) and offers examples of characteristics that should be considered at those levels (Vicente, 2004).

**Physical:** Physical characteristics such as shape, size, and any bodily physiology should be considered.

**Psychological:** Psychological characteristics such as understanding, memory, and any cognitive ability should be considered

**Team:** Team dynamics such as communication, conflict, and collaboration should be considered.

**Organizational:** Organizational behaviour such as leadership, incentives and decentives, and dynamics within an organization, should be considered.

**Political:** Public opinions, social values, and cultural norms should be considered.

Vicente's (2004) breakdown of the different levels of human factors can help guide those who are looking to identify the human factors that play a role in the problem space they are tackling. This framework can be used by going through the different levels of the ladder to get a better understanding of the human factors that play a significant role in the potential failure of their research question. This shift in perspective can offer a different user-centered lens for graphic designers that focuses on barriers to success instead of only the needs of users, resulting in a new look to existing problems. By better identifying existing barriers to success/innovation, it is more likely that graphic designers can aim to address existing problems rather than simply reforming and coming up with new solutions. This can allow them to target these barriers to success in their design solution.

THE HUMAN FACTOR
Political
Organizational
Team
Psychological
Physical

Figure 18. Vicente's five levels for human factors (Vicente, 2004)

### **How will this lead to empowering the audience?**

Tackling these barriers to success would create a clearer pathway to influence the audience and will be reflected in the design solution. This will give the audience a design that is more likely to resonate with them and make them feel understood and catered towards because of the focus on human factors.

Furthermore, by acknowledging these human factors, designers are acknowledging their audience at every step, which will help keep designers grounded in focusing on the audience and not get carried away with making decisions based on intuition or aesthetics.

### **Application**

Vicente's (2004) categories can be considered by graphic designers at different stages of their design process. It can be considered during the problem framing phase (discover), which could help them better understand the human factors that play a role in enabling or hindering their stakeholders within the problem space. By doing so, they are being made aware of the barriers they are facing and at which level of the framework they exist. This could help designers better tackle those issues and move forward in their design process more confidently.

Human Factors can also be considered during the problem solving phase (develop). By exploring the potential human factors that are at play, they could better identify barriers that could stand in the way of the solution they come up with. These barriers are likely stemmed from different categories of the human factors, which could ultimately impact the success of the design solution.

A way in which designers could better identify barriers through a human factors context is by approaching their problem statement from a lens of failure. This can be done by turning the problem statement into a failure statement. By looking at the problem from a failure lens, one could better map out the human factors involved in the problem that could hinder the outcome. This can be done by adding "what human factors contribute to the failure of" at the beginning of your research question or problem statement.

For example, let us consider my research question: *How might graphic designers utilize research methods to better inform their design decisions in empowering individuals to enact social change?*

The failure statement would be: *What human factors contribute to the failure of graphic designers utilizing research methods to better inform their design decisions in empowering individuals to enact social change?*

This places an emphasis on human factors that could hinder the design process.

### **Use these steps as a guide when applying this framework:**

1. Conduct a literature review on the barriers your stakeholder faces within the context of the problem space.
2. Using your research, go through the different levels of Vicente's human-tech ladder, in order to identify which human factors are involved.
3. Turn your problem statement into a failure statement to shift your perspective to focus on barriers to success.
4. Highlight the human factors that play a role in the failure of your research question.
5. Use these insights when coming up with your design solution.

### **Limitations**

The limitations that come with this framework is mainly the fact that there are a vast number of human factors that could be considered. For this, it could get a bit overwhelming when trying to be considerate of them. In the end, human error is inevitable due to the unpredictable nature of human behaviour. However, Vicente's (2004) breakdown of the human factors into five levels, can better address this limitation as it offers a guide and scope in which designers could use when considering human factors.

3.2 – Causal Layered Analysis (CLA) & Breaking Down Complexity

What is it?

Causal Layered Analysis (CLA) is a qualitative futures research method that was developed by Sohail Inayatullah, who is an Australian academic and futures researcher, leveraging the work of Rick Slaughter. Inayatuallah first decided to develop this method when he saw tensions in his university between different types of thinkers such as post modernists and empiricists and how they would criticize the other methods for lacking what their method offered (Inayatullah, 2009). However, the one thing all these thinkers had in common was that they focused on a specific way of thinking. Inayatuallah decided to come up with a method that embraced the different ways of thinking and integrated them to create this holistic and futuristic method known as CLA. Therefore, CLA challenges the assumption that a method should focus on a specific way of thinking. Inspired by poststructural, empirical, interpretive, and critical research perspectives. Inayatullah (2009) states,

It contextualizes data (the predictive element of the empirical approach) with meanings (interpretive) we give them, and then locates these in various historical structures of power/knowledge - class, gender, varna and episteme (the critical) along with the unconscious stories that define the episteme. (p.4)

What problem does it address?

CLA addresses complex social issues and has been used to address challenges in various settings from international organizations to universities to business clients. The versatility of this method allows different users to apply this method for various purposes. For example, a student can use the method to organize different types of data (i.e. qualitative, quantitative, and critical). An organization can use the method to voice its strategies for different contexts (e.g. for professors, students, the government, or communities) that would have different temporal needs (e.g. immediate vs. long-term needs) (Inayatullah, 2009, p.9).

How does it address this problem?

CLA challenges traditional forms of thinking and pushes users to broaden their thinking, enabling them to think up alternative futures (Shaping Tomorrow, n.d.). This is due to the fact that the method enables the researcher to analyse a problem from multiple perspectives, which helps keep a worldview vision.

It addresses surface level problem solving as it deconstructs a problem at four different levels, which in turns allows for the identification of where the resistors and resistances to change are located. It helps users of the method to reframe and rethink a problem. It does so by allowing researchers to unpack the problem and break it down in a way where the constraints

of thought and ideologies can be seen. This gives a better understanding on where the possibilities for transformation lie (Inayatullah, 2009). The structuring of the method based on four conceptual layers also allows for a better chance for the root of the problem to be addressed – allowing for second-order change to occur (i.e. a new way of seeing things) (see Figure 19) (Breen, Dzidic, & Bishop, 2018).

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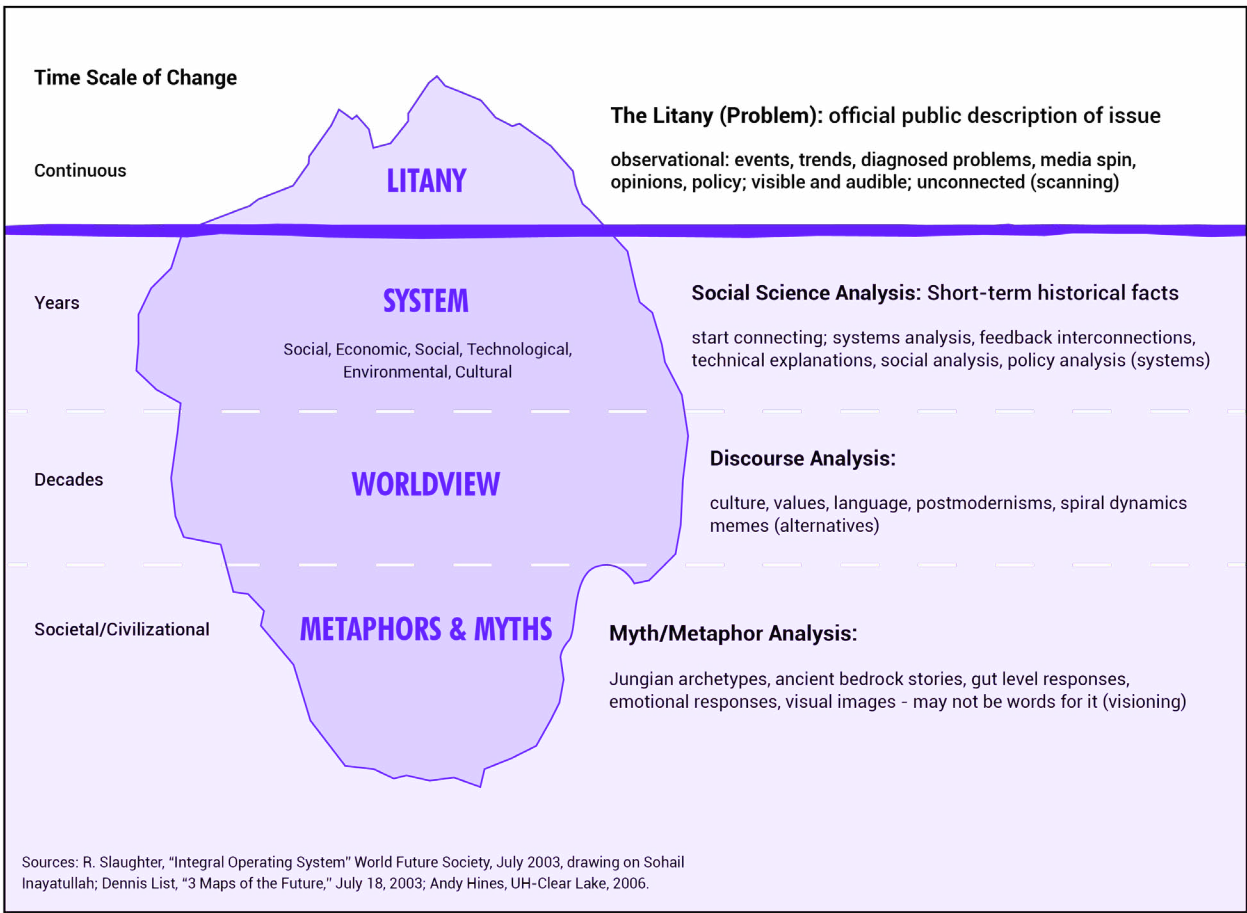


Figure 19. Overview of CLA and the breakdown of its layers (Schultz, 2016)



Analysis of these layers moves vertically from top to bottom, where the information in the top layers is easily accessible, while the information at the bottom reaches to the subconscious. The method consists of an iteration process of both converging and diverging techniques, as it is important to go back and forth between the different layers (Inayatullah, 1998).

### **Litany**

This is the surface-level understanding of the problem, which takes an issue as given and does not examine the connection it has with other issues. It is often presented by government officials or the media as shallow, unconnected trends, events or quantitative disconnected data (Inayatullah, 2009). Addressing the problem at this level tends to be short-term; it would be more of a band aid solution that will temporarily address the issue.

### **Systemic Causes**

The level below the litany is the systemic causes layer. This level explores the social, economic, technological, environmental, and cultural factors that relate to the problem. It is often presented by policy institutes, editorial pieces, and/or newspapers in the form of technical explanations or academic analysis (e.g. rising birth rates and lack of family planning) (Inayatullah, 2009). These systemic connections are examined but the larger paradigm is not questioned or explored (Inayatullah, 2009). Through this systemic perspective, the data discovered at the litany level is explained and questioned in more depth. While the analysis at this level goes deeper, the assumptions and paradigms remain unquestioned, and result in short term causal explanations (Inayatullah, 1998).

### **Worldview**

The third level of analysis is the worldview level where the deeper ideologies and paradigms are examined. This level also presents a horizontal breadth where various ideologies and stakeholder positions can be examined. This level aims to unpack deeper, unconsciously held, and ideological perspectives, as well as discursive assumptions (Inayatullah, 1998). The problem space can be reframed based on these worldviews that take into account existing assumptions, mental models, and cultural structures that constitute the problem (e.g. population growth, population/consumption debate, and the lack of social security and women's power) (Inayatullah, 2009). This level also brings to light the importance of the type of discourse used to understand a problem, as that is complicit in how the problem is framed and understood (Inayatullah, 2009). The solution focus at this level shifts from short term to long term (Inayatullah, 1998).

### **Myths/Metaphors**

The final layer of analysis is concerned with the shared stories and metaphors to which individuals are emotionally committed. Myths are the stories that give meaning to disconnected events and structure them into a larger whole (Inayatullah, 1998). The unconscious and emotional dimensions of the problem is the basis from which their

worldviews develop (e.g. viewing population as a community or viewing people as creative resources). This level is more targeted towards the heart of the users rather than their head; the problem is placed within the context of community and its beliefs as it relates to images, language, and culture (Inayatullah, 2009). Therefore, at this level, the root myth/metaphor that supports the foundation of the problem needs to be elicited/determined for the solution. This level is quite difficult to ideate solutions for, because while it does bring to light the underlying myths/metaphors of the problem, there is not much that can be done about it.

Graphic designers can use this method as a guide to help them determine who and what part of the problem they want to target.

### ***How will this lead to empowering the audience?***

With a deeper understanding of the problem and by better situating their efforts, designers will be able to understand what agency the audience has in the problem space. By communicating this through their designs, are they offering their audience/stakeholders the decision-making power and agency they need to better tackle a problem.

Furthermore, this method can also involve stakeholders/audience to come in and share their input on the problem space and work with designers in deconstructing the problem. By doing this, designers are trusting the audience's input, which will also place them in a more empowered position.

### ***Application***

This method should be used when a deep vertical analysis or an in depth understanding of what is being studied is required in order to generate long lasting change. The best use of CLA is to conduct inquiry to either uncover not so obvious worldviews hidden under the surface phenomena, or to take into account multiple or conflicting ways of knowing from various stakeholders in order to reach consensus and design long-term solutions, scenarios or policies (Inayatullah, 1998). By learning the multiple perspectives and the different levels of reality involved in a complex problem, graphic designers can better decide where to focus their efforts.

Wendy Schultz (2016), who has extensive experience and academic credentials in Future Studies and is the Director of the consultancy organization Infinite Futures, offers an example of how to put these elements into practice in her presentation "Causal Layered Analysis".

**She suggests following these steps** (Schultz, 2016, p.15):

1. Pick an issue: "The Future of X"
2. Brainstorm each level separately and talk about it
3. Brainstorm on sticky note pads
4. Cluster like items into themes

## 5. Identify gaps and needs for research (optional)

Once you get to the bottom, create a scenario from one of the different myths, working back up to the top, using the brainstormed materials from the different layers to fill in your scenario.

For graphic designers, instead of creating scenarios, you would create your design piece. So, once you get to the bottom, ideate design concepts that could tackle one of the myths identified. You can also consider the platform that will most effectively target the different myths identified. Is it a book, an app, a poster? As you work your way back up the layers, you would use your brainstorm stickies from the other layers to add more elements to your design solution until you have shaped your concept.

### *Limitations*

The main limitations of this method is that it could be difficult to approach without an expert facilitator (Shaping Tomorrow, n.d.). Despite this, it is still advantageous for designers to be aware of the different levels of reality that CLA presents. There is also a limitation in terms of stakeholder requirements; this tool requires stakeholders to actively share their perspectives and challenge their assumptions about the problem (Shaping Tomorrow, n.d.). Lastly, this tool also requires time and patience to execute, in addition to it being very interpretive.

## 3.3 – Co-design & Encouraging Greater Inclusivity

### *What is it?*

Co-design stands for “collaborative design” (Burkett, n.d.). It can also be known as “participatory design”. It is a method that aims to involve stakeholders to be part of the design process (Elizarova, Briselli, & Dowd, 2017). As design evolves, we are seeing the design discourse shift from user-centered design to co-design (Sanders & Stappers, 2008). The goal of this is to allow users to play an active role in the solutions that are being created for them (Elizarova et al., 2017). It aims to bring together a diverse group of people who are involved in the problem and solution space being tackled (Burkett, n.d.). This can ultimately lead to greater success with the final solution as it offers a better understanding of the stakeholders involved and brings in various viewpoints on the issue at hand (Burkett, n.d.). Designing “with” people instead of “for” people can result in more relevant and practical solutions that would have been difficult to arise from a single designer working on the problem who would have mainly focused on user needs.

### *What problem does it address?*

Co-design addresses the loss of valuable information and insight that could be drawn from the collaboration of a multi-disciplinary group of people involved in the problem. Understanding the stakeholder perspectives (beyond the research phase and interviews) and allowing them to offer insight into how they would want to solve a problem they are facing, can bring to light many factors that could not be gathered elsewhere (Elizarova et al., 2017). Designing with users forces designers to change and challenge their existing assumptions and biases that could play a role in their design solution. Co-design can result in increased levels of responsiveness, greater informed and enriched evidence, and better understanding and insight into complex topics (Burkett, n.d.).

### *How does it address this problem?*

Victor Papanek was a designer who encouraged other designers to use the help of stakeholders when targeting social problems (Sandbach, 2011). With co-design, designers become facilitators and managers, as they lead non-designers in design workshops that could assist them in gaining deeper insight on stakeholder aspirations, pain points, and ideas (Sandbach, 2011). By involving users in the design solution process, it can help designers create more innovative and user-centered designs as they are no longer designing for the user, but designing with them (Elizarova et al., 2017).

Different co-design tools can help “unpack experiences, challenge assumptions, incorporate people’s ideas and test out early thoughts about innovations” (Burkett, n.d., p.22). The features of co-design involve understanding the user’s experience from their point of view, beginning

with a desired end instead of focusing on the present problems, focusing on real world and practical solutions, making experiences and ideas tangible and visible, and being inclusive of various perspectives, experts, and disciplines (Burkett, n.d.).

The traditional way people are engaged in collaboration is through verbal communication; they are interviewed, surveyed, and so on. However, this only extracts information that they want to share. For genuine collaboration that is effective in the long run, it is important to go beyond what is said and what people think they do and gather insights on what they actually do, think, experience, and believe (Burkett, n.d.). This is where co-design introduces tools that deepen the engagement when collaborating with stakeholders in order to generate stronger insights. These tools need to help people “say, do and make”, in order to make sure that the co-design sessions will lead to the utmost success (Burkett, n.d.). Figure 20 demonstrates the levels in which we can gather information from others (from surface level to the deepest level). This is similar to the CLA method, in the sense of trying to unpack the target space in order to have a more effective impact on tackling it. However, while CLA is focused on breaking the complexity of the problem, co-design is focused on breaking down the complexity of what people say, do, and make. As we can see in Figure 20, in order to draw from the deep level of what people know, feel, and dream, it is important to use generative sessions, which will result in tacit and latent knowledge (Sanders & Stappers, 2012).

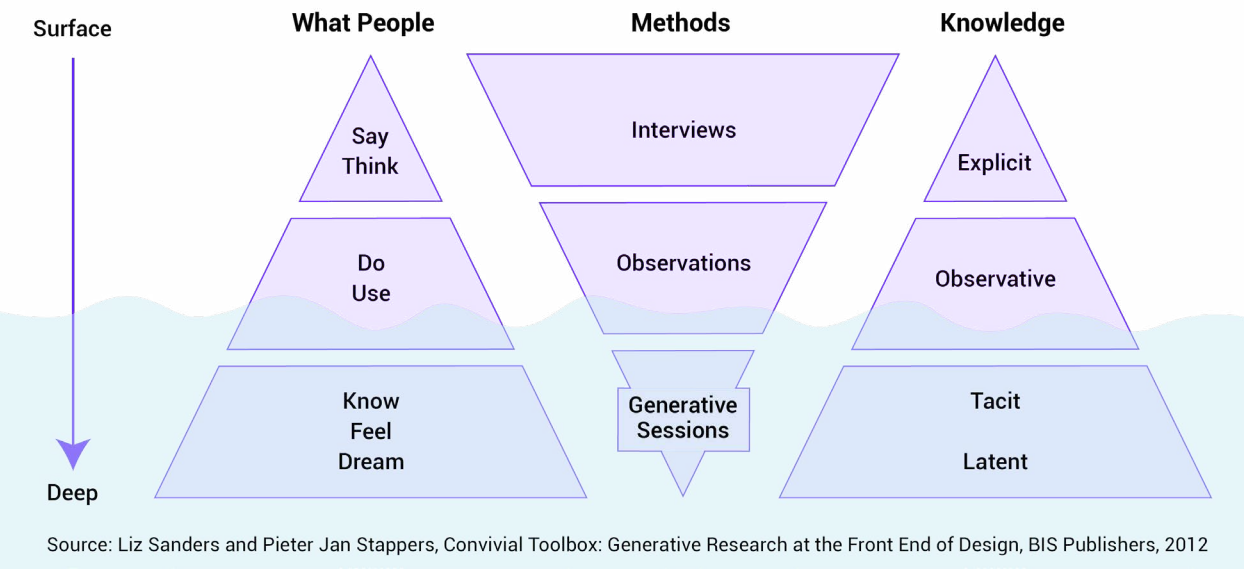


Figure 20. Levels of gathering information from surface level to deep (Burkett, n.d. p.20)

### Generative sessions

The goal of generative sessions is to have stakeholders “show” instead of “tell”. This is where visual processes serve as valuable in the co-design process. Rather than listening to what people think they do, it is better to see and experience how they are interacting with services and products (Burkett, n.d.). This can result in “artefacts”, which are “things that are created in the process of discussing an issue with a person” (Burkett, n.d., p. 20). Artefacts can be anything from a picture to a lifesize model. By generating them, a deeper understanding of stakeholder experience is offered, which can better assist in creating a solution to address their pain points. The tools that are used throughout the co-design sessions “will depend on the stage of the design process, and the context of the service users with whom we are working” (Burkett, n.d., p.20).

There are a variety of tools that can be applied during a co-design session to help elicit the information needed from stakeholders. A group of tools that can be used during these sessions fall under context mapping; users will participate in mapping exercises that will allow designers to learn about the user’s needs, motivations, and experiences (Valsplat, 2016). One example of a context mapping tool is Journey Mapping.

**Journey Mapping** is a tool where stakeholders can map out their experiences in relation to the targeted problem. This tool aims to identify pain points, frustrations, challenges, and areas of opportunities within that journey. By drawing out this information from the stakeholders, designers can gain a deeper understanding of their target audience. This will allow them to create better design solutions for them. Other examples of tools that can be conducted during generative sessions include collages, context mapping, storyboards, games, and prototyping/ sketching (Naranjo-Bock, 2012).

### Distributing Control

Co-design is changing the existing power structure of the designing process, as designers no longer control the entirety of it. Rather, control is being distributed to consumers and the end-users. While this may be a difficult process for designers who are used to a more traditional “expertise” approach, the new generation has more familiarity with distributing control and sharing ownership. This is a result of the internet, which has given a voice to those who never had one (Sanders & Stappers, 2008). This is similar to what we saw with the most recent updated version of the First Things First manifesto that was released in 2014, which opened the signatory list to anyone wishing to participate.

Ingrid Burkett (n.d) raises the question of how much control is offered to users during this co-design process. This presented three different ways in which users could play a role in the design process: as subjects, partners, or leaders.

- If they are subjects, then they would be involved in the early stages of the process in order to help designers better understand their contexts and needs (Burkett, n.d.).

- As partners, they would participate throughout the entire design process alongside designers and other experts.
- As leaders, they would lead the design process to meet their own needs by being given the resources they would need to do so, such as information, funding, skills, and knowledge (Burkett, n.d.).

I find that the level of control users would get would vary depending on the project. The level of inclusion of the user and the form of inclusion, can also depend on the user themselves.

### *How will this lead to empowering the audience?*

The agency that is given to the audience when they are brought in to be a part of designing the solution will make them feel more empowered. This is because they are not only being given decision-making power, but are also feeling heard, seen, and acknowledged. Being a part of this space will also give them a sense of community and can allow them to feel more motivated and hopeful towards the solution being developed. In turn, this can encourage them to act in response to the final design put out in society.

Furthermore, the insight gained by having the stakeholders “show” what they need instead of “tell” can create pathways of action previously not seen or acknowledged. This can allow designers to implement these insights into their design solutions and in turn create design solutions that are more likely to influence and empower their target audience or stakeholders that are not involved in the co-design process. This is because the deep level of insight will allow them to better assess what functions, information, and stylized components to involve in their designs, which could better motivate and resonate with their target audience to push them to act.

### *Application*

While co-design can take place at any point during the design process, according to Sanders and Stappers (2008), it serves beneficial when being practiced at the beginning stages of the design process, as it can lead to a bigger impact in the long run. However, more recently introducing it towards the end for the moment of decision is also becoming an area of interest (Sanders and Stappers, 2008). Regardless of when it is introduced, the use of co-design has great potential to decrease the increasing problems in society in a way that user-centered design could not. There needs to be a shift in mindset from designing products for users, to designing “future experiences of people, communities and cultures who are connected and informed in ways that were unimaginable even 10 years ago” (Sanders and Stappers, 2008, p.10).

As a result, emerging design practices are focusing less on designing products for people and more on designing for one’s tailored individual purpose. This means designing for experiences, emotion, sustainability, transformation, interaction, and serving.

Graphic designers can either facilitate their own co-design sessions by reaching out to the stakeholders of interest and creating an organized workshop plan that includes the use of various tools that would generate the desired insight they want. However, this can easily get disorganized if the facilitator is not experienced with co-design. For that, I would recommend finding an expert to facilitate the session, and be a participant in the session. This way, you will be able to gather the insight you need without the pressure of facilitating.

### **Steps to take:**

1. Reach out to people that are part of the stakeholder group of your problem space.  
*If limiting yourself to a single stakeholder, reach out to whoever you are trying to target through your designs.*
2. Facilitate or find an expert to facilitate the co-design session and generate insights by using co-design activities and tools  
*This can be done in-person or online. However, I would encourage in-person, as it offers greater flexibility when interacting with others.*
3. Analyze the results and draw key insights (such as pain points and opportunity spaces) from the exercises.  
*This step may force you to repeat the whole process. This is because you may realize that you are targeting the wrong stakeholder and may find that targeting another stakeholder will serve to be more effective.*
4. Use those insights along with the rest of your research to ideate solutions for your design problem.

### *Limitations*

The main limitation of this method is finding the stakeholders to involve in the process. Due to busy schedules, it can often be difficult to find the time to bring together a group of stakeholders to work on the design problem at once. A way around this is conducting sessions online through video conferences and using online tools. However, the ideal way to conduct co-design workshops is in person.

Another limitation is the challenges that come with grouping diverse individuals to work together. Any form of teamwork comes with various challenges such as communication, power dynamics, bias, politics, and inequity (“What is Co-design?”, n.d.). Therefore, success within co-design comes with practice as the process is a very experience-driven and iterative one (“What is Co-design?”, n.d.). Having an expert facilitator with the experience of co-design can help make the process go a lot smoother.



### 3.4 – STEEPV Analysis & Looking at the Bigger Picture

#### *What is it?*

STEEPV is an acronym that developed as a result of the six themes for future thinking: Social, Technology, Economics, Ecology, Politics, and Values (Loveridge, 2002). "Ecology" is often swapped out for "Environment". This framework has come to serve as a guide during brainstorming sessions. It is especially beneficial for foresight and scenario planning (Loveridge, 2002). As such, foresight and scenario planning require sources of information from a variety of fields. It is helpful to group them under these six categories ("STEEPV", n.d.), and in using these categories, one can also set helpful boundaries.

#### *What problem does it address?*

As an environmental scanning technique, STEEPV can help offer a holistic perspective for research. It can be used to gain a better understanding of the current world that an organization, group, or problem is involved in by considering various categories. It can help designers learn about what factors are shaping their problem or focus area ("STEEPV analysis", n.d.). So when tackling a social issue, it is beneficial to use STEEPV to conduct a scanning of the various factors that shape and impact the problem space, using the six categories as a guide.

#### *How does it address this problem?*

STEEPV can be used both individually and within a team setting. Preparation is a key component in the success of the brainstorming activity (Bailey, 2014). In this case, preparation involves doing an in-depth research of the topic area. This is because without the proper research it will be difficult to go deeper than surface level observations (Bailey, 2014). The goal of STEEPV is to exhaust as much as you can about the topic area using the six categories as your guide and boundaries.

As mentioned earlier, the six categories of STEEPV are Society (e.g. education, hospitals, laws, and norms), Technology (e.g. innovations or problems associated with technology), Economy (e.g. money and how it is spent by the government), Ecology (e.g. environmental consequences for change, climate change), Politics (e.g. frameworks that allow or disallow things from happening), and Values (e.g. the value shift or attitudes towards the subject area).

The main value with this tool is that it pushes designers to consider several different factors within their environment instead of just one. This broadens a designer's perspective and allows them to see the bigger picture, which allows them to consider areas they may not have. By getting a better idea of what factors are shaping the problem area and the space in which their users live in, it is more likely that designers will make better informed decisions for their design solution. This is especially valuable when working within the realm of social change. Due to

the high level of interrelated factors that bring about social issues, it is important to consider the various environmental factors that play a role. This could help in better understanding the different parts of the system at play, which in turn could help minimize harmful unintended consequences. By the end of using this tool, designers should be able to analyse the content and bring to light different areas of opportunities.

#### *How will this lead to empowering the audience?*

When designers are able to see where a problem and its stakeholders fall within the bigger system, they will gain perspective and deeper knowledge on what other parts of the system can influence and impact the problem space and the people involved. As a result, they will be able to highlight areas of opportunities and better assess what information can impact their target audience. They can then use those insights in their design to try and motivate their audience and offer them decisions they would be more likely to be influenced by. This can lead to better empowering them to act accordingly.

Furthermore, if designers were to communicate the insight gained on the problem space and present it within the bigger picture, this could comfort their audience and place them in a more hopeful position towards addressing the issue. This is because gaining perspective and seeing a problem within a larger system could help make it seem more manageable to tackle. In turn, this can place the audience in a more empowered position to address an issue that does not seem as big anymore.

#### *Application*

While the framework, STEEPV analysis, was derived as a foresight tool, it is flexible enough to be applicable and adapted to anyone's needs. As a graphic designer, you can use this brainstorm tool during the "discover" stage of the design process. It is a good way to organize your research and is also a great tool that can help push through mental blocks, as it demands you to think about areas you may have not considered relevant to your topic area. It will help designers acquire a more robust understanding of the external environment influencing their problem space, as well as draw out opportunity spaces.

Through your research, you will want to identify what role the different factors from these categories play in the problem area you are focusing on. To do so, you can identify signals of change through your research and place them in their respective categories. Signals of change are tangible and specific evidence of change that can be found through news sources, academic journals, novels, and even art. These signals can help inform this framework which in turn will allow you to identify trends and areas of opportunities when analysing your completed STEEPV chart (see Figure 21).

Social	Technology	Economics	Ecology / Environment	Politics	Value

Figure 21. Example of STEEPV Analysis table template

Use these steps as a guide when applying this framework:

- 1. Understand the six categories of STEEPV.
- 2. Go through each of the categories and do the research for them (with supporting evidence to back it up). The level of detail and scope is determined by you and what you are looking for.
- 3. Fill in the table with your categories listed in columns across the top of the table. You can do this by drawing a big table on a board and filling in the table using post it notes, filling out the table with paper and pen, or you can do it digitally on your computer (whatever works best for you).
- 4. Once completed, analyse your table and see if you can find any areas of opportunities that you could focus your design solution on. If working with a team, it is helpful to have a discussion and bounce off your thoughts on the implication of your findings.

("STEPPV analysis", n.d.)

Limitations

This tool can be quite time-consuming when working alone. Another limitation is that it is easy to fall into a research blackhole. For this, it is important to set the scope of your research beforehand. Furthermore, there are many signals of change and trends that exist and also many that counter them. For this, it can be a bit of a challenge to sort through and organize.

3.5 – Enhanced Graphic Design Process

By considering the above frameworks and methods within their design practice, graphic designers can enhance their existing process to better cater towards creating well-informed designs for social change. Hereby, I identified four areas for opportunity throughout the literature review. Within these were areas I felt could be leveraged to enhance the design process. I addressed these opportunity spaces through approaches from other disciplines that could help do so within the context of social change. I have summarized the main points in the table below (see Table 1) and outlined where the approaches fall in the design process in Figure 22.

Table 1. Summary of Suggestions

Area for Opportunity	Framework /Method	How it helps	How it can lead to empowering the audience
A new outlook on existing problems	Human Factors	<p>By considering the human factors, graphic designers can shift their outlook on existing problems to consider barriers to success instead of only the needs of users.</p> <p>This can be done by approaching the problem statement from a lens of failure (which will place an emphasis on barriers to success) and using Vicente's (2004) five levels of human factors as a guide.</p>	<p>Tackling these barriers would create a clearer pathway to influence the audience and will be reflected in the design solution, ultimately making them feel understood and catered towards.</p> <p>Furthermore, designers are acknowledging their audience at every step when considering human factors, which will keep them grounded in making decisions focused on the audience.</p>

Area for Opportunity	Framework /Method	How it helps	How it can lead to empowering the audience
Breaking down complexity	Causal Layered Analysis (CLA)	<p>By breaking down the complexity of a social problem using CLA, graphic designers will gain a better understanding of the underlying systems and factors at play.</p> <p>This can allow graphic designers to better decide where, how, and on who to focus their efforts.</p>	<p>Designers will gain a better understanding of what agency the audience has within the problem space and could communicate this to their audience, which could better empower them to act.</p> <p>Furthermore, by involving the audience to share their input on the problem space and join in deconstructing the problem, designers are trusting them; in turn, this will place them in a more empowered position.</p>
Encouraging Greater Inclusivity	Co-design	<p>Allowing stakeholders to get involved in the design process through the use of co-design tools, can help graphic designers get a better understanding of how the user thinks, feels, and acts within the context of the problem space.</p> <p>This type of insight can assist graphic designers in identifying pain points and areas of opportunities, which will give them a better idea of where to target their efforts and how to do so effectively.</p>	<p>The audience is given agency when they are brought in to be a part of the design solution, which in turn will place them in a more empowered position.</p> <p>Furthermore, the insights gained through co-design can create pathways of action previously not seen or acknowledged. This can offer designers insights that will allow them to design solutions that are more likely to influence and empower their target audience.</p>



Area for Opportunity	Framework /Method	How it helps	How it can lead to empowering the audience
Looking at the Bigger Picture	STEEPV Analysis	<p>Using a brainstorming tool like STEEPV analysis could help graphic designers gain a more robust understanding of the external environment influencing their problem space.</p> <p>By getting a better idea of what factors are shaping the problem area and the space in which their users live in, it is more likely that designers will make better informed decisions for their design solution. It can also help identify opportunity spaces to work within.</p>	<p>Highlighting areas of opportunities within the larger system will allow designers to better assess what information can impact/ influence their target audience and use those insights in their design solution..</p> <p>Furthermore, communicating the problem space within the bigger picture to their audience could offer them perspective. In turn, this could comfort them and place them in a more hopeful and empowered position towards addressing the problem.</p>

Table 1. Summary of the suggested research approaches, as well as how they address the areas of opportunity and empower the audience.

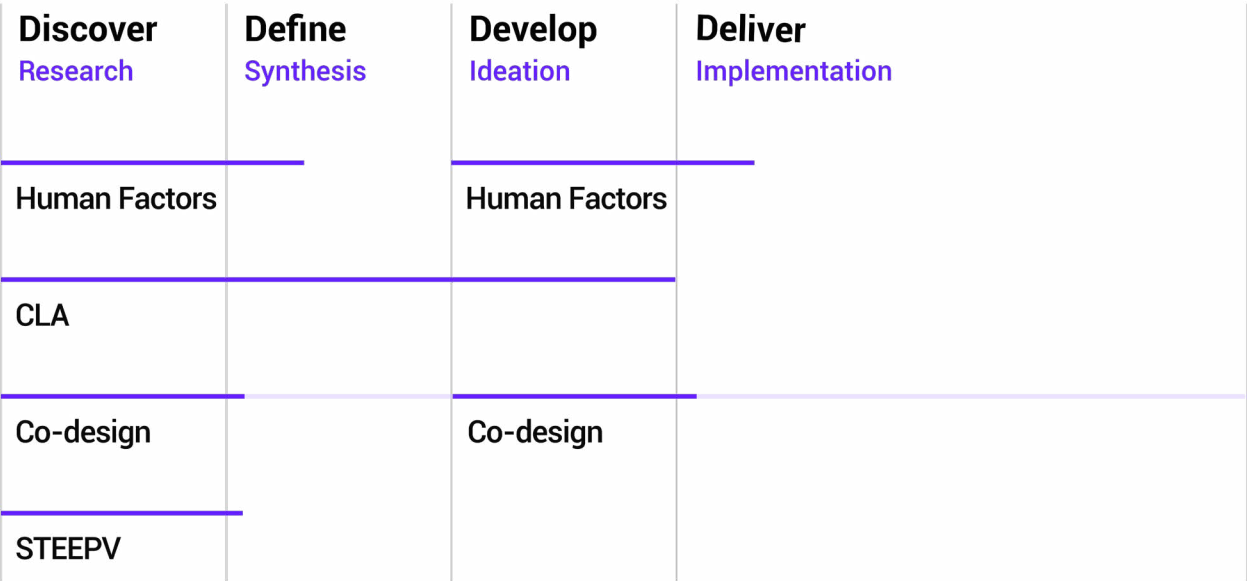


Figure 22. Where the suggested approaches fall within the design process stages

These approaches will allow graphic designers to create more socially-conscious work, as well as create designs that could target users at a much deeper level (due to the in depth breakdown of the problem space and user understanding). In turn, this will allow for more well informed design decisions geared towards empowering individuals to enact social change.

However, as previously discussed, the impact of graphic design cannot be measured. As a result, there is no way to guarantee that taking a certain number of steps will equal empowerment or foster social change. Therefore, by taking these steps to better inform design decisions through research, graphic designers are able to root their work in something more substantial than intuition or persuasion. This will ensure that, regardless of the outcome, graphic designers are properly informed on the subject matter and the audience they are addressing, which will result in better design solutions. In turn, better design solutions that are a result of well-informed design decisions will be able to impact the target audience and serve to be more empowering than design solutions developed using traditional design practice.

The above findings have been summarized into design guidelines that graphic designers can reference when trying to maximize their potential when designing for social issues (see Appendix D).

## Limitations of Research Paper

Due to the fact that there is no substantial way to measure graphic design's impact in empowering individuals, my entire paper is based on qualitative research with no systematic way to guarantee the effectiveness of my findings. This subjectivity is the most notable limitation in my research.

It is important to also acknowledge my own personal biases. This research is grounded in Western culture, as my literature review and examples used mostly came from a western perspective. Ultimately, it is difficult to separate my biases from this paper, so it is important to acknowledge it.

However, I did aim to address my question from a holistic point of view, which could be applied to different countries and cultures. Hence, the research methods are flexible enough to be applicable in different contexts, as they are used to achieve a better understanding of the subject matter and audience, regardless of the country or culture.

# Conclusion

This research project falls at the intersection of graphic design and social change in order to begin closing the gap between awareness and action. As a result, I explored the following research question:

*How might graphic designers utilize research methods to better inform their design decisions in empowering individuals to enact social change?*

Empowerment was defined at the intersection of three main qualities: having decision-making power, motivation, and a sense of community; with an underlying need for an individual to be self-driven and open to unlearning and seeing things differently.

Throughout the literature review, I explore concepts of graphic design, social change, design activism, and design research. This confirmed a gap in research and between awareness and action within the realm of graphic design for social change.

The literature review also brought to light four different areas for opportunity where graphic design could enhance its capabilities towards social change and begin closing the gaps. These opportunity spaces were addressed through four research approaches within the realm of design, strategy, foresight, and innovation: Human Factors, Causal Layered Analysis (CLA), Co-design, and STEEPV Analysis.

My findings suggest that introducing these interdisciplinary research approaches could address the research gap, which could allow graphic designers to make better informed design decisions. While this will not bridge the awareness-to-action gap, it could begin to address it by being able to offer the audience the decision making power and motivation they need to make them feel more empowered to act.

As a result, this will fulfill the empowerment qualities that I believe can play a role in influencing an individual and increase their chances of enacting social change. To reiterate, these qualities include decision making power, motivation/hope, and a sense of community, which are elements that have been reflected in the suggested research approaches. However, there will always remain the underlying need for individuals to be self-driven and open to unlearning. Appendix D offers a summarized version of my suggestions.

## Next Steps

Next steps would be to demonstrate how the suggested research approaches and guidelines could be applied through a case study. Another approach to test these approaches would be to bring them into a design studio and see the outcomes of applying them; perhaps even comparing two different studios (one that applied these suggestions and one that does not).

This research paper is only the beginning for making strides with the intersection of graphic design and social change. The real challenge is creating long-term and sustainable social change. Graphic design's role in policy and systemic change would be noteworthy to investigate further.





- Activism. (n.d.). Retrieved from <https://www.merriam-webster.com/dictionary/activism>
- Arntson, A. E. (2011). *Graphic design basics*. Cengage Learning. Retrieved from <http://hargrovecourses.com/docs/graphicdesign1/CH1scan.pdf>
- Art Nouveau. (2016, November 2). Retrieved from <https://visualartsdepartment.wordpress.com/art-nouveau/>
- Australian Radiation Protection and Nuclear Safety Agency [ARPANSA]. (n.d). Human factors. Retrieved from <https://www.arpansa.gov.au/regulation-and-licensing/safety-security-transport/holistic-safety/human-factors>
- Bailey, G. (2014, July 10). STEEPV. Retrieved from [https://connections.etf.europa.eu/wikis/home?lang=en-us#!/wiki/Waf3b410daf0b\\_49f0\\_9a8e\\_897181655904/page/STEEPV](https://connections.etf.europa.eu/wikis/home?lang=en-us#!/wiki/Waf3b410daf0b_49f0_9a8e_897181655904/page/STEEPV)
- Barnard, M. (2013). *Graphic design as communication*. Routledge.
- Barrett, J. (2008). *The Hybrid Designer*. doi:10.35010/ecuad:2673
- Bennett, A. (2006). *The rise of research in graphic design*. Design Studies Theory and Research in Graphic Design. New York: Princeton, 14-23.
- Berkman, E. T. (2018, March 20). Why Is Behavior Change So Hard? Retrieved from <https://www.psychologytoday.com/us/blog/the-motivated-brain/201803/why-is-behavior-change-so-hard>
- Bernhard, L. (1905). Priester. [Poster]. Germany. Retrieved from <https://www.britannica.com/biography/Lucian-Bernhard>
- Bernhard, L. (1917). Das ist der Weg zum Frieden – die Feinde wollen es so! darum zeichne Kriegsanleihe! [Poster]. Germany. Retrieved from *Graphic design: A new history* (2nd ed) (p. 126), by S. Eskilsson, 2012, New Haven: Yale University Press.
- Best, J. (2019, November 26). *Social Problems*. Retrieved from <https://www.oxfordbibliographies.com/view/document/obo-9780199756384/obo-9780199756384-0052.xml>
- Bichler, K., & Beier, S. (2015). *Graphic Design for the Real World?: Visual communication's potential in design activism and design for social change*. Artifact: Journal of Design Practice, 3(4), 11-1.
- Bissig, A. (2017). *It's Not Happening Here, but It's Happening Now*. [Ad]. Switzerland. Retrieved from *The Design of Dissent* (p. 248), by M. Glaser & M. Ilic, 2017, Beverly: Rockport Publishers.
- Black Lives Matter [Logo]. (2015). U.S Retrieved from <https://designaction.org/portfolio/black-lives-matter-logo/>
- Blauvelt, A. (2011). *Tool (or, Post-production for the Graphic Designer)*. *Graphic Design: Now in Production*, 22.
- Breen, L. J., Dzidic, P. L., & Bishop, B. J. (2018, February 01). *Causal layered analysis*. Oxford Clinical Psychology. Retrieved from <http://www.oxfordclinicalpsych.com/view/10.1093/med:psych/9780190243654.001.0001/med-9780190243654-chapter-11>
- Brehaut, L. (2020, March 6). *Stockpiling is in full effect, but it's not the answer to surviving a coronavirus outbreak*. Retrieved from <https://nationalpost.com/news/world/covid-19-stockpiling-surviving-coronavirus-outbreak>
- Buchanan, R. (1992). *Wicked problems in design thinking*. *Design issues*, 8(2), 5-21.
- Buchanan, R. (1998). *Education and Professional Practice in Design*. *Design Issues*, 14(2), 63-66. doi:10.2307/1511851
- Buchanan, R. (2001). *Design Research and the New Learning*. *Design Issues*, 17(4), 3-23. Retrieved from <http://www.jstor.org/stable/1511916>
- Budak, C., Agrawal, D., & El Abbadi, A. (2011, March). *Limiting the spread of misinformation in social networks*. In *Proceedings of the 20th international conference on World wide web* (pp. 665-674).
- Burkett, I. (2019). *An introduction to co-design*. Centre for Social Impact. Retrieved from: <https://www.yacwa.org.au/wp-content/uploads/2016/09/An-Introduction-to-Co-Design-by-Ingrid-Burkett.pdf> Accessed, 8.
- Chamberlin, Judi, and Aart H. Schene. "A working definition of empowerment." *Psychiatric rehabilitation journal* 20 (1997): 43-46.
- Chéret, J. (1889). Bal au Moulin Rouge. [Poster]. France. Retrieved from <https://www.britannica.com/biography/Jules-Cheret>
- Christiano, A., & Neimand, A. (2017). *Stop Raising Awareness Already*. Retrieved from [https://ssir.org/articles/entry/stop\\_raising\\_awareness\\_already](https://ssir.org/articles/entry/stop_raising_awareness_already)
- Civil Aviation Safety Authority [CASA]. (2020, March 3). *Human factors*. Retrieved from <https://www.casa.gov.au/safety-management/human-factors#:~:text=Human%20factors%20are%20issues%20affecting%20how%20people%20do%20their%20jobs.&text=The%20study%20of%20human%20factors,understand%20human%20capabilities%20and%20limitations>.
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (4th ed.). London, UK: SAGE Publications.
- Curtin, B. (2006). *Semiotics and visual representation*. *International Program in Design and Architecture*, 51-62.
- Danken, T., Dribbisch, K., & Lange, A. (2016). *Studying wicked problems forty years on: Towards a synthesis of a fragmented debate*. *der moderne staat–dms: Zeitschrift für Public Policy, Recht und Management*, 9(1).

- Dellfina, A. & Dellert-Dellacroix, T. (2002). Your Death – Our Business! [Poster]. France. Retrieved from The Design of Dissent (p. 161), by M. Glaser & M. Ilic, 2017, Beverly: Rockport Publishers.
- Design Council. (n.d.). The Design Process: What is the Double Diamond? Retrieved June 13, 2019, from Design Council website: <https://www.designcouncil.org.uk/news-opinion/design-process-what-double-diamond>
- Dongé, M., & Mokrani, I. (2019, May 29). How Fenty revolutionized the beauty industry. Retrieved from <https://www.vogue.fr/beauty-tips/article/how-fenty-revolutionized-the-beauty-industry>
- Dunfey, T. S. (2019, May 29). What is Social Change and Why Should We Care? Retrieved from <https://www.snhu.edu/about-us/newsroom/2017/11/what-is-social-change>
- Elizarova, O., Briselli, J., & Dowd, K. (2017, December 14). Participatory Design in Practice. Retrieved from <https://uxmag.com/articles/participatory-design-in-practice>
- Ellis, M. (2018, May 24). A brief history of graphic design. Retrieved from <https://99designs.ca/blog/design-history-movements/history-graphic-design/>
- Empower. (n.d.). Retrieved from <https://www.vocabulary.com/dictionary/empower>
- Eskilson, S. (2012). Graphic design: A new history (2nd ed). New Haven: Yale University Press.
- Eye Magazine. (1999). First Things First Manifesto 2000. Retrieved from <http://www.eyemagazine.com/feature/article/first-things-first-manifesto-2000>
- Faste, T., & Faste, H. (2012, August). Demystifying “design research”: Design is not research, research is design. In IDSA Education Symposium (Vol. 2012, p. 15).
- Field, J., & Logan, C. D. (2006). Circles of practice: Educational and professional graphic design. Journal of workplace learning.
- First Things First Manifesto Celebrates 50 Years. (2014, March 12). Retrieved from <https://www.ico-d.org/connect/index/post/1933.php>
- Flask, D. (n.d.). Design is History. Retrieved from <http://www.designishistory.com/1960/first-things-first/>
- Form, W., & Wilterdink, N. (2019, December 23). Social change. Retrieved from <https://www.britannica.com/topic/social-change>
- Friis, S. K. (2006). Conscious design practice as a strategic tool. The Danish University of Education.
- Fuad-Luke, A. (2013). Design activism: beautiful strangeness for a sustainable world. Routledge.
- Garland, K. (1964). First things first manifesto. Retrieved from <http://www.designishistory.com/1960/first-things-first/>
- Glaser, M., & Ilic, M. (2017). The Design of Dissent, Expanded Edition: Greed, Nationalism, Alternative Facts, and the Resistance. Quarto Publishing Group USA.
- Gorman, S., & Gorman, J. M. (2018, June 03). Does Raising Awareness Change Behavior? Retrieved from <https://www.psychologytoday.com/ca/blog/denying-the-grave/201806/does-raising-awareness-change-behavior>
- Grabmeie, J. (2018, July 13). How looking at the big picture can lead to better decisions. Retrieved from <https://www.sciencedaily.com/releases/2018/07/180713111931.htm#:~:text=Findings%20showed%20that%20participants%20who,or%20whether%20the%20others%20did.>
- Graphic Designers of Canada (n.d.) About design education. Retrieved from <https://gdc.design/education/about>
- Hasic, A. (2019, March 12). Why propaganda is more dangerous in the digital age. Retrieved from <https://www.washingtonpost.com/outlook/2019/03/12/why-propaganda-is-more-dangerous-digital-age/>
- Hausmann, Raoul. (1919-20). The Art Critic. [Poster]. Retrieved from <https://www.tate.org.uk/art/art-terms/d/dada>
- Heller, S. (2012, April 12). The Object Poster, the Visual Pun, and 3 Other Ideas That Changed Design. Retrieved from <https://www.theatlantic.com/entertainment/archive/2012/04/the-object-poster-the-visual-pun-and-3-other-ideas-that-changed-design/255797/>
- Heller, S., & Vienne, V. (2018). Citizen designer: Perspectives on design responsibility. New York: Allworth Press.
- Horst, R., & Webber, M. M. (1973). Dilemmas in a general theory of planning. Policy sciences, 4(2), 155-169
- I got arrested! Now What? [Leaflet]. (2010). Retrieved from [https://childhub.org/en/system/tdf/library/attachments/1161\\_ComicBook-5pg-1\\_original.pdf?file=1&type=node&id=6540](https://childhub.org/en/system/tdf/library/attachments/1161_ComicBook-5pg-1_original.pdf?file=1&type=node&id=6540)
- ICAO SHELL Model. (2019, July 31). Retrieved from [https://www.skybrary.aero/index.php/ICAO\\_SHELL\\_Model](https://www.skybrary.aero/index.php/ICAO_SHELL_Model)
- Inayatullah, S. (1998). Causal layered analysis: Poststructuralism as method. Futures, 30(8), 815-829.
- Influences on Perception. (n.d.). Retrieved from <https://thepeakperformancecenter.com/educational-learning/learning/process/processing-information/perception/influences-on-perception/>
- Institute of Design at Stanford. (n.d.). bootcamp bootleg. Retrieved from <http://longevity3.stanford.edu/designchallenge2015/files/2013/09/Bootleg.pdf>

- Jen, N. (2017). Design Thinking is Bullsh\*t. Retrieved from <https://99u.adobe.com/videos/55967/natasha-jen-design-thinking-is-bullshit>
- Jonas, L. (1914). Emprunt de la Libération - Souscrivez. [Poster]. France. Retrieved from <https://www.iwm.org.uk/collections/item/object/14410>
- Kassam, A. (2016, September 15). Canadian gin company's campaign accused of cultural appropriation. Retrieved from <https://www.theguardian.com/world/2016/sep/15/canadian-gin-company-ungava-offends-inuit-people>
- Kenton, W. (2019a, June 27). Why Paradigm Shifts Matter. Retrieved from <https://www.investopedia.com/terms/p/paradigm-shift.asp>
- Kenton, W. (2019b, September 13). Social Good. Retrieved from [https://www.investopedia.com/terms/s/social\\_good.asp#:~:text=A social good is something,individuals or society in general.](https://www.investopedia.com/terms/s/social_good.asp#:~:text=A social good is something,individuals or society in general.)
- Kim, H. (2017, September 24). Thoughts on Design Thinking From a Designer. Retrieved from <https://medium.com/@hannahKimBrooks/thoughts-on-design-thinking-from-a-designer-ff8e9d0c9941>
- Klassen, R., & Neicu, M. (2011). CTRL–Alt–Design. In Design History Society Annual Conference: Design Activism and Social Change.
- Kolko, J. (2012, March 6). Wicked Problems: Problems Worth Solving. Retrieved from [https://ssir.org/books/excerpts/entry/wicked\\_problems\\_problems\\_worth\\_solving#](https://ssir.org/books/excerpts/entry/wicked_problems_problems_worth_solving#)
- Kujawski, M. (2019, September 5). Misinformation vs. Disinformation vs. Mal-information. Retrieved from <https://medium.com/@mikekujawski/misinformation-vs-disinformation-vs-mal-information-a2b741410736>
- Lawson, B. (2006). How designers think: The design process demystified. Routledge.
- Leete, A. (1914). Lord Kitchener Wants You. [Poster]. UK. Retrieved from <https://www.iwm.org.uk/collections/item/object/16577>
- Leicht, K. T. (2018, March 2). Social Change. Retrieved from <https://www.oxfordbibliographies.com/view/document/obo-9780199756384/obo-9780199756384-0047.xml>
- Loveridge, D. (2002), The STEEPV acronym and process – a clarification, PREST, Paper no. 29.
- Lumen Learning. (n.d.). Social Change. Retrieved from <https://courses.lumenlearning.com/sociology/chapter/social-change/>
- Manhattan Project. (2020, January 16). Retrieved from <https://www.britannica.com/event/Manhattan-Project>
- Markussen, T. (2013). The disruptive aesthetics of design activism: enacting design between art and politics. *Design Issues*, 29(1), 38-50.
- Marsh, P. O. (1983). Messages that work: a guide to communication design. Educational Technology.
- Marwick, A. (2005). The Cultural Revolution of the Long Sixties: Voices of Reaction, Protest, and Permeation. *The International History Review*, 27(4), 780-806. Retrieved from [www.jstor.org/stable/40109676](http://www.jstor.org/stable/40109676)
- Mason, R. O. (1986). Four ethical issues of the information age. *Mis Quarterly*, 5-12.
- McCoy, Katherine. Education in an Adolescent Profession. In *The Education of a Graphic Designer*, edited by Steven Heller, 3–12. 2nd ed. New York: Allworth Press. 2006.
- Monteiro, M. (2019). Ruined by Design: How Designers Destroyed the World, and What We Can Do to Fix It. Mule Books.
- Montgomery, A. (2014, March 04). Updating the First Things First manifesto for 2014. Retrieved from <https://www.designweek.co.uk/issues/february-2014/updating-the-first-things-first-manifesto-for-2014/>
- Morley, M. (2017, April 26). What Design Can Do: Spark Social Change. Retrieved from <https://99u.adobe.com/articles/55317/what-design-can-do-spark-social-change>
- Naranjo-Bock, C. (2012, April 24). Creativity-based Research: The Process of Co-Designing with Users. Retrieved from <https://uxmag.com/articles/creativity-based-research-the-process-of-co-designing-with-users>
- O'Grady, J. V., & O'Grady, K. V. (2017). A Designer's Research Manual, Updated and Expanded: Succeed in Design by Knowing Your Clients and Understanding what They Really Need. Rockport.
- O'Neill, S., & Nicholson-Cole, S. (2009). "Fear won't do it" promoting positive engagement with climate change through visual and iconic representations. *Science Communication*, 30(3), 355-379.
- Padavic, I., & Reskin, B. F. (2002). *Women and Men at Work* (2nd ed.). Thousand Oaks, California: Pine Forge Press.
- Pater, R. (2016). *Politics of Design: A Not So Global Manual for Visual Communication*. Bis Publishers.
- Peters, B. G. (2017). What is so wicked about wicked problems? A conceptual analysis and a research program. *Policy and Society*, 36(3), 385-396.
- Pink, D. H. (2006). *A whole new mind: Why right-brainers will rule the future*. Penguin.
- Robertson, D. W., Martin, D. K., & Singer, P. A. (2003). Interdisciplinary research: putting the methods under the microscope. *BMC Medical Research Methodology*, 3(1), 20
- Rosado, C. (1997). *Paradigm shifts and stages of societal change: a descriptive model*. Rosado Consulting for Change in Human Systems.

- Roth, S. (1999). The State of Design Research. *Design Issues*, 15(2), 18-26. doi:10.2307/1511839
- Sandbach, K. (2011). Graphic design and the aesthetics of place. *Iridescent*, 1(1), 148-159.
- Sanders, E. B. N., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *Co-design*, 4(1), 5-18.
- Sanders, L. (2001, August). Collective creativity. Retrieved from [http://www.echo.iat.sfu.ca/library/sanders\\_01\\_collective\\_creativity.pdf](http://www.echo.iat.sfu.ca/library/sanders_01_collective_creativity.pdf)
- Sanders, L. (2008). An evolving map of design practice and design research. *interactions*, 15(6), 13-17.
- Schultz, W. (2016, May 03). CLA (causal layered analysis) - brief introduction. Retrieved from [https://www.slideshare.net/wendyinfutures/cla-causal-layered-analysis-brief-introduction?qid=ff743c08-dd81-4a50-817a-cf86a1b71423&v=&b=&from\\_search=1](https://www.slideshare.net/wendyinfutures/cla-causal-layered-analysis-brief-introduction?qid=ff743c08-dd81-4a50-817a-cf86a1b71423&v=&b=&from_search=1)
- Shaping Tomorrow, Making Better Decisions Today (n.d). Causal layered analysis. Retrieved from <https://www.shapingtomorrow.com/webtext/55>
- Smithfield, B. (2016, October 6). Jules Chéret, the father of the modern poster. Retrieved from <https://www.thevintagenews.com/2016/10/06/jules-cheret-the-father-of-the-modern-poster/>
- STEEP.V. (n.d.). Retrieved from <http://www.fenriam.eu/steepv.html>
- STEEP.V analysis. (n.d.). Retrieved from <https://www.untaylor.com/resources/steepv-analysis>
- Strickler, Z. (1999). Elicitation Methods in Experimental Design Research. *Design Issues*, 15(2), 27-39. doi:10.2307/1511840
- Swanson, G. (1994). Graphic Design Education as a Liberal Art: Design and Knowledge in the University and the "Real World". *Design Issues*, 10(1), 53-63. doi:10.2307/1511656
- Tan, C. K. (2008, November 24). Closing the Awareness-Action Gap. Retrieved from <https://ourworld.unu.edu/en/closing-the-gap>
- Tate. (n.d.). Dada – Art Term. Retrieved from <https://www.tate.org.uk/art/art-terms/d/dada>
- Thorpe, A. (n.d.). Design as Activism: to resist or to generate? Retrieved from <https://current.ecuad.ca/design-as-activism-to-resist-or-to-generate>
- Thorpe, A. (2008). Defining Design as Activism. Retrieved from <http://designactivism.net/wp-content/uploads/2011/05/Thorpedefiningdesignactivism.pdf>
- Tobi, H., & Kampen, J. K. (2018). Research design: the methodology for interdisciplinary research framework. *Quality & quantity*, 52(3), 1209-1225.
- Trachtman, P. (2006, May 1). A Brief History of Dada. Retrieved from <https://www.smithsonianmag.com/arts-culture/dada-115169154/>
- Tully, B. S. (2018, February 17). How conservationists can overcome the awareness-action gap. Retrieved from <https://medium.com/brookes2cents/how-conservationists-can-overcome-the-awareness-action-gap-fd9320194f07>
- Urban Outfitters. (2009). Navajo line. Retrieved from <https://www.brandchannel.com/2012/03/02/urban-outfitters-offends-irish-navajo-nation/>
- Valsplat. (2016, May 17). Use generative sessions to collect needs and desires. Retrieved from <https://medium.com/@valsplat/use-generative-sessions-to-collect-needs-and-desires-33e084376576>
- Vicente, K. (2004). *The human factor: revolutionizing the way we live with technology*. Vintage Canada.
- Warner, M. (2002). Publics and counterpublics. *Public culture*, 14(1), 49-90.
- What is a Social Problem? (2016, March 25). Retrieved from <https://open.lib.umn.edu/socialproblems/chapter/1-1-what-is-a-social-problem/>
- What is Co-design? (n.d.). Retrieved from <http://co-design.tools/?portfolio=origins-of-co-design>
- What is STEEP Analysis? (2015, February 11). Retrieved from <https://pestleanalysis.com/what-is-steep-analysis/>
- Wong, E. (2019). What is A Wicked Problem and How Can You Solve It? Retrieved from <https://www.interaction-design.org/literature/article/wicked-problems-5-steps-to-help-you-tackle-wicked-problems-by-combining-systems-thinking-with-agile-methodology>
- Wright, S., O'Brien, B. C., Nimmon, L., Law, M., & Mylopoulos, M. (2016). Research Design Considerations. *Journal of graduate medical education*, 8(1), 97–98.
- Wu, L., Morstatter, F., Hu, X., & Liu, H. (2016). Mining misinformation in social media. In *Big Data in Complex and Social Networks* (pp. 135-162). Chapman and Hall/CRC.
- Zevallos, Z. (2017, January 30). How does social change happen? Retrieved from <https://socialscienceinsights.com/2017/01/30/how-does-social-change-happen/>
- Zhang-Kennedy, L., Chiasson, S., & van Oorschot, P. (2016, June). Revisiting password rules: facilitating human management of passwords. In *Electronic Crime Research (eCrime)*, 2016 APWG Symposium on (pp. 1-10). IEEE.





Appendix A: First Things First Manifesto



Figure A1. Ken Garland's (1964) *First Things First Manifesto* Photo (Garland, 1964)

First Things First Manifesto text:

A manifesto

We, the undersigned, are graphic designers, photographers and students who have been brought up in a world in which the techniques and apparatus of advertising have persistently been presented to us as the most lucrative effective and desirable means of using our talents. We have been bombarded with publications devoted to this belief, applauding the world of those who have flogged their skill and imagination to sell such things as:

cat food, stomach powders, detergent, hair restorer, stripped toothpaste, aftershave lotion, before shave lotion, slimming diets, fattening diets, deodorants, fizzy water, cigarettes, roll-ons, pull-ons and slip-ons.

By far the greatest time and effort of those working in the advertising industry are wasted on these trivial purposes, which contribute little or nothing to our national prosperity.

In common with an increasing number of the general public, we have reached a saturation point at which the high pitched scream of consumer selling is no more than sheer noise. We think that there are other things more worth using our skill and experience on. There are signs for streets and buildings, books and periodicals, catalogues, instructional manuals, industrial photography, educational aids, films, television features, scientific and industrial publications and all the other media through which we promote our trade, out education, our culture and our greater awareness of the world.

We do not advocate the abolition of high pressure consumer advertising: this is not feasible. Nor do we want to take any of the fun out of life. But we are proposing a reversal of priorities in favour of the more useful and more lasting forms of communication. We hope that our society will tire of gimmick merchants, status salesmen and hidden persuaders, and that the prior call on our skills will be for worthwhile purposes. With this in mind, we propose to share our experience and opinions, and to make them available to colleagues, students and others who may be interested.

- Edward Wright
- Geoffrey White
- William Slack
- Caroline Rawlence
- Ian McLaren
- Sam Lambert
- Ivor Kamlisch
- Gerald Jones
- Bernhard Higton
- Brian Grimbley
- John Garner
- Ken Garland
- Anthony Froshaug
- Robin Flor
- Germano Facetti
- Ivan Dodd
- Harriet Crowder
- Anthony Clift
- Gerry Cinamon
- Robert Chapman
- Ray Carpenter
- Ken Briggs

Appendix B: First Things First Manifesto 2000



Figure B1. *First Things First Manifesto 2000* Photo ("Eye Magazine", 1999)

First Things First 2000 manifesto text:

We, the undersigned, are graphic designers, art directors and visual communicators who have been raised in a world in which the techniques and apparatus of advertising have persistently been presented to us as the most lucrative, effective and desirable use of our talents. Many design teachers and mentors promote this belief; the market rewards it; a tide of books and publications reinforces it.

Encouraged in this direction, designers

then apply their skill and imagination to sell dog biscuits, designer coffee, diamonds, detergents, hair gel, cigarettes, credit cards, sneakers, butt toners, light beer and heavy-duty recreational vehicles. Commercial work has always paid the bills, but many graphic designers have now let it become, in large measure, what graphic designers do. This, in turn, is how the world perceives design. The profession's time and energy is used up manufacturing demand for things that are inessential at best.

Many of us have grown increasingly uncomfortable with this view of design. Designers who devote their efforts primarily to advertising, marketing and brand development are supporting, and implicitly endorsing, a mental environment so saturated with commercial messages that it is changing the very way citizen-consumers speak, think, feel, respond and interact. To some extent we are all helping draft a reductive and immeasurably harmful code of public discourse.

There are pursuits more worthy of our problem-solving skills. Unprecedented environmental, social and cultural crises demand our attention. Many cultural interventions, social marketing campaigns, books, magazines, exhibitions, educational tools, television programmes, films, charitable causes and other information design projects urgently require our expertise and help.

We propose a reversal of priorities in favour of more useful, lasting and democratic forms of communication – a mindshift away from product marketing and toward the exploration and production of a new kind of meaning. The scope of debate is shrinking; it must expand. Consumerism is running uncontested; it must be challenged by other perspectives expressed, in part, through the visual languages and resources of design.

In 1964, 22 visual communicators signed the original call for our skills to be put to worthwhile use. With the explosive growth of global commercial culture, their message has only grown more urgent. Today, we renew their manifesto in expectation that no more decades will pass before it is taken to heart.

- Jonathan Barnbrook
- Nick Bell
- Andrew Blauvelt
- Hans Bockting
- Irma Boom
- Sheila Levrant de Bretteville
- Max Bruinsma
- Siân Cook
- Linda van Deursen
- Chris Dixon
- William Drenttel
- Gert Dumbar
- Simon Esterson
- Vince Frost
- Ken Garland
- Milton Glaser
- Jessica Helfand
- Steven Heller
- Andrew Howard
- Tibor Kalman
- Jeffery Keedy
- Zuzana Licko
- Ellen Lupton
- Katherine McCoy
- Armand Mevis
- J. Abbott Miller
- Rick Poynor
- Lucienne Roberts
- Erik Spiekermann
- Jan van Toorn
- Teal Triggs
- Rudy VanderLans
- Bob Wilkinson



Appendix C: First Things First 2014

First Things First 2014 (Peters, 2017):

A Manifesto

We, the undersigned, are designers, developers, creative technologists, and multi-disciplinary communicators. We are troubled by the present state of our industry and its effects on cultures and societies across the world.

We have become part of a professional climate that:

- prizes venture capital, profit, and scale over usefulness and resonance;
- demands a debilitating work-life imbalance of its workers;
- lacks critical diversity in gender, race, and age;
- claims to solve problems but favours those of a superficial nature;
- treats consumers' personal information as objects to be monetised instead of as personal property to be supported and protected; and
- refuses to address the need to reform policies affecting the jurisdiction and ownership of data.

Encouraged in these directions, we have applied ourselves toward the creation of trivial, undifferentiated apps; disposable social networks; fantastical gadgets obtainable only by the affluent; products that use emotion as a front for the sale of customer data; products that reinforce broken or dishonest forms of commerce; and insular communities that drive away potential collaborators and well-grounded leaders. Some of us have lent our expertise to initiatives that abuse the law and human rights, defeat critical systems of encryption and privacy, and put lives at risk. We have negated our professions' potential for positive impact, and are using up our time and energy manufacturing demand for things that are redundant at best, destructive at worst.

There are pursuits more worthy of our dedication. Our abilities can benefit areas such as education, medicine, privacy and digital security, public awareness and social campaigns, journalism, information design, and humanitarian aid. They can transform our current systems of finance and commerce, and reinforce human rights and civil liberties.

It is also our responsibility as members of our industry to create positive changes within it. We must work to improve our stances on diversity, inclusion, working conditions, and employees' mental health. Failing to address these issues should no longer be deemed acceptable by any party.

Ultimately, regardless of its area of focus or scale, our work and our mindset must take on a more ethical, critical ethos.

It is not our desire to take the fun out of life. There should always be room for entertainment, personal projects, humour, experimentation, and light-hearted use of our abilities.

Instead, we are calling for a refocusing of priorities, in favour of more lasting, democratic forms of communication. A mind shift away from profit-over-people business models and the placing of corporations before individuals, toward the exploration and production of humble, meaningful work, and beneficial cultural impact.

In 1964, and again in 1999, a dedicated group of practitioners signed their names to earlier iterations of this manifesto, forming a call to put their collective skills to worthwhile use. With the unprecedented growth of technology over the past 15 years, their message has since grown only more urgent. Today, in celebration of its 50th anniversary, we renew and expand the First Things First manifesto, with the hope of catalysing a meaningful revolution in both our industry and the world at large.

Sign it

This manifesto needs your voice. Only by coming together as a community can we affect the kinds of changes that so urgently need to happen within it. You can contribute your signature by providing your information below.

Your name: \_\_\_\_\_ Your website or profile: (optional) \_\_\_\_\_

Your email address: \_\_\_\_\_

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# Appendix D: Design Guidelines

The following design guidelines can be used by graphic designers to maximize their potential when addressing a social issue. By doing so, they can better empower individuals they are targeting through their designs. These guidelines do not need to be used in a specific order. Rather, they are intended to serve as important reminders of the considerations that should be taken when tackling a social problem. These guidelines are my recommendations for graphic designers that have been derived from my findings throughout this research paper. They are a combination of the opportunity spaces and suggested approaches outlined within this paper.

1. **Consider Human Factors when designing.**

By considering the human factors, graphic designers can shift their outlook on existing problems to consider barriers to success instead of only the needs of users. Vicente's (2004) five levels of human factors framework serves as a good guide to identifying the human factors involved. This does not mean that all levels need to be incorporated all the time. However, being considerate of human factors and seeing which needs to be addressed can offer graphic designers the insight they need to identify barriers to the problem and solution space that could have impacted the success of your design.

2. **Consider turning your problem statement into a failure statement to help in identifying barriers.**

By approaching your problem statement from a lens of failure places an emphasis on barriers to success. With re-framed lens, one can better map out the human factors involved in the problem that can hinder the outcome.

For example, if the research question is: How might graphic designers utilize research methods to better inform their design decisions in empowering individuals to enact social change?

The failure statement would be: What human factors contribute to the failure of graphic designers utilizing research methods to better inform their design decisions in empowering individuals to enact social change?

This can also work if you decide to not use human factors. By simply flipping to a failure lens, it can help in shifting your mindset to better identify barriers.

3. **Breakdown the complexity of your problem space.**

Using a method like Causal Layered Analysis (CLA), can help break down the complexity of a social problem. By doing this, graphic designers will gain a better understanding of the underlying systems and factors at play. This can allow them to better decide where, how, and on who to focus their efforts.

4. **Start designing with people instead of for people.**

Allowing stakeholders of the problem to get involved in the design process through the use of a method like co-design, can help graphic designers get a better understanding of how the user thinks, feels, and acts within the context of the problem space.

This type of insight can assist graphic designers in identifying pain points and areas of opportunities, which will give them a better idea of where to target their efforts and how to do so effectively.

5. **Look at the bigger picture of your problem space through more robust research.**

Using a brainstorming framework like the STEEPV analysis could help graphic designers gain a more robust understanding of the external environment influencing their problem space. By getting a better idea of what factors are shaping the problem area and the space in which their users live, it is more likely that designers will make better informed decisions for their design solutions.. It can also help see the bigger picture, which is sometimes necessary to better understand the different parts of the system at play. This in turn could minimize harmful unintended consequences and identify opportunity spaces to work within.

6. **Aim to empower individuals through your designs by providing them with the relevant tools and skills to make their own decisions, as opposed to trying to persuade/pressure them.**

While information can be a great tool to persuade users, people are more likely to react and take initiative towards a cause when they have enough knowledge and understanding of their options. This will give them the decision making power, which when combined with motivational visual communication and a sense of community, can offer them a sense of empowerment. As a result, they are more likely to react actively as opposed to passively. However, there remains an underlying need for individuals to be self-driven and open to unlearning and seeing things differently when interacting with your designs.

