

# INSIGHTS

*Editor Chiara Del Gaudio*

CARLETON UNIVERSITY SCHOOL OF INDUSTRIAL DESIGN  
4th-YEAR SEMINAR COURSE | SECTION A | FALL 2022

# INSIGHTS

## Sample Essays

*Editor Chiara Del Gaudio*

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Edited by Chiara Del Gaudio

# Introduction

The *4th-year Industrial Design Seminar* course traditionally focuses on reading, discovering, reflecting, debating, and writing. This happens through the exploration of key contemporary design topics and discussions. Topics vary yearly.

In 2022, I designed the course with a goal in mind: to encourage students to critically reflect on what they had learned so far about Design and to discover other perspectives on it. I also wanted students to understand what it means when we say that designers can be critical actors in our society and that Design is a political practice.

We talked about emerging design approaches on Design in the Social (field) and for and society. We explored them collectively and experimented with how Design can be practiced differently.

To achieve this goal, I ideated activities for the theoretical exploration of four recent and emerging discussions and approaches in Design: 1) Co-design and Participatory Design; 2) Design for Social Innovation; 3) Gender inclusive Design; and 4) Speculative and Critical Design.

Students read about these approaches and explored how to practice them through a collaboration with the *Rideau-Rockcliffe Community Resource Center*, which is located in Ottawa. To synthesize what they learned students wrote short essays reflecting on one of those approaches, drawing from the readings and practical experiences.

In this document, a sample of the essays is made available to the broader audience.

Chiara Del Gaudio



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Holly Smith

# Reflecting on Gender and Design: The Nuance Beyond Anthropometrics

## Key Words

Gender  
Design  
Bias  
Reflection

## *Introduction*

Gender and Design reflects the way gender is implicated in the design of our everyday world, and how societal norms and expectations of gender are reflected in our systems, services, and built environments (Churchill, 2010; Power, 2017). My thoughts on Gender and Design are ever-evolving. Throughout the course learnings I have expanded my understanding to a more nuanced understanding beyond the binary and differences between sexes. In this essay, I will reflect on a project I completed prior to this course: the redesign of a pneumatic sander that focused on improving the accessibility and approachability of power tools for the female demographic. I thought I was approaching this project with a gender lens, but I was more focused on the sex and anthropometric differences rather than the societal implications of gender. It is unknown how approaching this problem with a broader understanding of gender would have affected the product outcome, but it certainly would have affected the process and broadened what I explored. By incorporating a gender lens into our designs, we can create a more desirable and equitable future with richer products and environments that best suit our needs and aspirations.

## *Reflecting on the Sander Redesign*

The sander redesign focused on four main issues: differences in hand anthropometry, differences in grip strength, female representation within product development, and experience level influenced by cultural norms. The error in my approach to solving this problem was that I focused only on the anthropometrics, hoping they would solve the rest of the problems as a by-product. I overlooked the issue of

women's exposure to and experience with power tools and how that affects their interaction with the product. Given that gender is a social construct, to complete any gender-based design we must understand these social expectations and norms and how they impact people's approach to products.

It was important to me that the aesthetics of the sander reflected something that would be more approachable in the power tool landscape, a market filled with harsh contrasting colours and more aggressive shapes. As Elizabeth Churchill expressed, "designers should think about gender at a level of sophistication beyond color and shape. We should be reflective and conscious of the assumptions of use and user that are being built into our products" (Churchill, 2010, p5). In designing my

sander, I made gender-based assumptions by choosing softer, rounded form features and a colour palette of dark blue and softer grey, reducing the harsh contrast while intentionally leaving out colours directly associated with femininity. The better response would have been to identify the aesthetic features missing from the product market and design a product that suits that niche, ensuring that a wider variety of people could feel reflected in the product regardless of their gender. With this new understanding of gender, it is still challenging to push back against the implicit gender biases and instincts to only consider sex differences. The next step is to take a more critical approach to the attributes we associate with gender in designs.

## Conclusions

It is imperative that we understand the role of gender today so we can design accordingly and create products with value for all. The most desirable future is one where everyone can feel represented in their products and everyday environment. We need products that are equitable and suitable to a wide variety of users, designed with functionality that considers a wider range of anthropometrics beyond the default male (Criado-Perez, 2019) in a world in which people can select products based on personal preferences unassociated with gender. Such a future becomes more and more feasible the more we move beyond the concept of gender as a binary. It is the responsibility of designers today to incorporate a gendered lens into their projects so we can push toward this future.

## *Final Reflections*

I understand design to be the finding and solving of problems in the pursuit of a more desirable future and reality.

My understanding of design has not changed greatly since the beginning of this course. What has changed is the scope of what I know design to be. This course has broadened my knowledge of approaches to design and the various methods that can be implemented into the design process. Being exposed to new areas of design helped me realize all that I do not know about design and how much there is to explore.

Typically in my design processes, I define the constraints of the project early. With this project, we defined very few constraints during the ideation phase. This allowed us to think outside of the box and utilize speculative design practices to help us imagine a new reality for the Rideau Hub.

Learning about co-design, design for social innovation, speculative design, and gender & design equipped me with four new lenses to approach design. Moving forward I will incorporate elements of each into my design tool kit. In particular, gender and design reflects my interests in equitable and accessible design so I will be sure to consider the implications of gender in all my design work.

Previously I was solely interested in physical product design. I now have an increased interest in the design of systems and services. While physical design is still my primary interest, I recognize the value of its interaction with broader systems and services. This understanding of how products will interface with the world can strengthen my product outcomes.

Graeme McNeice

# Challenging Assumptions With Speculative Design

## Key Words

Speculative Design  
Design Approach  
Disciplines  
Lateral Thinking  
Scenarios

## *Introduction*

Amongst the multiple disciplines and skills that are practiced within the scope of design, one of the most challenging skills required to design effectively is lateral thinking. Not only does one need to learn to think from multiple perspectives, but one must also be able to evaluate which of these perspectives will provide optimal outcomes. An approach to design that magnificently addresses the challenges of practicing lateral thinking is speculative design. The speculative design approach involves the exploration and imagination of possible futures or presents to evoke new perspectives and understandings. These imagined scenarios are not meant to solve a problem but to provide insight to develop a better understanding. In a world where design has become mainly a tool to promote consumerism and production, there are many ways of thinking that go unquestioned and are considered common sense that can and do cause harm. This begs the question: if speculative design revolves around imagining and questioning the future, can it be used to address these so-called 'common sense' mindsets? How can speculative design be used to challenge assumptions?

## *How can Speculative Design Challenge Assumptions?*

When one examines the nature of both assumptions and speculative design, the link quickly becomes clear. An assumption is the uninformed acceptance of something as true. Speculative design provides a critical lens through imagined scenarios, allowing

designers to speculate where our current tendencies may lead us in the future. Speculative design allows us to explore and gain information on our assumptions. In class, we became familiar with the writings of Anthony Dunne, who explains how speculative design uses dreams to break out of the cycle of designing only to solve problems directly. Speculative design can instead be used to shed light on different possibilities that may not be otherwise considered. As they put it, speculative design is about “redefining our relationship with reality,” not fixing what exists inside of the one we have preconceived (Dunne, 2013, p.2). This is how one can begin to question their assumptions by reframing the reality they live in through speculative design. For the project that we undertook over the last 5 weeks, we used speculative design as a tool to reframe our understanding through scenarios of how the everyday lives and realities of those in the Rideau Community Hub could be enhanced, not by trying to explicitly solve their problems. This is how speculative design can be used to challenge assumptions, reframe our perspectives and inform our choices in everyday practices.

### *How can Designers Begin to Practice Speculative Design This way?*

How can people begin to practice speculative design in this way? Designers practice elements of speculative design to some degree every time that they ideate. When a designer is tasked with designing a new product, part of the ideation process involves thinking about the future in which their concepts exist, and how the concepts would affect the imagined future scenario. Auger discusses the process of imagining the context and environment of a future design in their article. The article explains the importance of creating informed perspectives on imagined scenarios, to understand the logic and consequences they entail (Auger, 2013, p.13). For instance, in my first year of studying industrial design, I had to design a sleeping pod for use in hurricanes. I recall envisioning the context of the pod's use while I designed the product.. Although I was unaware of it, I was speculating about future scenarios as far back as my first design projects. In retrospect, I imagine that most of my past design projects involved this sort of scenario building. Although this is only part of the practice of speculative design, it shows that designers at any stage of education are capable of building future scenarios and using their imaginations as tools. The trick is to regularly put this skill to practice, and to apply it to situations that one would not normally question. Once a designer has enough experience with speculative design, it will seem like second nature to think critically about the world around them.

## Conclusions

Overall, from personal experience and from researching the approach, I have found that speculative design gives designers and non-designers alike the skills to open their minds to new possibilities, especially to aspects of life that are normally overlooked. It allows us to step out of our biased outlooks and investigate our assumptions through imagined future scenarios, so we can methodically dissect the implications of their continued practice. From this, we can address assumptions that we discover to be harmful. It is exactly the broadening of perspectives that speculative design promotes that allows us to revisit our assumptions in a constructive light. With the right amount of effort, anyone can use speculative design to change their assumptions permanently, for the better.

## Final Reflections

Upon beginning the class this semester, I would have defined design simply as the act of solving problems. However, it is now clear to me through the theoretical and practical exploration of co-design, design for social innovation, speculative design and design for gender that design expands far past the solving of problems.

When designing something, by creating a product or service, not only is a problem solved, but an experience is created, new systems are set in motion, and new dynamics are brought to life. When we design something, people react to it, and other people will proceed to react to this reaction, with this chain reaction moving forward further than anyone can predict. On top of this, the goal of design does not even need to be problem-solving to begin with. Design can simply be the creation of ideas to propagate more ideas, like in speculative design.

This semester, we used speculative design in our final project to expand our minds to think about as many possibilities as we could. We did this by allowing ourselves to come up with multiple unrestrained scenarios, so we could think further and further outside the box. This is definitely something I, as a designer, will continue to practice as I continue my career.

Not only will the design practices mentioned inform and change my practice as a designer, but they have also opened my eyes to how many design disciplines there must still be that I have not yet explored. I will continue to enrich my understanding by gaining as many new design perspectives as I can to enhance myself as a designer.



Camryn O'Donnell

# Challenging the Role of Designer

## Key Words

Roles  
Design  
for Social  
Innovation  
Speculative  
Design  
Education  
Future

We are often told as design students that we have the power to make a change in our world. Design has the power to transform the ways in which we live. However, in the face of “intractable problems,” it is often difficult for us to understand what will truly make an impact. To add to this, within the narrow practice of design based on modernist traditions and profit motives, the scope of our impact rarely breaks the status quo. This dissonance between the desire to create a better future and the material limitations presented by the society in which we live leaves many with questions as to how designers can overcome this. In the face of this, it is clear that as emerging designers, we must think differently about and question our roles in order to evolve with the problems of the future.

## *Reflecting on Current Roles*

Often designers have been restricted to a role in which we are experts meeting the “needs” of a client. This is a key responsibility. However, unfortunately, this has sometimes meant uncritically producing for the given design brief. For example, for decades products have been designed with gendered cues. These cues, either consciously or subconsciously included, influence people’s actions and speak to the need to conform to binary gender roles (Churchill, 2010). From my discussions with peers and review of case studies, it was apparent that there are still many unanswered questions about how designers can tackle these issues because of the challenge of conceptualizing gender beyond its current role in society.

Beyond gender, I found that when engaging in design for social innovation, my ability to imagine alternative possibilities was obscured by overly literal and solution-focused thinking. As Dunne & Raby note in *Speculative Everything*, “[n]ow, a younger generation doesn’t dream, it hopes; it hopes that we will survive, that there will be



water for all, that we will be able to feed everyone, that we will not destroy ourselves” (Dunne & Raby, 2013, p. 7). I found that if I did not consciously expand my view from what is probable to what is possible, it was easy to get stuck on imagining only ‘realistic’ extensions of our current reality. Although new designers must struggle to break free from conventional thinking, there are many possibilities offered by other designers and countless more to discover in the future.

## *Transforming Roles for Designers*

In Manzini’s book on design for social innovation, he suggests that in addition to experts, designers can be facilitators, advocates, and strategists (Manzini, 2015). By changing our perspective on what responsibilities and work we can do, designers can approach the world in a new way. As facilitators, we can help people share knowledge and synthesize new connections and information. As activists, we can understand more about our society and have the power to provoke conversation and change. As strategists, we can connect people to form new structures of interconnectedness that will allow us to execute new ideas in ways not seen before. In speculative design, the designer can be seen as a catalyst for conversation but also as an intellectual and artist (Dunne & Raby, 2013, p. 9). These roles allow designers to explore freely and open up possibilities that would be too outlandish or dangerous otherwise.

How can we fulfill the theoretical potential for new roles? First, exposure to new ideas and perspectives allows a new designer to have a better awareness of the world around them, opening up the realm of the possible. Another way designers can develop new skill sets is through practice. From my brief experience with speculative design, each project I have done has made it easier to

stay in that headspace of the “possible”. By collaborating and sharing knowledge with peers, this practice can be made even more valuable through mutual learning and teaching. Similar to Manzini’s concept of “dialogic co-operation”, for every project or design activity we do, we can think about how our work will add to the broader conversation (Manzini, 2015). Finally, I believe that it is important that as emerging designers, we think radically not only about the projects we take on but about our roles and responsibilities as designers. As it is with speculative design, it is time that we think beyond what is probable to all that is possible.

Although the ever-changing problems of the future challenge emerging designers, we have the power and the tools to change our roles. By imagining beyond the strict category of designers as purely product-focused experts, we can explore new ways of designing. Engaging with others, learning about our world, and giving ourselves permission to dream can give us the skills to deal with intractable problems, and it is my hope that future generations can redefine what it means to be a designer.

## *Final Reflections*

Design is a multitude of different things: a process, a mindset, a tool, a means of communication; and over the course of this semester, I've learned a lot about the many definitions of design. Before taking this course, I had had some prior knowledge of the topics we had covered but had never taken an in-depth look at the writing and discussion surrounding them. Through the readings, I gained a broader understanding of the field of design, and realized that, beyond the more emphasised skills, like manufacturing and sketching, design is a way in which we can bridge the gaps between people and facilitate communication and action. This change in perspective was also helped a lot by my discussions with peers, both in school and outside the classroom.

From my experiences in this course, there are a few things I will take with me in my work. For one, I particularly resonated with the ideas behind design for innovation and speculative design. While learning about these concepts I was beginning my capstone project and I tried to approach it with a similar mindset. Instead of limiting myself to the laid-out concepts, I tried to use blue sky research to further explore the problem. I also found that once I had understood the concept of a scenario as it is used in speculative design, I now often use it as a tool for thinking in all my projects. Beyond this course and this program, I hope to take these tools and ideas with me in my work and continue to discuss and learn with my peers. Before I took this course, I had the sense that design had the potential for so much more, and now I feel as though I have an optimism for what my career as a designer holds.

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## Holly Smith

Design to me is the understanding of the problems of people, and the problems people create. Design should be used to solve these problems and improve the everyday experience for all.

I am particularly interested in human factors and ergonomics. I love practicing user-centred design to improve all aspects of products for a more comfortable, equitable, and enjoyable experience..

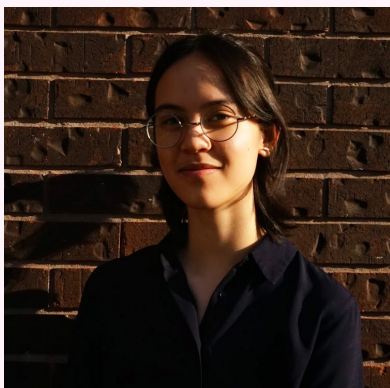


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## Graeme Mcneice

I believe that the design of a good, service, system, or experience is brought about when the insights of all parties involved are considered and used to create a solution.

I am interested in designing more sustainable and unifying systems within the world, including better infrastructure, global warming relief, and more efficient mechanisms.



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## Camryn O'Donnell

In my work, I want to be able to thoroughly understand not just the problem, but the system and people surrounding the problem. This means not only considering the sociocultural context and human factors but also allowing for the freedom to explore the potential for solutions outside current systems. I also believe that as designers we have a responsibility to understand how we ourselves are influenced by society and how we impact society in response.

I am interested in user experience design, design in health care, design for radical innovation, and speculative design.

