

Design Paradox: Reconsidering Citizenship in a Digital World

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Abstract

Design plays a key role in human culture. A growing body of evidence suggests that most design builds upon human understanding to expand the market. However, few professionals have given attention to unwitting consequences. Drawing from political, economic and social history, this paper argues that design has been instrumental to capitalist ends, thereby forgoing discipline values. The author conducts a case study and explores counterfactual scripting as a way to reflect on alternate presents. Results portray a discursive provotype and a methodology whereby discussion is encouraged. This paper should be of value to future and experienced practitioners interested in technology, critical design and work ethics.

Keywords: capitalism, critical design, democracy, design ethics, digitalization

History of society is the story of a social pact that has been transformed by economy since its inception. In the last centuries, the overflow of oppressive governments led to liberation and free market, yet its massive growth carried out several consequences. On the one hand, digital technologies allowed for unprecedented innovations and global reach. On the other, startups started a race in the quest for consumerism, leveraging any system virtue or gap to dominate the market and the social pact.

Nowadays, startups and corporations are being endorsed by design professionals to position over society. Several design methods¹, viz. design thinking, purport to innovate through human experience but are mindless about collateral damage of business. There are unseen contradictions in the design profession that should be revised in academia.

Critical design plays a key role in discussions about the impact of the design profession. For the past two decades, the design discipline² has brought into the world a noncommercial view on the products in our life, yet in practice there is a gap between the methods of critical design and those of the profession. This paper attempts to uncover the precarious nature of relevant design practices and raise awareness on their consequences.

First, a cross-sectional historical review was undertaken to explore the relationship between design and the economic system. This review suggests that culture has been co-opted by the market and some of the most well-known design practices are a reflection of this ideology. Then, a case study was conducted to spot evidence in the present. Findings reveal contradictions between the values of the design discipline and the methods of the design profession. The profession has engaged in designing for people but its methods are often expressions of economy. Human-centered design is indeed being instrumentalized to grow capital, to such a degree that the market fulfills a commanding role in society.

Finally, it was considered that a setting for critical design projects would be helpful to assess the scope of discipline values in the design profession. Following the case study, counterfactual reasoning was used to depict alternate scenarios and pose creative briefs in which solutions are questioned. Resulting proposals are intended to spark reflection about long-term implications.

1 Background

Thousands of years ago, probably more, families settled into societies. From hunting-and-gathering societies, like the Sumer in Mesopotamia, to agricultural and industrial societies, people have searched diverse ways of competing and gaining power. The result is a never-ending series of violence and the shaping of social pacts around citizenship³, economy and governance. In the 21st century, as predicted (Davidson & Rees-Mogg, 1999), we have entered the fourth stage of organization: information societies.

The first three decades of our age are posing a revolutionary and non-easy transformation, happening in a fraction of what the Agricultural and Industrial Ages lasted. Violence is not now by means of war but those of knowledge, and economy is taking on governance. The nation-state has liberated entrepreneurs to dig its own grave and citizens have become customers of hegemonic markets. Companies are able to compete with governments for they operate in a globalized area where might has less power than information — the internet.

Technology boosted market's dominion as it did to monarchs when the Church's authority declined. What impacts today the most however is the economic life from the previous era. In the following section, I aim to review the evolution of the economic system in relation to the design practices that make up citizenship. Whereas incipient design is crafted and humanist, it was reborn as a profession in capitalism, drawing on technology and the ability to satisfy consumption to grow the market.

Needless to say, market is valuable to progress. The problem lies when it trades more than artifacts and services. We live in a world where politicians are brands, beliefs serve marketing, and human attention is sold and targeted. Corporations are somewhat of organized crime or sovereignties similar to city-states with global scope; nation-states may be about disappearing as did the empires, and design is an accomplice. It is worth acknowledging that practices like UX and human-centered design are instrumental to capitalize people in the long run.

2 History review

To speak about the issues that may surface in the future within the parameters of contemporaneity seems pointless and erratic. There is no way to predict the future objectively. Nevertheless, the integration of historically (or culturally) distant horizons creates a more conscious perspective (Strenger, 2001). A historical review is particularly useful in interpreting the causality between economy and labor within cultural contexts, informed by the preoccupations of the present and geared toward its possible outcome hereafter.

This section is concerned with the various cultural circuits of capitalism that made the design profession throughout the history. In so doing, it seeks the shaping of design practices as an instrument for market growth. A hermeneutic approach is taken so as to form an interpretation about the meaning of human intentions, beliefs and actions that shaped the professional practice.

In addition, the review is framed within the history of capitalism. No attempt has been made to trace the complexity thereof, however, due to the fact that there are many types of capitalist societies, ranging from liberating to exploitative, protective to abusive, colonialist to sovereign. By contrast, the scope is confined to the great powers of the West, an hegemonic paradigm that is free and regulated in its own right, yet pervasive in subaltern nations.

Should history be divided, capitalism might be described in five moments, each of which has transformed the social pact in the conjunction of economy, citizenship and system of government.

2.1 Early capitalism

In the latter half of the 18th century, mercantilism was coming to an end. Up until then, most of Europe's economy was being micromanaged by absolutist governments; the focus was on aggrandizing the nation-state, subduing colonies and fostering exports. Moreover, raw materials and manufacturing were the main source of income; there was no need for professions but supply of labor. Design, on its part, was artisanal, a cultural practice in the crafts, despite being limited to the needs of the government.

Under mercantilism, nations engaged their military might to ensure local markets and supply sources were protected. Nevertheless, the system led to the adoption of enormous commercial restrictions, inflation, high taxes, and slave trade, which stunted the growth and freedom of colonies. Afterwards, discontent led to warfare and rebellion.

In 1776, the United Colonies gained independence from the British Empire and mercantilism started to decay. All the same, mercantilism set the stage for capitalism, albeit with laissez-faire policies. It was the beginning of a free and regulated market, with more competition and a greater choice for consumers. This implicated the build of productive technology and the specialization of labor, which in turn gave rise to the profession of design.

In the early 1800s, there was an unprecedented dynamism that uplifted agriculture systems, and mechanization reformed operations in designing, planning, managing, and coordinating manufacture. Design was concomitant with the fabrication of discrete products.

2.2 Industrial capitalism

Around 1830, early railways of Britain were built and technology was strongly encouraged in manufacture. Innovation was implemented from inner capabilities of work and capital at each company, and there was a growing international flow of goods and migrants.

Notwithstanding capitalism being globalized, the market was still governed and democracy⁴ was precarious. In Russia, for example, autocracy resulted in outdated production, inflation, food shortages and inadequate weaponry, and much of the world was part of empires.

The global reach of warring sovereigns and popular discontent led to fall of empires and rebellion, such as the Bolshevik Revolution, around 1910.

2.3 Growing capitalism

From 1914 to 1945, it was a period of turbulence with significant changes in the social pact. World Wars set the stage for the hegemony of the United States in the Western Hemisphere, which in turn induced the Cold War against the Soviet Union. Military efforts advanced technology and crisis led to the establishment of international institutions — ONU, IMF, World Bank.

In the next decades, capitalism was globalized, with an approach on nationalization, free market and individual freedom. Liberty, technology and commercial finance were crucial for accumulation of capital and mass production. Moreover, companies facilitated job stability and consolidation of professions.

Design evolved emphasizing both the quality of craftsmanship and the modern economy — the Arts & Crafts Movement. A combination with fine arts led to art movements and the Bauhaus, and Swiss design was the basis for much of graphic development. In this vein, the spread of graphic design prompted the need for customer-centered corporate identity.

After Fordism, nonetheless, discrimination and hierarchy was a prominent issue. Participatory design emerged as a result of social unrest in workplaces and universities, while in Iran a civil revolution sparked oil price increases, contributing to a significant recession in the US economy.

2.4 Digital capitalism

Following a time of uncertainty and economic crisis from the late 1970s, many US citizens were skeptical of liberal dreams, thus electing President Ronald Reagan, a member of the Republican Party. In spite of a great recession in 1982, Reagan's economic policies boosted globalization, while enhancing the well-being of middle-class and wealthy citizens. These policies included deregulation, privatization, tax cuts, and digital communications.

As technology evolved, it was not enough for corporations to have a brand; it was necessary to further optimize processes. This was the thrust for the emergence of practices like human-centered design and global supply. Additionally, the birth of internet (1983) and the introduction of the personal computer (1984) drove the rise of information and entertainment economies (e.g., magazines, ads, and movies), and provided designers with a platform to explore more identities.

This epoch, nevertheless, is a catalyst for consumerism. People got into debt to acquire goods (financialization) and design, albeit flexible, worked in terms of marketing. In 1991, IDEO started to promote the understanding of people as a business strategy.

2.5 Consuming capitalism

Throughout the 21st century, globalization has favored privatization and centralized cities over nation-states, empowering market expansion and tying dissimilar government structures. Economy has gone international, even if there is lack of governance in the global realm.

Furthermore, free market has hindered democracy and is now almost self-regulatory. Global corporations have gained nearly as much power as the government, thereby making it hard to maintain social equality. By way of illustration, deregulation triggered tax havens, external regions storing funds that should be locally invested, and developing countries have become subaltern economies.

In addition, digitalization placed higher value on information, which explains advertising revenue models and co-creation of consumer habits. In this context, interactive design has gained traction and methods like HCI and design thinking have been instrumentalized to grow internet companies. Both large corporations and startups have used design to devise solutions and make usable platforms.

Design thinking has seen widespread adoption as a simple method to learn and solve the so-called wicked problems (IDEO, n.d.). However, it encourages the design profession to be adapted productively to specific domains, converting ideas into a source of wealth for a few system levels, or *cognitive elites*. This practice is yet to be integrated into societal change.

3 Findings

This combination of circumstances provides some support for the conceptual premise that the market has gained as much power as the government. In the industrial age, democracy was precarious because of absolute power; then, digital technologies normalized access to information; and now corporations process much of citizens' data. What is more, professionals push technology forward to keep themselves relevant.

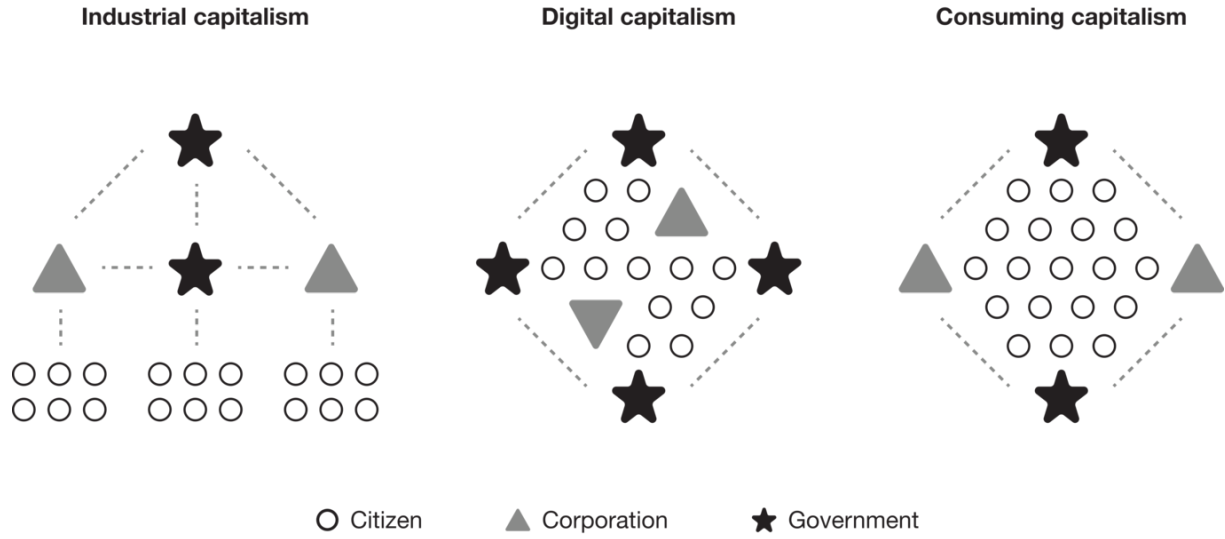


Figure 1: Control structure

3.1 Design transition

Design history can be traced from the prehistoric age: it all started with cave art and human tools and developed into visual and material production. Although human capacity has remained, several changes in culture, technology and organization have altered the means and methods of design. Design started as an activity to satisfy needs and, since the Industrial Revolution, became a profession associated with mass production and mass communication.

Determining the nature of incipient design is a major archaeological discovery. However, a description of the last transition would be enough to understand the role of design in the looming consequences of globalization. In this section, the aim is to compare design practices between industrial and digital capitalism, and find out signals and challenges in the current state.

Findings were synthesized by means of interventional study to indicate major changes over time. In this case, a pre-post analysis is useful to suggest the intervention of social variables in the design practice and generate hypotheses for future arguments.

Industrial Capitalism	Design	Digital Capitalism	Design
Large established companies focus on mass production and lower prices.	Products and experiences that are easy to replicate and expensive to modify.	Fast-moving startups and emergent conglomerates on the basis of continuous innovation and tech development.	Computational design and technology vanguardism in private and public sectors. Experimentation is less risky.
Evolution in marketing aesthetics and customer service.	New visual cultures, tools and conceptual thinking for graphic design.	Customized services become more valued than physical objects and new research methods appear to exceed customer expectations.	Design of unknown experiences and dynamic relationships between users and digital artifacts, subject to brand decisions and data-driven marketing.
Laissez-faire market, privatization, globalization and investment on public infrastructure.	Idea exploration and intercultural creations at the core of the factory.	International deregulation and massive growth of companies embedded in diverse social structures.	Extensive design systems, work on digital interfaces and outsourcing.
Ownership and production are the main sources of financial security.	Customers know what to expect from designed products.	Data is a valuable asset to produce profit and digital protection becomes relevant for personal and financial security.	Intellectual property spreads in the digital environment and design is informed by consumer data.
There are mismatches in interactions with objects. However, it is not an obstacle for humans to come to agreements.	Barrier-free design as a social policy to increase inclusion of people with disabilities.	Digitalization reveals varied forms of cognitive disabilities in a wider customer segment.	Design implies technical/physical accessibility, affordance and affordability.
Capitalism emerges with a knowledge base in media and business schools.	Design is involved in creation and evaluation of products.	An approach on consumption integrates business lifecycles into the knowledge of social life.	Design connects brand culture and business strategy in social contexts.
Press and mass media aim for more informed, conscious and committed citizenry.	Graphic design experiments with advertising in a variety of print formats.	Information is also a product of consumption and entertainment.	Design of platforms to recreate and distribute engaging information.

Table 1: Pre-post study of design practices in capitalism

3.2 Consuming design

Thus far, history has identified constant change in the social pact and implications for the design profession. What follows is an account of the facts that make design an instrument of capitalism, passing from the whole to the individual concerns of this paper.

The design profession established methods to face wicked problems through the eyes of holistic human beings. Nonetheless, they became instrumental for business, and the age of information reached a tipping point. In the last decades, technology and digitalization set off to emancipate the entrepreneur and provide professionals with a stage for fast failure and invention. Since then, new methods have arisen (e.g., Design Thinking) to innovate, fused within and aimed to put organizations at the forefront.

The problem arises when more organizations start to fill the market. When this happens, design has to create new demands, even at the expense of human conditions. Consuming design is there to influence people's behavior and make creativity logical to business growth. It equates human, technological and strategic desires, and is widely taught in academia and business schools, a brand new reinterpretation of the discipline. Not in vain, Victor Papanek (1971) said:

There are professions more harmful than (industrial) design, but only a very few of them. And possibly only one profession is phonier. Advertising design, in persuading people to buy things they do not need, with money they do not have, in order to impress others who do not care, is probably the phoniest field in existence today. (Papanek, 1971)

Likewise, digitalization was conceived with the premise that information access would undermine industrial monopolies and drive social progress. Nevertheless, since capitalism took over, technology is geared toward fostering supremacy of companies and authoritarian governments. Digitalization has allowed corporations to exploit professions and harness social gaps that may exist in global regulation.

3.3 Consequences

These findings draw our attention to the importance of considering the role of design in society. Mainstream design is not an objective humanity anymore, nor does it explain the conception of objects and styles, but an activity that is driven by political, economic and social agendas (Margolin, 2005). History has reshaped design to acquire a central role in the development of human culture.

With the advent of capitalism though, design got to be an integral component of mass production and mass communication, bringing culture down to economic and technological modernization. As a matter of fact, consumption has been boosted through needless and desirable experiences. "Design is manipulative, and when combined with digital technology, it is pervasive, and when entrenched in a culture laser focused on the pursuit of scale, gratuitous profit, and technology for technology sake, it is downright dangerous". (Kolko, 2012)

Taken together, design and capitalism have brought about important consequences:

- Monetized values: Human-Centered design turned the notion of people's product into product people, trying to monetize qualities such as human attention and entertainment.
- Focus on payer: Other stakeholders may be serving as a means to reach the end consumer. In the gig economy, for example, independent contractors lack employment benefits.
- Business-centered design: Design schools place greater importance on methodologies that suit best in business models.
- Outdated policies: Social rules fall short in preventing dystopian models that rely on technology. Governments must react to market changes and respect public preferences.
- Fading heritage: Traditional forms of cultural production like craftsmanship get diminished and leveraged for massive sale.

- Subaltern jobs: Alternative practices in social sciences and humanities disappear or subordinate to capitalism.
- Outsourced governance: Market freedom transfers regulation to cognitive elites. People with better opportunities in education and market entry are able to control access to other welfare attributes, namely distribution of wage and working conditions.
- Obsolete skills: Conventional work is deprecated as new technologies come out.
- Social unbalance: Citizenry rights and democratic models stay in the nation-state and rely on economic prosperity, yet market spreads across the globe.
- Denationalization: Citizens prevail as customers and power remains in central cities.
- Overexploitation: The ecosystem is also subject to financial priorities.
- Social darwinism: Democracy struggles because the strongest economies grow in power and cultural influence over the weakest.
- Culture design: Human-centered methods tap insight to configure new cultural practices.
- Capitalized labor: Rapid innovation demands versatility and flexible work.
- Data exposure: Personal information and ideas are vulnerable in the digital environment.
- Manipulation: Design is deceptive when it collides with sales, psychology and marketing.
- Colossal corporations: Common trading associations to mitigate risks grew into stock markets to foster exponential growth. Market makers and regular traders benefit from commission while giving autonomy to bigger corporations.
- Pareto distribution: Efficient platform businesses are able to exploit wage labor and invest exponentially. They retain most of wealth due to market acquisition and faculty to regulate income-consumption. (Martin, 2019)

Given these facts, it is wise to acknowledge the risks of hegemonic capitalism. It has been shown that overly free market contradicts paradigms of liberty and democracy, even in absence of authoritarianism, for it can manage welfare. Furthermore, technology enables the market to create culture and get ahead of political reforms. These capabilities may delegate too much power to capitalism or compete for totalitarianism.

Consequences are not apparent for everyone yet, inasmuch as people accept usefulness of technology. Nonetheless, future developments like cybermoney and metaverses may accentuate inflation, peer pressure and other issues. The following part of this paper moves on to describe in greater detail signs of consuming capitalism.

4 Case study

As discussed above, history supports the idea that capitalism put design at the service of economy. In practice, it seems that design has always stood for human value, yet prevalence of market prompted the profession to meet financial goals before social good. This outcome is rather disappointing and counterproductive.

In this section, I attempt to envisage change by highlighting a specific problem that could be addressed in everyday products. A problem like this comes to light when exploring goals and methods wielded by internet companies, and it can be tackled from minor features. I elaborate on the concept of data economy through Amazon's product features, functions, design, business intents, contradictions, and consequences.

4.1 Data economy

Amazon is an hegemonic internet company. It is one of the world's biggest organizations and powers much of online transactions, including commerce, entertainment and hosting services. Its platform allows small businesses to sell their products globally and customers to shop easily.

With a strong focus on customer welfare, Amazon offers reliable support and hosts a wide variety of products. The company itself is a retailer, a manufacturer, and a trading platform for third-party sellers. There is a

payment service and a marketing platform to help increase sales, but also features like product reviewing and package tracking, to enhance the customer experience.

Furthermore, robust servers enable Amazon to manage information flows across competitive processes. Marketing data favors the creator economy whereby influencers sponsor products, and platform features gather useful data to lure the consumer with notifications and recommendations. These capabilities also allow Amazon's retail to set the bar at low prices, pursue growth, and control the infrastructure on which rivals depend (Khan, 2017).

Even though technology facilitates consumption, it has a troubling power for citizenship and entrepreneurship. Excelling in customer service has given Amazon an amassing structural power over many parts of economy (Streitfeld, 2018). On one side, integration of business lines, subjectivity of ratings, and extreme convenience, shape the culture of consumerism. On the other, low pricing is predatory to smaller businesses, demanding from them massive quality at the expense of profitability. Design seeks to elevate the user experience while technology supports a relationship of dominance.

When big companies serve infrastructure there is dependency and risk of monopoly. What is more, free market allows them to surpass law and technology gives information capital value. Platform features rely on user experience to capture data and let Amazon take control of the market. Eventually, capitalism has allocated governance to companies. Democracy is being threatened by private power and financial interests over human rights.

In general, therefore, it seems that design and technology grant a straightforward experience to the detriment of democracy. Data helps Amazon be efficient, but also hegemonic. It is paramount for governments to provide citizens with data sovereignty so as to recover autonomy (Lauf, 2021).

5 Reframing

The case study agrees with findings from history review. What is most striking, however, is the design profession being oblivious to market expansion. Designers solve needs and create living standards, but they also reproduce social meaning, largely under the new market conditions. Design is a key site of economic production and societal change.

Up to now, most design professionals are dissociated from critical design, thus ignoring byproducts. They are constrained to live companies' beliefs and, ultimately, their futures, because they do not know their impact as citizens (Light, 2021). Critical thinking is necessary to determine whether a practice is long-headed and values upon which decisions can be made.

It is to the purpose of this paper to suggest a framework for designers to query their solutions and take a critical stance on the profession. Therefore, in the section below, I will draw from previous implications to redefine sample product features. It is noteworthy that this point is not so much about coming up with claims, true or otherwise, but it is the evaluation of them what constitutes critical thinking (Moore & Parker, 2009). Such features are aimed to alternate realities built upon critical views and conducive to discourse and debate.

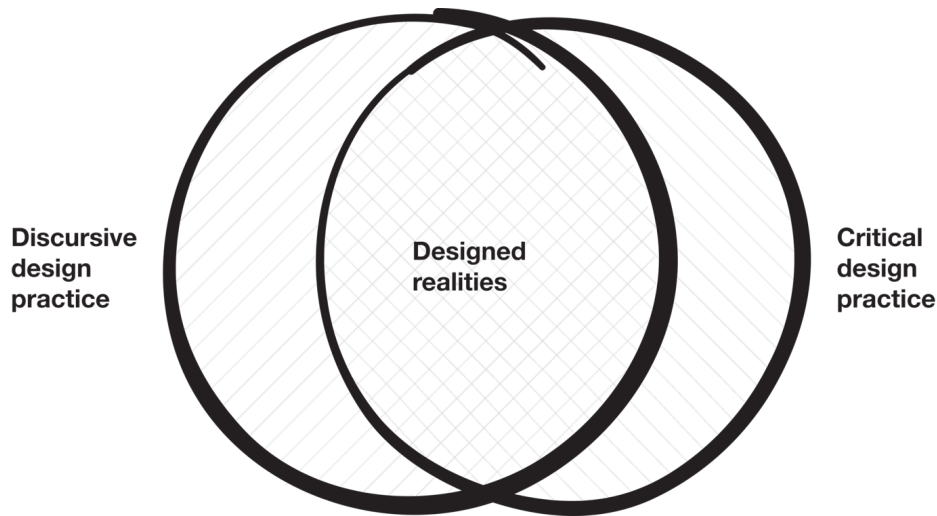


Figure 2: Designing alternate realities

5.1 Creative brief

It has been previously observed that several designed features seize the value of information to grow a company. This is rather a common trait in many online services, ranging from news to productivity to entertainment. It was uncovered in the case of Amazon and is a matter of discussion in social media.

Social media is a proper subject because it has relied on data to conquer substantial market share. I will dive into the features of Instagram, a well-known platform, and explore it through the lens of a business person. The intention is to demystify and debate information flows by means of the ‘seed’ idea of Light (2021), providing small units of interference so that the viewer can develop her own interpretation.

5.2 Provotype

Several lines of research suggest that Instagram use is associated with anxiety and depression. These problems often arise when people compare themselves to flawless images and celebrities. However, they are also induced by sponsored posts and influencers who feed materialism. Instagram offers marketers consumer data for them to keep users engaged.

Posts and interactions (i.e., liking, commenting, sharing, and saving) seem to allow people to communicate freely, yet marketers can use them to influence consumer behavior. What does Instagram mean for marketers? The platform is not really giving them “the power to build community” (Meta’s mission), but the power to raise consumption. To further expound this, I will present a mockup depicting a scenario where marketers would be primary users. I have redefined some features and conducted prototyping in order to spark discussion.

5.2.1 Mockup

In order to empathize with the needs of the marketer, counterfactual reasoning was applied. In the mockup below, I pretend to be neither dramatic nor nefarious, but to bring off awareness of business intents. I have detached essential features from the purpose of communication to devise their contribution to information capital.

In particular, I sought to diverge from current components and answer to the question: *What would this*

feature be if it was instrumental to marketing? I put on a lens to refract each feature, as shown in figure 3 (Appendix 1 explains in more detail).

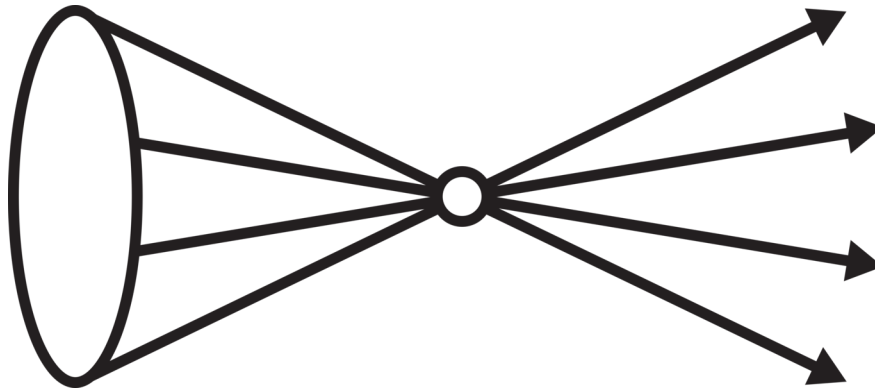


Figure 3: Counterfactual lens for alternative design

By way of illustration, a feature was designed to bid for advertising space (Figure 4). It facilitates the marketer the selection of customer segments and prediction of scope. I also designed features to purchase user data and browse potential influencers (See mockup at [figma.fun/9oLdKv](https://www.figma.com/file/9oLdKv)).

User	Pbty. click	Pbty. sharing	Cost per click
lowell.woods	88.2%	71.2%	\$13.41
jane.blake	63.5%	59.7%	\$15.36
gina.carpenter	69.3%	67.6%	\$12.96
jaime.vaughn	76.5%	45.1%	\$14.68
devin.simmons	87.6%	37.8%	\$10.65
gustavo.oliver	95.7%	93.5%	\$9.89
eloise.hammond	78.6%	25.8%	\$12.58
lydia.collier	79.6%	95.6%	\$15.67
sara.ferguson	65.7%	47.9%	\$21.32
josephine.reeves	95.4%	95.5%	\$19.74

Figure 4: Instagram for marketers

5.2.2 Prototype

Mockups are usually useful to test usability and style. Nevertheless, in light of discursive design, it is advisable to put them at the center of debate. To that end, I took occasion to deliberate over with both citizens and designers. I conducted two impression tests to measure gut reactions and gather commentary. The first one was interviewing a group of consumers in public space; the second one, an open conversation with design colleagues.

As per the interview, a structured prototype, I asked broad and specific questions. The former about values and habits, the latter relating to the mockup. On this occasion, I realized counterfactual features might hinder thought if they do not convey severity. Issues related to data sovereignty were not as prominent as the concerns expressed about the interface. This result may be explained by the fact that users are enticed by experiences that feel diverting and cheap.

On the other hand, I talked to designers in an impartial way. I invited them to express their opinions (see Appendix 2), yet I only passed on the mockup and remind them of Meta’s mission: “To give people the power to build community and bring the world closer together”. The majority of them were skeptical about the statement. There were some ideas that the mockup is not atypical for marketing, however it could be transparent for regular users.

5.3 Discussion

On the quest for awareness, this provotype found that it is easier for people to cognize side effects when they have agency over products. It is the case for designers who understand market foundations, but not for the passive consumer. Nevertheless, designers do not urge for change because they are still consumers of short-term gains. It can thus be suggested that citizen agency must precede in order to reduce market issues.

A common view amongst designers was that there will be always those who forget negative circumstances in the interest of positive ones. In regard to the mockup, for instance, some felt that it increases data transparency, while others considered that it would be an opportunity for business owners. One participant commented:

Instagram’s new proposed features open a world of opportunities for creators and business owners, this new approach is centered on data transparency, which allows users to take more confident decisions, to test their ideas very quickly and drive improvement in their products with the ultimate goal of better serve their customers. Sometimes, choosing the right way to reach people can be a real challenge, but having the right data close at hand leads you in the right direction if used well. — *Paola, Interior Designer.*

In terms of such opinion, it can be said that design and technology are indeed beneficial for economics, and they can even serve other societal affairs. Consider, for example, public transport informed by usage data, or business tracking to distribute stores evenly. The problem arises when companies are allowed to capitalize data for their own interest. Talking about this issue an interviewee said:

The new website has lost its social foundation: It is harder to remember somebody’s name than the specific product they had been marketing. You can’t find interesting discussions, genuine opinions, as they are all biased on what gives users likes and therefore more money. Information and who can access it turns into economics and political matters, companies with the biggest economic potential can take more control on how the society evolves. — *Diego, Software Engineer.*

Taken together, these positions suggest a role for design in promoting citizenship. Designers can be spokespersons of societal needs in the business realm. They can advocate for data sovereignty without denigrating user experience, but they can also promote citizen agency by opening up the design process. If we make design instrumental to society, citizens can become active consumers and decrease market growth.

6 Applications

This project was undertaken to understand the impact of design and create a discursive artifact (see Appendix 3). Nevertheless, aiming to spur democracy in critical design, the content was planned to supply a framework to other designers. Such framework stands for the exploration of the profession in two parts. Firstly, it points to reflection on the social and political relationships between design and the culture of society. Designers apply argumentative theory and develop case studies related to designing for ill-defined problems. Secondly, designers assume an active role in practical activities. They synthesize insights into ideas and participate in discussions.

Although the outline of this paper reports a process, a framework should be of assistance to less empirical endeavors. For that purpose, I designed instructional materials, which may also prove useful in collaborative spaces — e.g., workshops and college courses.

- Standing Waves ([link](#)) is a methodology to be applied in the form of a design challenge. Drawing from fallacies and a case study, it drives the designer toward a creative brief.
- GoodTech ([link](#)), afterwards, provides them with a platform to share and discuss. They can submit their results and comment on each other.

7 Limits and further work

A number of limitations need to be noted relating to the complexity of the historical context and the discursive nature of the methodology.

First, most of history review in this paper is product of evidence synthesis. Whilst there are apparent facts leading to consequences, a more empirical research would be constructive to develop insights. Moreover, with respect to contemporaneity, it is important to acknowledge that critical design is both informed and subjective. Designers are encouraged to take their own stance and spark discussion so that progress is better defined.

Second, discursive scenarios were delimited by alternate presents because, unlike speculative futures, these specific approaches offer a rich narrative potential for the questioning and criticism of technological development, but also of contemporary society as such ([Mitrović, n.d.](#)). Speculative futures live in the imagination whereas alternate presents stem from common knowledge. Nevertheless, intending to provoke actionable thought toward the future, critical design can be applied in future studies through design anthropologies, based on empirical research, and transition design, seeking systems-level change.

Likewise, further work is needed to attend pluriversal and participatory approaches. I called for ousting design's capacity from business viability by turning to human experience (see Figure 5). However, in order to achieve holistic balance, it is worth studying cultural differences and organizational design. It would be interesting to assess human values in brand identity and development processes as a means to nurture global citizenship.

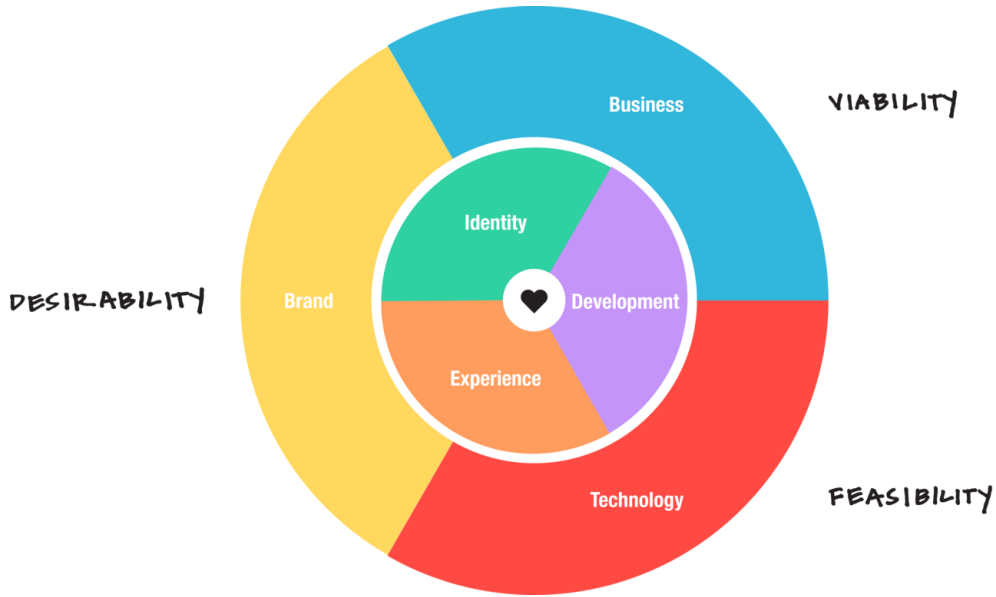


Figure 5: Cultural design balance

Third, this paper is aimed at design practitioners and proposes discursive design through specific cases (internal-terminal). The challenge now is to reach external audiences and explore provotypes that are instrumental to other activities (see Figure 6). There is also an opportunity to explore narrative based provotypes and techniques that were briefly addressed in Standing Waves.

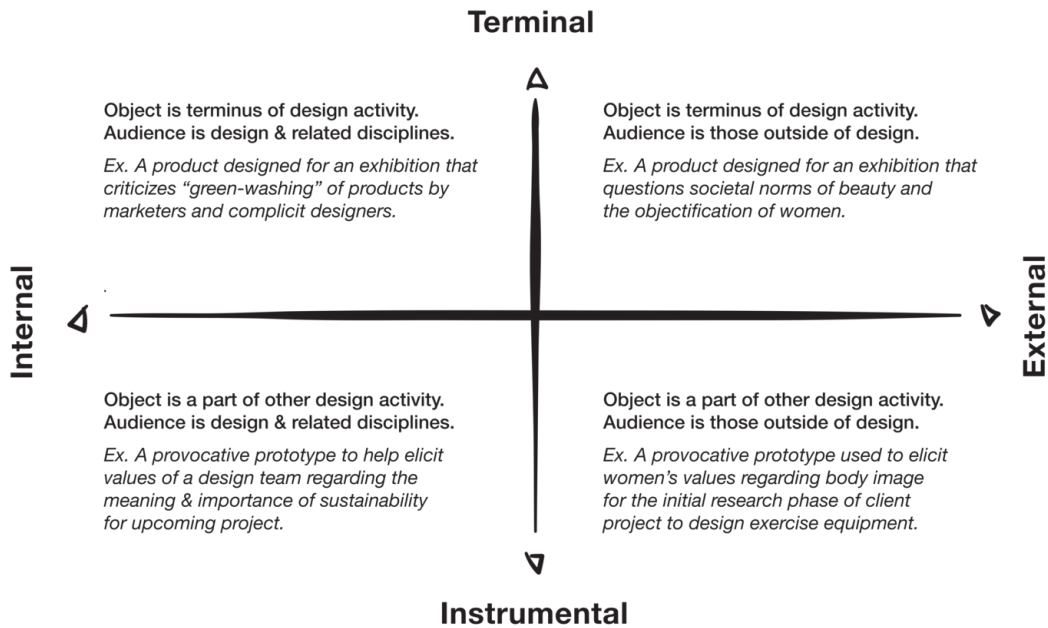


Figure 6: Discursive design domains (Tharp & Tharp, 2013)

Finally, this information can be used to tackle upcoming challenges, including metaverses and wicked problems on the way to sustainable development goals. To that end, a further study might target the strategic level of the design discipline through i) fostering critical methods in formative spaces, ii) elaborating on alternative design concepts (e.g., society-centered, life-centered design, design feeling), iii) developing liberal arts, iv) recontextualizing design in politics, and v) evaluating citizenship and entrepreneurial ethics.

8 Conclusion

Just as an engineer or a doctor, designers should learn some ethics in school. The role we play in the society impacts not only the ‘beauty’ of our daily world; it goes far beyond, it has an impact on the political, economic and behavioral spheres. We are modeling societies and thus our responsibility is high. We must acknowledge the extent of our role and be consequent with our actions, we must prioritize a set of values as the fundament of the design process. It is easy to get lost and prioritize economics, egos, or personal interests, and this is where it becomes vitally important to have a great values foundation to rely on.

In this paper, we have gone through a case study, making a thorough analysis of how design purpose has a direct impact on the final outcome, and how we can repurpose design to make a meaningful creation that serves humanity over economics. We agree that economics are very important to achieve ambitious design goals, but we must never forget that we are designing for people, we are shaping societies and the ultimate goal will be always improve our living environment. Balance is key here, and it is our responsibility to prioritize design beliefs over individual interests that can be harmful in the long term, as we have seen here.

Purpose matters, details matter. As designers we must be coherent in every step we take. Following our thesis, a designer should aim for this ethos in every decision. This is, when we are pitching our ideas to investors, we must pitch economic and social value equally. When we are hiring people, we must be fair and transparent. When we are asking for feedback, we must receive it with an improvement mindset, not only a ROI mindset. This approach contributes to a human-centered design that allows equal fair participation and fosters economic and social progress.

To end with, technology is the case that best exemplifies the scope of this paper. Technology makes our lives better, it is true, but it is reaching a point where balance is broken. We see how few people are taking economic advantage while monopolizing the market. And technology is not the problem, is how we use it and how we unleash it to the world. As designers we must learn to navigate conflicts of interest while making a product or service; it is a challenge of course, but we have the power and tools to solve problems, iterate and create positive impact. This is possible if we work on strong values that keep us rooted while dreaming and doing our best.

Notes

1. Throughout the paper, I use the term design methods, referring to problem-solving processes where human perspective is involved. They include, but not limited to, design thinking, human-centered design, user experience design, and systems thinking.
2. The design discipline differs from the profession in that the former is an epistemological practice concerned with understanding people, while the latter seeks economic success.
3. Note that citizenship is not exclusive to urban population. Citizenship is understood here as the quality of belonging to a political society.
4. In this work democracy is not considered a system of government only, but a set of values that are inherent to the citizen: freedom, autonomy, inclusiveness, and equality.

Appendices

Appendix 1. Counterfactual reasoning

Instagram’s redesign was conducted through counterfactual lenses, which is essentially considering alternative possibilities that diverge from current observed narratives (Qin, 2019). This is a useful method to generate informed ideas while projecting change into the future.

In fact, counterfactual scenarios can be further developed by intervening history. New Instagram features derived from existing circumstances — marketability. Yet it is possible to bring about more disruptive ideas if counterfactual events are placed in the past. Figure 7 presents a scheme for framing events and rewriting history.

Given a political milestone, design had to evolve (premise). New ideologies emerged and designers transitioned from an initial condition to the present condition (original ending). In so doing, there was a negative consequence. What if designers had made another choice (counterfactual condition)? Probably, design would be different now (edited ending).

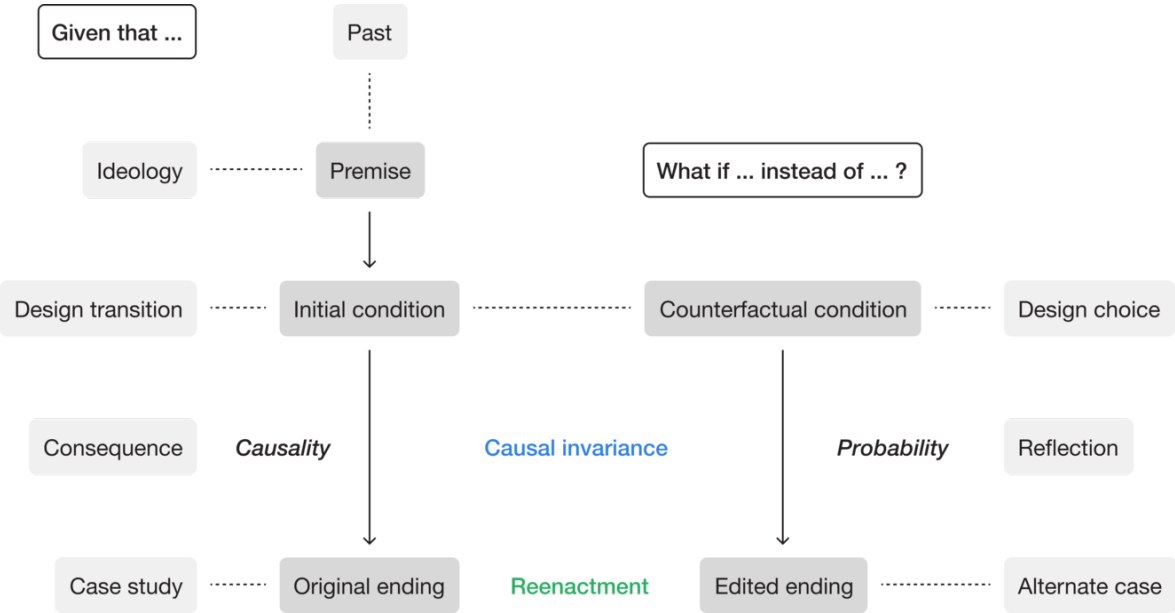


Figure 7: Counterfactual reasoning

It is worth noting that the edited ending is not a swift change, but the last in a sequence of causal events. Explaining choices will require empathizing with designers and consumers from the past (reenactment). Then, we can describe alternatives to the case study and reflect on them. Discuss about the probability of a worst or best scenario, try to understand the reasons, and consider improvements to be made from now on.

Finally, bear in mind that counterfactual histories are *restrained* or *exuberant* (Megill, 2008). The first performs minimal edits, whilst the second can be more radical. However, both of them retain the aspects that are invariant under counterfactual conditions (causal invariance), and neither of them is surreal.

Appendix 2. Conversation notes

These are quotations from designers discussing benefits and drawbacks of Instagram’s mockup:

The good

- Saves time.
- To the point.
- Clear interface, information at hand.
- Just for business account managers.
- Lets be more objective when it comes to choosing an influencer.
- Transparent with data about the price of each post and scope.
- Information is power.
- Real-time data. Trending.
- Messages at hand!
- Connectivity between accounts. Being able to make a post from the employee’s account into the company’s account is good.
- Data, data, data-centered.
- Purchase post! – To the point, you can purchase without the ‘pre’ of communication.
- Organization!! All the data you need in a single place. To see your past clients, to see your connections in 2nd and 3rd grade.
- To find the perfect influencer and narrow down the search!
- Transparency. You know at once all the data you mind in first page.
- It helps the company improve their products. Data can be used to find insights and improve.
- Efficiency.
- Better productivity.
- Reduces risks (of hiring someone that doesn’t work).
- You can have clearer objectives from data.
- Enhanced overall performance – Data-driven.
- Data uncover opportunities to drive improvements.
- New ideas can be tested quickly and you can obtain analytics very quickly.
- Better serve customers.
- Identify new business opportunities.
- You can make more confident decisions.

The bad

- Totally inhuman.
- People will probably feel used.
- Sometimes talent is 50% and compatibility the other 50%.
- Sometimes quantity doesn’t imply every follower is a potential client for your brand. There must be a good fit.
- Takes humanity away.
- Monotonous.
- It’s like entering a store and being poorly attended.
- It’s like In Time movie or Black Mirror’s Nosedive episode.

Appendix 3. Learning approach

This project sought to propose ideas in the center of the design discipline, thereby forgoing outer problems and professional methods. Conversely, I decided to challenge inner practices through remembering history, understanding contradictions, applying case studies, analyzing consequences, evaluating scenarios, and creating alternatives.

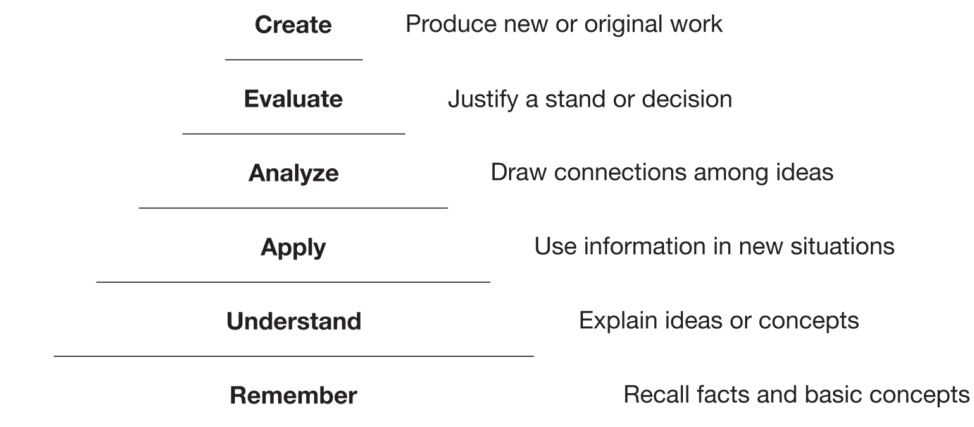


Figure 8: Bloom's taxonomy (Armstrong, 2010)

In addition, Standing Waves constitutes a methodology rather than a creative brief, for participants to draw connections by themselves. The objective is not to solve problems, but to challenge problem-solving methods and enter into a global discussion about important issues.

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