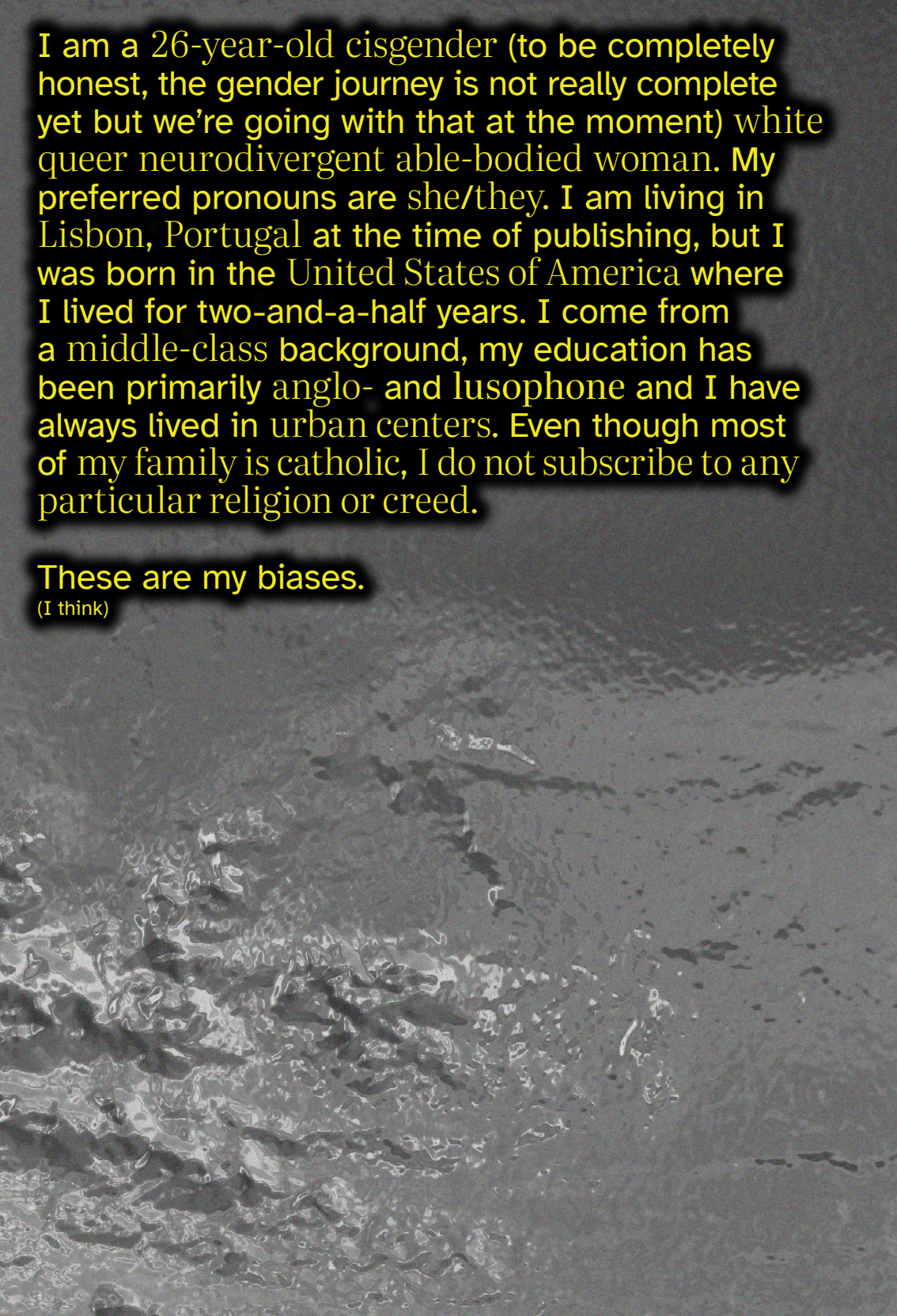
DESIGNING FUTURES:

ANA HENRIQUES

HOW CAN *ETHICS* SHAPE DESIGN THEORY AND PRACTICE

I am a 26-year-old cisgender (to be completely honest, the gender journey is not really complete yet but we're going with that at the moment) white queer neurodivergent able-bodied woman. My preferred pronouns are she/they. I am living in Lisbon, Portugal at the time of publishing, but I was born in the United States of America where I lived for two-and-a-half years. I come from a middle-class background, my education has been primarily anglo- and lusophone and I have always lived in urban centers. Even though most of my family is catholic, I do not subscribe to any particular religion or creed.

These are my biases.
(I think)



DESIGN MATTERS COLLECTION

ANA HENRIQUES

DESIGNING FUTURES: HOW CAN *ETHICS* SHAPE DESIGN THEORY AND PRACTICE

TO ALL WHO KEPT ME SANE.

DESIGNING FUTURES: HOW CAN *ETHICS* SHAPE DESIGN THEORY AND PRACTICE, by Ana Henriques, is the first book of what is intended to be a collection of academic outputs resulting from research practices in design, developed in postgraduate courses at the University of Lisbon's Faculty of Fine Arts. This collection, entitled **DESIGN MATTERS**, is aimed at disseminating the most recent research in the design field, with a special focus on issues dealing with the transformations spurred on by mutations of the social and cultural ecosystems where this discipline operates. A discipline which has been earning greater and greater importance due to an inherent acuity of observation and intervention by its actors.

The role of contemporary design is not limited to a practice underlying a technical-aesthetic service (though it is still relevant). Instead, it delves deeper into active and observational aspects in a world in a permanent state of revolution. The old archetypes that resulted from cultural structures with very clear deficiencies are now allowed to give rise to careful discussions about the phenomena of acculturation and assimilation of different perspectives.

This, inexorably, enables the longed-for existence of a well-rounded universal quality constructed around a value system that hinges on diversity and plurality. We started to look at the world with that feeling of discomfort or disquiet that forces us to act and question the way we situate ourselves in the face of countless states of astonishment and rapture.

The Academy is expected to receive and disseminate this confrontation in the form of scientific research, since destiny has granted the designer a place of spectator/observer/interpellator — as one especially dedicated to sensing the different interrelationships between the human and the natural, the artificial and, in philosophical terms, an awareness of the self.

The **DESIGN MATTERS** collection places itself within this territory of observation of the world, from the micro to the macro. It seeks to bolster the relevance to the various aspects of design studies, at once demonstrating and exploring the sensitivity and urgency of a field of study related to the broader issue of shaping human futures as well as a more circumscribed necessity to effect change in the way design and designers are inscribed in the future of their discipline.

The active incorporation of ethics in the design process can thus be the first step in assuming that we, as design thinkers and practitioners, want to participate in the paradigm shift that is increasingly necessary as well as increasingly likely. Hence why we introduce this collection with an important work which recognizes just this.

by Victor M Almeida, Assistant Professor with Aggregation at Faculdade de Belas-Artes da Universidade de Lisboa, Portugal, and Principal Investigator at CIEBA

PREFACE

PP. 8 – 15

DESIGN AS TELEOLOGY: IT IS NO EASY MATTER KNOWING YOUR WAY AROUND THINGS!

by José Gomes Pinto, Full Professor at Universidade Lusófona, Portugal, and Vice-Dean of ECATI, ULHT

"*ETERNITY IS IN LOVE WITH THE PRODUCTIONS OF TIME*"

— WILLIAM BLAKE

Any reader of this book will immediately find, in the title of this Preface, an explicit reference to Vilém Flusser's *The Shape of Things: A Philosophy of Design* (1999). The book you hold in your hands is not about Vilém Flusser, nor does it even refer to him. But that is precisely one of its major virtues. We don't always need to attach ourselves to history in order to solidify our ideas. Pulling directly from the history of ideas as a recourse, when treating a problem, is not always the best solution. In fact, when dealing with these problems, sometimes history can only be an obstacle to the ability of tackling them with new approaches. This is not to say, however, that history is not valuable. It is; something of which this book is aware. Indeed, there are clear points of confluence between the ideas presented here and those of Flusser, which are drawn and projected. These can be found in passages and arguments materialized herein and throughout the set of problems that it addresses. Ana Henriques does that with excellent mastery and, in that sense, this text is an apt case study.

Despite that, whomever combines "Design" and "Future" in the same title, runs the risk of seeing their work in what could be defined as a predetermined judgment, even if only by a tacit bias of the reader, whatever the intended approach of its author: be it a detailed gaze or a distant one. This is even more acute if the plural makes an appearance: "Futures".

The mind of the Western reader cannot be decoupled from these disruptions. It stands at the mercy of the power of designing for pleasure, as an exercise of imagination, and the ability of pleasure-designing, or design for its own sake. But the game that takes place here is more an anticipation of what can be expected than it is one of the time of the future per se, as if it were prophetical. For Flusser, "human communication" is seen "from an existential point of view,

the question being, why do we communicate at all? We communicate not so much to exchange information between a sender and a receiver linked by a channel as to create with others a reason for living. Communication is an artificial, intentional, dialogic, collective act of freedom, aiming at creating codes that help us forget our inevitable death and the fundamental senselessness of our absurd existence" (Finger, *Vilém Flusser: An Introduction*, 2011: 83).

Vilém Flusser, when dealing with design and the designer, connects both to the concept of project and what is projected in the act of *programming*. According to him, all that is project refers to time that is *for-coming*, as yet to come. It occurs in this caesura between what is projected in the project and what is itself the project. That is where Flusser finds a distinction between those who projected in the past and those who project in the present, between the designer of the past and today's designer. Ana Henriques's text deals with the same framework but frees itself from the need of weeding through 'existential' recursiveness, instead skipping to what in the Western tradition some evoke as a movement towards not only the things themselves, but also to their historical period.

As per Flusser, the designer of the past finds or discovers, whereas today's designer invents. And it is upon this notion of invention that problems arise and that the *difference* between these two approaches is significant. The Latin *invenio* implies that the human action of drawing (drafting or projecting) is an action that is only guaranteed effectiveness by making present that which is projected in the project itself. It is always a game between accident and prodigality, between contingency and teleology. What is presented in this book is a meditation on how this interval is thought about, and how the categories of the present arise, which is accomplished here by deftly cutting through Flusser's preoccupation with phenomenology while still engaging with the necessity. When an event, a projected object, does not occur naturally, nor is it based on the structure of direct, unmediated, action, in accordance with previous sketches — such was the traditional way of organizing thought and design as such — what appears, in line with a theory of the spectacle, is a solidification of *spectacle* as the conception of objects according to the world. That is, we think of these objects from an established perspective regarding their purpose and not as much about the purpose itself. Events do not happen spontaneously; they are artificial by nature, i.e., they are produced to give the impression that they are real and effective. They merely pretend to be real. But currently, such a strategy of thinking has neither force nor meaning as proposed by Flusser. Here in this text, the concept of "artificial" has a clear meaning: illusion, skill, cunning. Ezio Manzini, who is discussed here, is right when he observes that such an environment is necessary to create the environment itself, which requires a new definition for the term: "the artificial needs to get rid of its negative connotations and to be colored in different values" (Manzini, *Artefactos: Hacia una nueva ecología del ambiente artificial*, 1992: 42). It sounds very Hegelian! As it does in this book as well.

What could be a strainer has now become something mechanical, artificial, dispositive. The "projector" has full faith in its intentionality; the purpose of objects becomes a form of absolutization of the subject that draws them. Therefore, the event that marks the world of objects manifests as artifice, an emulation without previous reference, and thus with no purpose. In a word: the void, or pure relativism, can be the destiny of any project, of any designed object. What is manifested is not merely the "spectacle" as a form of connection between individuals and society, as Guy Debord pointed out in 1967 and which is

examined in this book. This is an idea Debord later refined in his *Comments on the 'Society of Spectacle'* (1988): not only is there a *concentrated spectacle* but also a *diffuse spectacle*, and the absolute mediatic interrelation between the two gives rise to what he named "integrated spectacle," or the total illusion of the effectiveness of produced objects; a closed box of relationships without any kind of exteriority, contingency or, as is now fashionable, serendipity. It also recalls Walter Benjamin's idea that capitalism and its forms, as he described in *Passages*, are spaces which occupy only inner relations.

The production of media events, therefore, has a value that is not only political but ethical in essence. The real has lost, or rather, the event has lost its thickness. The real has lost consistency and weight and this loss inserts objects into the world of pure relativism. Only its purpose remains, but not its *form*, which, to Flusser, is the so-called *idea*, recalling the semantics used by Plato. Events are increasingly formal projects, produced projects. And that coup, that simulation without facticity, removes the weight of reality.

But a brief passage through the history of Western thought, even in authors until now seldom referenced in studies on the nature of design, that of communication, or a theory of media (such as Descartes, Spinoza, Leibniz, Hume, or Kant) would suffice to show how, from them, one could derive the question of what Media Theory is, and therefore, also of what Design Theory would be, as aimed for in this book. A Media Theory, in the present, is always about drafting a project, i.e., a true form of *designing*. The problem is not just that of knowing what the essence of Flusser's programmed object is, what original elements it contains; but also the fact that communication is that which happens all the time, everywhere. That it is evidence, constant experience, constant projection. From this angle, the problem is shifted in this book from a naturalist question to a phenomenological interrogation: that of the analysis of the communicative process in its own making, in its own becoming, in its own time.

The reformulation of the problem must therefore have this structure: even if we could know the intrinsic and extrinsic principles of communication and the objects that it always entails, it still cannot be said that it would be possible to get to know what communication really is since these principles would have had to be previously expressed. That is, sent, transmitted, communicated, projected through a specific medium. In a word, *designed*. We can reformulate the problem and argue that there must be a shift from the problems of principles to the problem of causality. From the problems of its origins to the problem of who starts it and with what purpose. Now it is precisely by resorting to one of the four definitions that Aristotle gives of cause, as "the immanent matter from which something is generated" (Aristotle, *Metafísica*, 1990: 012b34-1014a), that it can be made clear that the cause of the entire process of transmission can only be thought of as identical to its materiality. That is, to the means that make possible acts of communication: the technique and what is *designed* with and upon it. The answer should thus be its material order and, consequently, the mode and structure that it can assume from the media that produce it (that design it in order to project it), but also the differences between these media — be they orality, writing, photography, gramophone, radio, television, the Internet, etc.. Understanding the communicative process, always a medial and technical project, would thus also be the task of a media theory or, as Flusser puts it, as a phenomenology of design, a discipline that has not yet been consolidated.

Therefore, a discipline that wants to develop a theory of the media or a phenomenology of design, should have

as a guiding thread, according to Sybille Krämer (*Medium, Messenger, Transmission: An Approach to Media Philosophy*, 2015), the following questions:

- How can one reflect on the importance of the media for the development of an image of humans and of the world when it is these which simultaneously prescribe the structure of this "representation"?

- How can one perceive the importance of the media as instruments of "representation" (projections) of our relationship with the world, making us receptive to the things of the world and human affairs (ethics and politics), when we know that they are presented through media, leaving the world of things and of people both at our disposal (at hand or ready to instrumentalize) and under their imposition?

- How can a concept of medium have developed from our experience of the world, if media are what structurally form it? Indeed, a medium is always already a drawing, a project.

The most recent explicit formulation of this problem can be found in Friedrich Kittler, when he states "Media determine our situation, which — in spite or because of it — deserves a description" (Kittler, *Gramophone, Film, Typewriter*, 1999: xxxix). In Kittler's conception, a "situation" (*Lage* in the original German) — a term that could also be interpreted as *location* or *zone*, one whereby a space-place is made, takes up space and materializes — translates the spatial and temporal coordinates that people can have access to: i.e., the experience of the world and its conceptual formalization. Therefore, it materially coincides with the speculative problems previously raised in relation to the determination of projected objects without the need to go through more existential, complex and subjective relationality. And it is precisely upon the materiality of the media and the social and political consequences that the media have been introducing that this book circles around; on Krämer's questions.

The imaginary discipline that Flusser proposes — a phenomenology of design — is an approximation, both historically and conceptually, of the notion of project to that of invention. The materiality of the media is always tacit or has not been discussed explicitly, thus marking the disposition of the human being to experience the world, resulting in the following formulation, which we can read in this book: "We shape our technology as much as it shapes us. Technology, and design in tow, are exceptional whisperers. They shift and subtly curate our opinions, values, and experiences" (see p. 43).

If the first observation is the absence of an ultimate definition of technology and design, thus delimiting their objectual field, what is clear in the formulations recently carried out on the possibility of thinking about them, is that often the very use of the concept of theory is suspended, or at least ambiguous. There is, however, a clear relationship between the media, their effects and their construction, with problems directly involved with political theory and ethics, as well as with problems emerging from the design of technology and vice versa. If we look at those who closely follow the precepts of the Canadian School — with McLuhan as its headmaster — what can be seen is that technical devices assume a great weight in the consubstantiation and dissemination of knowledge, in its projection.

Be that as it may, from more technical texts to more theoretical ones, what remains clear is the relationship between a theory of the media and the ways in which reality is apprehended. That is, in how it is shaped in knowledge and representation and,

therefore, in how the media deliver to us what is called, in its particular Greek definition, the human affairs (*to anthropon pragamata*) — politics *par excellence*. Media and *designing* are one and the same. Only a *distinctio rationis* is possible. The world, as a place, is a designed, projected place, as Ana Henriques points out throughout the text. This is how, for instance, Harold A. Innis begins one of the most important books on media theory, even before it was formulated by Marshall McLuhan, in 1964, with his explicit text *Understanding Media: The Extension of Man*:

"A medium of communication has an important influence on the dissemination of knowledge over space and over time and it becomes necessary to study its characteristics in order to appraise its influence in its cultural setting. According to its characteristics it may be better suited to the dissemination of knowledge over time than over space, particularly if the medium is heavy and durable and not suited to transportation, or to the dissemination of knowledge over space than over time, particularly if the medium is light and easily transported. The relative emphasis on time or space will imply a bias of significance to the culture in which it is imbedded" (Innis, *The Bias of Communication*, 1951: 33).

The premises are presented here very clearly. For Harold A. Innis, McLuhan's herald in the study of the media, the fundamental goal was to determine their characteristics so that we can assess their effects on society and understand their action on individuals. His theory is about understanding and dismantling the designer's intentionality (media's intentionality, not only the things themselves), by looking for contingency and serendipity — by looking for their *Futures*. Without a focus on each medium in relation to its own nature, any attempt to proceed with a theory of media and design is useless, which makes it impossible to understand the relationships that communication maintains with the arts, since these are always what is visible of the action of the media, or, in what is the same to say, of the free action of humanity in their creative work — as designer.

This could prompt some to think that, in this way, a theory of media is impossible, design being an appendix of it, especially since that each medium should be able to be seen in its proximity rather than from a more structural, historical, and geographical point of view. In this sense, given the nature of each medium in controlling space and time, as well as doing so in an exclusive manner, we can begin to see in this book the genesis of what could be dubbed a *geography of design* (of media), but also a geography of technique.

These assumptions were, as has often happened in the history of thought, first imagined by literature and by art. An example can be found in Stefan Grabiński's collection of short stories dismantling the train, published in 1920 with the title *The Motion Demon* (*Demon Ruchu*, in the original Polish). These sought to glimpse all the powers that design objects have in societies and that only now have we begun to grasp. The same is true of the Binoculars that the author of *The Man Without Qualities*, Robert Musil, tried to imagine. There we read: "In such a way, then, the binoculars contribute both to the understanding of the individual human being and to a deepening lack of understanding of what it means to be human" (Robert Musil, *Gesammelte Werke*, 1926: 519).

But perhaps the finest and most delicate example is one offered by Jorge Luis Borges, chosen carefully and intently for the Preface of this book specifically because Borges does not think of an object as a product of modern technique but instead prompts us to think of one of the oldest objects known to humans, the dagger. In his words,

"This is not what the dagger wants. It is more than a structure of metal; men conceived it and shaped it with a single end in mind. It is, in some eternal way, the dagger that last night knifed a man in Tacuarembó and the daggers that rained on Caesar. It wants to kill, it wants to shed sudden blood" (Borges, *Evaristo Carriego*, 1930: 61).

What we encounter in Ana Henriques's book is this endless questioning; her unbounded effort to draw attention to the essence of *Design* and *designing*, which could be summarized in this simple way: What does Design want?

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INTRODUCTION

PP. 16 – 21

The research recounted in this book is lifted from what was my Master's dissertation in Communication Design, which was prompted by a growing chasm within design discourse. Design, in all its forms, seems to be at a point of reckoning. As it becomes increasingly clear that past solutions have not only failed but were flawed from the start, this research hopes to provide some ways in which we can look back, as well as forward.

To that end, this work asks whether a conscious and thorough ethical examination as an inherent and a priori step in the design process could help guide an evolving design theory and practice; and, if so, it also hopes to provide some answers as to how. Or, at the very least, a starting point for what those answers might look like.

The framework in focus is, hence, an exploration of the relationship between design and ethics. Namely, what it is, what it looks like, and what it ought to look like. Ethical implications are inherent to the design process, especially given the latter's role as configurator of the interface through which we perceive and interact with the world, with others, and with ourselves.

What that means is, at its core, a matter of ethical concern. It necessitates the unraveling of questions pertaining to how one should act and what kind of life one should

lead. A life which, as it happens, is mediated by designed interfaces, be they systems, environments, objects, or technology. Thus, this work is intended as an examination of how ethics is wielded within the design purview and also of its intrinsic implications for the designer, design, and the societies and cultures within which our designs dwell.

In this way, an examination into how ethics and design intersect is exceptionally relevant. This is especially true considering design's role as both material reconfigurator and reconfiguration, which places it as a present act that draws upon the past to project a conceptualized future.

Regarding a formal structure, throughout the redaction of what was then my Master's dissertation, I made some design choices available to me within the confines of the medium. These spurred from the essence of ethical examination, which, after all, provides us with frameworks through which to examine our decisions.

Specifically, I employ the use of the first person in an attempt to reflect and substantiate the argument that a notion of universal knowledge is fallacious. I am aware that, traditionally, the proper manner of address within academic documents is a neutral third person; however, as I argue, there is no such thing as a neutral designer,

and, by extension, no neutral author either. With this gesture, I do not wish to imply any overreach done by any of my colleagues, merely that the practice is an inherited convention which, as I contend throughout, can and ought to be questioned.

In that same vein, some care was taken to not overwhelm the prose with long paragraphs or dense academic jargon, which is often inaccessible to a general public. Given the public nature of the forum, it felt important to me to make it as accessible as possible. This preoccupation is also reflected in the language I chose to write in. Beyond the fact that English is, perhaps, the language I feel most comfortable reading and writing in — which also does not count for nothing — it is also the one which allows for more readers. In addition, among the languages between which I felt comfortably enough to choose — namely, Portuguese and English — the latter was the one with which I could achieve the most uncomplicated phrasal structuring.

Further, the document was insularly designed with the intention of facilitating readability. Divided into three major moments, each of them is parted by a well-defined inciting question, and the subsections within them behave in a similar manner. This was a conscious decision, intent on providing the reader with a clearly delineated purview of

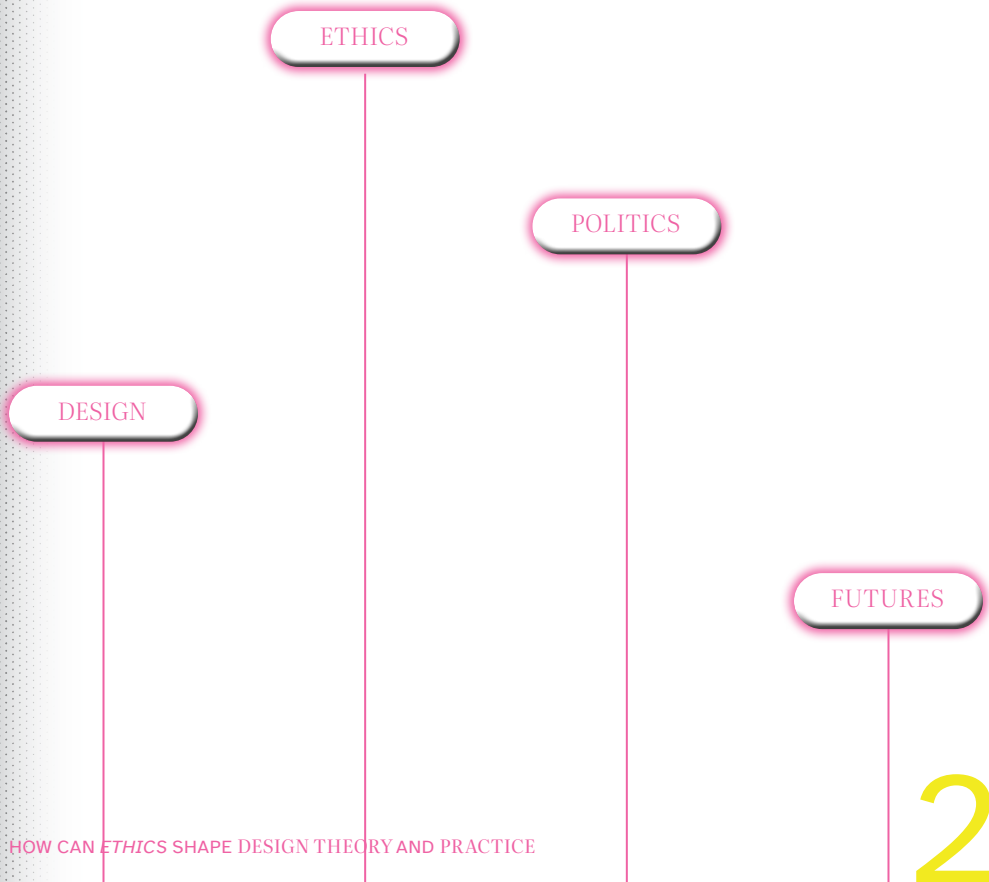
investigation, so as to narrow down the scope of the information being taken in at a time. In this way, I hope, the general reader might feel more comfortable and receptive to the arguments furthered within this discussion.

The first moment, PART 1: **ETHICS, OR *WHAT*, is primarily focused on documenting what ethics and design are, both individually and in relation to each other. It digs into how ethical principles and considerations are inextricable from the theory and practice of design, regardless of whether or not we pay them heed. In addition, it provides an overview of how the rhetoric of ethics has permeated the design discipline and profession.**

The second, PART 2: **POLITICS, OR *WHY*, delves a little deeper, into why these questions are so relevant. It is, primarily, an investigation into the politics inherent to both ethics and design, as well as its implications upon a designed society. Accordingly, it argues that purportedly neutral approaches to design favor hegemonic ethical and epistemological assumptions. These, by their very nature, are designed to favor some in detriment of others, which is exclusionary and thus, unethical.**

Building on parts 1 and 2, PART 3: **FUTURES, OR *HOW* hopes to offer some direction as to what the implementation of an ethical design paradigm might look like. In that regard, drawing from marginalized**

epistemologies, it centers the question of how one could go about implementing an ultimate merger of design and ethics — one whereby good design would be synonymous with ethical design, and unethical design would not even be in contention.



PART 1: ETHICS, OR *WHAT*

PP. 22 – 77

1.1 DESIGN: A PREAMBLE

Design, though a young profession, has always stood at the heart of human innovation (Manzini, 2015). It has been, and remains still, an omnipresent fixture of human existence. Indeed, as writes design scholar Ezio Manzini, "[d]esign, in the most generic sense of the word, began over 2.5 million years ago when Homo habilis manufactured the first tools. Human beings were designing well before we began to walk upright" (Ibid: vii).

Manzini thus puts forth a general definition of a design practice, anchored in the creation of things towards an end — in effect, the making of tools (Ibid). In this way, design has transformed society by granting us the key inventions of civilization. Its power has allowed us to construct houses, grow food, build cities, transmit knowledge, and countless other things, both simple and complex (Fiell and Fiell, 2018).

And from this, design grew, transforming, evolving; sectioning itself into multiple and ever-expanding disciplines[1] (Manzini, 2015; Canlı, 2017). Nowadays, there is a variety of design subcategories, some designated according to the medium they employ — such as graphic and product design — and others according to the ideological contexts in which they operate — like human-centered design or participatory design (Canlı, 2017).

All do, nonetheless, share a common feature — "all of them materialise designed outcomes, derived from an activity of designing, with a designer involved in the process" (Ibid: 10).

As argues Manzini, "[a]ll goods and services are designed," (Manzini, 2015: vii) as design is, above all, a process, through which we shape and perceive our world (Ibid). Indeed, the dictionary definition of design includes an entry as a verb and another as a noun (Merriam-Webster, n.d.a; cit Manzini, 2015). Design, as a verb, is defined as "to create, fashion, execute, or construct according to plan; to conceive

and plan out in the mind; to have as a specific purpose; to devise for a specific function or end" (Merriam-Webster, n.d.a; cit Manzini, 2015). As a noun, it describes "a particular purpose or intention held in view by an individual or group; deliberate, purposive planning; a mental project or scheme in which means to an end are laid down" (Ibid).

Design, hence, implies some sort of materialization (Canlı, 2017). It takes on a "concrete form in the work of the service professions that meet human needs, a broad range of making and planning disciplines" (Manzini, 2015: viii) in service of a specific intended outcome. Here we see a central theme — that of a purpose; design as an act of conceptualization aimed towards an intended outcome (Ibid). And though it has evolved from the creation of rudimental tools into that of increasingly complex systems, goods and services, this has remained constant. Indeed, as scholar Herbert Simon described it, to design is to "[devise] courses of action aimed at changing existing situations into preferred ones" (Simon, 1996: 111).

In this way, design is also concerned with communicating meaning within the context of the society by and for which it designs. If one designs to achieve a specific outcome, one must also be able to communicate its meaning. Niklas Luhmann developed a systems theory for society as a set of interactions coded as communication (Luhmann, 1975). As per Luhmann, social systems become systems of exchanging information — of communicating an intended meaning as the desired outcome — with society being the most encompassing one.

Building on this idea, one can construe design as the interactions between all the links in this chain — the designed outcome, the process of designing, and the designer themself (Canlı, 2017) — both amongst one another and with other human and non-human interactors (van der Velden, 2014). This constant interaction is, thus, what allows the continual iteration of new configurations and possibilities.

It is, precisely, in this process of "material (re)configuration" (Canlı, 2017) that I anchor the definition of design used throughout this work, employed to signify a meaning that goes beyond an understanding of design as a single, albeit sectioned, discipline. In the words of scholar Clive Dilnot, "[a]ll things, natural and artificial, have configuration. That is they are physically structured, and through that structuring enabled to act in certain ways. Design is nothing more, or less, than the act of (re)configuring. ... design (re)-configures and therefore re-directs how things act" (Dilnot, 2015: 122-123).

As argues scholar Ece Canlı, this reciprocity of design, as something which is both, and simultaneously, reconfiguring and being reconfigured, is key in understanding the effects and outcomes thereby produced (Canlı, 2017). All designed things are the product of desired outcomes, originating from the aforementioned interaction between outcome, process, and agent. In return, "all designed things (from artifacts, spaces, sites, technologies, images to sartorial, digital, medical and cyber instruments)... act back and reconfigure the world;" and, in so doing, also our "identities, selves, ... our everyday lives, environments, social structures, politics, relationships, movements, habits, value judgments and so forth" (Ibid: 11).

Accordingly, the quality of the designs with which we surround ourselves unquestionably bears on the quality of our lives. It is what we interact with in the world — it is responsible for the objects, services, and applications we use every day. Some interfaces are designed to retain all of our attention (Vertegaal, 2002), and some products are designed to have low shelf lives (Bulow, 1986). Nonetheless, design is, indeed, shaping and curating our

values, cultures[2], and experiences — it is framing our minds (Niedderer et al, 2014).

In becoming aware of this, one should also recognize the potential repercussions and, therefore, its importance for the people who engage with these products, as well as for the designers who create them. As such, we can leave neither our present nor our future generations of designers indifferent to the value of the process with which they engage and the weight of its responsibility; especially where it intersects with technology.

Throughout this first chapter, I will delve into an exploration of ethics as applied to my understanding of design, as I have described it here. That definition, however, is broader than the traditional academic purview considered under that same name. This happens, as explained by Manzini, due to the diversity found among the subcategories which lay under the design umbrella (Manzini, 2015). "They have distinct traditions, methods, and vocabularies, used and put into practice by distinct and often dissimilar professional groups. Although the traditions dividing these groups are distinct, common boundaries sometimes form a border. Where this happens, they serve as meeting points where common concerns build bridges" (Ibid: viii).

And thus, one such bridge I intend to form here is that between the study of ethics as applied to the academic discipline of design and that of technology. As argues scholar Mahmoud Keshavarz, a holistic understanding of design, as both noun and verb, is important in order to understand that which occurs beyond the designed object (Keshavarz, 2016). As he proffers, "[t]his design and designing runs the whole gamut from the articulation of artifacts and artifactual relations to environments, situations and policies, from interfaces to regimes of practice" (Ibid: 76) — something technology, especially in recent years, has had a significant and ever-expanding role in shaping (Arthur, 2009).

Likewise, with such significant technological development happening so quickly, and so pervasively (Ibid), studying the manner in which ethics shapes design while ignoring that same work being done under the purview of technology is inadequate and incomplete. Especially when the designer, as "material (re)configurator," (Canlı, 2017) is so well-positioned to lay the foundations for ethical consideration and implementation in all designed things, from design proper to designed technologies.

[1] According to Manzini, urban design and architecture, for instance, began in ancient Mesopotamia, wherein likely spawned also interior and furniture design (Manzini, 2015). Typography and graphic design followed, first emerging with the advent of cuneiform writing in Sumeria (Ibid).

[2] An important thing to note is that, though this discussion falls outside the purview of this investigation, the term 'culture' and its academic tradition are heavily biased in favor of Eurocentric conceptions and constructs pertaining to a process of assumed civilization (Elias, 1994; Pepperell, 2016). In addition, authors such as Georg Simmel have also spoken of culture as something which can influence and alter the development of the individual (Simmel, [1923] 1998). More specifically, Simmel speaks of an "objective culture," to which the individual submits (Ibid) in a manner very similar to the Marxist concept of alienation (Bottomore, 1983). The definition of culture used throughout this work, however, is more akin to the classically accepted definition spurred by Edward B. Tylor and the subsequent school of thought, whereby culture is merely understood as that "complex whole" which binds individuals through the emergence of an identity (Tylor [1871] 1974: 1).

1.2 WHAT EVEN IS ETHICS?

Our daily lives are comprised by a series of decisions: decisions about what to do, what not to do, what should we do; what is right, and what is wrong. Ethics is the field of philosophy that deals with the basis for those decisions. "[It] involves systematizing, defending, and recommending concepts of right and wrong behavior" (Fieser, 2020: §1). Ethics[3] is concerned with all aspects of the human experience — from the individual to the conglomerate — and it specifically hinges on the importance of free will (O'Connor and Franklin, 2018).

Indeed, in order to be an ethical agent, one requires agency. Kant even described what he defined as practical philosophy, which came to be thought of as what we understand Western ethics to be (Rauscher, 2016), as being preoccupied with "rules of behavior in regard to free choice" (Ibid: sec 1 §2). Thus, it is only by being an active and willing participant in an action that one can be held accountable and responsible[4] (O'Connor, and Franklin, 2018; Rauscher, 2016).

The importance of ethics in informing which decisions are best thereby becomes apparent. And though the prompts may be simple, the answers are far from easy in their contingency. After all, "[i]t's not a trivial question ... what we are talking about is how one should live" (Williams, 2011: 1). As remarks Plato's Socrates[5], "the greatest good to man is to discourse daily about virtue and those other matters about which you have heard me speak and examine both myself and others, and [a] life without examination is not worth living" (Plato, *Apology*: 38a2-6).

In this way, ethics is also concerned with what makes life worth living — the "good life" (Frede, 2017). What that good life entails, however, is contingent, and depends upon one's understanding of one's own nature, as well as one's perception of the conditions which lead to fulfillment (Ibid). Or, in other

words, it is shaped by morality, which is, in turn, shaped by the prevailing assumptions and values permeating the environment in which one lives. This is ethics.

We see, then, further yet still subtle distinction between ethics and morality. The former is the collection of moral values — the system by which morality — that which is good and bad — is shaped. This is why, in this work, I will be focusing on ethics, rather than morality. I am, of course, still interested in morality in some way. I will be advocating for what I believe to be moral, or good, according to the ethics upon which this document centers; but I will stray from litigating forms of moral relativism[6]. This, within a discussion aimed at paradigmatic change in the form of ethics, I find to be a futile effort. As such, my approach to this debate might best be summarized by Wittgenstein's notion that some problems, particularly those of such abstract nature, are often best dissolved, rather than solved (Wittgenstein, [1921] 2011).

But precisely because there are several distinct manners in which to formulate one's conceptions about right or wrong and good and bad, many systems of ethics have been developed. Traditionally, the field of ethics has been described as divided into three areas (Fieser, 2020). The first, meta-ethics, contemplates the nature of right and good, and thus also the nature and grounds for ethical claims (Ibid). The next, normative ethics, deals with the bases and standards used to deem something right or good (Ibid). Finally, there is applied ethics, which is concerned with the concrete applications of ethical principles to specific cases (Ibid).

It is important to note though, that while this template is a useful one for the study of ethics and ethical decision-making, it is also limiting and should not be used as static. One's own experience with applying a given ethical approach can and should appraise how appropriate this division is.

Similarly, ethical theories are frequently split into three types. There are consequentialist theories, primarily focused on the ethical consequences of an agent's actions, non-consequentialist theories, which account for the intentions of the person making the decisions, and agent-centered theories, differing from the others in that these are less concerned with the morality of actions and are instead more interested in the overall character of the agent (Ibid).

Within these broad categorizations are multiple approaches to ethics, some of which have commonalities across all three groups. For the purposes of this discussion, I will highlight only a few in an attempt to distill the key ideas of each while not going into an in-depth dissection, which is not the aim of this work.

Within the consequentialist realm, the utilitarian[7] approach is the most significant, along with the idea of the common good[8]. Utilitarian ideas hold that an act is morally right if it maximizes the amount of good. It stresses the notion of a net positive, whereby the total amount of good for all people must be greater than the total amount of bad for all people (Sinnott-Armstrong, 2019). The notion of a common good, in contrast, focuses more on the interconnectedness of all aspects of a society. It holds that the best society ought to be informed by the common will of the people, which would thus generate the best outcome for the people as a whole.

Under the non-consequentialist umbrella, the principal focus here will be on deontological ethics. A duty approach would be akin to Kantian ideals of morality, which place an emphasis on, of course, duty as the driving force for any action (Alexander and Moore, 2016). An action is righteous if it is propelled by good intentions, regardless of the consequences. An ethical decision is one made out of a sense of duty, because that is one's obligation. The notion of obligation is

relevant because such an approach posits that they are universal, the same for all rational beings. This is extended to the formula of the categorical imperative, whereby one can act only according to a dictum that can and ought to be made into a universal law (Johnson and Cureton, 2019).

As for the agent-centered theories, the most relevant here is the value (or virtue) approach[9]. This principle contends that ethical actions are those which are aligned with ideal human values (Hursthouse and Pettigrove, 2018). It stresses the importance of developing good habits of character, rather than simply obeying rules. For this reason, it underscores the importance of education and role models to our appreciation of ethical consideration (Ibid). I will come back to this later.

[3] Ethics and morality are often employed interchangeably. Indeed, the *Encyclopedia Britannica* entry on the topic treats both as equivalents to moral philosophy (Singer, 2020). There are, however, some distinctions. Accordingly, morality may be regarded as a state of virtue, and ethics as the code that enables what is virtuous. Morality is a personal value system, while ethics is, instead, the standards for "good and bad" and "right and wrong," set by a given community or social system (Grannan, 2020). Ethics thus provides the reason as to why something is moral.

[4] Three major distinct types of ethical and moral responsibility have been described (Watson, 1996). These focus on "the kind of responses licensed toward the responsible agent" — answerability — "the nature of the licensing relation" — attributability — and "the necessary and sufficient conditions for licensing the relevant kind of responses toward the agent" — accountability (O'Connor, and Franklin, 2018: sec 2.1, §2).

[5] Socrates never wrote anything. All of his we have documented came from Plato's writings about him and his teachings (Fisher, 1966).

[6] Succinctly, moral relativism is the belief that moral judgments are true or untrue — deemed good or bad — based solely in relation to a particular viewpoint or perspective, and that none is superior (Westacott, n.d.). This is an important concept. Indeed, it is particularly useful in its critique of a universal value set, arguing that distinct cultural vernaculars often display different moral priorities that are no less important than those assigned to the hegemonic perspective (Ibid). There are, however, criticisms leveled at it as well. Namely, that it ignores diversity within a group or culture, that it implies that clear moral wrongs can be acceptable, or that it weakens both the ability and the possibility of a society to be critical of itself (Ibid).

[7] Utilitarianism can be traced back to the ancient Greek philosopher Epicurus of Samos, whose thesis was that the best life is one that produces the least amount of pain (Konstan, 2018). In the 18th century, philosopher Jeremy Bentham created a system that applied analogous principles to individual actions, which could be described as good or bad depending on the degree of pleasure or pain they would yield as a consequence. John Stuart Mill, perhaps the most well-known utilitarian in the Occidental imaginarium, then modified this system by altering the standard for good. He stressed the concept of happiness in lieu of the more materialistic-coded notion of pleasure. (Sinnott-Armstrong, 2019)

[8] The idea of the common good can be linked to the ancient Greek philosophers Plato and Aristotle, who believed that our actions should contribute to an ethical communal life (Sinnott-Armstrong, 2019). This was further developed by Jean-Jacques Rousseau, perhaps the most influential advocate of this concept. He then greatly developed the latter into the idea of the social contract (Rousseau, 2002).

[9] In the West, the idea of virtue ethics was also cemented by Plato and Aristotle. It there remained the most prominent approach to moral philosophy until the Enlightenment, where it became more obscure only to reemerge in the 1950s (Hursthouse and Pettigrove, 2018). This is also a predominant current in Eastern philosophy, where it can be traced back to Mencius and Confucius (Ibid). The latter in particular placed emphasis on the importance of acting virtuously in a sum of circumstances (Ibid).

1.3 FRAMEWORKS FOR ETHICAL DECISION-MAKING

The study of ethics is important as it pertains to making good decisions. One should always work towards a grasp of the issues in question, along with some sort of method that allows one to explore the ethical considerations and potential consequences of an action in order to be able to choose the best one. Such a method is particularly useful in dealing with unfamiliar or especially complex situations, which is why developing a framework for making decisions can be fruitful.

A seminar by the name of *Making Choices: Ethical Decisions at the Frontier of Global Science*, held at Brown University, developed three distinct frameworks that I find quite useful in providing the context for this discussion. They propose the consideration of a consequentialist framework, a duty framework, and a virtue framework, based on the three types of ethical theories mentioned earlier (Bonde and Firenze, 2020).

The Consequentialist framework, like its namesake, is concerned with the outcomes of all viable actions and is therefore focused on those who will be in any way impacted by them. "We ask about what outcomes are desirable in a given situation, and consider ethical conduct to be whatever will achieve the best consequences" (Ibid: §26). This framework is somewhat pragmatic, if not simplistic, by heeding only the potential consequences of an act.

It is predicated on utilitarian ideas, as it hinges on the desire to achieve the most amount of good for the most amount of people, though it has its limitations[10]. Indeed, the most amount of good for the most amount of people does not necessarily imply that all will be able to benefit, or even that none will suffer. There is inherent compromise built into this approach, which does not preclude more extreme end-justifies-the-means-type of scenarios

because the only wrong actions are those that do not increase the net amount of good.

The duty framework is intended to highlight what the responsibilities of the agent are with respect to a particular circumstance. Aligned with Kantian morals[11], an ethical conduct, according to this framework, is one that takes into account what one must do as well as what one should never do. The right action is the intentional one — "[it] is defined by doing one's duties and doing the right thing, and the goal is performing the correct action" (Bonde and Firenze, 2020: §28).

This is particularly effective in defining a dependable system with consistent reliable rules to be followed by all persons. Because these rules are universal, the aim is to encourage equal treatment of everyone by everyone. By centering the deliberation on a set of moral maxims, irrespective of the consequences they may result in, one can act in an ethical manner while still producing an undesirable outcome. This is useful if one finds oneself in a situation whereby one's obligation dictates whether a certain action is either forbidden or necessary. This, however, becomes precarious in cases which present more than a singular imperative with which to comply. Further, it lacks nuance in failing to consider any personal circumstances involved in the decision, and may even require acts that are known to produce harm in upholding the righteous imperative.

The virtue framework is built upon the idea of being virtuous and thereby acting virtuously. It asks what the agent's motivations are for a prospective action and asks again what type of character is desirable to have and if that action is congruent. "We define ethical behavior as whatever a virtuous person would do in the situation, and we seek to develop similar virtues" (Ibid: §32). This sort of framework takes context into account, as the type of person one should aim to be is contingent, and therefore allows for a variety of behaviors to be ethical. This encompasses larger swathes of the human experience and acknowledges that those experiences carry with them emotions and knowledge which, in turn, bear influence on a person's character.

This flexibility also leads to more complex dilemmas since the motivations themselves are far more subjective by nature, leading to more disagreement on which attributes are virtuous. This, ultimately, may lead to more uncertainty regarding which action to take. Further, as it is based upon an agent-centered value approach, the focus on education and role models may also be limiting, since that may lead to the reinforcement of established sociocultural norms of "good" behavior instead of examining them critically.

Though no one framework is faultless, they all have useful insight into making ethical decisions (see **Fig. 1**). This is important to note, as only by understanding the limitations of such a system can one use it effectively. In fact, narrowing down on one approach might itself be a problem, since by focusing on only one perspective other important aspects may elude us. All three frameworks should, hence, inform each other, and one should understand how interrelated they are. Indeed, the questions posed in each framework needn't be mutually exclusive. They may actually lead to similar results, but because the ethical spotlight is on different fixtures, applying them in conjunction will undoubtedly lead to better insight.

	Consequentialist Framework	**Duty Framework**	**Virtue Framework**
Deliberative Process	What kind of outcome should I produce (or try to produce)?	What are my obligations in this situation, and what are the things I should never do?	What kind of person should I be (or try to be), and what will my actions show about my character?
Focus	Directs attention to the future effects of an action, for all people who will be directly or indirectly affected by the action.	Directs attention to the duties that exist prior to the situation and determines obligations.	Attempts to discern character traits (virtues and vices) that are, or could be, motivating the people involved in the situation.
Definition of Ethical Conduct	Ethical conduct is the action that will achieve the best consequences.	Ethical conduct involves always doing the right thing: never failing to do one's duty.	Ethical conduct is whatever a fully virtuous person would do in the circumstances.
Motivation	Aim is to produce the most good.	Aim is to perform the right action.	Aim is to develop one's character.

Table highlighting the main contrasts between the three ethical frameworks in study. **Fig. 1**

[10] For a more comprehensive critique of Utilitarian ideas, please refer to Thomson, 1985 and Williams, 1973.

[11] It should be noted that Kant, and many of his contemporaries, in addition to having shaped a lot of the Western philosophical canon, also expressed very troubling views on race and gender (Pascoe, 2019). Kant is an especially curious figure as his contributions can be useful to those concerned with racism and sexism while Kant the man was often virulently racist and sexist (Ibid). These things, however, seem to be antithetical. A lot of Kant's moral philosophy hinges on the idea of universality. He propounds the inherent existence of a priori conditions which he presents as universal for all humans, and applicable as well as applied to all humans. Kant's racist and sexist views thus stand in stark opposition to the necessity of considering all humans as moral equals for his own dictums. This inevitably raises questions regarding whether he himself truly understood his theories, or whether he intend them to be selectively applied only to those he regarded as moral agents — namely, white men. This further calls into question the larger canon of the Western philosophical traditions, begging us to question its histories and methodologies, as well as how and even whether we should employ this work within settings which are indeed concerned with social justice, as should be the norm.

1.4 WE SHAPE OUR TOOLS

In the December 2006 issue of *Popular Science*[12], the Grand Award for Best Innovation of that year was given to the HurriQuake[13] nail (Clynes, 2006). This in itself does not seem particularly remarkable, but it happened in a year which included the growth of new body organs, a car capable of reaching 407 kilometers per hour, and the cloning of a lamb (one of Dolly's successors). So why did this simple nail design win?

Researchers found at the time that, in recent hurricanes, structures suffered even more damage when they were ripped apart, and attributed this to a limitation in the traditional nail's design, which had existed largely unmodified for over two hundred years (Ibid). According to the magazine's editor, the HurriQuake nail was selected specifically because of its wide-ranging effects on numerous people's lives (Ibid). In other words, it was the purpose of the nail in regard to a specific intended function that determined its redesign.

This anecdote is emblematic of the way in which we make decisions influencing the kind of things we want, as well as those we need. Technological innovation, however, though it has been largely driven by the principles of usability, ergonomics, efficiency, or functionality, has not so much been informed by a deeper understanding of ethics, even though they are inherently interconnected (Verbeek, 2008).

Technological innovation has plenty of ramifications. To quote the first of Kranzberg's laws, "[t]echnology is neither good nor bad; nor is it neutral" (Kranzberg, 1986: 545). As Melvin Kranzberg himself explains it, "[t]echnology's interaction with the social ecology is such that technical developments frequently have environmental, social, and human consequences that go far beyond the immediate purposes of the technical devices and practices themselves, and technology can have quite different

results when introduced into different contexts or under different circumstances" (Kranzberg, 1986: 545-546).

Kranzberg seems to be saying that, because the environment in which technological creations are deployed is immensely complex, their consequences are unpredictable. There is, nonetheless, a much more profound implication in this statement: that technological artifacts have inherent moral values (Verbeek, 2008). Indeed, technological artifacts are predominantly described simplistically as material objects produced by human agents in order to reach some practical function. (Verbeek and Vermaas, 2013). Randall Dipert described them as "intentionally modified [tools] whose properties were intended by the agent to be recognized by an agent at a later time as having been intentionally altered for that, or some other, use" (Dipert, 1993: 17) — much like our friend the HurriQuake nail.

[12] ***Popular Science*** **is an American publication dedicated to reporting on science and technology for the general public (Popular Science, 2020). It is also the recipient of upwards of fifty-eight awards, including awards for journalistic excellence from the American Society of Magazine Editors — in 2003, for General Excellence, in 2004, for Best Magazine Section, and, recently, in 2019, for Single-Topic Issue.**

[13] **The HurriQuake nail is a type of nail designed specifically to strengthen the structural integrity of buildings, particularly in the face of hurricanes or earthquakes, hence the name (Clynes, 2006).**

1.5 HUMAN TECH, HUMAN VALUES

Technological innovations are, thus, not divorced from human values, and three positions have been offered in regard to how exactly they become implicated in technological designs. They are the Embodied Position, the Exogenous Position, and the Interactional Position (Friedman and Kahn, 2002).

In the *History of Science* review literature, the Embodied Position is what is often referred to as technological determinism (Smith and Marx, 1994). It posits that the designers imbue their own personal values and intentions into their artifacts, which results in a situation whereby, once deployed, they determine human behavior by whatever purpose they embody (Friedman and Kahn, 2002). In examining this kind of technological determinism, one can have a so-called "hard" approach, as well as a "soft" one.

The hard version sees technology as developing independently from any social or cultural issues (Ellul, 1964). Specifically regarding the embodiment of values in that technology, hard determinists argue that the very intentionality of the designers in charge of developing those artifacts becomes a part of them (Appadurai, 1988). At its logical conclusion though, this implies that these artifacts carry with them mental states, something which critics deride.

"[They] question the plausibility of imputing agency to 'technology'.... How can we reasonably think of this abstract, disembodied, quasi-metaphysical entity [that of technology], or of one of its artifactual stand-ins (e.g., the computer), as the initiator of actions capable of controlling human destiny?" (Smith and Marx, 1994: xii).

Even so, it is quite interesting to note that this position may, nonetheless, lend itself to larger credence as the Artificial Intelligence domain expands and these systems become increasingly more able to mimic human creativity and agency[14].

The soft position, as the name illustrates, is more flexible in these beliefs, which is, perhaps, why it is more common. Defenders of this current recognize that the artifacts themselves do not literally personify their creators' values (Friedman and Kahn, 2002). They also contend that even the designers are themselves influenced by external factors such as the sociopolitical context in which they operate, which deters a particular technology from dominating and overriding the established circumstances (Ibid). They do agree, however, that if a particular piece of technology were to establish itself, it would become exceedingly onerous to revoke the values it embodies (Ibid). But their main point is that "designs ensure behavior[15]" (Ibid: 1179), and an interesting example is that of a door.

As Don Norman wrote about so extensively in his seminal book *The Design of Everyday Things*, a good design is one that effortlessly informs you how to operate it (Norman, 2013). If you ever had trouble opening a door, it's because that door failed to communicate to you how to open it. But if you intuitively assess how to operate it, as Norman argues you should, that is because the design itself conditioned how you would engage with it. Concisely, plates are for pushing, and knobs are for turning (Ibid). Thus, a significant portion of the work of the designer necessarily involves inscribing their values "in the technical content of the new object" (Akrich, 1992: 208).

The exogenous viewpoint asserts that it is one's societal context, be it race, class, gender, politics, etc., that will dictate how a given piece of technology will be engaged with (Friedman and Kahn, 2002).

"To understand the origin of a particular kind of technological power, we must first learn about the actors. Who were they? What were their circumstances? ... Why was this innovation made by these people and not others? Why was it possible at this time and this place rather than another time and place?... Instead of treating 'technology' per se as the locus of historical agency... [advocates of the exogenous position] locate it in a far more various and complex, social, economic, political and cultural matrix" (Smith and Marx, 1994: xiii).

This though, suggests that such artifacts are not neutral — not neutral to ethics, not neutral to aesthetics, not neutral to accessibility, not neutral to functionality, even. And this is due to the large favor placed upon technological developments that greatly advantage those who hold social, economic, or otherwise political power (Noble, 1991; Smith, 1994; Winner, 1986). An example of the exogenous position being applied is a study conducted by Richard Bulliet, in which he examines three distinct technological innovations in the Islamic culture of the 5th century — the inventions of block printing, wheeled transport and the harnessing of draft animals (Bulliet, 1994). None of them had an immediate significant effect in Islamic society or economy despite the fact that they were objectively advantageous for the latter. This is because, Bulliet argues, there were "social filters" such as race, class, and lifestyle that acted as deterrents to their widespread dissemination (Ibid).

It has, nonetheless, been argued that increasingly recent technologies lend themselves more to being influenced by sociocultural factors, and, similarly, more established ones tend to bend more towards the deterministic approach (Hughes, 1994). This, as Thomas P. Hughes argues, is due to the reciprocal and time-dependent nature of the relationship between society and designed technology (Ibid). One does not determine the other; rather, both influence one another. Society is irreversibly modified by the introduction of a new technology, and the latter, in this way, is also propagated and inevitably iterated

within that same environment over time[16] (Hughes, 1994).

The final description of how values are implicated in a design, the interactional position, prioritizes the intentions of the people who interact with a design over those of the designer (Friedman and Kahn, 2002). It concedes that the features built into an artifact inherently align themselves with certain virtues and deter others, but claim that its actual use will be determined by the desires of whomever engages with it. Let us turn to the nail once more. It is intended for construction, yet, as demonstrated by the *Instructables* article "12 Unusual Uses for Nails," depending on the end goal of the user, it could also be used to make jewelry, a puzzle, a bottle opener, or even a hammer (seamster, 2017; see **Fig. 2**).

Furthermore, an already deployed technology often changes over time at the hands of the people who interact with it (Hughes, 1994). This can be explained through the lens of the exogenous stance, whereby a particular technology may be altered through societal pressures, causing it to be improved upon or even misused or abandoned out of societal rejection or slow adoption (Friedman and Kahn, 2002). More often, however, this transformation will be the product of an iterative process, in which technologies are continually reappropriated based on the differing aims of the successive users (Ibid).

A classic example of this is how the kleenex came to be. The product we know today was originally used as bandages and gas-mask air filters in World War I (Panati, 1987). After the war, it was marketed as a makeup remover but, soon enough, "wives complained that husbands were blowing their noses in [them]" (Ibid: 207), and lo the current iteration of the kleenex was born.

Another more current example is that of software updates. Developers learn more about their product each time an update is made, which allows the updates to build on each other to create the desired system through repeated cycles (Larman, 2003). This is made possible by the knowledge that comes with the use of that system and subsequent developments. As such, at each iteration, design modifications are made and new functional capabilities are added (Ibid).

The interactional approach though, is itself bifurcated. The first of its aspects stresses that the characteristics built into the technology act as propellers (Friedman, 1997). For clarification, let us take the numerous ways in which we collectively fail to build in ways to guarantee Disabled People the same access to technology as an illustrative example. Indeed, we can, instead, simply choose to build infrastructures that enable that, and failing to do so is to actively impede upon the human value of universal access (Friedman and Kahn, 2002).

The complement to that places more emphasis on how the context of organizational structures shapes the ways in which people engage with technology (Orlikowski, 2000). Proponents propose "a view of technology structures, not as embodied in given technological artifacts, but as enacted by the recurrent social practices of a community of users" (Ibid: 421). The focus notwithstanding, the interactional position holds as its foundation that design and its own contingent social contexts are conceptually interwoven, which allows for user agency in the face of uncongenial values posed by a given technology.

A necklace, a puzzle, a hammer and a bottle opener made from nails according to the tutorials from the "12 Unusual Uses for Nails" article (seamster, 2017). **Fig. 2**

[14] See, as an example, an essay entirely written by an Artificial Intelligence to convince humans that robots mean us no harm (GPT-3, 2020). See also Torrance, 2011 and Tonkens, 2009 for a more thorough exploration of the potential of and for machine ethics.

[15] In other words, design carries within it the intention put therein by the designer. In order for people to be able to interact with a designed artifact, they need to understand how, and this is something the designer must codify within the design itself.

[16] According to Hughes, once the design has been implemented, the mere existence of that technology will ensure its endurance, though possibly in mutating forms (Hughes, 1994). He speaks of the notion of "technological momentum," with time as a unifying factor between the push of society and the pull of technology (Ibid). Likewise, in Hughes's work, he argues that when a technology is yet recent, it is easier for society to exert control over it — this is what he calls social determinism (Ibid). When that technology matures, however, it becomes even more embedded within that same social environment, making it harder to control and, thus, carrying with it its own deterministic sway, which is what he describes as technological momentum (Ibid). Simply put, Hughes proposes a system whereby the relationship between society and design technologies begins with a model of social determinism, which evolves into one of technological determinism as that technology matures and engrains itself within its environment (Ibid).

1.6 AND THEY SHAPE US

We shape our technology as much as it shapes us. Technology, and design in tow, are exceptional whisperers. They shift and subtly curate our opinions, values, and experiences. Marshall McLuhan, to whom the title of this section is a reference, put it best when he proclaimed that "the medium is the message" (McLuhan, 1994: 7). The "medium," as he described it, is "any extension of ourselves," which results from "the new scale that is introduced into our affairs by each extension of ourselves, or by any new technology" (Ibid).

What he means by this is that artifacts, as media[17], affect any society by their innate characteristics. That is, the way they were created, and how; in effect, their content (Balka, 2000). As he himself states: "[a]ll media work us over completely. They are so pervasive in their personal, political, economic, aesthetic, psychological, moral, ethical, and social consequences that they leave no part of us untouched, unaffected, unaltered" (McLuhan and Fiore, 2005: 26). A medium or technology's "message," hence, is precisely the societal shifts they produce, in addition to how they affect human behavior. It is "the psychic and social consequences of the designs or patterns as they amplify or accelerate existing processes" (McLuhan, 1994: 8).

Everything, down to the way we dream is directly influenced by the media we engage with. Television[18], for example, researchers have found, impacts our psyche so thoroughly, that it determines even the colors of our dreams (Murzyn, 2008; Okada, Matsuoka and Hatakeyama, 2011). Indeed, people who had grown up with black and white television sets were more likely to dream in black and white, while those who had developed in the age of Technicolor and beyond, dreamed overwhelmingly in color (Ibid).

Our actions and interpretations of the world are deeply entwined with

the technologies we use. Our cultures are dependent upon the mediums through which we interact with them. The word "medium" itself has different, complementary meanings. It can be a channel through which to communicate information (thus the focus on its content), but it can also refer to an environment. This is especially common in scientific disciplines such as physics or biology. To a biologist, a medium is an environment containing the nutrients in which cell, tissue, or organ cultures grow; in which organisms grow (Kell et al, 2005). Change the medium and you change the culture, in all interpretations of the word.

Indeed, as we seem to have entered a fourth Industrial Revolution[19] (Schwab, 2017b), the corresponding challenges are unprecedented. Its key points of divergence from the Third Industrial Revolution are its velocity, scope, and impact (Ibid). Technological developments have always been advancing at an increasingly rapid rate — that is the premise of Moore's Law[20]. At this point in time, however, as Thomas Friedman argues, the exponential growth in computer chip speed (the original formulation of Moore's law) has correlated to exponential growth in the potential and power of technology. As a result, we are not faced with linear evolution, rather with exponential growth (Friedman, 2016).

Such speed is disrupting nearly every industry throughout the world (Schwab, 2017b), and those tools that we created are now starting to shape us in ways that are still at the edges of our comprehension. This need not be negative; but one must wonder whether such a rapid rate of technological growth might end up superseding our ability to cognitively understand its implications.

This is especially true of the discipline of design. Designers are now asked to perform increasingly complex tasks with increasingly sophisticated technology to increasingly impactful ends. Not that long ago a pervasive debate in the industry had been whether designers should code (Vieira, 2020). Now though, as designers increase their experimentation with Machine Learning and Artificial Intelligence, design is becoming more and more computation-based, as illustrated by John Maeda's *Design in Tech Report* (Maeda, 2018; see **Fig. 3**). As designers are and will continue to be creating products with the ability to drastically affect millions of people, depending on the ways in which ethics and ethical decision-making play a role in the conception of those products, they may either improve countless lives or do irreparable harm.

CLASSICAL DESIGNERS ARE SLOWLY BEGINNING TO EVOLVE

THE TOP 10 MOST CRITICAL ISSUES AND CHALLENGES CURRENTLY FACING DESIGN

1. (Classical) Design not having a “seat at the table”
2. Diversity in design and tech
3. Ethics in Design
4. Education cost and equity of access
5. Consumer vs. social impacts of design
6. Generational differences in the workforce
7. Enviromental impacts of design
8. Algorithm bias
9. Advertising supported content model
10. Dark UX patterns

THE TOP 10 EMERGING TRENDS TO HAVE THE BIGGEST IMPACT ON DESIGN

1. AI and machine learning
2. Augmented Reality
3. Virtual Reality
4. Behavior tracking and modeling
5. 3D printing
6. Distributed teams and virtual workplace
7. Democratization of design
8. Algorithmic design
9. Crowd-sourcing and open source
10. Facial and voice recognition

*Highlights correspond to computational design.

A reproduction of an excerpt from Maeda’s *Design in Tech Report* highlighting how the most predominant issues design is facing as a discipline are related to algorithmic and computational processes.

Fig. 3

[17] It is important to note that, to McLuhan, the terms "media" and "technology" are mostly equivalent (Logan, 2016). McLuhan regards all media as technologies and tools. To him, "a chair is as much a medium as is a newspaper" (Ibid: 135). Further, it could be argued that to him all media are metamedia — all require an interface through which to communicate and all use already established media as content (Marchessault, 2005).

[18] McLuhan had his own ideas about television. See McLuhan, 1994 and Antecol, 1997.

[19] Briefly, the Fourth Industrial Revolution, building on the previous one, is characterized by a fusion of technologies that blur the lines between the physical, digital, and biological realms by way of ongoing automation of traditional manufacturing and industrial practices by modern smart technology (Schwab, 2017b).

[20] Moore's law refers to the observation, made by Gordon Moore, that the number of transistors in an integrated circuit doubles about every two years (Gregersen, 2020). This was an empirical observation made in 1965, and was meant as a projection of a historical trend rather than a physical law.

1.7 NEUTRALITY IS NOT NEUTRAL

As discussed, technology is not neutral. And, as mentioned, there are a plethora of ways in which an artifact or technology can itself embody or reflect the moral decisions that were made in its conception. We've also seen why it matters. We shape our tools and they shape us, as the adage goes.

This way of thinking though, seems to be more aligned with (or at least more cognizant of) a value theory of ethics, and a value framework for decision making, even if they all bleed into each other in some way. However, in placing a spotlight on how things ought to be; that is, what values they should embody, one may fail to account for other major ethical issues. By placing such focus on a value theory of ethics, one is neglecting the other ethical frameworks; namely, the aforementioned consequentialist and duty approaches. Questions like "are they increasing the amount of good" and "are they complying with their duties and obligations" are also essential.

As technological developments become more and more significant, the impact they have also becomes greater and greater, which is why we should take special care to act responsibly. All three of the presented ethical frameworks provide important insights into how to develop and deploy technology. They should not, likewise, be considered arbitrarily, or even unevenly. Especially when trying to prevent unfettered consequences to our tools and, therefore, to ourselves. One should, arguably, always exhaust whichever methods one establishes for making decisions, whatever they may be. Accordingly, one should look not just at those frameworks, but also at their intersection — at producing the most good for most people, obeying the law and doing no harm, and thinking about what kind of virtues we should aspire to as a society. Simultaneously.

Faced with all this, ethics cannot be optional. It is the imperative that has made

society possible; that has made coexistence, exchange and progress possible. And, as such, we cannot afford to disregard the frameworks that sustain and allow our collective existence. Our choices matter, especially the ones we don't make.

1.8 TOWARDS TECHNOETHICS

The ethical implications of new technologies, as discussed, are exceptionally relevant in our contemporary society, particularly in regard to fields of study responsible for technological advances with great societal impact. In response, theoretician James Moor, developed his Moor's Law (Moor, 2005). He posits that as the social impact of technological developments grows, the associated ethical problems increase (Ibid: 117). This is understood to occur because an increasing number of people are being affected by these developments; but also because the rapid technological advancements are themselves providing unprecedented opportunities for actions which have not yet been ethically or lawfully regulated (Luppicini, 2009).

This means that the consequences of our actions are still very ill-defined and, as such, an ethical agent should be very wary of their actionable decisions — especially the designer/technologist, as the intermediary — as with them comes the responsibility and accountability which befall the ethical agent. Hence, technology, in line with everything so far mentioned, ought not to be considered a solution to already existing ethical concerns, since its potential consequences are too unpredictable. Instead, it should be viewed as an aspect of societal evolution, which will, inevitably, bring about some change, which our similarly evolving ethics should meet (Massumi, 2015).

Notwithstanding, ethics as applied to technology is somewhat of a novel concept[21]. Ethics, though inherent to technology, has not always been a part of the developmental process. Indeed, the field of technoethics[22] first emerged only fifty years ago, in the 1970s (Luppicini, 2009). The term was coined by Mario Bunge, who viewed those closely connected to technology, such as technologists and engineers, as ethically responsible for the societal impact of technological innovation and subsequent

use (Bunge, 1975). In response, he endorsed the establishment of new ethical ideologies to address the particular issues posed by technological advancements on societies (Ibid). According to him, "[t]he technologist must be held not only technically but also morally responsible for whatever he designs or executes: not only should his artifacts be optimally efficient but, far from being harmful, they should be beneficial, and not only in the short run but also in the long term" (Ibid: 72).

A paramount issue with which our evolving societies are grappling is the ever more influential scientific and technological breakthrough forcing us to reevaluate how we view such development. This is especially noteworthy in the hard sciences such as biology and physics and engineering because these are the most likely to lead to developments capable of exceeding human capacity and, in this way, causing changes that were not able to be foreseen (Luppicini. 2010b).

Advancements in medicine, transportation, or communication technologies are all colligated with ethical quandaries of increasing complexity, which they originated or facilitated. Increased dependence upon new technologies thus challenges the foundations of previously stable institutions and societal covenants, thereby raising policy issues in regard to the revision and consequent implementation of new ethical guidelines, professional codes of conduct, and laws (Ibid).

Let us turn to the field of Artificial Intelligence (AI) as a relevant case study into ethical principles as applied to technology, as a holistic analogy to the work done strictly under the design purview.

AI is a good synecdoche for technology, and particularly pertinent to the present discussion not simply as an apt example of the previous point, but also as an already significant field of study with yet increasing reach and on which all aspects of society are poised to become vastly reliant. Indeed, as mentioned, AI, a computational technology, is becoming an ever-expanding fixture in the theory and praxis of the field of design (Maeda, 2018). AI takes an especially important role when contrasted with the notion of a "knowledge society," whereby social progress may be explained as the diffusion of knowledge and subsequent increase in instances which allow for personal choices due to industrialization (Luppicini, 2010a).

Indeed, industrialized nations grew progressively more reliant on investments in the production and distribution of knowledge in sectors such as education, labor, and development (Abramovitz and David, 2000). The significance of knowledge for society then became even more apparent with the integration of specialized areas of scientific study. "Contemporary society may be described as a knowledge society based on the extensive penetration of all its spheres of life and institutions by scientific and technological knowledge" (Stehr, 2002; cit Luppicini, 2010a: 1).

New scientific and technological innovations are transforming our societies into knowledge societies by becoming profoundly engrained in its pillars — culture, private and public affairs, labor and educational sectors, public institutions, or social practices (Luppicini, 2010a). Knowledge specifically produced by scientific and technological endeavors is actively redefining crucial details of social life, such as how governments make decisions, how students learn, how healthcare is provided, how ethnic groups preserve their cultures, how business is conducted, or even how scientific discoveries are handled.

This further highlights how much the technological advances already made, as well as those yet to be made (particularly in the context of a knowledge society),

require an exhaustive study of their social and ethical implications. This will be expanded upon in Part 2. Hence, adequate theorization must be conducted so as to leverage the undeniable good such consequential implications can bring about, as well as guard against the harm. This, of course, is far from uncomplicated and requires an understanding of the technology as well as the context in which it will be deployed.

AI is a great example of such a case. It has far-reaching implications in all of the fields mentioned here and multiple others; as well as a proportional concern (Floridi and Cowls, 2019). Accordingly, there are several propositions for ethical frameworks for the development and application of such systems. In a recent paper, Floridi and Cowls conducted an analysis of the highest-profile sets of ethical principles for AI, on which I will base my analysis given that their work is intended as a review of the state of the art, thus helping narrow down the scope of this specific endeavor.

The paper examined six significant initiatives interested in socially beneficial AI and found that there is significant overlap (Ibid). They were:

- *The Asilomar AI Principles*[23] (henceforth referred to as Asilomar; Asilomar AI Principles, 2017);
- *The Montreal Declaration for Responsible AI*[24] (henceforth referred to as Montreal; Montreal Declaration for Responsible AI, 2017);
- The general principles put forth in the second version of *Ethically Aligned Design: A Vision for Prioritizing Human Well-being with Autonomous and Intelligent Systems*[25] (henceforth referred to as IEEE; IEEE, 2017: 6);
- The ethical principles offered in the *Statement on Artificial Intelligence, Robotics and 'Autonomous' Systems*[26] (henceforth referred to as EGE; EGE, 2018: 16-20);
- The "five overarching principles for an AI code" from the UK House of Lords's *AI in the UK: ready, willing and able?* report[27] (henceforth referred to as AIUK; House of Lords, 2018: §417);
- *The Tenets of the Partnership on AI*[28] (henceforth referred to as the Partnership; Partnership on AI, 2018);

Upon review of these documents, Floridi and Cowls develop a unified framework of five core principles for ethical AI, on which I will rely for my own parallel review. They identified four of those principles as those commonly employed in the field of bioethics — beneficence, non-maleficence, autonomy, and justice — and suggested a fifth one — explicability (Beauchamp and Childress, 2012; cit Floridi and Cowls, 2019). This makes sense given that bioethics, as a discipline of applied ethics, is the one which most closely echoes digital ethics insofar as dealing with agents and the environments in which they operate (Floridi, 2013). This further strengthens the relevance of the ethics of AI as a technological parallel to the ethics of design within its own academic discipline.

The principle of beneficence translates to the promotion of well-being and the preservation of human dignity. The main goal is to "prioritize human well-being as an outcome in all system designs" (IEEE, 2017: 6; cit Floridi and Cowls, 2019). AI should thus "be developed for the common good and the benefit of humanity" (House of Lords, 2018: §417). This echoes the Utilitarian ideas of the most amount of good for the most amount of people, as mentioned earlier, and, likewise, also carries its drawbacks. Striving for a "common good"

is, of course, a laudable goal. However, what that is varies wildly between different cultures and ideologies (Green, 2018), and in enforcing a particular viewpoint one might leave many people behind.

Furthermore, if the aim is to "ensure that AI technologies benefit and empower as many people as possible" (Partnership on AI, 2018; cit Floridi and Cowls, 2019: 6), we would fail to address the potential harm that might be done to those we fail to benefit. Indeed, improving the lives of as many people as possible does not preclude harming others.

The principle of non-maleficence acts as a sort of response to the broadness of the principle of beneficence. Each of the works in analysis inspire the creation of beneficent as well as beneficial AI, yet also stress the importance of not causing any harm by warning against the negative consequences of misusing such technologies (Cowls et al, 2018). The IEEE underscores the urge to "avoid misuse" (IEEE, 2017; cit Floridi and Cowls, 2019: 6) and Montreal argues that developers "should assume their responsibility by working against the risks arising from their technological innovations" (Montreal Declaration for Responsible AI, 2017; cit Floridi and Cowls, 2019: 6). These admonitions, however, are not that clear in their intentions, as it is largely left ambiguous whether it is the developers or the technology itself that should not maltreat (Floridi and Cowls, 2019).

This uncertainty ties directly into the question of autonomy. Autonomy, as it pertains to AI, is essentially the question of who is deciding (Ibid). It involves a balance between retaining and delegating decision-making power, which calls into question specifically human autonomy[29]. As per the Asilomar principles, "[h]umans should choose how and whether to delegate decisions to AI systems, to accomplish human-chosen objectives" (Asilomar AI Principles, 2017; cit Floridi and Cowls, 2019: 7). It is thus made clear that, under this ethical model, the agency of human beings is to be sustained and encouraged, and that the autonomy of technological systems should be limited. Moreover, it is argued that machine autonomy should be made inherently reversible by design in the case that human autonomy might need to be protected or re-upheld (Floridi and Cowls, 2019).

The power to make decisions though, is contingent. Not everyone has the same agency in different social contexts. That is the basis for the justice principle. The main argument is that "the development of AI should promote justice and seek to eliminate all types of discrimination" (Montreal Declaration for Responsible AI, 2017; cit Floridi and Cowls, 2019: 7). It further warns against the risk of employing biased datasets in the training of AI systems (Floridi and Cowls, 2019). In addition, this principle advocates for fairness in regard to the elimination of unfair discrimination and the promotion of diversity, as well as the prevention of new threats to justice (Ibid). The justice principle, as mentioned across the analyzed works, nonetheless, is broadly described and yields some confusion as to whether humans are the recipient or the giver of the knowledge thus produced.

The answer to this dilemma is dependent upon the context from which we analyze the question. Whether humans are the recipient or the giver is, hence, a fallacious starting point to this discussion. We may be either, and which one we are hinges on each of our individual circumstances. The social context is intrinsically disparate between different people with different social standings, especially given that only a small fraction of the human population is currently responsible for the development and advancement of the technology we consume and which thereby affects our lives (Ibid). The added principle of explainability is, hence, a way of enabling the other four principles by promoting a basis of intelligibility and accountability. In order to prevent negative

consequences, one must understand the medium, as well as the environment in which it exists.

"For AI to be beneficent and non-maleficent, we must be able to understand the good or harm it is actually doing to society, and in which ways; for AI to promote and not constrain human autonomy, our 'decision about who should decide' must be informed by knowledge of how AI would act instead of us; and for AI to be just, we must know whom to hold accountable in the event of a serious, negative outcome, which would require in turn adequate understanding of why this outcome arose" (Ibid: 8-9).

Floridi and Cowls (2019) note, however, that these principles are the result of Western publications with corresponding Western values and priorities. They add that perspectives from regions and cultures not here present or otherwise underrepresented would benefit this framework and allow it to be more broadly applicable. Moreover, they contend that the advancements and subsequent employment of AI technologies have the potential to impact society in both positive and negative ways, and that "charting the course that is socially preferable will depend not only on well-crafted regulation and common standards, but also on the use of a framework of ethical principles" (Ibid: 11).

AI, as a case study, is thus representative of the broader discussion surrounding the ethics of technology. The AI ethical debate shares the same conclusions and similar concerns, since it also already takes into account the larger and older discussion surrounding the ethics of science and technology (Ibid). Indeed, abutted with the substantial and impending technological and scientific developments, as mentioned, is a growing need to reexamine the corresponding ethical implications. This is demonstrated by the abundance of literature on ethics and technology[30].

Howbeit, there is a lack of sources dedicated to the distinct and manifold areas of research and theories in use today[31] (Luppicini, 2010b). This speaks to the youth of the field and contributes to its instability. Floridi and Cowls also discuss this: "the sheer volume of proposed principles threatens to become overwhelming and confusing" (Floridi and Cowls, 2019: 2). This, they add, poses two potential hindrances. Namely, that the numerous proposed ethical principles are similar and thus redundant, or that they are vastly distinct and generate confusion and ambiguity[32] (Ibid).

To this, I would add that the suggested principles may themselves be at fault. Language such as "preferable," "seek to," "promote," "should," "avoid," or "as many people as possible" is conditional. It suggests that there is an ideal but also that it is not imperative. Language matters not just because these principles may be more easily discarded as a consequence but also because the terms one uses to describe something, especially when that thing is new, will create and shape the public's perception of it (Moore, 2019). Language matters because, "[b]y definition, a technological project is a fiction, since at the outset it does not exist, and there is no way it can exist yet because it is in the project phase" (Latour and Porter, 1996; cit Moore, 2019: 2).

Furthermore, the ideals of "human well-being," "common good," and the "benefit of humanity" are vague and insufficiently judicious as they omit the intrinsic and structural relationships between AI systems and their environment (Ibid); and, by extension, those between technologies and the contexts in which they are deployed. In striving towards "the good," the questions of which good and for whom are always looming[33]. Treating a common social good as a conceptual territory in which to act places those actions at risk of being identified as good even if they fail to adhere to ethical

principles held by others (Latour and Porter, 1996; cit Moore, 2019: 2). This may also happen if they don't utilize any principles at all or even if they employ a set of principles that actively violate social justice yet retain the moniker of "good" (Ibid).

This facilitates a pro-technology stance akin to the classic "we should not let the perfect be the enemy of the good" argument, which, in this context, fails to take into account that "data science lacks any theories or discourse regarding what 'perfect' and 'good' actually entail" (Green, 2018: 19; cit Moore, 2019: 2). In addition, this type of argument implies an incremental reform approach to technology-centric strategies for social progress (Green, 2018) without having to consider whether this is actually the case (Moore, 2019).

This notion that the deployment of a technology within a social context is enough for it to bring about positive social change is akin to the embodied position, or technological determinism, mentioned earlier (Dalton and Thatcher, 2014) — that by willing an artifact or technology to be good, and thereby imbuing in it, virtues that are considered good by the designers and developers, is enough for it to yield good results.

[21] Though this is true in respect to how we think about it now, the ideas behind the concept have been around since the time of Socrates. He was, according to Plato, against the technological innovation of writing, believing it to "cause memory to ossify" (Fisher, 1966: 169). This, for Socrates, was an ethical stand, with concern for the model of the "good life" that he held (Fisher, 1966). To him, technological advancement, the advent of writing in particular, would deter one's virtue — "men will trust writing and not recollection, they will hear much, and write much and learn nothing, appear wise and be fools" (Ibid: 169). Moreover, with the coming of the first technological revolution, the philosophical current of pragmatism also echoed this concern for the consequences associated with new designs and technologies. Indeed, as wrote Charles Sanders Peirce, "[c]onsider what effects, which might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of those effects is the whole of our conception of the object" (Peirce, 1878: 293). Or, in other words, to determine the meaning of an idealized conception, one must take into account the consequences which might arise from it, and the totality of these effects is that design's meaning. This might be considered akin to an embodied position of how ethical values become imbued within designed artifacts and technologies, which, again, argues that the designer's intentions are codified in the design itself, and will, thereby, produce the intended outcomes (Friedman and Kahn, 2002).

[22] Technoethics is an interdisciplinary research area built upon theories and methodologies from various surrounding areas of study such as ethics, philosophy, or information studies. Its main purpose is, hence, the development of further insight into the ethical considerations of technological systems towards the practice of advancing a technologically reliant society accordingly (Luppicini and Adell, 2009).

[23] These were developed under the Future of Life Institute, in collaboration with attendees of the Asilomar conference of January 2017.

[24] This was drafted with the help of the University of Montreal as a follow-up to the Forum on the Socially Responsible Development of AI of November 2017.

[25] This was a crowd-sourced global treatise published in December 2017. It received numerous contributions from global thought leaders in an effort to develop guidelines and recommendations for an ethical development and design of autonomous and intelligent systems.

[26] This was published in March 2018 by the European Commission's European Group on Ethics in Science and New Technologies.

[27] This report was published in April 2018 by the UK House of Lords Artificial Intelligence Committee.

[28] This is a multi-stakeholder organization comprised by academics, researchers, civil society organizations, companies building and utilizing AI technology, and others.

[29] This very phenomenon was mentioned by Foucault, who, among other things, wrote about the concept of "biopower" (Foucault, 1978). He described it as "an explosion of numerous and diverse techniques for achieving the subjugation of bodies and the control of populations" (Ibid: 140). To him, this was a political technology of power which allowed for the domination of large groups of people and societies (Foucault, 1978). It was specifically described as a form of control over the human body through the "biopolitics" of a population, exerted through the hegemony of societal structures and values which become engrained into social conventions over time and thus regulate human behavior by making one amenable to this social order (Ibid). This form of social subjugation is, hence, essential to the establishment of such hegemonic systems as that of capitalism (Ibid), which will be addressed later.

[30] See Tavani, 2007; Jonas, 1985; Floridi, 1999; and Johnson, 1985.

[31] Floridi and Cowls also describe AI as being "a research area in search of a definition" (Floridi and Cowls, 2019: 3). This lack of adequate and comprehensive theorization is also paralleled within the field of design studies (Love, 2000; Fry, 2007a; Cash, 2020). This will be touched upon further ahead in Part 3.

[32] The worst outcome to this ambiguity, as described by Floridi and Cowl's article, might be a scenario in which a "market for principles" is established, whereby "stakeholders may be tempted to 'shop' for the most appealing ones" (Floridi and Cowls, 2019: 2).

[33] Design, and designed technologies by extension, is inherently political, and, as such, the idea of designing AI systems for an abstract good that is contingent and thus ill-defined depoliticizes the issue (Moore, 2019). This will be further explored in Part 2.

1.9 ETHICS IN DESIGN

In a similar manner to that of Floridi and Cowls, a comparative analysis of ethical frameworks for the purview of design was conducted. Likewise, the aim was to dissect the contents and assess whether and where they converge or diverge. I looked at eight documents from high-profile institutions in design. Those are:

- *Design Business + Ethics*, published by the American Institute of Graphic Arts (henceforth referred to as AIGA; AIGA, 2009);
- *Code of Ethics for Professional Designers*, published by the French Designers Alliance (henceforth referred to as AFD; AFD, 2012);
- *Code of Ethics*, published by the Australian Graphic Design Association (henceforth referred to as AGDA; AGDA, 1996);
- *Code of Conduct*, published by the Chartered Society of Designers (henceforth referred to as CSD; CSD, n.d.);
- *Ethics for Starving Designers*, published by the Ethics for the Starving Designer project (henceforth referred to as ESD; Goh, 2012);
- *GDC Code of Ethics*, published by the Graphic Designers of Canada (henceforth referred to as GDC; GDC, 2019);
- *Model Code of Professional Conduct for Communication Designers*, published by the International Council of Design[34] (henceforth referred to as ICoD), the International Council of Societies of Industrial Design, and the International Federation of Interior Architects/Interior designers (ICoD, 2011);

Code of Ethics, published by the Industrial Designers Society of America (henceforth referred to as IDSA; IDSA, 2020).

These documents were chosen because they were the most cited and influential proposals specifically written for the practice of design and were all published by accredited and noteworthy organizations. Jointly, they describe five distinct categories of topics covered: social responsibilities, personal responsibilities, professional responsibilities, responsibilities to the designers, and responsibilities to the code.

At first glance, we can immediately see that all of these documents mention most of the devised categories and that, of those, they reference professional responsibilities the most often. This is further supported by the data (see Appendices A and B; see **Fig. 4**). It shows that there is indeed a concern for all these categories of responsibilities, but with a major focus on the professional ones in contrast with all the others. This somewhat makes sense, given that these are documents focused on the ethics of the practical aspects of the design profession. This, however, also means that other important categories are underrepresented in these proposals; and it matters because these are the only types of documents specifically intended for the practice and profession of design. In addition, these are the most popular sources, which means these are also the ones that most designers who search for them are reading.

Moreover, a significant portion of these documents reference each other. Indeed, AGDA and AFD both cite the ICoD document as inspiration (AGDA, 1996; AFD 2012), and GDC mentions both ICoD and AIGA (GDC, 2019). AIGA's influence on the landscape of design in particular is undeniable (Heller and Finamore, 1997), which makes it worthy of more scrutiny. Indeed, AIGA's proposal is unique in that it is the only one with a section specifically addressed to the client. It starts out like this, "[i]f you represent a corporation, institution, advertising agency, investor or public relations firm, or you are an individual in need of graphic design, you've landed exactly where you need to be. Welcome" (AIGA, 2009: 13).

It continues with a brief introduction into the field and business of design, which includes an explanation of the value of design, tips on how to find the right designer, and how to write a design brief, to list a few examples. This is followed by a section on the "[s]tandards of professional practice" (Ibid: 32). It is, however, entirely addressed to the designer and does indeed provide some valuable insight; but only insofar as the designer is concerned. It lists only the designer's responsibilities to other designers, the client, the audience, and society, yet neglects to mention those of the client. This, in a chapter specifically addressed to the client implies by omission that they do not have any responsibilities; and does so not only to the clients who read it, but also to the designers and members of the public who do likewise. Even the issue of wage fairness is posed as a responsibility of the designer. It is them who should not accept underpaid work. That the client should not propose low wages is never posed as an issue.

This is a general trend across the documents here under review. The designer's responsibilities to the client and to the profession are overrepresented in contrast with the responsibilities that designers have to the audience and to society at large. To that effect, Milton Glaser, in the AIGA 2002 Voice Conference, had this to say: "[i]n the new AIGA's code of ethics there is a significant amount of useful information about appropriate behavior towards clients and other designers, but not a word about a designer's relationship to the public" (Glaser, 2002: 5).

The version of the document Glaser is referring to has since been updated and

FREQUENCY BY CATEGORY

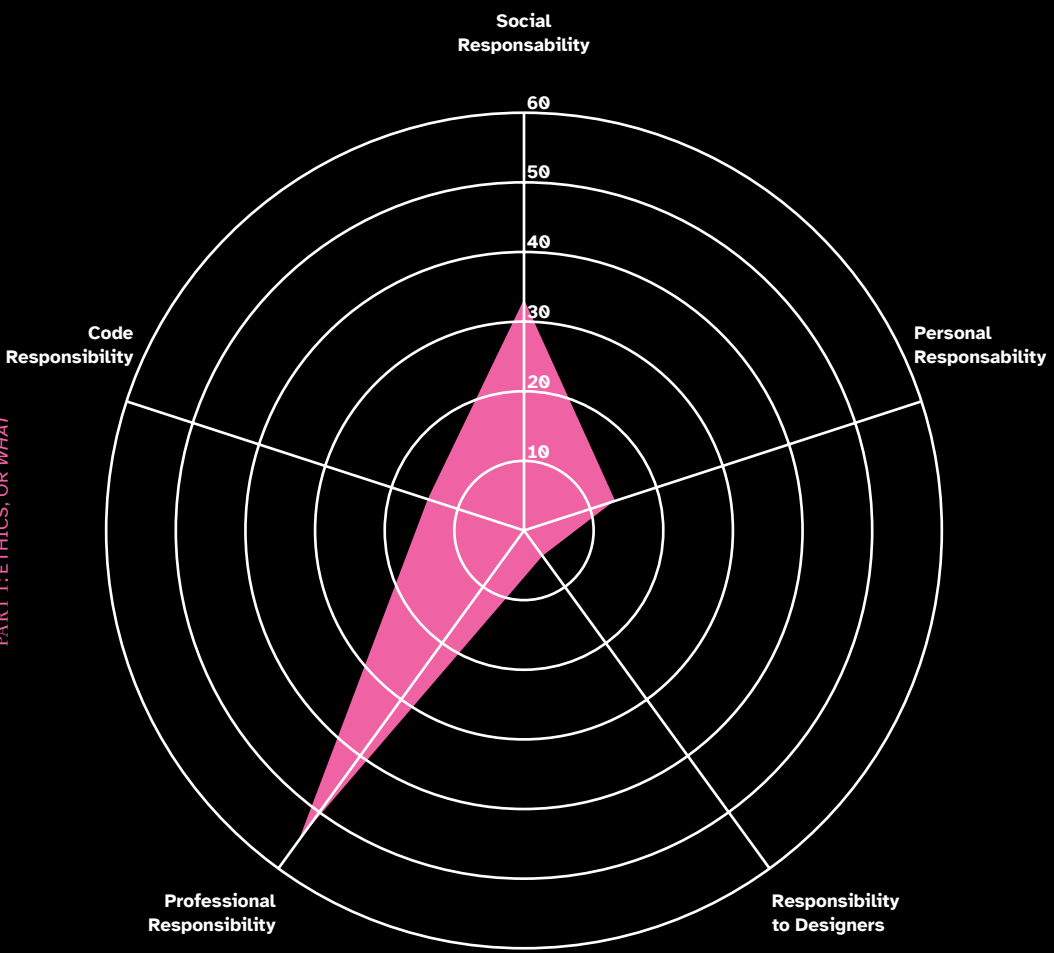


Fig. 4 **A graph of absolute frequency of topics in each document grouped by category (AIGA, 2009; AFD, 2012; AGDA, 1996; CSD, n.d.; Goh, 2012; GDC, 2019; ICoD, 2011; IDSA, 2020). I counted how many texts referenced each topic and added the numbers pertaining to each assigned category. Topics belonging to more than one category were counted once in each of the categories to which they belong.**

the document considered in this analysis is certainly a more thoughtful iteration, but, as Paul Nini suggests, "[designers'] responsibilities to audience members and users has not been substantially addressed" (Nini, 2004: 2). This holds true of most documents considered in this analysis. The AFD, for example, asks the designer to "be righteous in order to create the proper appreciation of the client for the service provider's quality of work and his/her skills" (AFD, 2012: art 4). This explicitly says that one should be righteous specifically to be liked by the client.

They also ask designers to "[a]void situations where the judgment and loyalty towards the customer could become altered" (Ibid: art 15). The wording here is, in my opinion, noteworthy as it implies that designers should not work with clients whose ethics they disagree with, yet does not specify that that judgment should be based on whether those ethics are good. Insofar as this point goes, it does not matter whether the projects designers engage with are good, so long as they agree with the client's ethos.

The ESD document is an interesting one on many fronts. It is the only student project to gain significant traction and it is also based in Singapore, which makes it the only one based in a non-Western country (albeit one that was colonized by the British Empire of the time). The ESD proposal recognizes that "graphic design is a powerful tool for communication, behavioral change and manipulation" (Goh, 2012: art 2). It is the only one to pose the relationship between the client and the designer to be a mutual one, framing the ethical responsibility as one that the designer should bring to the attention of the client, instead of one that the designer is expected to shoulder alone.

The ESD also introduces an interesting discussion. It holds that an ethical code must be based on "facts first, research second and personal opinion last," (Goh, 2012: art 14) yet understands that it is also contingent on factors such as knowledge and circumstance, and thus subject to change. This is significant as it pertains to ethical dilemmas. Most of the proposed texts maintain that one should aim to please the client, the audience, and society. But that begs the question of what to do when these needs conflict.

An interesting idea held by most organizations is that of a grievance committee, or some sort of deliberative council. These are described as panels consisting of local unbiased industry experts. AGDA and IDSA mention them specifically as an ethical recourse to which a designer may resort if in need of guidance or in case of a conflict (AGDA, 1996; IDSA, 2020). The GDC and the AFD both use these panels as spaces for litigation (GDC, 2019; AFD, 2012) and the CSD mentions them as a way of protesting the actions of the organization itself (CSD, n.d.).

Another thing that stood out to me was a line in the AIGA document, which stated that a designer should not infringe upon the human rights of another person or group "without permission of such other person or group" (AIGA, 2009: 35). This I felt I had to mention because it is, quite honestly, utterly ridiculous. This is a fine sentiment in an interpersonal context but how is one supposed to ask for permission from an entire ethnic group or cultural community? This treats the audience as uniform blocks of users instead of people with individual needs and priorities and betrays the lack of concern for them that Glaser and Nini talked about.

It is, nonetheless, important to mention that these are all very valuable resources and productive efforts in the pursuit of ethics for the practice of design, though they have some limitations beyond the criticism already dealt. Namely, it is notable that these documents are not very recent and, perhaps for that reason, do not convey a sense of urgency or impetus. Most were written in

the last decade and either have not been revised since or have changed very little. Indeed, AIGA's *Design Business + Ethics* was originally published in 2001 and the last iteration is from 2009 (AIGA, 2009). AGDA's dates from 1996 (AGDA, 1996).

The CSD code of conduct[35] is only available online and is not dated. However, using the Wayback Machine, the earliest available version is from 2016 and it has not seen any significant change (CSD, 2016). The AFD's was originally published in 2009 and revised in 2012 (AFD, 2012), the same year in which the ESD project was published (Goh, 2012). The latest version of the GDC's *Code of Ethics* is from 2019 but the earliest version I could find is also from 2012 and it is virtually unchanged (GDC, 2012). ICoD's original proposal dates back to 1983. It was amended in 1987, reviewed in 1997, and amended again and for the last time in 2011 (ICoD, 2011). The IDSA's entry is not dated but I was able to find it referenced as having been published in 2010 (Miller, 2014). This, in a world that has seen such technological and cultural development since, is clearly inadequate.

Moreover, these proposals are very broad. That is done intentionally, as these are meant to "state the principles for an international basis of ethical standards related to the practice of design" (ICoD, 2011: 3). Alas, that vagueness also works to their detriment, given that they lack the nuance of a more local and restricted context. After all, even when the documents pesent themselves as local proposals, they aim to be internationally applicable.

AGDA, as an example, produces a "nationally ratified" code yet states that its purpose is to present members with "internationally accepted standards of professional ethics and conduct" (AGDA, 1996: §1). Such a statement ultimately begs the questions: accepted by whom, and how do they know that. This bleeds into another issue, also mentioned by Floridi and Cowls in their analysis of the ethics of AI — that of provenance. These documents are overwhelmingly the product of Western democracies and reflect western standards for an ethical practice of design. Thusly, they mostly fail to take into account how the profession differs in distinct sociocultural contexts and describe a standardized practice.

In that regard, Floridi and Cowls's comment that perspectives from other regions and cultures would add value to these proposals (Floridi and Cowls, 2019) is still a very relevant one, though they argue that is because it would make the frameworks they reviewed more broadly applicable. In this context, as suggested, the broad applicability these documents aim for makes them less useful in specific contexts. There is, nonetheless, an interesting caveat that arises from this. Would adding perspectives make these documents broader, or more specific?

Floridi and Cowls were also concerned with whether the proposals would converge enough to be redundant or diverge too much to be ambiguous (Ibid). In that same spirit, the documents under my own analysis are certainly similar in a myriad of significant ways, especially where they concern the professional duties of the designer. They do, however, diverge slightly where other issues are concerned. Namely, their focus on social responsibilities is not entirely consistent unless it is presented in a vague enough manner so as to encompass a wide range of general things.

When mentioning specifics, issues such as accessibility and "do no harm" are certainly important ones to raise, yet are only explicitly covered in two documents each — the least amount of any topic in the social responsibilities category (see Appendix A). Thus, points of diversion such as these are relevant enough to merit coexisting. Another example of this is the responsibilities to the designers category.

It is the one with the least topics and the least mentions, but still offers a very important perspective to the discussion. It remarks on what designers are owed, in the context of a discussion of ethics which is heavily skewed towards what designers owe.

This matters because it provides the conditions for designers to be able to act in an ethical manner. This is especially true of the topic of education, to which I will return. According to the IDSA, its members are "responsible to design education by holding as one of [their] fundamental concerns the education of design students" (IDSA, 2020: art VI), and the ESD asks "educators to take it upon themselves to discuss these issues with their students" (Goh, 2012: Foreword, §6).

Indeed, this is fundamental for any profession and field of study. In regard to design specifically, the practice of which has the potential to so heavily influence our cultures, it becomes crucial that students and educators alike strive for an inclusive curriculum so that the students, as future designers, may be adequately prepared with the necessary knowledge and skill (Ibid).

The language used in these documents also fails to be assertive. It is permeated by terms such as "should" and "avoid," and phrases like "[a] professional designer shall strive to be sensitive to cultural values and beliefs" (AIGA, 2009: 35) which also contribute to this conditional meaning. Notice that the meaning of the latter phrase implies that one is only meant to try to be aware of differing opinions, not that one must respect and consider them and uphold their right to be held.

Much the same way, one is expected to "favor quality and virtue in the designer profession" (AFD, 2012: art 3), not be virtuous and do good work. As such, where potential consequences are concerned, statements like "work in a manner so that as little harm (direct or indirect) as possible is caused" (AGDA, 1996: sec 2.1), "endeavor to minimize adverse impacts" (GDC, 2019: sec 4.1.5), or even "be informed about and specify or recommend goods, services, and processes that are the least detrimental to the environment and society" (Ibid: sec 4.2.1) are particularly insidious because they imply that harm is inevitable.

This language matters, as discussed before. It shapes the way we think about a subject (Moore, 2019) and, likewise, how we act towards it. Designers reading that they must minimize the harm they produce through their work will infer and ultimately accept that they *will* do harm; and that, of course, needn't be true.

Comparing the principles of bioethics and AI ethics listed by Floridi and Cowls to this collection of ethical codes for design, a number of interesting comparisons arise. The idea of beneficence is generally present in these documents and seems to inform the intentions behind statements such as asking one to "[c]ontribute with his/her skills in order to improve people's lives, work, living conditions, their health and their surrounding environment" (AFD, 2012: art 1), or to "[accept] professional responsibility to act in the best interest of the ecology and of the natural environment" (ICoD, 2011: 4).

The concern with human rights that proposals by AIGA, GDC, or ICoD hold (AIGA, 2009; GDC, 2019; ICoD, 2011) can also be tied to this. As can the issue of accessibility (GDC, 2019; IDSA, 2020) and all the other topics aimed at "promoting well-being, preserving dignity, and sustaining the planet" (Floridi and Cowls, 2019: 6).

Non-maleficence, however, is less underscored. There are only two documents which explicitly reference this principle — AIGA's assertion that "professional [designers] shall avoid projects that will result in harm to the public" (AIGA, 2009: 34), and, generously, the GDC's request to "endeavor to minimize adverse impacts" (GDC, 2019: art 4.1.4). Both statements have,

as was mentioned earlier, flawed language, but it could nonetheless be argued that the intention is that of non-maleficence.

Similarly, the call for carrying the responsibility to not endorse — even if accidentally — harmful products or clients (AIGA, 2009; Goh, 2012), as well as that for taking accountability regarding the consequences of one's work (Goh, 2012), can also be understood as expressions of this concept. After all, at the core of these statements is the prevention of harmful outcomes and the ultimate disappearance of noxious clients and products. Indeed, the very existence of a code that one must follow implies the desire to not cause harm, though it remains, unfortunately, largely implicit.

Regarding autonomy, the context here is slightly different. Within the backdrop of AI, autonomy is concerned with who has the power to make decisions, and the debate is predominantly centered on human agents versus AI systems — in essence, whether or not to delegate our decision-making power. Where design is concerned, a parallel can be made to the idea of taking responsibility for those choices. These organizations ask their members to agree, or to co-sign, as a way of assuming the responsibility of following their codes of conduct and all they entail. They are thereby asking designers to choose whether they are willing to accept them, and thus follow them; to consider whether they are even able to.

Justice is also present in these proposals insofar as "promoting prosperity, preserving solidarity, [and] avoiding unfairness" (Floridi and Cowls, 2019: 7). Issues such as treating and depicting the audience with respect (AIGA, 2009; Goh, 2012; GDC, 2019; ICoD, 2011) or supporting free speech and freedom of assembly (AIGA, 2009) are clearly related to a concern with justice; but so are others like wage fairness (AIGA, 2009; AFD, 2012; AGDA, 1996; CSD, n.d.; Goh, 2012; GDC, 2019; ICoD, 2011; IDSA, 2020) or plagiarism and unauthorized reproduction (Ibid).

In addition, accessibility and the protection of human rights are as much about beneficence as they are about justice, since they are born out of a preoccupation with exclusion and oppression.

The principle of explicability, introduced by Floridi and Cowls as a complement to the traditional bioethical principles here discussed, was a way of "enabling the other principles through intelligibility and accountability" (Floridi and Cowls, 2019: 8). Likewise, it also applies to designers and the discipline of design in a significant and increasingly relevant way.

By subscribing to a code or belonging to an organization, one is making themselves accountable to that code, that organization, and all the other subscribers and members, as well as to all those mentioned in the codes of conduct. Thus, following a set of established ethical rules is, in itself, a commitment to accountability — to uphold all the principles held by that code. And, given that, as is being argued, design is in particular need of caution in its practice, making such a commitment plays an important role. Moreover, the issue of intelligibility is distinctly relevant to a discipline which is primarily concerned with conveying the meaning behind one's intention (Canlı, 2017; Luhmann, 1975). Hence, it applies to this discussion in two primary ways — how to convey these ethical frameworks to designers, and how to convey them to the public.

This ties in very heavily with the issue of language that was already touched upon. As they stand, these documents lack conviction in their meaning, and, as such, will likely lack diligent follow-through (Moore, 2019) by those that are meant to follow through. In addition, the broadness of these proposals also acts as an obstacle to their intelligibility. Indeed, the existence of grievance committees — which specifically exist to clarify potential quandaries — betrays the ultimate lack of clarity these documents provide in many instances.

I do not mean to suggest that ethics is a simple issue. The specific circumstances of a problem certainly matter and should be taken into account. The general tone and vagueness with which these topics are addressed, however, undeniably contributes to the arising of such ethical dilemmas since barely any specific circumstances are offered as examples or case studies. Moreover, a text intended for a particular group does not serve only to inform that group; it also informs others as to what to expect of and from that group. Likewise, it also matters what the public reading these texts will infer.

In this regard, the broad tone might make these documents more accessible to a general audience, though they will be no more enlightened about how a designer would resolve the ethical dilemmas they might face. They will, nonetheless, be informed that designers are expected to be accountable to them and in what ways. For clients, this still holds true, but there is the added context that they are the ones commissioning the work of the designers. They are the ones dictating what the product will be and the circumstances in which it is to be produced. Designers must have responsibilities to their clients to be sure, but clients must also have responsibilities to the designers and the public their product will affect. As discussed, the texts in analysis largely fail to take this into account, and, even when they address the client directly (AIGA, 2009), fail to communicate it.

[34] **Previously known as ico-D and formerly as ICOGRADA.**

[35] **The CSD and its code actually has a very storied history, which is beside the point but interesting nonetheless. See Armstrong, 2016.**

1.10 IT'S JUST NOT THAT EASY

Designers are, as it stands, expected to bear the full brunt of the responsibilities pertaining to their industry. This does make some sense in that they are, in effect, the ones *doing* the thing. But they can also be the most vulnerable — as in, those with the least amount of choice, and thus ethical agency.

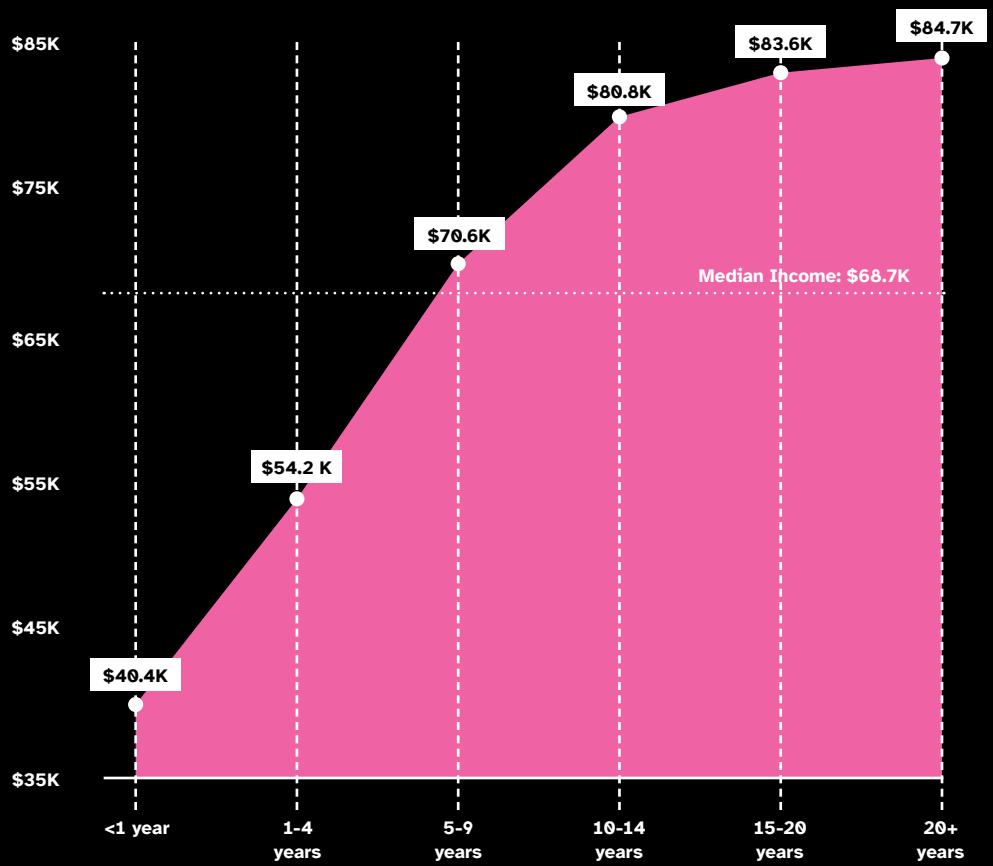
According to the raw data of AIGA's most recent design census[36] (at the time of writing of course), designers who have been in the industry for four years or less have an average yearly income below the median value (AIGA, 2019; see **Fig. 5**). This is on top of a fairly expensive entry rate due to steep educational expenses — most respondents have indeed received some sort of degree or certification (Ibid) — and equipment and software fees.

Furthermore, most designers also require some other form of income and only 6% of the respondents said they have no side-job (Ibid). This, especially in the context of a gig economy[37] adds to the atmosphere of uncertain prospects and financial insecurity, as confirmed by 56% of the respondents feeling "a little concerned" for their job stability and another 16% claiming they "keep their things in a box" (Ibid: 40).

Indeed, the tongue-in-cheek title of the *Ethics for Starving Designers* project now reveals an underlying struggle. How can designers negotiate their personal ethics with their financial stability (and, hence, ethical agency and responsibility)? And why are they the ones expected to compromise?

Within the design industry, designers are dependent on clients for work, which, as shown, they need. This ultimately means that that work can be leveraged over them. It is a subversion of the law of supply and demand — where the supply of commissions dictates the demands of the designers. Of course, the opposite is also true. Switching perspectives, the supply of designers might also affect the demands of the clients, as

AVERAGE INCOME BY YEARS WORKING AS A DESIGNER



A graph of average income by years working in the design industry contrasted with the median income in the United States in 2019 (AIGA, 2019; Semega et al, 2020). These values were calculated by taking the average of each income bracket and then, with those, calculating the average income for each year bracket. Because AIGA is an American-based organization, most census respondents originate from or work in that country. This is why the median income for the US was used, as opposed to that of another country or region — specifically, because it had to accurately contrast with the census data, which was collected in an American context.

Fig. 5

could the demands of the public shape the supply of commissions. Designers do have some agency, as does the public; just often not the most.

Either because they lack the information required to act or simply because they cannot choose otherwise due to external factors such as financial insecurity, those most vulnerable, as discussed, cannot be held accountable all of the time because they are not responsible all of the time (O'Connor, and Franklin, 2018). Or, in other words, they are not always able to act as ethical agents because they do not always have the privilege of freedom of choice. This inevitably contributes to the idleness of the aforementioned ethical proposals, as they are not addressed to those who can most actively affect the environment in which they are intended to act upon.

Another of the largest contributors to them being ultimately ineffective is that they are not legally enforceable. They are conditional documents written in conditional language for an organization with conditional membership. They provide a framework for ethical behavior — a guide — but only to those who seek it. In that respect, one of the greatest challenges facing these proposals lies precisely in making clients, designers, and the public alike equally aware of the importance of an ethical design practice.

The client and the designer must be aware of their responsibility and influence, and the public must know to ask for it. If designers are uninterested or unable to be more selective with the projects they undertake and clients are unwilling or likewise incapable of commissioning ethical products, adequate legislation must be put into effect. This will be discussed more in-depth further ahead.

"Given the scale and complexity of the global economy as well as our knowledge about human nature, it would be extremely naïve to rely simply on spontaneous and voluntary ethical behaviour by individuals and corporations to ensure fairness or improve human dignity. Regulation, combined with serious enforcement, is required to guide our behaviour and ensure the rule of law" (Malan, 2018: §1).

Whether it be by a single credible body or governments themselves, the design profession finds itself in urgent need of regulation (Malan, 2018; McCollam, 2014), especially when considering how consequential the projects that designers work on nowadays can be (Monteiro, 2018a; 2018b). A strong argument is that for licensing designers (McCollam, 2014).

There are those who argue that design should be a licensed profession with training, testing, and accreditation (Monteiro, 2018a; 2018b). The Graphic Designers of Canada even incorporate it into their code of conduct, asking their members to "promote certification in the graphic/communication design profession" (GDC, 2019: art 8.2.2). The driving force behind this is to enforce the industry's self-regulation, thereby making sure that those who participate in the production processes are aware of and comply with the apposite ethical standards of the profession (McCollam, 2014).

The counterargument to this, as is often the pushback against any kind of regulation, is that it might suppress innovation — which implies that the only reason that these big companies have been able to grow as fast as they have is due to a lack of regulation — and, therefore, licensing designers would be counterproductive (Monteiro, 2018a). To this Mike Monteiro, an esteemed designer and author who speaks at length about this issue, adds that "[u]nregulated growth kills people. … I don't care about you, or your company, or your stakeholders. That can't be our number one concern. Our number one concern needs to be society, the people in it, which, by the way, includes [designers]" (Ibid: §20).

While I agree with his statement, I feel it takes an erroneous premise as its basis. The ultimate goal should absolutely be the protection of the consumer and society as a whole. Licensing designers, however, cannot be the only solution. Designers are not the commissioners—they are not the companies, they are the workers. Licensing designers only addresses the issue of unethical designers, not that of unethical commissions. In that regard, I worry that by enforcing the role of the designer as the sole actor with ethical duties might act more like a band-aid than an actual solution.

That being said though, licensing designers is certainly a step in a better direction, as argues Monteiro (2018a; 2018b). Indeed, licensing designers is similar to what all those organizations were aiming at by having their members subscribe to their codes of conduct. They were, in essence, attributing the privilege of membership and accreditation by that institution to those that met its standards. They were failing, in part, because of a lack of clear expectations due to a plurality of authorities — a concern which licensing, as imposed by a single regulatory body would address (McCollam, 2014). Moreover, this would also aid the public in providing a way to "measure a standard of expectation for their level of service, and a way to address any grievance with a lack of it" (Monteiro, 2018b: §78).

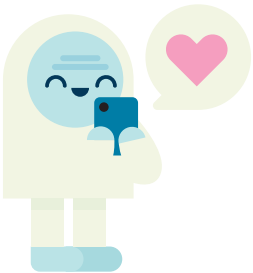
Further, the speed at which we are introducing new and complex designs with potential for deeply entrenched implications into our social environments, as argued, makes it difficult to truly assess what damage they might make (Schwab, 2017b; Arthur, 2009; Kranzberg, 1986; Luppicini, 2009), a concern that licensing would hope to mitigate[38] (Monteiro, 2018b).

That, while an important increment, would still be placing the onus on the designer alone to assume the responsibility of solving the problem. Hence, sweeping and comprehensive legislation is required in addition so that we are able to regulate both designers and the companies who commission the work in the first place, especially when they are entwined with consequential emerging technologies with increasing societal impact.

This is not hypothetical. Industry heads, civil society leaders and legislators alike have recognized that the views we hold of technologies largely fail to take into account the complexities of our interactions with them, and thus also that these technologies are impacting our societies in ways that might be detrimental (Philbeck, Davis and Larsen, 2018). "The values and ethics of technological development must be addressed at this critical moment in history" (Ibid: 4), including "from the top down through regulation" (Philbeck, Davis and Larsen, 2018: 9).

Let us consider an example. In 2015, those who used Facebook's Messenger app on an Android system were greeted to an adorably innocuous cartoon yeti proclaiming that users could "[t]ext anyone in [their] phone" (Lien, 2018: §1; see **Fig. 6**). When prompted, they had the option to either activate the feature by tapping the big blue "turn on" button or press the greyed-out "not now" (Ibid). What Facebook didn't tell them though, was that by activating the feature they were handing the company access to their contacts as well as call and text history (Ibid).

It wasn't until three years later that the public found out that Facebook had indeed collected that information and had, allegedly, stored it (Ibid). Facebook argued that, because their users agreed to opt into the feature, they understood that they were allowing the company to access their data (Ibid). This, of course, is not entirely accurate. What Facebook failed to acknowledge is that the prompt involved a very sophisticated design strategy, by now all too common in the technology industry. As Don Norman describes it, "[a]n affordance is a relationship between the properties of an object and the capabilities of the agent that determine



Text anyone in your phone

Continuously upload info about your contacts like phone numbers and nicknames, and your call and text history. This lets friends find each other on Facebook and helps us create a better expecience for everyone. Learn More.

TURN ON

NOT NOW

Manage your contacts

A screenshot of what Android Facebook users were faced with when prompted to activate a feature that would allow the company access to their personal contacts as well as their call and text history. **Fig. 6**

just how the object could possibly be used[39]" (Norman, 2013: 11).

A large blue button affords to be tapped, while a greyed-out text barely even affords to be read. It is no wonder that millions of people tapped the blue button — thereby activating the proposed feature — as it was the only thing that afforded to be directly interacted with. The cute yeti was also intentional, as the cartoon illustration is meant to be friendly and disarming (Lien, 2018). Even the language is carefully thought out. Notice how it doesn't simply say "yes" or "no" but rather "turn on" and "not now." This offers up the decision to activate the feature, and thus hand over the user's personal data, as the only correct option, while declining to do so is framed as merely delaying the inevitable.

None of this is explicitly illegal and serves to highlight the need for appropriate and comprehensive regulation. The problem with that, in the simplest terms possible, is that it's hard. A significant portion of the challenge is that the full impact of rising technologies is difficult to assess when they are still emerging (Ibid). As such, scholar Daniel Malan contends that relying solely upon government legislation and incentives to ensure the right outcomes is mostly ill-advised. This, he argues, is due to the fact that these will likely become obsolete or redundant by the time they are finally implemented (Malan, 2018: §3).

Hence, the need for a solid ethical standard that is inherently embedded within design and its practice is apparent, as it becomes clear that no one solution can stand on its own. The need for regulation is unquestionable, provided it is adequate. Even among business leaders "the question is not whether there should be regulation, but rather what type of regulation and accountability are the most appropriate" (Philbeck, Davis and Larsen, 2018: 5). According to Malan, the best way to secure positive developments in an environment as complex as this is to employ a basis of clear values such as upholding human dignity and the pursuit of the common good (Malan, 2018).

In reading that though, the more attentive reader may have already raised the red flag. Indeed, as has been discussed, these are very vague terms, which raise as many questions as they answer (Green, 2018; Moore, 2019). This approach is employed because it still seems to be more effective than the impossible task of constantly updating legislation to account for new technological developments (Malan, 2018). In response, some legislators have opted for a "comply or explain" principle, particularly in the EU and the US (Sturm, 2016). That is, instead of drafting binding laws, regulators put forth a code of conduct which companies must strictly abide by unless they can explain publicly why a certain principle does not apply to them (Malan, 2018).

This, again, is strikingly similar to the codes of conduct discussed earlier, as well as to the process of licensing. The key difference is that they are meant for every actor in the chain of production, not just designers. Under this principle, along with the required legislative reform, perhaps there would be a legal responsibility for Facebook to demonstrate how the dignity of its users is protected[40].

Though this "comply or explain" principle seems to have been met with wide acceptance (Sturm, 2016), we mustn't ignore the immense complexity of the global regulatory environment, which requires us to keep up with an ever-evolving and interdisciplinary technical specificity, in addition to upholding a solid ethical basis on which to deliberate (Malan, 2018).

This last point, however, is not an easy one to resolve. "Every human being has a number of intertwined responsibilities and each of them is as personal and intransferable as a joy or a grief" (Bunge, 1975: 69). Values, hence, are likewise.

This is another great challenge to the adoption of a standardized code of ethics. Indeed, this in itself raises a number of other ethical quandaries such as whose ethics should be adopted and who gets to decide.

These are, after all, the concerns embodied by the debate surrounding moral relativism (Westacott, n.d.) and there are no perfect answers, by the very nature of its substance. Moreover, some values will inevitably be sidelined in favor of others; but, as the *Ethics for Starving Designers* project reminds us: "[d]o not assume moral superiority and expect those you work with to be ethically perfect. People make mistakes" (Goh, 2012: Summary, art X). Or, to invoke Wittgenstein again on the matter, there are no perfect answers in philosophy and, indeed, some questions are best left unanswered (Wittgenstein, [1921] 2011) — and thus contingent rather than absolute.

[36] These results, as all other outcomes of surveys, should be taken with a small grain of salt. The methods may be sound but there is always an associated bias with, if nothing else, those most likely to respond to a survey. Further, AIGA is a United-States-based organization so the data will reflect those circumstances alone. That does not mean, however, that the trends it reflects cannot be extrapolated to other contexts.

[37] See Vallas and Schor, 2020.

[38] Monteiro goes even further, arguing for the need for unions (Monteiro, 2018b). This will be addressed later.

[39] Techniques such as these are often applied in what is known as "persuasive design" — a design practice based around the ways in which to influence human behavior through a service or artifact's "affordances" (Mazé, 2019). In this way, persuasive design is aimed at guiding behavior and, thereby, "[induces] self-discipline, regulating, affirming and 'governing' particular behaviors in forms intended to be internalized and reinforced in an ongoing manner in everyday life and social practices" (Ibid: 27). These subtle nudges are often described as "dark patterns," which users tend to perceive as "sneaky and dishonest" yet are frequently unable to detect (Meir and Harr, 2020: 170).

[40] They certainly attempt to every time there is a big scandal, a notable one culminating in the company's CEO Mark Zuckerberg's testimony to the US Congress in 2018 over data misuse and breaches in user privacy (Wong, 2018). It's important to clarify, however, that a testimony in the US Congress is not a legal trial, but merely a process by which congressional committees gather and analyze information provided by the testimonies to shape any proposed legislation (U.S. Government Publishing Office, n.d.). Facebook has never had to argue for their protection of their users' interests in a court of law, instead occasionally receiving penalties in the form of fines they can afford without much financial damage (Patel, 2019).

1.11 BUT IS DESIGN INHERENTLY UNETHICAL?

People may make mistakes, yet, according to Don Norman, humans do not."Do we err when we walk along a weaving path? Of course not — that is how people walk. It is only when engineers and designers require us to walk in straight lines that we call the behavior erroneous — so too with almost every place where people err... Society has invented machines and designs that require inhuman acts. We require precise numerical precision from the human body that did not evolve with precision" (Norman, 2003: 129).

Thus, it's not so much human error as it is bad design. Take the US Presidential Election of 2000, in which George W. Bush was famously elected over Al Gore[41] (Kettle, 2001). The "butterfly ballot" used in Florida's Palm Beach County (see **Fig. 7**) has been directly tied to over 2,000 Democratic voters having accidentally voted for the Reform candidate Pat Buchanan (Wand et al, 2001). That in itself is already bad enough, but it gets worse. Bush was declared the winner of the state by a margin of only 537 votes, meaning that the butterfly ballots alone may have cost Gore the election[42] (Mestel, 2019).

The real problem though, was not that people engaged with the design incorrectly; it was, rather, that the principles behind the conception of the design were flawed from the start. The ballots were not poorly made. They were designed to be as cheap as possible, not usable. There was no problem with the ballots themselves. The problem was with the goals and priorities of the commission (Norman, 2003).

So if design is beholden to the commissioner's priorities, is it, in this way, inherently unethical? There is certainly a preoccupation with ethics as it relates to design (see **Fig. 8**). That is, after all, what is being explored in this book. But that preoccupation has not yet materialized in significant ways. Facebook is still

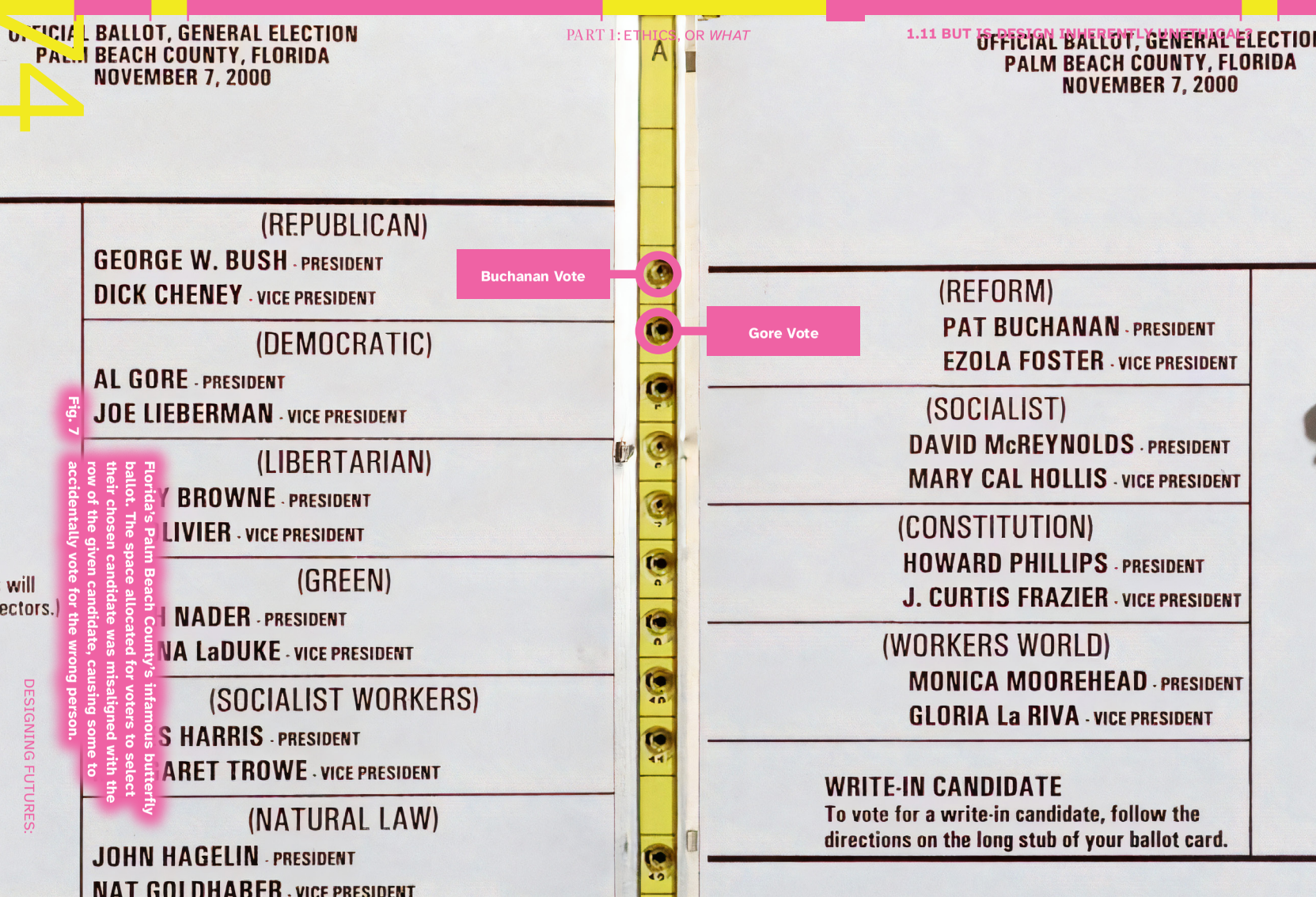
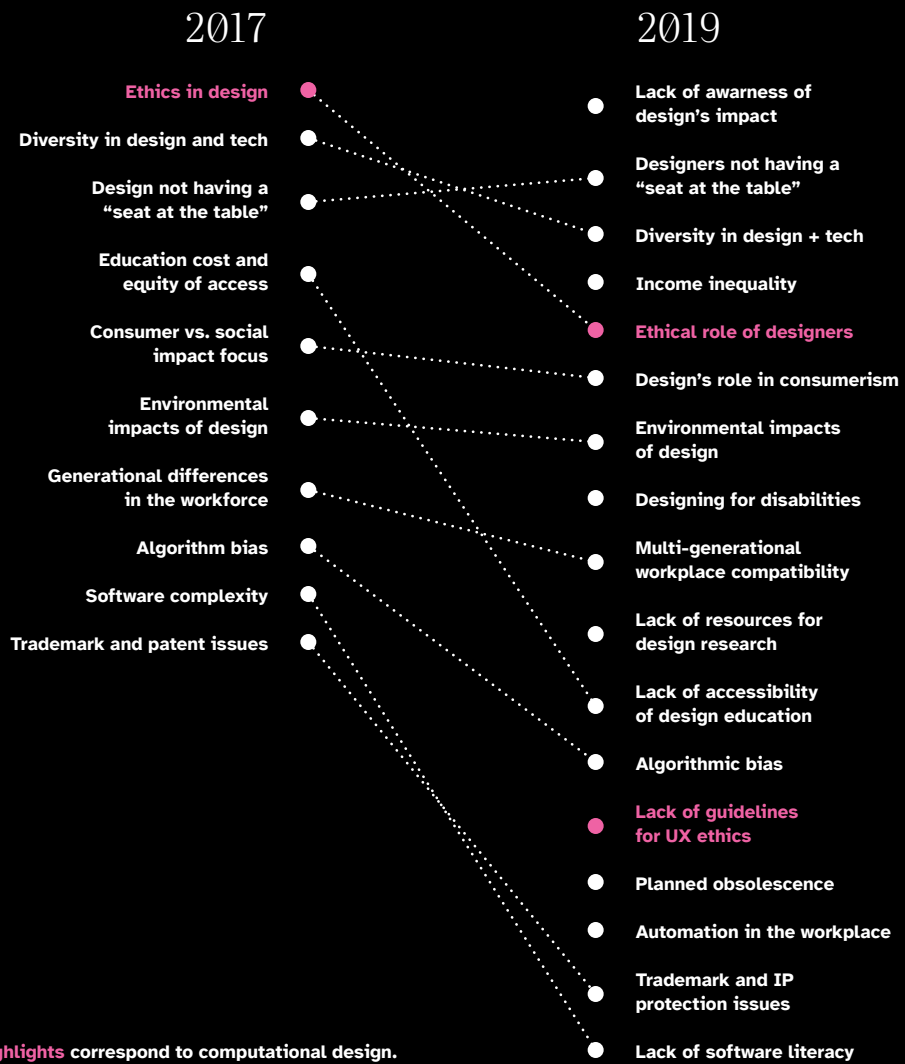


Fig. 7 Florida's Palm Beach County's infamous butterfly ballot. The space allocated for voters to select their chosen candidate was misaligned with the row of the given candidate, causing some to accidentally vote for the wrong person.

MOST IMPORTANT ISSUES FACING DESIGN



*Highlights correspond to computational design.

A reproduction of an excerpt from AIGA's design census mapping out what participants had thought were the most important issues facing design in 2017 and how they evolved in 2019. I highlighted the ones that explicitly mention a concern for ethics, but an argument could be made that most of the listed issues deal with ethics in one way or another. **Fig. 8**

employing manipulative design strategies to deceive its users (Lien, 2018) and Google literally removed its famous "don't be evil" mantra from the preface of their code of conduct (Cuthbertson, 2018). And like these companies behave many others.

Still, people do care about ethics. And corporations know this. Let us take food labels as an example. In Europe, the number of ethical and environmental claims made in food and drinks rose from 24% in 2015 to 32% in 2019 (Southey, 2020). This is because consumers are seeking out not only ethical labels, but, increasingly, ethical brands as well (Ibid). Indeed, a 2018 survey conducted in the US and the UK found that 88% of consumers would like brands to help them be more ethical (Townsend, 2018).

In 2018, Nike released a controversial commercial starring Colin Kaepernick[43] and prominently featuring a number of Black athletes in a climate of severe racial tension in the US (Nike, 2018; Gibson, 2018). This was a calculted risk for Nike, who knew beforehand that the ad would spark outrage among some. The gamble paid off, quite literally. As a result, the company's shares reached record highs and the ad made them a profit of $6 billion (Ibid) while also earning them an Emmy (Vera, 2019). Following Nike, Gillette tried a similar approach, producing what they referred to as a short film about contemporary masculinity (Gillette, 2019; Meyersohn, 2019). Predictably, the ad also provoked some vitriolic responses, yet the company still experienced what could be described as "unprecedented levels of media coverage and customer engagement" (Meyersohn, 2019: §3).

People clearly want to buy their shoes and their razors from companies whose values are aligned with theirs. Presenting ethics, however, is not the same as *being* ethical. And here, design plays a major role. Companies have figured out how to appropriate the aesthetics of ethics, while leaving out the substance. That is how we end up with an admittedly inspiring commercial from a company we know has had and continues to have numerous issues with, among other things, forced labor in their supply chain (Fifield, 2020). Or an actually thoughtful ad criticizing pervasive sexist behaviors from a brand whose parent company routinely charges women more for pink versions of the same products[44] (Pink.tax, 2019a). Forgive me, a "short film."

These aesthetic decisions are profit-driven and thereby deliberate. I thus return to the question: is design inherently unethical? One could say, as some have pointed out (Schwab, 2017a), that being bound to a client's priorities at least as much as, if not more than to those of the public, puts the practice of design in an incriminating position. That by placing such emphasis on the end goals and priorities of the clients one necessarily fails to respond to the needs of consumers, thereby failing to protect them and perhaps even actively harming them.

This is, indeed, unethical. It is, in its purest sense, bad design. It is, however, only so because of an industry built on bad priorities; because that system was itself designed so that the clients' profit-driven agenda will supersede their responsibility to the public.

Humans don't err. Design, as an industry, is working as intended. These concerns are undeniably valid, but they are not inherent to the discipline nor the practice of design. They are though, inherent to a capitalistic system which was designed that way.

[41] Later recounts in Florida determined that Gore, not Bush, had won Florida's electoral votes, which would have been enough for the former to win the presidency. The supreme court, however, intervened, and in a 5-4 decision elected to not conduct an official recount, thereby handing the state to Bush and thus the presidency (Kettle, 2001).

[42] There are yet more examples of bad ballot designs which undeniably contribute to sway the results of elections. See Mestel, 2019.

[43] Colin Kaepernick is a civil rights activist and former American football player who became most famous in 2016 for protesting police brutality and systemic racism within American society by taking a knee rather than standing for the country's national anthem (Olusoga and Olusoga, 2020). He thus joins a proud and longstanding tradition of Black protest within sports, which made him a very controversial figure (Ibid). Following the protests, Kaepernick was blacklisted by the NFL and vilified by then-president Donald Trump and most of the country's right-wing (Ibid).

[44] The "pink tax" is a global phenomenon "whereby goods and services cost more for females than males for no good reason" — the name originating in the fact that most of these "feminine" products are pink or come in pink packaging (Pink.tax, 2019b: §1). A 2015 study from the New York City Department of Consumer Affairs even found that products intended for women were more likely to cost more across every single industry in analysis, and that, on average, products marketed to women cost 7% more than similar products for men (Menin and de Blasio, 2015).

PART 2: POLITICS, OR *WHY*

PP. 78 – 121

2.1 SONIC MEMES AGAINST CAPITALIST REGIMES

If you frequent leftist spaces, you have likely heard the phrase "there is no ethical consumption under capitalism," or some other variant. It reportedly originates from a meme[45] circulated within online leftist discourse in platforms like Twitter, Tumblr, and Reddit (Lockhart, 2017; see **Fig. 9**).

The meme, almost certainly intentionally ironic, displays the phrase accompanied by popular video game character Sonic the Hedgehog, a capitalist creation. This slogan, with distinct Marxist and anti-capitalist undertones, may be interpreted in two ways (Lockhart, 2017). One reading implies that one's participation in commerce under a capitalist society renders one complicit in unethical consumption, and thus we should try to reduce it or, if possible, completely eliminate it. The other views capitalism as such a massive system under which we are necessarily coerced into bad behavior that we, therefore, have the moral imperative to change it and, ultimately, overthrow it.

According to scholar Eleanor Lockhart, the meme originated in the aftermath of a feminist campaign led by prominent British actress Emma Watson (Ibid). It featured t-shirts reading "This is What a Feminist Looks Like," which were then held as inherently progressive objects, only for it to be discovered that they were being produced under appalling labor conditions (Ibid). The meme, put in this context, echoes an important point made also by rhetorician James Aune — that we can craft objects, stories, and rhetoric with the best of intentions, yet they do not inherently merit praise unless they are improving lives by effecting systemic change (Aune, 2006). But that they do not merit praise, however, does not mean we should feel bad for consuming these products — provided they are not intentionally harmful, of course.

The lack of nuance in the slogan itself, "no ethical consumption under capitalism," can also stir up some much more harmful

Fig. 9 Unknown artist, n.d., ***There is no such thing as ethical consumption under capitalism*** **meme.**

feelings of ennui. It could also be used to excuse bad behavior under the argument that, because something was created under capitalism, it will necessarily be bad, thereby rendering it a pointless exercise to demand it to be better (Lockhart, 2017). Further, it can also be used to cynically reject any kind of positive action on the part of corporations since they would invariably be the product of capitalist machinations (Ibid). As Lockhart states, "'there is no ethical consumption under capitalism' is a generally-true point which has cascaded into postmodern malaise" (Ibid: §9).

Though I will admit to occasionally succumbing to sardonicism of the like, I tend to agree with acclaimed scholar Dana Cloud, who warns against becoming trapped inside that mindset, arguing that that sentiment must be combated if we are to produce any sort of positive change (Cloud, 1994; 2018). It is thus on the back of the first couple of interpretations of Sonic's wise words that I would like to build upon for this discussion.

In that regard, I would be remiss not to mention the Ethical Consumerism movement. This is a form of consumer engagement and advocacy, premised on the notion of voting with one's dollar[46]. This has, since its beginning, been used as a tool aimed at challenging and ultimately changing the behavior of the producers of goods or services, mostly by those who feel politically disenfranchised (Newman and Bartels, 2011). It is, hence, often employed as an attempt to impact societal values and priorities, largely through purchasing those products deemed to be ethically produced and boycotting those that are deemed harmful. In this way, this type of socially conscious consumption takes on political connotations — as political consumption itself.

Political scientist Michele Micheletti even argues that this manner of political consumption may be understood as a form of "citizen engagement in politics" (Micheletti, 2003: 59). According to her, this is often more popular than other kinds of demonstrations, given how it provides a more anonymous and risk-free way of engaging in political activism[47] (Ibid).

Personally, I am conflicted about the notion of having a moral imperative to boycott a thing. On one hand, I believe that if one is able to avoid an unethical product one should do so. On the other, the choice not to consume is often not a choice at all, a critique which is frequently pointed out about the concept (Haydu, 2014). The decisions surrounding what we buy are becoming more complicated as we are increasingly presented with more expensive yet ostensibly more ethical products in opposition to the cheaper yet potentially more unethical ones. This is, in my opinion, a regressive dilemma[48]. One which calls for money to be pitted against morality, as it necessitates that there will be those who can afford to pay for their ethics and those who have no choice but to become complicit in unethical behavior. This is a false choice because, as it goes, there is no ethical consumption under capitalism. Indeed, there must be something inherently unethical about a system which selects ethical credence by purchasing behavior. Especially when considering that, under this system, wealth is often accrued on the backs of precisely those who cannot afford to buy their ethics by those who can afford a clean conscience[49].

Thus, the Ethical Consumerism Movement is an honorable effort, albeit one which is founded upon the illusion of choice. Rejecting the effort towards more ethical consumption because it won't end capitalism, however, is not what the phrase "no ethical consumption under capitalism" is intended to do (Lockhart, 2017). Indeed, this argument only dismisses ethical consumption as a radical solution — as *the* thing that will overthrow capitalism. Instead, it seeks to encourage the endeavor as something tangible that one can do (provided one can

indeed do it) to shake the system, and, in this way, to bring back Aune, improve lives by effecting some systemic change (Aune, 2006). After all, this very argument could be made of unions. They have not ended capitalism but they have certainly improved the conditions of workers.

If I am allowed a gripe with the message though, I feel like the phrase "no ethical consumption under capitalism" both removes and places the responsibility entirely on the consumer. As discussed, one might feel disillusioned by the thought and not make any effort towards improving the situation when they would have the ability to do so. At the same time, the emphasis on consumption, once again, puts the onus on the consumer to be the agent of change. There is, likewise, no ethical production under capitalism, and omitting that aspect suggests it need not be remarked upon. And, as we've seen, language matters (Latour and Porter, 1996; cit Moore, 2019).

It's not necessarily our fault that we cannot consume ethically. As Sonic keeps reminding us, there is no ethical consumption under capitalism. It's the fault of a massive system presenting us with options we shouldn't even be allowed to make. As expresses ethics researcher Matt Beard, "[i]n the past, I've assumed the appropriate emotion to accompany making a good moral purchase is pride. Recently, I've started to feel like resentment is a more accurate — and more motivating — emotion" (Beard, 2020: §12).

Therein lies the power of the slogan. There is no ethical consumption under capitalism, so let us do as much as we can to challenge and ultimately overthrow the system itself. And while trying not to become trapped in that postmodern malaise, let us understand that, as well as why, often, our best intentions may fall flat.

[45] There is something to be said about the political power of memes. That is not the purview of this investigation but I would refer you to Strelka Mag, 2017 and Metaheaven, 2013 for more on that topic.

[46] The concept of dollar voting describes a hypothetical effect of consumer preference — and thereby purchase — on the behavior of producers through payment, or lack thereof, for a given product or service (Newman and Bartels, 2011). The term's history can be traced back to the American Revolution in the United States, when the American colonists protested British taxation without representation by boycotting a number of British products; tea being the most famous (Ibid).

[47] It should also be pointed out that boycotts played a major role during the American civil rights movement of the 1960s. An example of this is the Montgomery bus boycott, motivated in part by the arrest of Rosa Parks and the rape of Recy Taylor, as part of a larger effort to protect Black women from racial and sexual violence (McGuire, 2011). And and they seem to be on the rise (Newman and Bartels, 2011).

[48] Indeed, it is a dilemma which can be traced back to the end of the 18th century and beginning of the 19th, with the writings of Edmund Burke (Robin, 2016). Burke opposed Adam Smith's Labor Theory of Value, which, briefly, is the idea that it is, in Marxist terms, the amount of socially necessary labor which determines the economic value of any given good (Gordon, 1959). Burke, by contrast, argued that value was bestowed upon a good or service independently of any other prior factor solely at the moment of purchase (Ibid). Thus, in Burke's view, value was dictated only by the consumer — and, specifically, by those who can afford the purchase of that particular product.

[49] Burke also maintained that price and value were one and the same (Robin, 2016). In this way, whatever the buyer pays for a thing is what it is worth. This is, in effect, the philosophy behind free market capitalism (Ibid). Thus, one's labor is only valued to the extent that it serves the interests of the wealthy classes; and, in such a system, the affluent wield disproportionate power. It follows, then, that the more money one has, the more value one can dictate.

2.2 A FEW WORDS ON CAPITALISM

In this brief interlude, I wanted to take the opportunity to clarify what exactly it is I'm advocating for, echoing Cloud's warning against lethargy. Indecisiveness only works to reinforce what is already there, and what is there is recognizably not great. In informing my critique of capitalism with Marxist theory, however, I am not trying to imply here that we should switch to a Marxist regime. That would require much more extensive and specific research, which falls outside the purview of this investigation. Instead, here, I merely wish to point out that, verifiably, our current system, as it is, is harmful and inadequate (Mattick, 2011).

Nonetheless, I am not so naive to think that one can just simply and casually overthrow capitalism. It is, of course, not so simple. According to Marxist thought, capitalism has to fail in order to bring about the conditions to supplant it (Sowell, 1985). And... Well... I'm *sure* that's bound to happen any day now. (Except I'm writing this from the home I haven't left in about a year because of a pandemic to which millions of people the world over have literally or economically succumbed.)

What I do wish to do is clarify why I think capitalism, as a socio-economic system — well, *the* socio-economic system — has a place in this discussion. It is ubiquitous, and no longer locally contingent. "The old insistence that [capitalism] is integrated and internally governed at the national level is now being questioned. Its forms of organization are worldwide; it has organized the world" (Andrews, 1982: 135).

Thus, it shapes everything we do; every time and everywhere. As per Debord's paraphrasing of Hegel, "[t]ruth is not like some finished product in which one can no longer find any trace of the tool that made it" (Debord,[1967] 2004:112). And, emphatically, the ethics we imbue in our designs, or, rather, the lack thereof, can certainly be traced back to capitalist priorities.

According to Theodor W. Adorno and Max Horkheimer, "[a]ll mass culture under monopoly is identical, and the contours of its skeleton, the conceptual armature fabricated by monopoly, are beginning to stand out. ... The truth that they are nothing but business is used as an ideology to legitimize the trash they intentionally produce" (Adorno and Horkheimer, [1947] 2002: 95).

This leads me to the final point I would like to make in this small interlude. I do not subscribe to this black and white position that everything produced under capitalism is "trash." Unlike Adorno, I actually like jazz[50], and, in my opinion, plenty of powerful art has been produced under capitalism.

To summarize, I echo Hegel's notion that the unfolding of history is, in essence, a rational process; meaning that, at any time in history, society is based on a collection of principles (Hegel, [1837] 1975). And because there are always contradictions within those principles, tensions arise, eventually leading to a rupture in which society has to reorganize according to new ones (Ibid). I believe we are at a point of tension, in which what we want is simply not matching what we have available to us. Thus, my goal here is to describe that tension in the hopes that we can reorganize under new and better paradigmatic ethical principles.

[50] **Adorno really, really hated jazz. He saw it as mass art which could never attain the status of what he considered to be serious music (Witkin, 2000). It should also be said that such a dislike can strongly be argued to be the product of racism: "At best Adorno's attack on jazz seems to be out of sympathy with informed opinion on the subject; at worst it appears to be reactionary and possibly racist" (Ibid: 145).**

2.3 AN UNYIELDING SPECTACLE

As suggested, intent, unfortunately, is not all that matters; because it's not all there is. Persuasion and distraction still abound, clouding intent. Indeed, in his seminal book, *The Society of the Spectacle*, Guy Debord critiques a society which he saw as becoming increasingly more obsessed with images and appearance over reality, truth, and experience (Debord, [1967] 2004). Though it was published in 1967, it becomes even more relevant in an age of such pervasive media and digitalization.

Debord argued that capitalism had "produced a level of abundance sufficient to solve the initial problem of survival — but only in such a way that the same problem is continually being regenerated at a higher level" (Ibid: 20). In short, the implication is that the technological advancements brought about within a capitalist context ensured that our basal survival needs were now being fulfilled with relative ease; and, faced with this, in its constant need to find new markets, the capitalist enterprise simply redefined what survival meant.

Debord thus argues that we are now in pursuit of what he called "augmented survival" (Ibid: 22), in which we no longer merely want consumer goods but consider them a need — necessary to our "augmented survival." What he is saying though, is not that we should be content with just having food and shelter. Rather, he is suggesting that capitalism encourages us to perpetually and increasingly think about what else we need — and not just want, but *need* (Teurlings, 2017).

This, as Debord describes by drawing from the Marxist concept of alienation[51], contributes to dissociation from an array of human characteristics (Briziarelli and Armano, 2017). "[F]ree conscious activity is replaced by alienation; ... the social collective is replaced by individualism; social institutions are replaced by social

solipsism" (Briziarelli and Armano, 2017: 21). Hence, if the ability for critical thought is being supplanted by a lack of reflection, those that would be one's genuine desires are being superseded by manufactured ones — a state of "augmented survival" (Debord, [1967] 2004).

He takes his critique of consumerism further still, following it with the notion that, at his time of writing, capitalism was experiencing "a general shift from having to appearing — all 'having' must now derive its immediate prestige and its ultimate purpose from appearances" (Ibid: 11). Debord is thus arguing that our desire for those things we came to consider as necessities is not really born out of a genuine belief that they will perform better, and is instead predicated on the will to improve how we appear to others. So, in referencing a "society of the spectacle," he is proposing that late capitalism[52] has encouraged us to become steadily more preoccupied with image and appearance above all. Form over function, if you will.

Unquestionably, we are glutted by image-based media everywhere we go, even when we do not wish to be. Advertising, for example, is non-avoidable and often invasive. It has become ubiquitous. Even if you pay a premium to cease being subjected to it in the media you consume, it still permeates the streets. There was even a startup with plans to advertise in the sky itself (Christian, 2019). The project leader in charge of this endeavor even described the commodification of the night sky as "the next logical step in advertising[53]" (Ibid: §2).

This may seem absurd, but it can actually serve as an example of the Marxist concept of reification, on which Debord draws for his critique of the spectacle. This idea of reification was originally developed by Marx to "analyze the social relations of production within capitalism. ... [It] describes a process whereby the social relations of capitalist labor grow out of human control and appear as things, governed by natural laws" (Gartman, 1986: 167).

Expanding the concept forward into a cultural and political dimension, Marxist philosopher Georg Lukács, argues that whatever is reproduced as part of a given culture is the reified social form of the capitalist economy (Gartman, 1986). In this way, Lukács's description of reification implies a process of reduction, whereby human substantive attributes are converted into concretized and quantifiable properties for the purpose of dominance (Ibid). Indeed, "[t]he fetishism of the commodity[54] — the domination of society by 'intangible as well as tangible things' — attains its ultimate fulfillment in the spectacle, where the real world is replaced by a selection of images which are projected above it, yet which at the same time succeed in making themselves regarded as the epitome of reality" (Debord, [1967] 2004: 17) — much like advertising in the sky, both literally and figuratively.

For Debord, the "image is the final form of commodity reification" (Ibid). To that, philosopher Frederic Jameson adds that this image reflects the concept of the material image, or photographic reproduction (Jameson, 1991). Indeed, according to Debord, the spectacle is a "world view that has actually been materialised, a view of a world that has become objective" (Debord, [1967] 2004: 7) — like a photograph, which is continually reproduced. And as consumers relish in this society of the spectacle — one which is sustained by continual and successive images of itself — these photographs, as material images, become a form of simulacra, described by Plato as "identical [copies] for which no original has ever existed" (Jameson, 1991: 17).

"Appropriately enough, the culture of the simulacrum comes to life in a society where exchange value has been generalized to the point at which the very memory of use value is effaced" (Ibid) — a

culture which permeates the society of the spectacle, as described by Debord.

To me, however, the most interesting aspect to this, as it relates to "the spectacle," is that modern advertising, in addition to often being based upon these material images, either moving or still, is largely predicated upon selling us products based on the effect they might have on our appearance. Or, in other words, on how much they will increase our social standing (Debord, [1967] 2004). Let us consider some examples.

Starting in 2006, and up until 2009, Apple ran their famous *Get a Mac* ad campaign. It featured a minimalist white background and two actors who introduced themselves as a Mac and a PC while acting out a small vignette (Filipowicz, 2020; see **Fig. 10**). The campaign produced sixty-six individual ads in total and was a resounding success for the brand (Ibid). Indeed, it was so successful that I still remembered it over a decade later, even though it did not even air where I am from. Though the ads do offer some suggestions regarding why one might prefer to buy a Mac over a PC based solely on functionality, they hinge primarily on selling the public the idea that the kind of person who uses a Mac is more youthful and cool than the stuffy old PC user. And it worked. Not only was it a commercial success, but also instrumental in recasting Apple's reputation with consumers (Ibid).

But the focus on appearance and images is not just confined to selling us products. Indeed, Politics itself is the primary domain for spectacle. There is a wealth of references to pull from as examples but none is perhaps more clear than the whole political career of Donald Trump. As Douglas Kellner states, "Trump represents a stage of spectacle beyond Debord's model of spectacle and consumer capitalism in which spectacle has come to colonize politics, culture, and everyday life, with the chief manipulator of the spectacle in the United States, Donald J. Trump, now becoming president and collapsing politics into entertainment and spectacle" (Kellner, 2017: 4).

To describe only a few instances that support this, let us think back to how Trump, first as candidate and then as president, has pivoted on how he presents himself. He went from projecting a personification of wealth and exuberance to making himself out to be a champion of the working class, and, despite his multiple affairs, he has also managed to endear himself with the US's white, evangelical community (Ibid). In addition, Trump scarcely campaigned on policy, preferring instead to comment on the appearance of his opponents, often in the form of short and cutting nicknames like Lying Ted, Tiny Marco, Crooked Hillary, or Sleepy Joe. This was done to project a disparaging image of his opponents, while simultaneously casting him as strong and competent in direct comparison.

Yet another instance of the spectacle can be found in the use of language. I have stated here on more than a single occasion that language matters; and it matters because of the spectacle. Language shapes the way we think of things. Indeed, there is a yearly award given by a German council of linguists and journalists founded upon exactly that idea, the *Unwort des Jahres*, which translates to the ugliest or worst word of the year. The award is given out with the intention of "[highlighting] how language can be used to denigrate democracy or human rights" (*The Local*, 2021: §4).

The most recent winners, in 2021, were *Corona-diktatur* (Corona-dictator) and *Rückführungspatenschaften* (repatriation sponsorships). The former has been used by anti-lockdown protesters to accuse Angela Merkel of using the pandemic to set up a dictatorship (Ibid). The latter though, I find more interesting. It is a phrase coined and employed by the European Commission to refer to occasions in which a member state

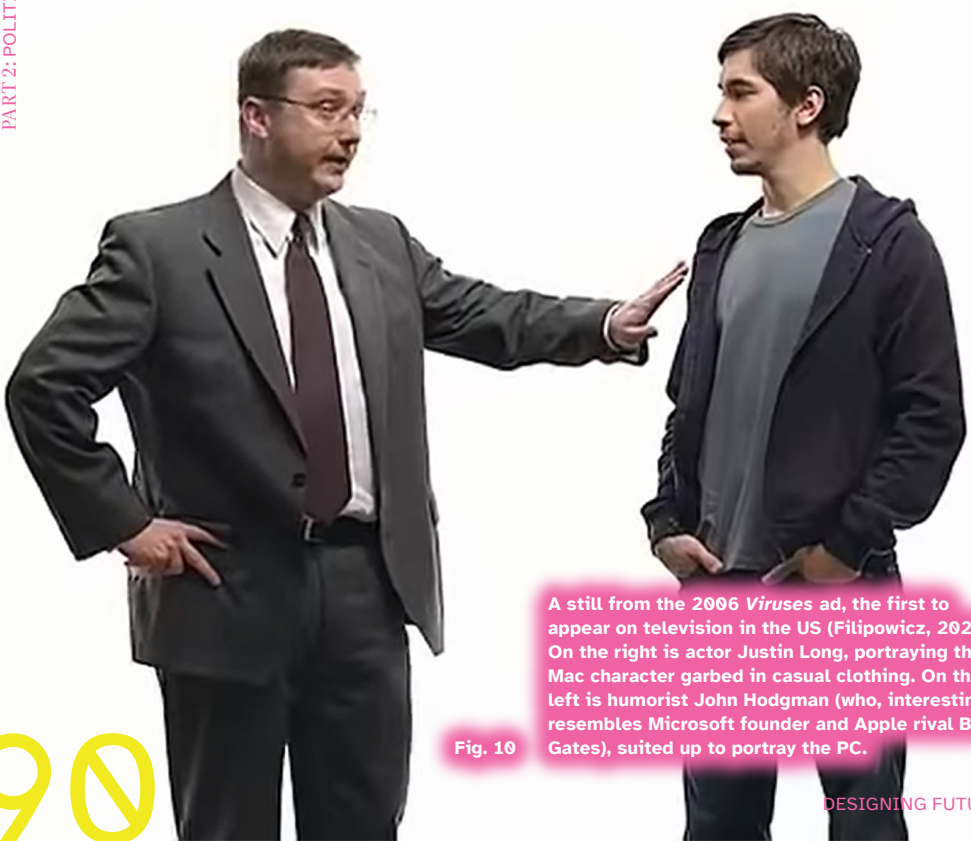


Fig. 10 **A still from the 2006 *Viruses* ad, the first to appear on television in the US (Filipowicz, 2020). On the right is actor Justin Long, portraying the Mac character garbed in casual clothing. On the left is humorist John Hodgman (who, interestingly, resembles Microsoft founder and Apple rival Bill Gates), suited up to portray the PC.**

assumes the responsibility of deporting someone whose asylum request has been denied by another state (*The Local*, 2021). The use of the term "sponsorship," however, is a blatant attempt at putting a positive spin on the practice of deportation, which was the reason cited by the jury as to why this word was selected. Interestingly, the 2017 awardee was the now-infamous "alternative facts," uttered by none other than Trump aide Kellyanne Conway (*Der Spiegel*, 2018). The reason being that it was an obscuring and misleading expression which attempted to establish false claims as legitimate means of public discourse (Ibid). *That* is the spectacle.

A final, perhaps less obvious example is one put forth by Judith Schwartz in an essay about the social responsibility of advertising (Schwartz, 2003). According to her, roughly 60% of consumers believe that products which feature the American Cancer Society's logo reduce their chance of contracting cancer. That would, after all, be a reasonable assumption to make. In reality though, companies such as the American Heart Association (AHA) will allow the use of their logo for a single contribution of $2,500 and an annuity of $650 afterward (Ibid). They also offer companies the ability to purchase an exclusivity contract for a given product, which will keep the AHA's logo away from competitors (Ibid). In effect, what is being sold here is, both literally and figuratively, an image — the appearance of health benefits; a spectacle.

Schwartz goes even further, stating that, when the illusion is revealed, the exposed spectacle might actively cause more harm. Speaking specifically on, as she describes it, "cause-related marketing," Schwartz argues that the credibility of nonprofit organizations might actually be negatively affected if partnerships are not chosen with heed, and also that companies only have an incentive to usurp visible causes that already have mass appeal (Ibid).

This, under the light of Guy Debord's *Society of the Spectacle*, seems entirely consistent. After all, only popular things can increase one's social standing. As he writes: "[t]he spectacle cannot be understood as a mere visual deception produced by mass-media technologies. It is a worldview that has actually been materialised" (Debord, [1967] 2004: 7). He was adamant about the notion that the spectacle is, indeed, already diffused throughout society, and that we all participate in it and are, to some extent, responsible for sustaining it. Further, he asserts that "real life is materially invaded by the contemplation of the spectacle, and ends up absorbing and aligning itself with it" (Ibid: 8).

So it's not just advertisers, politicians, or corporations who have come to prioritize appearance over substance — it's all of us, the public, as well. This may help explain why it is that we are, ostensibly, content with settling for the aesthetic of ethics. It is, perhaps, because we don't actually personally *need* what we consume to perform better — both efficiently and morally — that we don't quite mind that it doesn't. That they appear to, is enough.

[51] Within the Marxist tradition, the term "alienation" describes the manner in which a person, entity, or collective becomes estranged or detached — alienated (Bottomore, 1983). This might happen in three distinct ways. Namely, one can become alienated from one's own product or process of production, from the environment in which one lives, and from other people, including one's self (Ibid). This, according to Marx, happens as the direct result of a capitalist society, in which workers are no longer able to direct their own actions, define their own relationships to other people, or own the values, goods, or services produced by their own labor (Ibid).

[52] The term originated with Marxist scholars, starting with Werner Sombart, but was popularized by Ernest Mandel, who used it to describe the economic period elapsed between the end of World War II and the early 1970s, during which multinational companies, mass communication, and international finance all grew in popularity (Lowrey, 2017). Mandel hoped to warn against the pressures of increased automation and wage stagnation which, he feared, would have severe societal repercussions due to worker dissatisfaction (Ibid). Scholar Frederic Jameson then revitalized the concept by building on Mandel's work, arguing that a globalized and post-industrial economy had made everything commodified and consumable (Ibid). From there, the concept evolved into its modern use and was revitalized in recent years. Its contemporary use has largely grown to describe "a catchall for incidents that capture the tragicomic inanity and inequity of contemporary capitalism" (Ibid: §15). This recent surge in usage also seems to imply a general feeling that contemporary capitalism cannot continue as it is, especially as its problems become not only larger but also more apparent (Lowrey, 2017).

[53] As bizarre and depressing as it sounds, he is not exactly wrong. Though there are still a number of obstacles preventing such a thing from happening now, it yet remains a plausible future (Matignon, 2021).

[54] Commodity fetishism — itself a form of reification — is another Marxist concept whereby our conception of specific relationships, such as that between production and exchange, are perceived as social relationships between things, rather than between people (Gartman, 1986).

2.4 DESIGN AS SPECTACLE

The word "spectacle" originates from the Latin root *spectare*, meaning "to view, watch, behold" (Harper, n.d.). As such, it implies an intrinsic concern for an audience above the scenery itself. This definition, however, has evolved to encompass an ever-expanding display of media development.

Recalling Debord's work, "[i]n the spectacle, a part of the world presents itself to the world and is superior to it. The spectacle is simply the common language of this separation. Spectators are linked solely by their one-way relationship to the very centre that keeps them isolated from each other. The spectacle thus reunites the separated, but it reunites them only in their separateness" (Debord, [1967] 2004: 16).

Here is where the connection as well as the continual evolution towards the notion of "watching" becomes clear. Further, it also implies a performance of spectacle, with which one must engage, precisely due to the cultivation of the so established "one-way relationship." The latter, ironically, is what unites the spectators because it forces them to actively participate and engage with that dynamic of a mutually isolating relationship. And it seems like there is no going back.

There is this idea in design, spawned from a metaphor introduced by scholar Beatrice Warde in an essay entitled *The Crystal Goblet, or Printing Should Be Invisible* (Warde, 1956). In it, Warde contends that type design ought to be invisible, likening it to the common preference for a clear vessel for holding wine — the eponymous Crystal Goblet. Warde's preference for the vessel's transparency stems from her belief that "the most important thing about printing is that it conveys thought, ideas, images, from one mind to other minds" (Ibid: 13), and, as such, focusing on the goblet, rather than the wine, would be a distraction. Thus, if the spectacle is an illusion, merely distraction from substance, the Crystal Goblet is meant as a lack of distraction — unobstructed substance.

I find this really interesting, especially in a contemporary context in which the infusion of design has become so ubiquitous in every aspect of society, yet largely remains unnoticed. I am twenty-five years old right now and did not have a computer in the house until I was around ten. Today, however, in my own context, not having one would be nearly impossible and it would actually be the lack of a computer which would be far more noticeable than its presence. Indeed, to quote an article that came out precisely around the time I was ten years old, "[w]e are entering the age of Ubiquitous Computing, and its most distinguished advantage is invisibility of computing," which they define as "the invisibility of Human-computer Interaction, as people can focus their attention on the content instead of the tools they are using" (Wang et al, 2005: 231). Does that seem familiar?

The aforementioned concept of "affordance" is predicated upon this principle as well. Namely, that the user should immediately recognize and sense how the object may be used; that function should not be obscured by form. It's as Steve Krug put it — "don't make me think" (Krug, 2014). But the idea of affordances, as proposed originally by psychologist James Gibson, was described as what the environment offers the individual (Gibson, 1979). In other words, to see things is to perceive that which they afford. Thus, the concept is, in fact, and above all else, predicated upon the relationship between the objects and the user; or, to tie this all back to the spectacle, between the scenery and the spectator. Moreover, as design itself seems intent on becoming more like a Crystal Goblet, the designers keep performing, and I mean that in both senses of the word, actions of so-called "user-experience" with the specific aim of engaging the audience through the spectacle.

So are these notions truly opposites — the Crystal Goblet, as transparency, and the spectacle, as distraction? If design is everywhere, and yet subtle enough for us to not perceive it for what it is even as we engage with it, is that unobstructed messaging or a distraction from its substance? I would argue that it is both. The message is distraction. That is the spectacle. In this way, design is often done in service of the spectacle. Indeed, it often is spectacle.

To understand design as such, I find it useful to begin with that which has been cataloged as propaganda — a term used to describe a form of communication intent on influencing an audience with the primary objective of furthering an agenda (Taylor, 2003). Propaganda has, traditionally, been idealistic rather than realistic, and though it had, historically, been a neutral, largely descriptive term, from the 20th century onward it became negatively associated with manipulative coercion techniques (Ibid).

These tactics are powerful and have won wars and minds (Ibid). The cataloging of those techniques can neutralize their effectiveness by making us aware of their existence. Nonetheless, we remain vulnerable to new ones even as we are able to recognize those past. The quintessential propaganda tool is the poster, most suitable because, at the time, it was the easiest to mass-produce and thus the most able to reach a wide audience (Ibid). These posters understood the power of imagery and repetitive messaging in their attempts to seamlessly embed bias into the quotidian lives of the general public.

Indeed, the media phenomenon of, for example, 1930s Nazi propaganda is still widely held as a model for one of the most active as well as horrific uses of design as a tool for political engagement (Yourman, 1939). Nazi propagandists began considering things like accessibility and mass-production, and started to push beyond simply publishing literature[55]. The party even founded The Reich Ministry of Public Enlightenment and Propaganda, which was created with

the intention of effectively communicating Nazi messaging through art, music, theater, films, books, radio, educational materials, and the press (Ibid). In fact, technological developments like the introduction of sound and color in film only helped the Nazi regime be more effective in their propaganda efforts, allowing them to more convincingly portray the so-called enemy as envisaged to better manipulate the German population (Ibid). *The Eternal Jew*, for instance, is a virulently anti-semitic film which depicts Jews as a plague, juxtaposing footage of Jewish Peoples to that of rats destroying and contaminating food (*The Eternal Jew*, 1940). The Nazis also, and simultaneously, produced films like Leni Riefenstahl's *Triumph of the Will*, aimed at projecting a grandiose image of themselves in contrast (*Triumph of the Will*, 1935), coupled with posters exerting the same aesthetic[56].

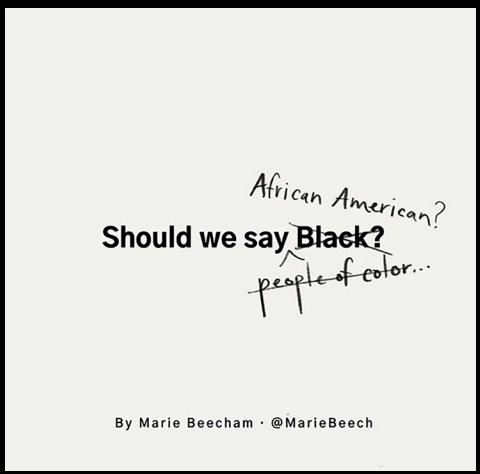
But the Germans were not the only ones resorting to political propaganda. Across the ocean, the United States was engaging in the exact same tactics[57], and also were not alone. Another notable example is a Looney Tunes cartoon called *Tokio Jokio* which makes use of slurs and racist and xenophobic stereotypes while depicting exaggerated accents, body language, and physical appearance regarding people of Japanese descent[58] (*Tokio Jokio*, 1942). And, unfortunately, images such as these, still influence dominant ideology and visual culture (Behnken and Smithers, 2015).

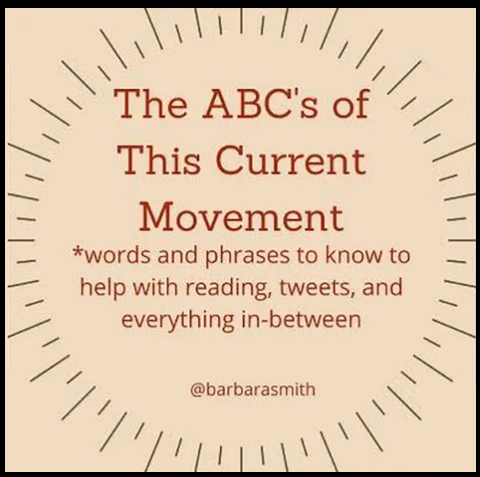
A more contemporary notion of propaganda may be expanded into the realms of cyberspace (Pilarski, 2020), as well as advertising (Rutherford, 2017). Concerning the former, let us take the QAnon[59] conspiracy theory and its online proliferation as an illustrative example. Recently, a certain aesthetic has emerged, particularly on Instagram, associated with social justice-oriented posts (Nguyen, 2020; see **Fig. 11**). This look, however, has also started to show up with seemingly innocuous posts associated with child trafficking. This wouldn't seem out of place to anyone unfamiliar with the QAnon tenets, but those critically aware would likely see this for what it is — a cooption of the familiar style as a recruitment tactic[60] (Haubursin, 2020; see **Fig. 11**).

Other examples might speak to the ways in which politics, social behavior, and the public's ethical concerns have become subject to the philosophy and tactics of marketing and advertising. These might include such thing as the aforementioned food labels with ethical claims (Southey, 2020), or others like Nike's Colin Kaepernick ad (Nike, 2018) and Gillette's masculinity "short film" (Gillette, 2019).

All of these aim to persuade, not present a fair and transparent judgment, though their seamless integration into our daily lives often makes them hard to detect and accurately assess their intentions. And that is the point. Advertising, through the use of propaganda techniques (Rutherford, 2017), delivers its message through symbols that elicit emotions and prompt the desired action, but they must also meet the public's wants; or, rather, their *perceived* wants, derived through the pervasiveness of "augmented survival" (Debord, [1967] 2004).

But for how much design can be a part of the spectacle — as a prompt in the service of distraction from substance — it can also be a call to action grounded in genuine urgency. Indeed, subsequent to the US government's role in producing propaganda intended for wide distribution, private groups started employing those same tactics toward their own goals (Taylor, 2003). Notably, we saw the rise of the Black Panther Party, which was founded in 1966 during the American civil rights era, on a self-preservationist necessity to revolt against police brutality inflicted upon Black Americans (Doss, 2001). One of its founders, Huey Newton, described the group's symbol, a black panther, as one that "doesn't strike first, but if the aggressor strikes first, then he'll attack" (*Black Panthers: Vanguard of the Revolution*, 2015).



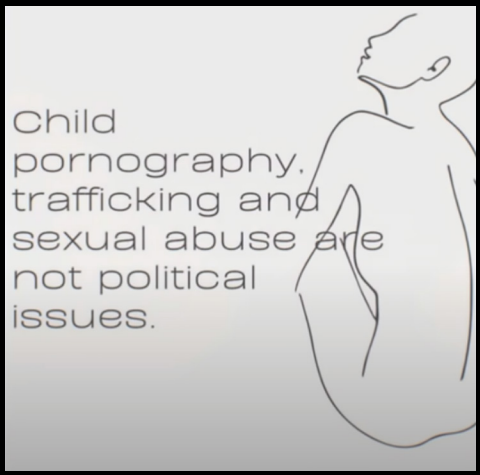


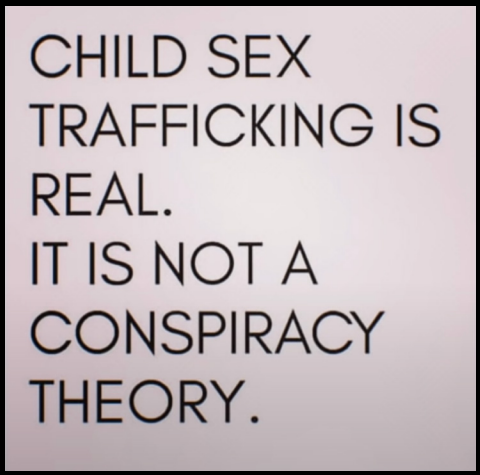
A

Comparison between the aesthetic of social media posts.

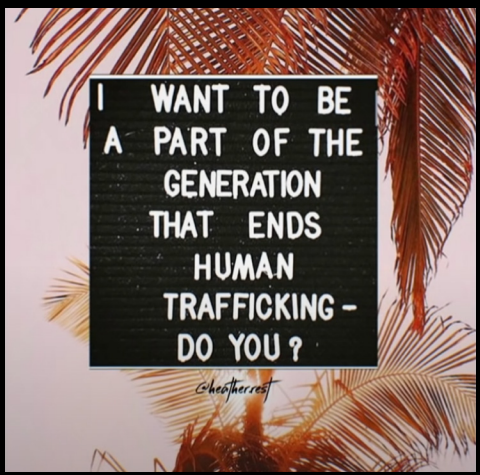
A: Instagram social justice posts.

Fig. 11 **B: QAnon recruitment posts.**


Child pornography, trafficking and sexual abuse are not political issues.


CHILD SEX TRAFFICKING IS REAL.
IT IS NOT A CONSPIRACY THEORY.


The media is silent on child trafficking,
because of who the clients are.


I WANT TO BE A PART OF THE GENERATION THAT ENDS HUMAN TRAFFICKING - DO YOU ?

B

This symbolism was specifically meant to evoke a provoked force, fighting against systemic racism and empowering Black communities[61] (Doss, 2001). Members also used posters to spread their message and emphasize their voice, and often sported flags with their logo (Ibid; see **Fig. 12**). The way they dressed was also significant in supporting their message. The use of black, leather, and natural hairstyles was a performance of cultural pride, which sent an important political message while also allowing non-affiliated supporters to engage with the movement by adorning their aesthetic (Vargas, 2009).

After the civil rights era, more artist communities wanted to engage with the discourse surrounding equality and social responsibility. In 1977, artist Jenny Holzer authored a project which compiled a series of provocative maxims, which she dubbed *Truisms* (see **Fig. 13**). She "typeset the sentences in alphabetical order and printed them inexpensively, using commercial printing processes. She then distributed the sheets at random and pasted them up as posters around the city" (Bee, Heliczer and McFadden, 2014: 283). This strategy was so successful in spreading the phrases throughout the globe that her *Truisms* keep being reinvented in a variety of formats such as t-shirts, stickers, or installations (Ibid).

Directly following Holzer's interventions, the grassroots political group ACT UP was formed in 1987. It began collecting artists around New York City to create public works as a way of protesting the lack of institutional action towards stopping the spread of the AIDS pandemic (Kerr, 2017). That same year, the now-iconic *Silence = Death* poster was designed by fellow ACT UP member Jason Baumann, who later described it thusly: "[i]n essence and intention, the political poster is a public thing. It comes to life in the public sphere, and is academic outside of it. [The poster] is a product of collective world-making, the sort of collectivity which moves every one of us, as individuals and as a culture, and which is transformative[62]" (Baumann, 2013: §2; see **Fig. 13**).

Baumann also adds that ACT UP's members understood that, whenever New Yorkers need to talk to each other, "there is always the street" (Ibid: §9), which is why they chose to produce a poster, describing the street poster as "declarative, provocative, and meant to stimulate inquiry" (Ibid: §15).

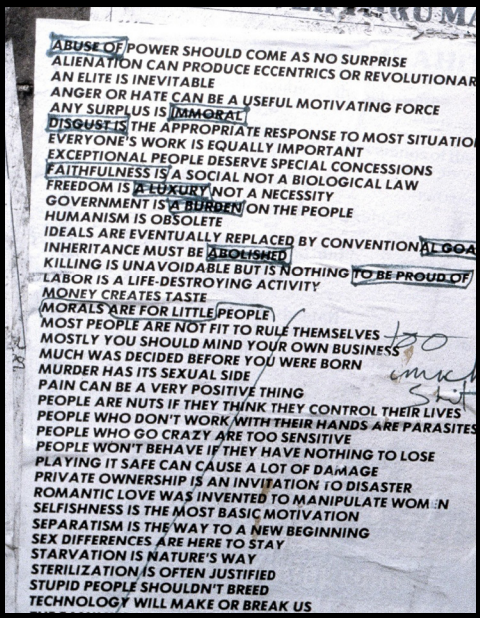
Nonetheless, in our contemporary societies, the spectacle seems to reign. As discussed earlier, its frequent use by corporations, institutions, and politicians who abuse its and their power attenuates the urgency of the unveiled real. When the spectacle repeats itself — when it stands beside other images on streets, billboards, screens, and publications — to use an economic term, it saturates the market. All those sensory stimuli cumulate in a sensory overload which desensitizes the audience.

An awareness of the spectacle may thus be used to spark discourse on diluted albeit urgent topics, and designers have the privilege of leading these efforts. This is especially salient in such fields as marketing, advertising, or mass media. As the advent of the Internet expanded wider accessibility, the art and design purviews also shifted towards this new medium of digital media. And what it offered was an equalized agency over the distribution of information between performers and public alike, something that grassroots groups such as the Black Panthers and ACT UP have been striving towards for decades.

But again, this medium is highly vulnerable to cooption, as QAnoners are acutely aware. Indeed, we can observe this mimicry of the grassroots aesthetic and speech with the intentional point of seeming alike and, through that co-option, camouflaging their message. We even have Twitter bots now engaging with the spectacle by tweeting memes and appropriating

The Black Panthers in formation at a rally in protest of the trial of the party's co-founder Huey Newton in 1968. Note how they stand with flags in a unified block and similar fashion, which combine into an effective and purposely intimidating display of force and pride.

Fig. 12



A

B

A: **Jenny Holzer, *Truisms*, 1977–1979, installed in New York City, 1977.**

Fig. 13 **B:** **ACT UP's *Silence = Death* poster.**

grassroots language in an effort to facilitate a contrary political objective (Cook et al, 2014).

Scholar Misha Kavka warns us of exactly that. As she argues, through the mediation of intimacy, we have become threatened by this newfound ability to bridge a once-solid gap between spectacle and experience — staged event and actuality (Kavka, 2012). And while she spoke in the context of Reality TV as a genre, she points to a more general globalized media culture, proposing that the public no longer recognizes the external, or the physical world, as real (Ibid).

And here, Baudrillard's critique of hyperreality becomes especially prescient, having defined the term as "the generation by models of a real without origin or reality" (Baudrillard, 1994: 1). In other words, his hyperreality describes a symbol or representation lacking an origin to simulate, much like Plato's simulacra (Jameson, 1991).

Baudrillard goes even further in his critique of hyperreality, highlighting the blurred line it creates between reality and simulacra as dangerous (Baudrillard, 1994). Accordingly, as designed realities and interfaces continue to establish themselves in the relationship between people and their surroundings, it becomes crucial to recognize the responsibility of not only being the one designing them, as I have argued before, but also of contributing to an accruement of symbols which, in effect, create and thus shape reality.

As designers, occupying a space in contemporary visual culture necessitates that one work directly within the medium of spectacle, thereby making one responsible for the cultural space one operates in and holds sway. This, in an environment in which — to give but a few examples — commodity racism[63] still permeates package design and advertising (McClintock, 1995; see **Fig. 14**), bathrooms are specifically and unnecessarily designed to be gendered (Castricum, 2018), for-profit prisons' business models are designed around propagating recidivism (Spivak and Sharp, 2008) and the fact that people knowingly, and even willingly, support unethical organizations (Micheletti, 2003) grants particular importance to the question of how can one design with and toward social responsibility. Especially when very real and deeply rooted problems such as these aren't always evident, and are largely masked by the spectacle.

Samuel Weber wrote that "[i]n order for something to be a spectacle, it must, first of all, take place — which is to say, it must be localizable. Whether inside, in a theater (of whatever kind, including our own mind), or outside, in the open, a spectacle must be placed in order to be seen" (Weber, 2002: 18).

So if to design is to place in the world, then designers are the ultimate stage directors, and with that power come responsibilities. I have argued earlier that designers cannot be the only ones to assume any responsibility, and I stand by that. They cannot be the *only* actors with responsibility, but that does not mean they have none. Indeed, the responsibility to educate oneself and to be aware of the symbols one makes use of, as well as the context in which they are being used, is one's own. I pose this question as much to you as myself: are we spending enough time thinking about and researching what things mean in their historical context? My honest answer is, regrettably, no, not always. It comes, however, with a sincere commitment to do so every time, and more comprehensively — and what a rich past we have to draw from.

Fig. 14 **Some examples of commodity racism in packaging and advertising. It's worth noting that some of these brands have recently changed their names and/or overall image, such as Aunt Jemima (now Pearl Milling Company), Uncle Ben's (now Ben's Original), Red Man (now America's Best Chew), and Eskimo Pie (now Edy's Pie; Anthony, 2020).**

[55] It should be said, nonetheless, that the publication of Hitler's *Mein Kampf* in 1926 still had an instrumental role in disseminating the revolting ideas of Nazi National Socialism to the general public (Yourman, 1939).

[56] Much could be said about Nazi architecture, especially of that designed by Albert Speer. The Nazi architectural style is very intimately related to its originating ideology, which was corporeally expressed through metaphorical concretization (Espe, 1981). It was constructed to create an impression on those who gazed upon it, with the inclusion of formal elements such as horizontality, symmetry, flat roofs, uniformity, and a lack of decor — all with the intention of imparting "an impression of simplicity, uniformity, monumentality, solidity and eternity" (Ibid: 36).

[57] As were, for example, the soviets in the USSR (Kenez, 1985) or, in my own country of Portugal, the Estado Novo fascist regime (Gori, 2018), as well as various others.

[58] It's important to note the social and historical context in which such a cartoon came to be. At the time it was made, Japan was part of the Axis during World War II and, thus, enemies of the Allied forces, of which the US was a part. Especially after the bombing of Pearl Harbor in 1941 — a year before the release of *Tokio Jokio* — this virulent anti-Japanese sentiment was rampant in American society, even culminating with the establishment of Japanese internment camps (Sheppard, 2001), something that propaganda such as this film certainly had a hand in furthering (Ibid).

[59] QAnon is a thoroughly debunked far-right conspiracy theory formed in the US. Its members believe a cabal of cannibalistic Satan-worshiping pedophiles — many of whom prominent figures in the country's Democrat party — run a global child sex trafficking network and plotted against former President Donald Trump during and even after his presidency (Haubursin, 2020).

[60] This has been directly tied to a significant increase in Facebook groups branding themselves as anti-child-trafficking; though, in actuality, these groups are predominantly QAnon communities (Haubursin, 2020).

[61] A thing to note is the relationship between the Black Panther Party and gender equality. The group was founded before the apogee of the Women's Liberation Movement and featured a lot of sexism, despite the many women who filled their ranks (Lumsden, 2009). This, however, changed significantly, and quite rapidly. In 1968, a number of their print outlets asked female members to "stand behind the black man" and "be supportive" (Ibid: 904). Only a year later, Fred Hampton, then chairman of the Party's Illinois chapter, held a meeting specifically to condemn sexism, which was deemed counter-revolutionary (Lumsden, 2009). The Black Panther newspaper, for instance, would henceforth depict women as the intelligent political revolutionaries they were, with prominent figures such as Angela Davis or Erika Huggins (Ibid). During the 1970s the Party also officially supported and endorsed reproductive rights such as contraceptives and abortion, and established a large childcare network and multiple community welfare programs concerning food distribution, education, and healthcare (Ibid). Huey Newton also publicly supported both the Women's Liberation Movement and the Gay Liberation Movement, acknowledging women and homosexuals as oppressed groups who also shared the common goal of fighting back against police brutality (Leighton, 2019). In this way, we can see that the Panther symbol did not reflect a narrow vision of man; rather, it championed the oppressed, and fought specifically for Black equality, in all it entails — gender, sexual and economic liberation. The Black Panther logo itself was, it should be said, designed in collaboration between three women — Lisa Lyons, Dorothy Zellner and Ruth Howard — who, together are responsible for the movement's defining iconography.

[62] This, of course, is dependent upon its intentions. In the individualistic society that Debord describes, the poster may, as part of the spectacle, be a way of advancing a particular message, in service of an illusory and distractive cause. Such a poster, however, would not be a political one.

[63] "Commodity racism" is a term coined by Anne McClintock which describes an embedded agenda of racism in the signs and symbols used in commodities (McClintock, 1995; see Fig. 15).

2.5 ON SONIC, ALEGRIA AND *DÉTOURNEMENT*

Guy Debord's *Society of the Spectacle* was not simply a descriptive work; it was also a manifesto (Teurlings, 2017). Debord sought to encourage us to not just recognize the spectacle, and how society had, ostensibly, fallen under its spell, but also to attempt to subvert it. He was, in fact, part of a group of social revolutionaries called the Situationist International (henceforth referred to as SI), whose aim was to offer a more modern and comprehensive critique of mid-20th century advanced capitalism[64] (Plant, 1992).

The spectacle was a central aspect of situationist theory (Ibid). As noted, this is the idea that the history of social life may be understood as the decline of being into having, and of having into merely appearing; at which point commodity completes its colonization of social life (Debord, [1967] 2004). Indeed, in the founding manifesto of the SI, Debord describes the established culture as a sort of rigged game, in which conservative powers halt subversive thought from accessing public discourse (Id, 1957). He explains that such thoughts are first trivialized, and thus rendered sterile, so that they may safely be incorporated back into mainstream society, where they can be exploited (Ibid). Though first mentioned by the SI, this process came to be referred to in political theory as recuperation. Its counter-technique, however, is what the SI and Debord described as *détournement*[65] (Debord and Wolman, 1956).

French for rerouting/hijacking, *détournement* is, briefly put, the practice of subverting the images produced under capitalism, thereby turning them against it. It is, as Debord states, "the flexible language of anti-ideology," and, because of that, "[it] has grounded its cause on nothing but its own truth as present critique" (Debord, [1967] 2004: 114). The SI's advocacy of this technique was based on the assertion that, due to advancements in the domain of their production, all known means of expression

will converge in a general movement of propaganda through spectacle, which necessarily encompasses all the perpetually interacting aspects of social reality (Debord and Wolman, 1956). This translates into the belief that culture itself was in a state of tilt and that, through *détournement*, the creation of new expressions and meanings out of already existing works was a radical and preferable means of generating disruption.

In *A User's Guide to Détournement*, the situationists argue that the technique has a double purpose. It must, at the same time, both negate the ideological conditions of artistic production — namely, the fact that all artworks are, ultimately, commodities — and negate this negation by producing something that is politically edifying (Ibid). A quintessential example of this is the punk[66] movement and its accompanying aesthetic.

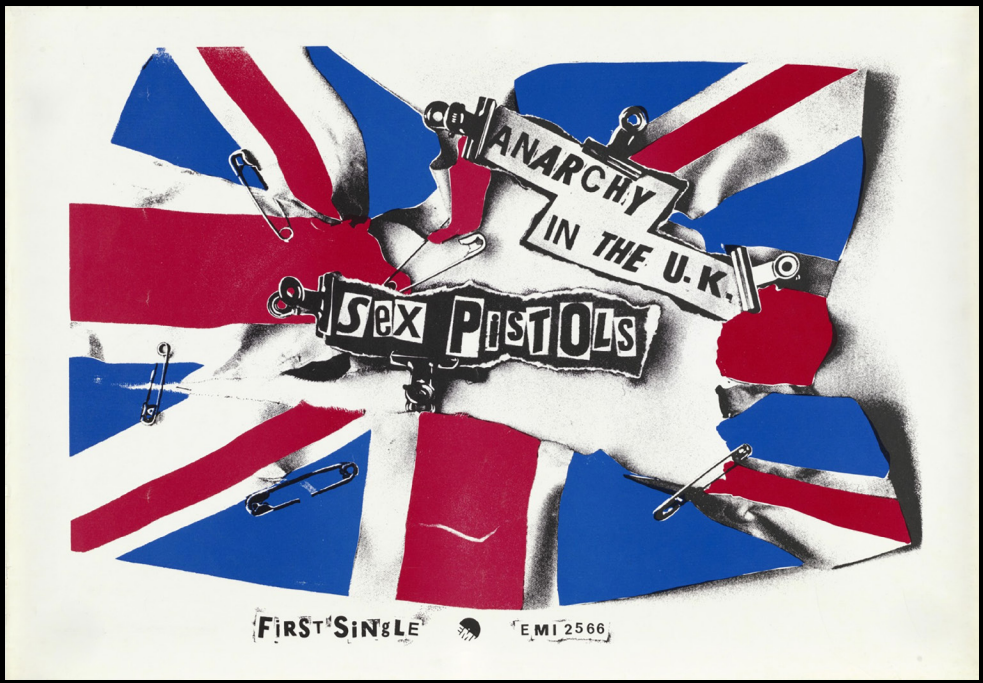
Punk's purposely provocative style is not inane; it's an ambitious attempt to signal intentional gestures of rebellion (Nault, 2018). "In the best of circumstances, punk aims to be a wakeup call to a public otherwise anesthetized by the suffocating conformity of daily existence" (Ibid: 18). Indeed, according to Nault (2018), following in that same tradition, the political roots of the punk movement can be traced directly to the SI's ethos.

The punk value system prioritizes non-conformity and individual freedom, as well as opposition to authority and capitalism (Ibid). And the punk aesthetic does not stray from these values. Punk products were intentionally fashioned to be mostly inaccessible to a mainstream audience (Ibid). This was accomplished, for example, by deliberate incoherence, a DIY[67] ethos, or the use of wittingly disturbing graphic imagery of a violent or sexual nature (Ibid). It is, hence, by limiting its commercial viability that the punk aesthetic serves to undercut the capitalist imperative of profitable work and consumption (Ibid).

"[A]rguably punk's most important artist" (Bird, 2011: §15), Jamie Reid is most well known for helming the art direction for the iconic punk band the Sex Pistols — so named to evoke the aforementioned sex and violence cornerstones of the punk aesthetic. Reid, as a figurehead of the punk movement, also drew heavily from situationist philosophy, with *détournement* being very prominent in his work (Rogers, 2006; see **Fig. 15**).

In *Anarchy Flag*, we see a ripped and burnt Union flag, reassembled with safety pins. Upon the tattered flag also lie, affixed with clips, the band's logo and the title of the single. The use of a flag, typically a national symbol of pride, here, was meant to quite literally deconstruct what that pride meant. By destroying that symbol, Reid intended to transform its original meaning into one of dissatisfaction and pent-up rage at the status quo (Ibid; see **Fig. 15**). The band logo itself is also interesting, in that it evokes the imagery of a torn ransom note, again alluding to the violence and DIY aesthethics that were so characteristic of the punk movement.

The artwork for the "God Save the Queen" single was an appropriation of an official portrait of a smiling Queen Elizabeth, taken by Cecil Beaton. The single itself was intended to coincide with the Silver Jubilee of the queen. The cover art had many variations, but the original featured the queen's portrait upon an image of the flag, her eyes and mouth covered by the band's logo and song title. Another version depicted the queen's image with a safety pin across her lips alongside a lyric from the single written in what appeared to be marker: "God save the queen she ain't no human being" (see **Fig. 15**). Another still depicted the same image but the queen's eyes were replaced with swastikas. According to Reid himself, "[t]he flag poster was another adaptation of the idea already used in the 'Anarchy' campaign: that there was another England not mentioned in the worldwide media coverage of the Jubilee jamboree" (Reid and Savage, 1987: 65).



A

B

C

Examples of *détournement*'s influence on Jamie Reid's work (Rogers, 2006).

A: Jamie Reid, 1976, "Anarchy Flag" single cover.

B: Jamie Reid, 1977, Alternate "God Save the Queen" artwork.

C: Jamie Reid, 1977, "Holidays in the Sun" single cover.

Fig. 15

The "Holiday in the Sun" cover art, maybe my personal favorite of these examples, was a direct reference to the poster work of the SI (Rogers, 2006). Reid used an actual Belgian Travel Service brochure, which depicted tourists engaging in all sorts of fun, leisurely activities, as a template to build on top of. He replaced the original content of the speech bubbles with lyrics from the single, which referenced a Nazi concentration camp, the Berlin Wall, and Communism, culminating with the cry "a cheap holiday in other people's misery" (see **Fig. 15**). This last verse was itself a reference to a situationist graffiti which read "Club Med — A Holiday in Other People's Misery" (Ibid).

All three of these examples aptly illustrate the practice of *détournement*, especially in how it uses known visual and textual references to make a political statement. Indeed, the punk movement was so successful that it can be directly traced to a resurgence of the feminist movement. The "second wave" of feminism, which began around the same time, in the 1970s, was very inspired by the punk movement, and their marriage spawned such subcultural phenomena as the Riot Grrrl movement (Genchi, 2017). The latter is itself tied directly to the "third wave" of feminism, a key figure of which was Kathleen Hannah — former singer and guitarist of the Riot Girrrl band Bikini Kill (Ibid).

We can see, then, that *détournement* can, and indeed has been directly linked to important cultural shifts. *Détournement* is rebellious. It is using the pink triangle as a symbol of resistance to HIV/AIDS[68]; it is Black pride in a nation built upon anti-Black racism and systemic violence, and it is a Sonic the Hedgehog meme about ethical consumption under capitalism.

I posited that the slogan espoused in the latter image was a powerful one, as was the ACT-UP poster and the Black Panthers' aesthetic. It is under the lens of *détournement*, particularly as a tactic of counter-cultural intervention, that we might truly begin to understand why. Indeed, these images all caused shifts in meaning by simultaneously generating both the recreation and the negation of previously held signs and significations to make important political points. They were culturally significant because people understood the language in which they were communicating, and thus understood the points they were making much more effectively.

To end this section on a personal note, perhaps my favorite contemporary example of this technique is an illustration done in the art style Alegria as a parody of Francisco Goya's famous *Saturn Devouring His Son* painting (see **Fig. 16**). If you haven't heard of Alegria, you have certainly seen it. It has become somewhat ubiquitous, especially in tech branding. It is an upbeat Matisse-esque style of illustration which depicts people with non-skin-colored skin and wacky proportions doing fun things. You know the one. It's everywhere — from Facebook to Slack to Airbnb.

These amorphous and unrealistically colored characters are so because, in representing no one, they can represent everyone. This is especially useful to corporations trying to have mass appeal. They are ethnically non-specific to represent a vague promise of diversity and, to avoid privileging any body type over another, they have an impossible one. They are designed to convey expressiveness — Alegria being both Portuguese and Spanish for joy — rather than individual identity or any actual commitment. In that way, they have become a symbol of the cynicism surrounding hollow corporate marketing.

I find the dissonance between the typical cheerful depictions done in this style and the gruesome imagery of the Goya painting amusing, to be sure; however, if I'm allowed some prose about such a seemingly simple illustration, the core reason why I personally enjoy it goes deeper than that.

A

B

Fig. 16

A: Francisco Goya, 1820-1823, *Saturn Devouring His Son*, located in the Museo del Prado.

B: @clayohr, 2021, Parody of *Saturn Devouring His Son*. Image kindly provided by the artist

Saturn Devouring His Son depicts the Greco-roman myth of Saturn and Jupiter (or Kronos and Zeus, if you're more familiar with the Greek version). As the story goes, it had been prophesied to Saturn that one of his sons would dethrone him. And so, as one does, fearing that he would be overthrown, Saturn ate each one upon their birth. Jupiter, nonetheless, survived, and later did indeed dethrone the titan. I find this context really interesting in regard to the parody, especially when considering it as *détournement*.

The symbolism of Saturn being defeated by one of his own progeny is paralleled by the technique itself, in being the result of capitalist-bred imagery being used as an act against capitalism. Furthermore, Goya himself was grappling with the concept of power at the time of painting. Namely, about how power treats its own in order to remain in power (Harris and Zucker, 2015). This, I find, makes his depiction of Saturn's act a particularly apt one. Look at the desperation in Saturn's bulging eyes. This is an act of desperate self-preservation. When you look into the eyes of the illustrated figure to his right though, all you see is indifference. This is not a desperate act of self-preservation; it's a midnight snack. And that is, in my opinion, seen under the transgressive light of *détournement*, this work's most searing and powerful critique — that the capitalist enterprise is just as cruel, while remaining indifferent to human suffering. It reminds us, or at least me, that ethics is as urgent as it is political.

[64] **In political philosophy, with special focus on the Frankfurt School of critical theory, the term "advanced capitalism" is used in social contexts where a capitalist model has been thoroughly consolidated and developed due to its endurance for an extended period of time (Beramendi, Häusermann, Kitschelt and Kriesi, 2015).**

[65] **This technique was developed first by the Letterist International, of which Debord was a founding member. The group later went on to form the Situationist International, among others.**

[66] **Interestingly, despite how influential their work was on the movement, Debord and the Situationists disliked the punks. Beyond not enjoying the "noise," they felt the punks were too focused on the individual and not enough on the collective (Marcus, 1989) — a core pillar of the situationist critique of the spectacle, as mentioned earlier (Briziarelli and Armano, 2017). The situationists critiqued the punks for not engaging in concerted collective efforts to actually erode capitalism, accusing them of a shallow kind of opposition, which they argued could be easily commodified (Marcus, 1989).**

[67] **DIY stands for Do-It-Yourself and, accordingly, describes a method of building, modifying, or repairing things without the direct aid of experts or professionals.**

[68] **The pink triangle was used to mark those deemed "sexual deviants" by the Nazis in internment camps (Plant, 1986). Such prisoners included gay and bisexual men, as well as transgender women and other AMAB individuals. Lesbian and bisexual cisgender women, trans men and other AFAB people were not systematically imprisoned in the same way, mostly because a supposed female sexuality was not considered at all (Ibid). Those that were, however, were classified as "asocial" and made to wear a black triangle (Ibid).**

2.6 DESIGN IS POLITICAL, AND SO IS ETHICS

Design's political dimension is not limited to the macro-politics of state sovereignty. It doesn't deal only with propaganda or political parties; rather, there are a number of other, more philosophical implications involved in the political aspects of design. Namely, how meaning is conceived and understood, as well as what difference our experiences, knowledges, and choices make — in its bare essence, semiotics and accessibility. There is also an inherent and accompanying concern with futurity which will be covered in the next chapter.

All design is political, and profoundly so. Every instance of design — every idea, every choice, every consequence — as argues design theorist and philosopher Tony Fry, "either serves or subverts the status quo" (Fry, 2007a: 88). Further still, as states Keshavarz, "[w]e live within political systems that have an increasing interest in facilitating as well as regulating and controlling the movement of things and bodies. To a great degree, these practices of facilitation and regulation are organised and managed through a set of material artefacts, sites and spaces. While the politics of movement might be considered only as a matter of politics, [this] is also a matter of design. The politics of movement is performed through materialised things and relations; artefacts that are not only made but are also designed to communicate as well as excommunicate certain meanings, functions, actions, possibilities and practices" (Keshavarz, 2016: 13).

He maintains, thus, an understanding of both design and politics not as separate, but as "nexus" — as "design-politics[69]" (Ibid: 93). This, he argues, despite the distinct manner in which they deal with their conditions, is because both constitute material formulations which "configure possibilities of acting in a given situation" (Ibid). They are inextricable. And this, as Keshavarz argues, should thereby place

the focus no longer on how they behave as distinct fields of knowledge and practice, but on what and how design-politics "produces, performs and generates" (Keshavarz, 2016: 76). As well as on the heft of this political role.

In this way, design can be quite powerful, and I mean that literally. As scholar Sanford Kwinter posits, the Foucauldian notion that power controls bodies[70] has been evolving to become more indirect (Kwinter, 2001). Now, Kwinter argues, that power is increasingly exerted mainly through the interfaces, and specifically through architecture and design (Ibid). "As design practice and thought are deflected away from the traditional and largely 'aesthetically' constituted object and simultaneously reoriented toward a dynamic macro- and microscopic field of interaction, an entirely new field of relations opens itself to the designer, theorist, or artist" (Ibid: 21).

In this way, design carries a lot of cultural sway, in both its subtlety and its overtness. It cannot be divorced from the values and principles upon which, whether consciously or not, an artifact was created. Some ideology must be presumed because it is always there, no matter how unwitting. It is often difficult to assess how much visual communication and ideology are related, as the latter permeates every aspect of our reality (Sturken and Cartwright, 2001: 21).

As the impact of visual communication has been steadily and rapidly increasing through technological development — and with no signs of stopping — it is imperative to consider the ethics they are predicated upon, as has been argued. Ethical decision-making frameworks such as the aforementioned value, consequentialist, and duty, all ask questions with deeply political implications. Queries such as what values should things embody, whether they increase the amount of good, or whether they comply with their duties are all dependent upon what ideology one subscribes to. And answering those questions is as much about what one chooses to prioritize as what one chooses to neglect.

Assuredly, the generalized mainstream discourse is and has been dominated by Anglo- and Eurocentric epistemologies. This affects our ways of seeing and knowing the world, which, in turn, affects how we act in it. In particular, the discourse pertaining to design is heavily eschewed in favor of Western perspectives, thereby neglecting alternative and marginalized discourses as a direct consequence.

"Within the current landscape of design academia, non-Western epistemologies and practices have not been taken seriously, and this has a history going all the way back to the need to develop design methods as a reaction to what was seen as craft-based design — incidentally associated with pre-industrial, non-European cultures. Dichotomies like this one persist to this day, where the legitimacy of relying on texts that do not fall within the Western canon is constantly questioned" (Ansari, 2018: §3).

This reflects the limitations within the design infrastructure, and ultimately influences not just which design is studied and practiced, but also which institutions and broader sociopolitical systems in which design operates that are seen as legitimate — and thus which ones to aspire to and attempt to emulate. But I do not wish to give the impression that nothing is being done on this front. Though far from ubiquitous, there are a number of actionable examples to share, of which I will take the opportunity to highlight a few with which I have had the chance to interact.

Design & Opressão, which translates to Design and Oppression, is a network of dedicated designers and academics whose main purpose is "to establish ties of solidarity between all struggles against oppression that utilize design as a tool, space, or question to be transformed" (Design & Opressão, 2020: §1)[71]. It specifically does this by bringing the Latin-American critical thought tradition in sociology, education and the arts into the field of design.

Similarly, the Design Justice Network is an international collective built around the pressing need for centering epistemologies that are most often marginalized by design. They recognize that "[d]esign mediates so much of our realities and has tremendous impact on our lives, yet ... the people who are most adversely affected by design decisions tend to have the least influence on those decisions and how they are made" (Design Justice Network, 2018: §1). In response to that, the Design Justice Network works to challenge the ways in which design decisions can harm those who are most vulnerable to these systems of power by rethinking design processes through the lens of those who are typically alienated from it.

Futuress is a platform which recently sprung for these very reasons. It is a queer intersectional feminist platform founded on the basis of radical feminist epistemologies which recognise design as inextricable from its social and political implications. With a mission "to radically democratize design education and amplify marginalized voices" (Futuress, 2019: §1), this is a community that has committed to challenging the colonialist and patriarchal foundations of the design institution, with a special focus on design pedagogy. In order to accomplish just that, Futuress is set as a hybrid model between learning community and publishing platform, both aimed at a thorough critical examination of the intersecting systems of oppression which permeate the design space.

Another still is Decolonising Design, which is an editorial platform and research group, as well as one of the few great resources on the decolonization of design. Decolonization itself is a process aimed at opposing the Eurocentrism so prevalent in mainstream epistemologies by working towards the "liberation of the mind over time" (Fry, 2018: 2). Thus, the Decolonising Design group is acting towards "the radical transfiguration of these structures" in order to "transform the very terms of present day design studies and research" (Decolonising Design, 2016: §5).

Fry describes Eurocentrism as "the universalization of the Western mind" (Fry, 2018: 4). But universality is a lie, making Eurocentrism an inadequate epistemology. Things have different meanings, dependent on their historical and cultural contexts. Something intended to be amusing in one context can incite violent protests in another. Communication is predicated on the assumption that people will understand our message because we employ "universal" or "objective" language; and because we understand what we mean, we think others will understand the same (Pater, 2016). These assumptions, however, are fallacious, and to illustrate this, let me tell you about two famous people.

In a visit to Peru in 2007, American actress Cameron Diaz was seen sporting a green shoulder bag with a red star and some symbols (Ibid). Seems innocent enough, right? Well, those symbols were actually Mao's personal slogan, "Serve the People," written in Mandarin Chinese. This is particularly awkward when considering that, in Peru, the slogan evokes memories of when the Maoist Shining Path group launched an armed insurgency against the country'sgovernment in the 1980s and early 1990s in a conflict which left nearly seventy thousand people dead (Ibid). Diaz profusely apologized when made aware of the blunder, but the damage had already been done.

Some years later, in 2015, Taylor Swift announced a new album and world tour entitled T.S. 1989 — her initials and date of birth. A marketing campaign was promptly launched with accompanying merchandise sporting the spray-painted logo for the event (see **Fig. 17**). Being a world tour though, Swift would eventually play in China, where "T.S. 1989" would likely be interpreted as Tiananmen Square, 1989 (Ibid; see **Fig. 18**). This was a year of violent student protests in

Fig. 17 **A hoodie from Taylor Swift's 2014 *T.S. 1989* tour merchandise with the spray-painted logo.**

Photograph of the 1989 Tiananmen Square protests. The poster reads, "We will never regret for what we have done for China's future." The back reads, "We will never give up when striving for democracy." Image kindly provided by Dr. Edgar Huang.

Fig. 18

Beijing, resulting in a violent massacre and subsequent and yet-enduring censorship by Chinese media (Pater, 2016). When the tour arrived in China, the title had been altered and all instances of the logo swiftly (pun intended) removed from the Chinese store.

I'm sure neither had ill intentions and were sincerely sorry for the insensitivity they displayed. But the point is, precisely, that they were ignorant. And I do not wish to pin the blame solely on these two public figures or their teams, either. All of us are complicit in perpetuating our Eurocentric bias, which is why we need to make the effort to understand as best as possible the historical and cultural context of the resources we use. They are symbols themselves and, likewise, carry meaning.

Another example of this is a project collated by Loraine Furter, a graphic designer, and researcher based in Brussels. *Badass Libre Fonts by Womxn* is exactly what it sounds like. Namely, a collection of fonts which "aims at giving visibility to libre fonts drawn by womxn designers, who are often underrepresented in the traditionally conservative field of typography" (Badass Libre Fonts by Womxn, 2018: §1). In so doing, it rises above a mere aggregate and becomes a statement unto itself. Typography, even within the realm of design, is a particularly male-dominated area (Hagmann, 2005). This is likely due to type design's roots in the historically male-dominated domain of printing (Ibid), but the fact remains and the practice still has a significant gender disparity today. I bring this up to illustrate what deliberately using fonts that are specifically *not* designed by men means in contrast to this historical and cultural context. It's not a neutral act.

Choices such as these matter precisely because they are meaningful — in that they are impactful and also carry and thus communicate meaning. Symbolically portraying a value system communicates that one places value on that system. In order for this to matter, however, it cannot be devoid of the accompanying substance. Ethics, and by extension design, matter because when you choose to do something, you are also choosing *not* to do something. And applied to people, when choosing who to include, one is also choosing who to leave out. In this way, semiotics can also include, as well as exclude.

Accessibility is essential to consider in order to design and produce resources and tools which do not exclude people by design. The mere fact that you are reading this sentence means you are part of the 86% of the world population who can read (UNESCO Institute for Statistics, 2020). That, however, still means that 14% cannot. That is over one billion people who must not be excluded from participation in design and communication. As an example, I will turn to Mexico. During the 1920s, a little under two-thirds of the population was illiterate (UNESCO, 2005: 192), and largely unaware of their own history (Pater, 2016). Following a civil war in 1920, a new government was elected which commissioned famous Mexican painter Diego Rivera to paint the country's history in a series of murals to be displayed in the Palacio Nacional in Mexico City (Ibid; see **Fig. 19**). This simple act ensured that Mexico's history became accessible to those who were illiterate as well as to those who were not.

Today though, murals such as these have largely been replaced with digital media, accessed primarily through the Internet. As the inventor of the world wide web asserts, "[t]he Web is fundamentally designed to work for all people, whatever their hardware, software, language, location, or ability. When the Web meets this goal, it is accessible to people with a diverse range of hearing, movement, sight, and cognitive ability" (Berners-Lee, 2018: §1).

But the key word here is *when* the web meets this goal, because indeed, it often does not. The World Wide Web Consortium (W3C),

Diego Rivera, 1945, *The Great City of Tenochtitlan* mural, located in Mexico's Palacio Nacional. **Fig. 19**

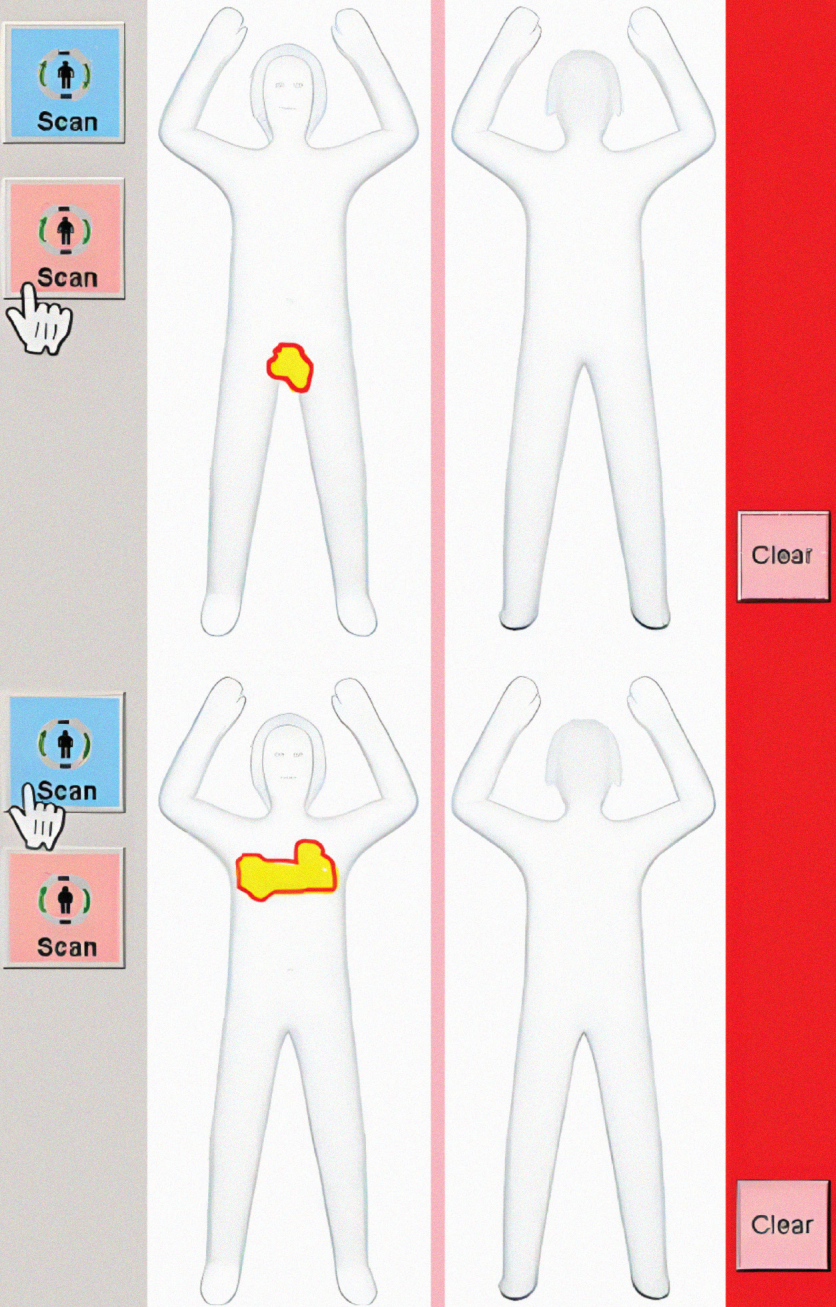
founded by Berners-Lee, published a number of guidelines for web content accessibility (W3C, 2018), yet we seldom comply with it. "Twenty years into its development, the web is still fairly inaccessible to people who have physical disabilities" (Ganci and Ribeiro, 2017: 102). The Brutalist Website trend, for example, though it has several advantages such as reduced bandwidth or hierarchical subversion, it does also have a significantly reduced usability, something which affects a number of users who might have disorders such as dyslexia, ADHD or visual processing disorder (Ganci and Ribeiro, 2017), to name but a few. To be clear, I'm not saying we should completely decry the Brutalist aesthetic. I like it too. What I am saying is that impaired usability cannot be the only alternative on offer. And I am far from the only one.

In 1999, Australian citizen Bruce Lindsay Maguire made a complaint to the Australian Human Rights Commission, then known as the Human Rights and Equal Opportunity Commission. In it, he alleged that the Sydney Organising Committee for the Sydney 2000 Olympic Games had violated the country's Disability Discrimination Act of 1992 by infringing on his rights as a Disabled person (Australian Human Rights Commission, 2000). This, according to him, had happened trifold: failing to provide braille copies of the information required to order Olympic Games tickets, failing to provide braille copies of the Olympic Games souvenir program, and failing to provide a website which was accessible to him (Ibid). The case was later resolved in favor of Maguire, and the Sydney Olympic Committee was indeed found to have engaged in unlawful discrimination[72]. As a result of this landmark decision, the Australian government decided to adopt the W3C Guidelines everywhere, with the Commonwealth Government requiring all agency websites to pass accessibility tests.

The way things are designed matters; design matters. Even designed environments and technologies hold significant sway. Take as another example scholar Sasha Costanza-Chock's account of their experience with airport security. Costanza-Chock, who describes themself as a "nonbinary, transgender, femme presenting person" (Costanza-Chock, 2018: 1) recounts the wait for the security check as something stressful and anxiety-inducing. This, they argue, is because they were certain that, come their turn, they would be subjected to an "embarrassing, uncomfortable, and perhaps even humiliating search by a TSA officer, after [their] body is flagged as anomalous by the millimeter wave scanner[73]" (Costanza-Chock, 2018: 2). And, sure enough, the screen attached to the scanner did light up in their chest and groin areas, signifying an "anomaly" which would require the dreaded body search (Costanza-Chock, 2018; see **Fig. 20**).

This, they explain, was inevitable, given the kind of environment and epistemological assumptions which permeate every step of the design processes which bred both the scanner itself and all the infrastructure supporting the airport security system. A hegemonic gender normativity which only supports cisgender configurations was never questioned and, hence, was also embodied by the scanner's manufacturing and the security agents' socialization and training, which also, and inevitably, shaped their conduct and experience (Costello, 2016).

An airport security officer would be prompted to select either male or female on the scanner's interface, and any body which deviates from the statistical norms of cisgender bodies would be flagged as anomalous by a risk detection algorithm also based on cisnormative data sets; which are themselves labeled and classified by people who operate on those very same assumptions (Costanza-Chock, 2018). After this, the typical protocol is for an agent of the same gender to conduct the aforementioned body search, which, again poses the same problem.



The millimeter wave scanner's binary interface. Highlighted are the "anomalies" detected by the TSA screens, revealing the source of the "alarm" to be trans bodily variance. Image kindly provided by Dr. Cary Gabriel Costello.

Fig. 20

Everything from the datasets, to the risk assessment algorithms[74], to the user interface, to even the airport security infrastructure is designed to reinforce the categorization of only binary and cisnormative bodily configurations. Any deviation from that norm is deemed a security risk, and the real people this affects — largely queer, trans, intersex, and gender nonconforming — are, in this way, regularly subjected to an increased amount of harm (Costanza-Chock, 2018; Costello, 2016).

Furthermore, People of Color and People with Disabilities are particularly vulnerable to such systematic bias, and are often at a higher risk of harm from a system designed to cause it (Crenshaw, 1989) — one created under a hegemonic set of norms, values and assumptions which are imbued therein and subsequently go unchallenged, and thus are able to be continually reproduced.

Design is not neutral, and it is so because the belief systems therein imbued are not either — *our* belief systems. "Artifacts have politics" (Winner, 1980: 1). That, however, does not mean that designers necessarily recognize themselves as political agents, or even that they recognize the political urgency of design (Fry, 2007a). John Maeda once said that "[g]ood design is about clarity over style, and accountability over ego" (Maeda, 2014). In this context, I feel these words gain even more weight. To ignore this is hubris at best and negligence at worst. From all actors in the design chain, from the commissioner to the consumer. And because designers have such an influential role in society and culture, in order for "[them] to become real agents of political change it is vital that the problems be fully understood and that proposed actions have actual transformative capability" (Fry, 2007a: 88).

Indeed, one wouldn't necessarily assume that exclusionary or otherwise unsustainable things are so by design, but they are. This is not to say that that is always the aim one sets out to fulfill. Instead, what is most often the cause is even simpler — not considering it in the first place. When we design systems which propound to be "neutral" or "ideal," we are merely restricting the boundaries of relevant knowledge to the limits of our own ignorance (Alcoff, 2007). This is how the idea of an ideal neutral ends up reinforcing and reproducing hegemonic values and assumptions, which are themselves inherently exclusionary (Ibid).

Ignorance does not just happen; it is reinforced and upheld by society[75] (Ibid). And, as a result, the failure to consider the full context and implications of these actions means that a great deal of design actions are being directed not by intentionality, but by a lack of insight or foresight (Fry, 2007a).

[69] Keshavarz describes his understanding of design-politics as being similar to Foucault's power-knowledge binomial, describing it as the origin of the term "nexus" to describe the concept (Keshavarz, 2016). According to him, delineating a design-politics is a way of both embodying and describing the numerous ways in which politics and design have historically and materially upheld and strengthened one another (Ibid).

[70] Throughout his work, Foucault dwells a lot on the ways in which external power structures produce subjects. That is, in how regimes of social control exert power over — and thus control — bodies (Gutting, 2005). In ***Discipline and Punish***, for example, he describes how disciplinary techniques produce "docile bodies" in order to make them more compliant and productive (Ibid). In ***History of Sexuality***, which immediately followed, Foucault introduced the concept of "biopower," which seizes the modern forms of power aimed at living beings by holding them subject to standards of not just sexual but also biological "normality" (Ibid). Through these works, one can subsume the larger issue of individual agency. Not only is there an exerted control enacted through other people's knowledge of individuals, but also one exercised in an individual's knowledge of themselves, accomplished through these power relations dictated by hegemonic sociocultural institutions (Ibid).

[71] Original version: "estabelecer laços de solidariedade entre todas as lutas contra a opressão que passam pelo design como ferramenta, espaço, ou questão a ser transformada" (free translation).

[72] They were ordered to render the website accessible, which included having alt text on all images and image map links on the website, providing access to the Index of Sports from the Schedule page, and providing access to the Results Tables to be used on the website during the Sydney Olympic Games (Australian Human Rights Commission, 2000).

[73] Millimeter wave scanners are the most common type of technology used for body imaging and are, for this reason, deployed in a vast number of airports. The equipment in question is a full-body imaging device — a scanner — which makes use of electromagnetic radiation in order to identify things that might be hidden underneath a person's clothes (Transportation Security Administration, 2009; see Fig. 18).

[74] As discussed earlier, seemingly objective automated systems are not neutral. The Algorithmic Justice League collective has produced an expanding and extremely relevant body of work documenting the ways in which AI and Machine Learning technologies are intersectionally biased (Algorithmic Justice League, 2016). For more on the topic, see also Buolamwini and Gebru, 2018.

[75] This is an important point in the study of agnotology — the study of culturally induced ignorance (Alcoff, 2007).

PART 3: FUTURES, OR *HOW*

PP. 122 – 181

3.1 SOME INSIGHT INTO FORESIGHT

It is perception and understanding which inform how we make sense of the world, be it this one or that to come. This insight, however, is gathered only in the environment in which it is present. The context in which we receive information will necessarily impact the way we interpret it. It is, in effect, contingent. John Berger talks a lot about this in *Ways of Seeing*, where he describes the attempt to capture what one sees, and thereby reproducing it for others to consume, as creating an image — both literally and figuratively (Berger, [1972] 2008). Berger goes on to explain that every image embodies "a way of seeing" (Ibid: 10) — a record of how its originator saw the world. In this way, images can preserve things as they were, or at least how people understood them to be.

If Berger sees images as depictions of a given symbolic intention, then Julia Kristeva flips the cause for the effect. In *Revolution in Poetic Language*, she describes the process by which semiotic meaning is formulated, differentiating semiotics from signification, which precedes it (Kristeva, 1984). According to Kristeva, signification is akin to a given position, or judgment, which is created by the subject[76] upon their identification of the object to which meaning is assigned (Ibid). Semiotic meaning is, thus, ascribed to the articulation of significations, which become symbols of and to a socially constructed culture (Ibid). "This image and objects must first be posited in a space that becomes symbolic because it connects the two separated positions, recording them or redistributing them in an open combinatorial system" (Ibid: 43).

In this way, Kristeva's image precedes its meaning — the latter being that which designates the "way of seeing" (Berger, [1972] 2008) the former — as opposed to Berger's view that a certain intentional and a priori meaning is what ultimately determines the shape that any given image will assume (Ibid).

Either way, the importance of the study of history becomes apparent, especially to one concerned with the future. Indeed, scholar Christopher Rose even establishes a link between stories — themselves collections of symbols and thus also symbols themselves (Rose, 2017) — and another one of Kristeva's works, *Black Sun*, in which she discusses how melancholy creates an eschewed sense of temporality by producing a moment which simultaneously blocks the present and renders the future immutable (Kristeva, 1992). This inelastic notion of time — one which carries with it only past and present, not future — can, he argues, be overcome by stories (Rose, 2017). Stories which, in the present, draw from the past to propel into a future (Ibid).

In this way, the study and construction of symbols, which inevitably implies that one understand their history in a social context, is especially important for one hoping to build — to create anew — so that we may develop an understanding of which ideas succeeded, and even more so, of those which failed.

[76] To Kristeva, the subject is always involved in the semiotic process because of their coexistence in a sociocultural setting — specifically, one's "family and social structures" (Kristeva, 1984: 43). Within the context of that setting, one's desires and motivations to complete a certain action, and thus go through the process of signification — one's drives — is what she describes as the chora: "a nonexpressive totality formed by the drives and their stases in a motility that is as full of movement as it is regulated" (Ibid: 25).

3.2 A HISTORY FOR THE FUTURE

According to historian Diogo Ramada Curto, history should not be regarded as a sealed abstraction to be returned to for answers concerning the present. Instead, "[t]he use of creating and writing history — which can only result from a slow learning process through which it will be possible to know large and small procedures of social change, which enfold in time with multiple textures — consists of learning to distance ourselves from a past which does not compel us. It can even be said that history — in its most elaborate forms of conscience, with its analytical, explanatory, interpretative and constructive operations — frees us from the past" (Curto, 2013: 13)[77].

A similar idea is also shared by Pierre Bourdieu's notion of the biographical illusion, presented as a critique of traditional life history research, or the conventional biography (Bourdieu, 1998). The biography — that is, the attempt at documenting a life's chaos by delineating it into a coherent narrative — is, according to Bourdieu, a fallacious effort — the biographical illusion (Ibid). This is especially true of Western cultures, in which biographies tend to be constructed as individual accounts whose life events have been organized according to some internally consistent logic (Ibid).

In describing life experiences as either isolated or part of a pattern, or by highlighting specific occurrences as particularly significant, one is engaging in a social construction of that history. A construction centered on whatever the biographer assigned meaning to and based on the specific environment in which that work was being done, and for what purpose (Ibid). In that sense, for Bourdieu, a biography is a story, constructed around and with the aid of culturally relevant symbols[78].

In this way, art and design histories are particularly useful, as they help us think not just about the artifacts themselves, but also about the ideas behind the symbols

which they embody. This, as mentioned, is essential in helping us stand further close to a conception of "good design," in both definition and process, that is synonymous with a designed embodiment of ethical consideration.

This is key because though there is a recognized need for a political transformation of design (Pater, 2016; Fry, 2007a), that change has not yet seemed to follow. Fry gives us three reasons for why that may be, which I will attempt to buttress and consolidate in order to build on the argument that the future of design — indeed, our own — is contingent, thus making the matter urgent.

Reason one: "design has never created its own political culture (like the culture of trades once epitomized by guilds and unions that professional organizations just do not create)" (Fry, 2007a: 91).

This is rather important, as it would allow design to develop an endemic sense of ethics, detached from capitalistic market interests. In that regard, architectural critic Reyner Banham, as detailed by Alice Twemlow, spoke of an "'aesthetics of expendability,' as a way to celebrate disposable consumer goods and to counter an entrenched and elitist value system based on durability and permanence" (Banham, 1960; cit Twemlow, 2017: 4). Indeed, as scholar Francisco Laranjo argues, the very essence of capitalism, and an accompanying financial crisis, have further hampered the already precarious public and political discourse of design (Laranjo, 2015). Present circumstances such as these, however, "[highlight] the fragilities, limitations, but also the potential of the discipline" (Ibid: §3). In such a setting, one cannot help but contrast this potential with its role in the unethical promotion of harmful and growing consumption.

This concern is also shared by a number of other design scholars (Malan, 2018; McCollam, 2014; Monteiro, 2018a, 2018b), and I've already discussed their preoccupation with licensing. Licensing, in particular, is also a topic of matter to some design organizations, such as the GDC, mentioned earlier (GDC, 2019). The call for designers to be licensed requires some sort of centralized accreditation, which, in turn, requires an accreditation body. Furthermore, the effort to have members subscribe to an organization mirrors this demand for an institutional arbiter. In effect, both these approaches reveal a desire for both regulation and political heft — for there to be an arbiter.

I argued before that it was due to a lack of political heft that the design organizations discussed earlier were failing to enlist enough members to achieve those goals, as they were too plural to accrue any significant political power (McCollam, 2014). This is precisely the concern mirrored in Fry's reasoning. There is, nonetheless, another important aspect to the lack of a political culture[79] in design. Indeed, I also posited that licensing should not be regarded as the only step to be taken, since it only addressed the issue of unethical designers, not that of unethical commissions. The other significant thing lacking in the design ecosystem is, as Fry mentions, unions, and, consequently, labor power.

This absence is significant, as unions have historically been key to important labor developments and social progress. To help illustrate just how much, I will recount a brief history of labor laws in the United States of America. The USA is a particularly interesting case study, as it is simultaneously one of the birthplaces of the modern labor movement and, currently, one of the countries with the most active suppression of labor activity[80] (Smith, 2003).

By the 1930s, the power of labor could not be suppressed any longer and, in the midst of the great depression, American workers organized with a degree of militancy not seen since. As a result, then-president Franklin D. Roosevelt (FDR) signed the National Labor Relations Act, in 1935[81] (McAlevey, 2020).

But, alas, this labor militancy would not be tolerated by capital for long, and thus began a furious effort to undermine that law almost immediately after it was signed. The result was the Taft-Hartley Act, passed in 1947, only twelve years later. This bill was designed to create an incentive for workers not to join a union since, as decreed, they would now get whatever the union won whether or not they paid their union dues (McAlevey, 2020). That is fundamentally and very obviously unfair, which was, after all, the intent, given that the bill designed and implemented a structure whereby the labor movement would eventually bleed itself out (Ibid).

The political power of organized unions is undeniable, and, perhaps, there is no better example of this than the passing of the Civil Rights Act of 1964, which was only possible due to the might of the labor power behind it (Ibid). This strength also becomes evident when we compare the height of the labor movement to our current time, which stands as one of its lowest points.

In 1937, two years after the enactment of the National Labor Relations Act, there were over 4,740 strikes in a single year, which corresponds to the greatest strike wave in American labor history (Holtzman, 2015). In 2020 there were eight — the third-lowest number since 1947, the year the Taft-Hartley Act was passed (U.S. Bureau of Labor Statistics, 2021). Such a low number though, is not due to the Covid-19 pandemic, as there were only ten in 2019, which corresponds, along with 2018, to a surge in the number of striking workers (Economic Policy Institute, 2020). We can plainly see, then, that a decline in union power leads to a decline in strikes, and thereby also in the political power of the worker's block, which was precisely the aim of the Taft-Hartley Act.

That, however, is not all it was intended to do. The bill was also, according to McAlevey, "aimed at undermining human solidarity" and "was part of a broader long-term effort to rewire humans from acting collectively to acting individually" (Ibid: chap 2, sec 3, §4). And because systemic change requires collectivist action, this is a very effective way of preventing it. This is a large part of why designers are not presently capable of effecting this kind of systemic change. Because they are not collectivizing[82] (Fry, 2007a), they are not amassing the kind of political power required to produce it, and, as I hope to have demonstrated, that power directly correlates to effective organizing[83].

Reason two: "designed objects (material and immaterial) have never been adequately politically theorized" (Ibid: 91).

With technological developments occurring at such a rapid rate, unprecedented challenges will necessarily arise. And because we only tend to recognize our shortcomings when challenged, we are only now slowly beginning to realize what they are and coming to terms with them. Theory, in design, is one such shortcoming, which presents a particularly hefty challenge given that the realm of theory is especially geared for and towards the political dimension inherent to the discipline. Design has had a fraught relationship with theory. It has, traditionally, focused more on craft — in making and doing — yet has, in more recent years, expanded into university settings. This shift has positioned design as a research field, and, as such, it requires the use of theory (Henriksen, 2016). Nonetheless, theory development seems to have broken down in design research (Cash, 2020).

According to a study led by researcher Philip Cash, there has been no substantial change in theory development in design research between 2004 and 2018 (Ibid), despite numerous calls to action (Love, 2000). And because, as Cash found, theory begets theory, its development has been consistently low in design (Cash, 2020). This only adds to the collapse of what Cash refers to as the "theory building/theory testing cycle,"

which contributes to a negative impact of design research (Ibid: 127). Furthermore, because there has been little to no change in theory development, this field has reflected a similar "stagnation in research quality and impact," which, Cash adds, "[poses] a direct threat to the future of the design research field" (Ibid).

This severely impairs our ability to respond to the challenges of increasingly dynamic times, leaving us vulnerable to such swelling and possibly detrimental development, as well as to the consequences which may therein arise. This is, of course, why we need adequate theorization, a need which has been recognized in mounting calls to action (Love, 2000; Fry, 2007a), yet not only has it not been met, but it seems to require a "revolution" (Ibid; Cash, 2020: 130).

This is where ethics fits into the picture, as political theorization itself. It is, in effect, because we never properly theorized about it, that we lack it; and because we lack it, we need it. This is a vicious cycle, which we perpetuate even in the way we educate prospective designers. Again, because we don't really think about it, we don't teach it; and because we don't teach it, we don't learn it. And because we don't learn it, we don't think about it, thus contributing even further to the stagnation of the theory-building/theory-testing cycle.

The importance of education seems to be understood, with organizations such as the aforementioned IDSA holding its members' responsibility to it as a tenet of their code of conduct (IDSA, 2020). That impetus, however, seems to be left in the abstract, especially where it concerns such important topics as political theorization — which does include ethics — despite the students' growing desire to be educated on the topic (Nini, 2020). But such an education should not be limited to the confines of academia; it should also be accessible to the public. After all, one can only know to demand if one knows what to ask.

I myself have a Bachelor's in Engineering Physics from Instituto Superior Técnico (IST) and now a Master's in Communication Design from Faculdade de Belas-Artes da Universidade de Lisboa (FBAUL). None of the institutions I attended offered a class on ethics, nor was the topic ever discussed. During my time at IST, classes were strictly technical or on theoretical hard sciences. There were none even generously tangential to a discussion surrounding ethics or even a more general discussion regarding the political implications of our role as physicists and engineers. I am happy to say though that this discussion has just recently began to appear (Instituto Superior Técnico, 2022). At FBAUL these discussions were still not specifically aimed at engaging with these topics as they are, nor was the labor aspect of the profession mentioned at all. We were, however, pointed to some related reading material, should we choose to engage with it. This absent or buried education is, clearly, insufficient. Students' learning experiences are significant in shaping their practices (Nini, 2020). This is made even more relevant when considering the application of the frameworks themselves into this effort, and not merely their theoretical discussion.

I have mentioned the value of education in a virtue framework of ethics. Indeed, a curriculum that focuses on the intentionality of good design, when adequately politically theorized, might foster in the designer the desire to emulate good examples by imbuing good values in their designs. This is relevant to duty and consequentialist frameworks as well. After all, the same might also foster the desire to adhere to a certain moral code when producing designs, or to focus on designs which maximize their positive consequences (Haug, 2017).

As Jorge Frascara argues, the isolated act of crafting, when devoid of socially oriented intent, is not fulfilling the purpose nor the duty of design (Frascara, 2017). That is, nonetheless, the prevailing model in use

within design education; focusing heavily on "formal/visual and technological concerns" instead of the people for whom design actually designs (Frascara, 2017: 125). This is important because we do not design in a vacuum; we design within a lived-in environment, with all that entails. As asserts Frascara (2017), a design education that does not teach about people is incomplete.

"Design education must consider all the above discussion, and help students develop the necessary competences, not just visual competence. Instruction and education are different and complementary. To instruct is to train. To educate is to foster the development of independent judgement and the adoption of values. A good designer has to be both instructed and educated to become a good member of society" (Ibid: 127).

In this way, following Frascara's work, the function of the teacher — as role model — gains particular relevance, especially when considering a value framework of ethics (Hursthouse and Pettigrove, 2018). Further, as he argues, the charge of the teacher must be to teach designers to learn, which is, then, inexorably accompanied by a responsibility to truly "educate" and "instruct," as he describes these tasks to be. And, in so doing, creating a "point of tension between the subject of study and the student, not between the subject of study and the teacher" (Frascara, 2017: 127).

Thus, as design continues to grow as an academic field, so too must our commitment to produce and teach adequate theory developments. Of particular importance are those of a political nature, since they are primarily concerned with the implications of what we bring into the world. As Fry declares, "[g]etting to the issue of what design education needs to become requires passage through three determinate contexts. The first is to acknowledge that the world we humans have created is broken (by us for us)[84]. The second is to place design education within the framework of higher education (as a broken servant of a now broken institution)[85]. And the third passage seeks to grasp the changing nature of what design now is as elemental to the broken and as an agent of breaking" (Fry, n.d.: 1). And it is precisely because there has not yet been adequate political theorization of subjects related to design — in part due to a broader lagging of theorization in general — that we have been unable to do any of that breaking (Id, 2007a).

A great example of this comes from the Ontario College of Art & Design University, with the appointment of Dr. Dori Tunstall as Dean of Design. Tunstall is leading the way in decolonizing design within that institution, which has historically been complicit in the cultural genocide of Indigenous Peoples in North America and the rest of the world (OCAD University, n.d.). To that end, she has specifically created a policy of access for both students and faculty centered around diverse ways of knowing which value explicitly queer as well as "Indigenous, Black, Asian, Latinx, and Middle Eastern" experiences (Ibid: §4). And this, I find, is key because it is not merely an invitation to participate in the tradition of design. Crucially, it is an invitation to actively transform it.

Reason three: "within the history of design there has been a continual refusal to acknowledge that for design to acquire real political agency the practice of design itself has to undergo a major political transformation — design practice is not fixed: it is malleable" (Fry, 2007a: 91).

I've already talked a little bit about the importance of history when adjusting for a future. But what if that past is not clear? Indeed, the history of design is particularly controversial. One could think, from an assumed objectively factual perspective, that merely providing an account of those facts would be a simple, straightforward task. The issue, however, is far more nuanced than that. Regarding the process of recounting the history of design, it has been suggested that one ought to consider such factors as:

- "What is the subject matter of the history of design — what aspect of design should be the focus of attention in a history?
- What are the important facts about that subject? What connections among the facts make an account reasonable and convincing?
- What purposes are served in providing an historical account of the subject, particularly for a discipline and related professions that are primarily oriented toward present and future action?" (Buchanan, Doordan and Margolin, 1995: 1).

None of these questions have simple answers. In fact, their uncertainty and malleability only highlights the volatility of design history. In her attempt to assess the existence of an established canon of design, scholar Martha Scotford wonders whether the mere existence of one might be a problem in itself (Scotford, 1997). And the reasons why are intimately tied to the political answers to the questions posed by Buchanan, Doordan, and Margolin (1995). She worries that "the existence of a graphic design canon so early in the development of graphic design history and criticism may focus too much attention and research in certain areas, to the exclusion of others equally significant" (Scotford, 1997: 226).

She goes on to argue that an established canon — a fixed design practice — might, instead, actually communicate that the best is known, and, conversely, that anything which deviates is simply not worth knowing. This, she views as "unfair, dangerous, and shortsighted" (Ibid: 227).

As James Baldwin stated, "history is not the past" (*I Am Not Your Negro*, 2016). It is a collection of choices each historian makes, either consciously or unconsciously, thereby calling into question the value and validity of alternatives to those choices (Buchanan, Doordan & Margolin 1995).

On that point, Scotford speaks to a "messy history" in contrast with a "neat history" (Scotford, 1994). This, she presents in the context of a study on the view of women in the overwhelmingly male profession of graphic design. As she explains, "[n]eat history is conventional history: a focus on the mainstream activities and work of individual, usually male, designers. Messy history seeks to discover, study and include the variety of alternative approaches and activities that are often part of women designers' professional lives" (Ibid: 367).

The implication of the existence of this messy history is, thus, that female alternatives were never considered valuable enough to be a part of that conventional history — the distaff side to design's spear side. That matters because this exclusion, and many others, are the result of political choices, which continually undermine the transformative power of design by veering towards the conventional — the fixed.

"Design history has a history" (Buchanan, Doordan and Margolin 1995: 3), and that history is part of our broader understanding of the discipline of design — of its present as well as its future. The tension that exists between this yet-nascent discipline, along with the emerging field of design studies and the established study of history, is exactly why the telling of history itself must be carefully examined — so that we may steer away from the fixed and head towards the malleable; so that we may not continually fall into the trappings of hegemonic stagnation.

All of this is not to say that designers are incapable of producing good work, as in the kind of work which embodies ethics. Fry did not agree with that either, even citing some examples given by Victor Margolin (2004) as one such occurrence (Fry, 2007a). Fry's point, and mine, is that designers, as it stands, are generally ill-equipped to produce any kind of transformative work, as in the kind of work that embraces its messy history and embodies the political agency needed

for the revolution which both Fry and Cash describe (Fry, 2007a; Cash 2020). As the former puts it, "[m]oving from the unsustainable to sustainment cannot happen without design as it could be, rather than as it is" (Fry, 2007a: 91).

[77] Original version: "A utilidade de fazer e escrever história — que só pode resultar de uma aprendizagem lenta, através da qual será possível conhecer grandes e pequenos processos de mudança social, que se desenrolam num tempo com múltiplas texturas — consiste em aprender a ganhar distância em relação a um passado que não nos obriga. Pode mesmo dizer-se que a história — nas suas formas mais elaboradas de consciência, com as suas operações de análise, explicação, interpretação e construção — nos liberta do passado" (free translation).

[78] Though the concept of the biographical illusion — to which its very name can attest — was focused specifically on biographies, or life histories, this still bleeds into Bourdieu's larger point about the need for a cultural history. Or at least to an inextricable link between history and sociology (Steinmetz, 2011). Indeed, he described his own work as a "social history" (Ibid: 46).

[79] This political culture in design, as argued in Part 2, is rooted in what Keshavarz describes succinctly as the "design-politics nexus" (Keshavarz, 2016). Design, as politics itself, has a hand in shaping and reproducing values through not just artifacts, but also environments and social conventions (Ibid). In this, way, a political culture in design is anchored in the notion of design as process and action aimed at "[changing] the material history and practices of our societies" (Tonkinwise, 2014: 31), such that it might provide design with a political heft "that could resist the surge of capitalism toward this or that technological imperialism" (Ibid).

[80] The International Workers' Day is celebrated on the 1st of May in honor of the Haymarket affair. This was a seminal event, which occurred in 1886, in which Chicago workers went on strike for an eight-hour workday and were then promptly murdered and their leaders hanged (Smith, 2003). Though the massacre we came to know as the Haymarket affair happened on the 4th of May, the demonstration began on the 1st, hence the date we celebrate (Ibid).

[81] This was the first time that American law actually guaranteed private-sector workers the right to organize unions and bargain collectively (McAlevey, 2020). The result was a flurry of labor activity, and the landscape of the American worker was transformed overnight (Ibid). Indeed, the political power of labor unions during this period of American history is a big reason why, when we think of 1930s America, we think of impoverished masses and the Great Depression, yet when we think of the 1950s we think of a house in the suburbs and economic prosperity.

[82] In an age of increasing alienation and individuation, as Marx and Debord argued (Briziarelli and Armano, 2017), collectivizing presents an also increasing challenge. As Shoshana Zuboff argues, in the era of "surveillance capitalism," monopolistic companies engage in a form of neocolonial "digital dispossession," whereby "claims to self-determination have vanished from the maps of our own experience" (Zuboff, 2019: 100). This is important to understand, as this lack of self-determination is what allows the dispossession to run amok (Zuboff, 2019), further contributing to Marx's notion of alienation and, consequently, of increased individuation (Briziarelli and Armano, 2017).

[83] It should not escape notice, however, that the establishment of an infrastructure focused on professional zeal and vigilance might be contradictory to veering away from the elitism of which Twemlow speaks (2017). The success of such structures though, specifically that of trade unions, has been tied to the health of the organizational democracies they are inserted within (Korkut, 2006). In short, the strength and success of a union has been shown to be positively correlated to democratic decision-making processes, while elitism and a lack of democracy lessens a union's effectiveness (Ibid). Within such a context, unions and interest groups were deemed of crucial importance in assuring a system for the representation of interests which might otherwise go unrecognized (Ibid).

[84] As Fry argues, it is we the cause of our "wounded world" (Fry, 2007a). In the same way that we, as Colomina and Wigley describe it, depend upon and are challenged by the technology we create — our designs (Colomina and Wigley, 2017) — so too, in the world which holds it all, are we both the inflicter and the inflicted (Fry, 2007a). Thus, this problem is one of and by anthropocentrism — "it is our being (in-the-world) that needs to be healed for the sake of the being-of-being" (Ibid: 88).

[85] See, again, Frascara, 2017.

3.3 (DE)FUTURING

A discussion concerning the future is particularly apt in the context of design studies. We are, after all, talking about "design as it could be" (Fry, 2007a: 91). That, however, is a recent addition to academic design discourse (Mazé, 2019).

Indeed, design and most such disciplines as architecture or geography have traditionally been preoccupied primarily with space rather than time; with being rather than becoming[86] (Grosz, 1999). There is, nonetheless, and always has been, an inherent and constant presence of becoming in design — especially when considering the essence of the latter as a process of coming into being. As an example, we can return to Herbert Simon's assertion that design requires one to engage with the formulation of "courses of action aimed at changing existing situations into preferred ones" (Simon: 111) — thereby "representing differences between the desired and the present" (Ibid: 122).

This is, in effect, the impetus behind philosopher Elizabeth Grosz's term "futurity," which she describes as the "notion of the emergent or the event"(Grosz, 1998: 38). She contends that a state of being has historically been and is still being prioritized over one of becoming; and, as result, that becoming has become erroneously subordinated by deterministic laws of nature or a pre-established history to which it should not be bound (Id, 1999).

Faced with this, Grosz argues that "[u]nless we develop concepts of time and duration which welcome and privilege the future, which openly accept the rich virtualities and divergent resonances of the present, we will remain closed to understanding the complex processes of becoming that engender and constitute both life and matter" (Id, 1998: 38).

Further, the increasingly popular rhetoric surrounding "change," "progress," "transformation" or other such platitudes

is likewise fueled by assumptions about futurity and becoming. So a concern with futurity is there, be it in the theorization and practice of design or, simply, in a more abstract desire for change. This does not, however, often overcome banality, largely due to a lack of thought concerning the hegemony of the values framed as being "new" and "innovative" (Mazé, 2019).

As such, we mustn't direct whatever concerted effort to any possible future. Rather, we ought to be cautious in pointing to a preferred future, and do so with political intent (Ibid). As discussed, when choosing what to leave in, one is also choosing what to leave out, and the same way design and ethics are political, so too is futurity. "Whether it is made explicit or not within design, identifying and making a difference between what is real, now, and what is, or is not, negotiable or preferable in the future is a political act" (Ibid: 24).

In the face of perennial debates on what can be known, or even worth knowing — debates which characterize institutionalized histories — we may end up, even if unconsciously, reproducing flawed knowledge with severe sociopolitical implications (Mazé, 2019). As an example, let us examine the popular use of the term "futuristic." The dictionary definition of the word is of something "relating to, or characteristic of the future, futurism, or futurology" (Merriam-Webster, n.d.b). But one need only do a simple search for the term on any search engine (see **Fig. 21**) to see that its use has evolved far beyond its more neutral meaning into "having or involving very modern technology or design" (Lexico, n.d.).

This illustrates well how pervasive and positively coded the predominance of technocentrism in discussions of our futures has become. And, again, this is so largely due to the lack of scrutiny and subsequent reproduction of biased and incomplete knowledge (Inayatullah, 1990).

The field of future studies has traditionally struggled to imagine futures that are not technological and material, further perpetuating the notion that the future is easily determined and might be arrived at through linear pathways paved on predictable developments of certain technologies which privilege a specific kind of sociocultural "progress" (Mazé, 2019). And that is if social advancement is even taken into account, which, as it turns out, is not that often; especially when contrasted with those concerning technical aspects (Wangel, 2011).

Choosing which ratiocinations to reproduce is a political act. Privileging that which can be known through quantification excludes many important phenomena. Those such as social and cultural practices, psychological dynamics, or socio-ecological events tend to evade easily quantifiable measurement; except in the case of restricted, and thus limiting, contexts (Mazé, 2019). But that they are less predictable does not make them any less important. Indeed, the difficulty posed by these unquantifiable phenomena may help explain why the futures labeled as "probable," "possible," or "preferable" are widely lacking in explorations of the social (Wangel, 2011).

A concrete example of this has been synthesized in an article authored by scholar Ulrika Gunnarsson-Östling, in which she analyzes all the papers published in the scientific journal *Futures* concerning futures studies and feminism, gender, or women (Gunnarsson-Östling, 2011).

From this inquiry, she arrived at some striking and important conclusions. She found that the images and activities derived from futures studies generally exclude women and non-Westerners, as well as feminist issues or other topics of particular relevance to women (Ibid). This, she argues, is exacerbated by the fact that these studies are usually opaque in their underlying assumptions, and therefore lack the critical

Fig. 21 My Google Images results for the term "futuristic."

and reflexive perspectives required to envision feminist futures. Futures which, likewise, stand as deviations from those most often assumed (Gunnarsson-Östling, 2011). This is made all the worse because we actually require these conceptions of feminist and non-Western futures to serve as contrasts to the hegemonic male and Western technocentric futures (Ibid).

The final big takeaway from this study was that futures studies tend to view women as passive victims rather than agents of change themselves, further contributing to their alternative futures being largely ignored (Ibid). This is part of a broader tendency to assume that these social aspects of society will simply develop as they will on their own time and thus require little to no intervention (Wangel, 2011). This is, of course, demonstrably not true, but easy to go along with if you are not the one being marginalized. After all, you are only willing to watch the world burn if you have the privilege of not being on fire. Hence, the exclusion of sociocultural phenomena furthers political implications regarding that very choice; affecting, as a result, the representation and prioritization of certain epistemologies (Mazé, 2019).

In that regard, researcher Jerome Glenn suggests that, in actuating any particular project for the future, we ask not "how well do you know it?" but, instead, "what difference does it make?" (Glenn and Gordon, 2003: 8); the latter of which allows for more plural political dimensions and intentionality. Indeed, in order to actually produce change, one must first propound that things can and should be changed. That exercise is essential when posing political examinations concerning what or whom should be present, and what can or should change in the future; as well as what difference that would make, and for whom (Mazé, 2019).

These questions, as is being discussed, already permeate the discipline and practice of design, and not only as it pertains to a political exercise. "[I]t is often through designed scenarios and visions that futures studies take form within policy, planning and the public sphere. Thus, political questions are not only relevant to the content development of scenarios and visions but to the designed forms of rhetoric through which they are represented, materialized, communicated and deliberated" (Ibid: 26).

With that in mind, posing the future as a design problem is an exercise inextricable from design activity, and overtly considering it an objective of design implies within the practice that these questions regarding our futures are also relevant thereto. To that point, philosopher John Rajchman argues for an "art of seeing and acting" (Rajchman, 1999: 43), unbound from deterministic futures and predictions, in which the arts, including design, are put forth as ways of knowing unto themselves — as ways to experience and relate to futurity.

This relationality is an important transformative aspect of design, and acts as a principle upon which to appreciate "design's inter-related connections across space and the impact of design over time" (Fry, 2018: 9). That is why realizing design's political agency is so critical — because it makes it clear that that agency acts in two reciprocal directions. Namely, that it has the ability to actually subvert the status quo by bringing things into being which destabilize structural establishments (Ibid), and thus, in Grosz's terms, becoming (Grosz, 1999).

In that regard, a key stategy to this idea of futural design is that of "design-in-time," a term describing a critical methodology predicated upon an urgent sense of care to design with purpose and insight (Fry, 2018). That insight must, likewise, be informed by a material concern with futurity while simultaneously recognizing that the future is not abstract, nor deterministic (Ibid). Rather, it is moldable as long as we understand that it is shaped by actions in both the past and the present (Ibid).

It follows, then, that the act of designing in the present "be based upon designing back from the projected endpoint of a structure, system or product, and what it can be expected to cope with over its design life" (Fry, 2018: 3).

This practice of futuring though, must be taken to entail more than non-deterministic ways of thinking futures and futural actions (Ibid). It must also consider and engage with defuturing forces, which "negate the future for life as it is now known" (Ibid: 4).

[86] To Grosz, this notion of "becoming" is anchored in coming difference, or divergence. It is this, she argues, that is the catalyst to the proliferation of variants, and thus responsible for cultural variety through the advent of transformation (Grosz, 1999). "Every thing, every process, every event or encounter is itself a mode of becoming that has its own time, its own movements, its own force. These multiple becomings both make and unmake, they do (up) and they undo" (Id, 2011: 2). And, in this way, as catalysts for change, these emerging differences — becomings — are embedded in every dimension of creation or transmutation; from material (re)configurations to biological organisms and living matter to social institutions and cultural phenomena (Ibid).

3.4 ON SUSTAINMENT

Defuturing acts are, hence, detrimental to not only our human lives, in all their aspects, but also to that of all elements contained in the ecosystems upon which we rely (Fry, 2018). With that in mind, it's worth considering that unsustainable actions, desires, values, and assumptions are actively shortening the very limit of our existence.

Indeed, according to the United Nations' Intergovernmental Panel on Climate Change, if there is no significant adjustment to how billions of humans conduct their lives, some parts of the Earth will become uninhabitable as soon as by the end of this century (IPCC, 2015). That's in only eighty years! How vexing is it that our hypothetical children might still be alive to see it? That we ourselves may bear witness to that kind of destruction? That anyone might?

And it's not just our planet that's suffering. Up to one million plant and animal species are now facing extinction due to human activity (Tollefson, 2019). And we are actively exacerbating our own through countless anthropogenic hazards like war, negligence or prejudice, all of which amount to countless casualties (Sandberg, 2018).

It is, thus, important to understand that a lot of what is done under the banner of development has been "impositional, destructive and defuturing" (Fry, 2018: 7), which, again and always, is not neutral, but profoundly political. "Development," much like "futurity," is a term neutral in origin, but which has evolved to acquire mostly positive connotations. As such, we equate it to positive values; yet, what those values are is the result of a long and, as discussed, biased history of questionable, largely andro/Eurocentric priorities (Fry, 2018; Scotford, 1994; Ansari, 2018).

It follows, then, that some things must be designed out of existence. That may appear antithetical to the presumed logic of design as a practice of bringing into being; but, as I have postulated just a few pages earlier,

design should be a lot less about being than it should be about becoming. These processes of becoming, likewise, require action (Grosz, 1999). Action which may, indeed, entail acts of annulment. That is where the concept of elimination design comes into play (Fry, 2018).

"Dealing with a world being made unsustainable requires dealing with what is, be it: modes of thought, theories of knowledge, professional and creative practices, institutions, industries, government, systems, products or services. Such listing will include much that needs to be eliminated" (Ibid: 9).

In recognizing that harmful things exist, one must accept also that they should be expunged. That which harms ecologies, damages psyches, or is otherwise fatal must, accordingly, be not erased; but, instead, eliminated by design — with intention and care — in order for our future to be allowed to become, rather than just be.

To be is to sustain the unsustainable. That is not what I'm talking about. What I'm interested in is sustainment; not sustainability. Sustainability, or, rather, unsustainability, is usually tied only to an environmental crisis related to biophysical phenomena such as climate change. That, however, does not go further enough in addressing the real issue at the core. Namely, "the unknowing actions of our anthropocentric being" (Id, 2003: 289). So whereas all these biophysical tribulations are widely described as empirically fixable under the guise of sustainability, they are, more often than not, the result of human (in)action (Ibid). Sustainment is, thus, meant as a counter-force to the unsustainable discourse of sustainability by shaking the foundations of theory and praxis — both of which design plays a role in (Ibid). This is, hence, "[a] vital intellectual and pragmatic project of discovery marking a vital turn to another kind of earthly habitation and understanding. One that recognises not only the need for a dramatic reduction in damage to the environments and ecologies of our and other beings, but also that global inequity and conflict are both defuturing forces, and that viable social ecologies are essential to futuring" ((Id, 2018: 10).

A noteworthy thing on which to remark though, is that this notion of "unknowing" is not quite the polar opposite of knowing. In this context, "unknowing actions" are the product of unknowing, which describes a general incuriosity or ignorance, whether it be intentional or accidental. In this way, unknowing is not simply erased by the advent of knowledge (Id, 2003). It is, instead, another thing that must be designed out of existence.

On that note, another interesting thing to point out is that creation is, and always has been, inextricable from destruction. We tear down trees to build our homes, we burn oil to power our computers, we kill animals and rip plants from the soil to eat, and we fertilize lands to plant our crops. These are all normal things. We don't really think about them. Of course we do this! We need a place to sleep, we need to work, and we need to eat. What we fail to consider though, is what happens after we raze the forests, pollute the air, destabilize the ecosystems, or ruin soils. This is unknowing. And it has been at the core of our defuturing actions (Ibid).

What is being proposed, hence, is not a decisive end to acts of destruction. Rather, it is the recognition that destruction has largely not been based upon intent, and that it is a basal aspect of our anthropocentrism; as are acts of creation themselves (Ibid). In order for us to be able to counter the structural paradigm of unsustainability, we, naturally, require constant acts of destruction (Ibid). Without it, there can be no ability to sustain. So, what is being proposed here is, in effect, accountability for what is created and what is destroyed. And that accountability is made possible by inscribing ethics into both theory and practice (Ibid).

One must, therefore, understand this as a tension which may never be resolved. Sustainment is perpetual work, which

necessitates that we reject the blindly utopian conception of sustainability (Fry, 2003). It is a process. Becoming, not being. We cannot restore what has already been destroyed, but we can destroy the destructive defuturing forces. Sustainment becomes possible by redesigning its material, immaterial and cultural agents. Indeed, the hope is that, in so doing, sustainable action might become engraved into the very fabric of conception (Ibid). Whatever design is must be embraced as the "[foundation] of cultural traditions able to carry sustainment into realms of unknowing" (Ibid: 292).

The progress of sustainment is, likewise, contingent upon the establishment of a gradual process of thinking and acting, anchored in the epistemologies we now dismiss in favor of Euro- and androcentric priorities. In that regard, what unfolds is a foundational redesign of the nature and potential of design itself (Ibid).

That redesign may present in two (and a half) distinct configurations — destruction and unmaking/remaking. I've already talked about destruction so now I would like to focus a little bit on unmaking and its companion, remaking. Unmaking does not refer simply to the dismantling of an object or structure in search of material for reuse. It also involves the unmaking of traditions, behaviors, values, and knowledge which uphold the unsustainable while hindering our capacity for sustainment (Id, 2018). Remaking, on the other hand, is, similarly, not only about repair or adaptive repurposement. It also describes the process of remaking social ecologies, cultural understandings and traditions of learning so that we may free ourselves from harmful notions which have not served us well in our pasts and presents (Ibid). Both remaking and unmaking are, thus, key aspects to develop and recognize because what they describe is, in their essence, the same revolution that has been called upon (Id, 2007a; Cash 2020).

3.5 WHAT REVOLUTION

So, revolution. Yes, but what is it, exactly? How does one go about enacting it? Well it is, as most important things are, complicated. Let us start with the broad strokes. I've talked about how what we assume as knowledge is intrinsically tied with what we consider to be legitimate epistemologies and is, in turn, influenced by a set of historical assumptions. The same is true of the divisions of knowledge themselves. Indeed, this partition, which constitutes the basis for most academic and non-academic practices alike, is a product of the "de-relationalisation of knowledge[87]" (Fry, 2018: 9).

In recognition of this, a redirective practice is, like the name suggests, one which aims to reconceive the content and bases of one's own knowledge; to, quite literally, provide new directions to our assumptions (Ibid). Withins the context of sustainment, this approach is aimed at counteracting the defuturing nature of many activities which focus on production and product, such as design (Id, 2007b). Further, on a more fundamental level, it entails an ontological evolution of what it means to be a designer. This is necessary so that we may establish a shared purpose among the various artificially separated practices aiming to advance the notion of sustainment (Id, 2018).

These artificial divisions are imbued into everything we conceive of, creating binary dissections where they are inappropriate. Within the realm of design alone there are plenty, but here I would like to focus on the one between the designer and the user. It can be useful, at times; however, as it pertains to this redirective practice, it is a hindrance. I would even venture to guess that you, the reader, assumed that such a practice was intended for the designer alone. That is not the case, but it serves as a demonstration of how powerful these assumptions are, and how spurious.

Redirective practices should be understood to apply also to the user, as

an act of cognition towards the expansion of their role from a passive engager to an active one (Fry, 2007b). "Once a user seeks to counter this, and actively engages an object to increase its ability to sustain (whether the object is a product, service, technology or process) they also become redirective practitioners" (Ibid: 6).

In this way, redirective practices are themselves directed at a progressive and transformative agenda which extends both to and beyond design. Namely, one which places its focus on "actions implicit in the perpetual condition of exchange experienced as taking, making and being (re)made" (Ibid), thereby blurring the lines between designer and user. Both are themselves and the other; and conversely, both are neither.

This is an important aspect of the ontological transformation design is to undergo. Indeed, the redirective agenda further serves to lay bare the teleological limits of the separation between production and consumption. Production is dependent on consumption, which is, by its very nature, always productive. Redirective practices are, likewise, intended to be the catalyst to that transformation in both the agency and the agent of design to, ultimately, overcome ontologically designed unsustainability in favor of ontologically designed sustainment.

To that end, "[f]or design 'redirective practice' has three areas of focus: adaptation in face of what has to change to counter the unsustainable; the elimination of what threatens sustainment by designing 'things' away; and prefiguration, which is designing in order to redirectively deal with what is coming" (Ibid: 5).

And so, if we are presently, and quite direly, in crisis, what is coming should constitute nothing less than a paradigm shift[88] (Kuhn, 1962).

[87] This division and eventual separation of fields of study was promoted during the Enlightenment (Porter, 2003) and has endured until today.

[88] A paradigm shift is a concept introduced by physicist and philosopher Thomas Kuhn in his seminal work *The Structure of Scientific Revolutions* (Kuhn, 1962). Though the term was originally employed only in regard to natural sciences, it has since expanded its use to describe a significant shift in a given established model for interpreting assumptions or events (Ibid). This is contrasted with periods of what Kuhn named "normal science," in which work is done under the established framework for what is held and legitimized as knowledge (Ibid). Paradigm shifts thus occur whenever the dominant paradigm is made incompatible with new phenomena (Ibid). These turning points are described as periods of crisis; much like how if we do not change our current unsustainable framework into one of sustainment, we may figuratively, and quite literally, die (Fry, 2003).

3.6 REMAKING ETHICS

In striving towards that goal, it should become apparent that, like most established epistemologies, ethics is also in need of redirective practice (Fry, 2004). The current mainstream discourse on the topic is, very clearly, insubstantial and not sufficient. Ethics and ethical principles are often disregarded or dismissed as something which could help us combat the plights we perceive and engage with, either deliberately or ignorantly (Ibid). Ethics is, much like everything else, suffering from unknowing; and, hence, it needs remaking.

Traditional ways of thinking about ethics and ethical behavior across a broad range of design practices have been dominated by two interwoven issues, both of which have been discussed in the present book. One is preoccupied with employer conduct, the other with accountability. The former deals with how employers treat their workers, their clients, the industry and the public; and, within this frame, ethics is often offered as a guide, in the form of a code of conduct (Ibid; see AIGA, 2009; AFD, 2012; AGDA, 1996; CSD, n.d.; Goh, 2012; GDC, 2019; ICoD, 2011; IDSA, 2020). The latter aims to advocate for legal, social, and environmental restrictions on the practice of design. It is, accordingly, concerned with what the discipline and practice of design may bring into being, and demands that responsibility be taken for the potential consequences.

That responsibility, however, is largely, and inadequately, merely extended to mean professional due diligence or compliance with a certain set of guidelines or regulations (Ibid). Such an expedient relationship to ethics serves a purpose in a professional setting, but is lacking when deciding which design subjects are worthy of being conceived, how they are so and towards what ends, and what their impact may be.

Viewing ethics through this very pragmatic lens does not offer a full picture. It offers only a limited view of responsibility

by failing to account for any deeper understanding of what ethics is and why it matters. This unknowing of ethics is part of what constricts design as an "agent for the exercise of responsibility" (Fry, 2004: 146). It restricts the extent to which the designer can be held as responsible for negative outcomes because it reduces it to conformity with a given set of laws or professional codes of conduct (Ibid), the drafting of which the designer was not privy to. These have their place. They are, in effect, reflections of the current framework of values and knowledge assumptions. By serving as guides, the problem arises when they become outdated, inadequate, uninterrogated, and diluted. That is, when they are simply a reflection of unknowing, and nothing else; which, unfortunately, is most instances.

This is why designers should be held accountable in combating this state of unknowing and promote one of sustainment. As should everyone else. It should be noted though, that it is only possible to take responsibility for one's (in)actions when there is choice[89]. And, as discussed, designers typically have a lot less of it than their clients. That said, one can and should aspire to intentionality and purpose in one's work. "[T]he truly responsible designer will have worked to establish relations between design and (autodidactically) educated ethical judgement (which means s/he will have acquired a critical frame of reference in which to enact judgement and position the to-be-judged)" (Ibid).

The remaking of ethics is, admittedly, a monumental task with implications to both the metaphysics and ontology of design. And its difficulty is only exacerbated by the plural nature of ethics and philosophy in general. No ethical framework is universal, as discussed. Some measure of relativism is always present, and even necessary[90]. Cultural nuance is required, especially as a countermeasure to the hegemonic push for homogeneous globalization (Fry, 2004). The same way ethics is plural, so too is culture, and where a different nail[91] might fix structural problems, elsewhere they may require a sledgehammer.

Ethics itself has a history, complete, as always, with a specific set of Eurocentric assumptions and values (Hlabangane, 2019). A universal ethical code is paradoxical. It could never be ethical, especially to those marginalized, who have been and yet continue to be muted (Ibid). These traditions of exclusion have, nonetheless, become so engrained as to carry onto our current times; and, as contemporary scholars continue to inherit all these unsolved ethical problems — some going back to the genesis of ethics itself — they must also deal with the significant issues forged in the making of the modern world.

Thus, it is made clear that, without engaging with ethics as a collective body of knowledge, design (or, indeed, any field of study or practice) cannot engage with and develop a sustainable ethical forum towards direct action — especially at our current breaking point[92] (Fry, 2004).

The rise of defuturing forces has made ethics as crucial as ever — it is the bridge between creation and destruction. It must cease to be purely conjectural, and we must give it the weight it not only beckons, but also begets. As Fry writes, "[i]t has to be dragged out of the academy and rescued from its debased 'applied' forms. It has to be divorced from a subordinate relationship (professional practice and ethics) and (re)made as integral to the practice" (Ibid: 150).

In addition to these more general dilemmas, design is specifically beset by other obstacles. The aforementioned youth of the design studies field and, by extension, that of design philosophy, is especially deterring to the transformative agency that ontologically designed ethics ought to have. Design, and design studies in particular, is still lacking the conceptual tools to examine ethics (Ibid).

So that design may do just that, it must begin by learning how to make decisions and actually enact that reasoning into its very core; all the while, recognizing and tackling that which is unethical and defuturing in its conception (Fry, 2004). Design must, therefore, become both an expression and a product of accountability by remaking itself — and, by extent, our cultures — to imagine and work towards affirming futures (Ibid). This does not necessitate a complete overhaul of the practice though. Indeed, what is being advocated for here is remaking, repurposing. Therefore, remaking ethics, especially in the context of design, entails building on what is already ethical about it — that which sustains — and unmaking what is not. This, again, is accomplished through futuring efforts such as redirective practices and elimination design (Id, 2018).

The big question, then, is to figure out what to create and what to destroy, the imperative behind that exercise being the urge for a foundational notion of sustainment. One which, "from 'the margins' can articulate the remaking of design… [towards] the pursuit of an ethical end (and thus a future with a significant degree of assured and enacted responsibility)[93]" (Id, 2004: 153).

Such a transformative effort will necessarily be bold and may appear unfeasible, but it is not. In fact, it is not embracing it that's unfeasible in the long run. Still, it would be foolish to ignore how grand the task before us is, and, as such, it's important to understand that it requires more than a simple revamping of ethics rhetoric — it is an ethics unto itself. To clarify, the project of sustainment is one that must move beyond merely evoking what is "good." Rather, that which is good must itself be remade by prioritizing futuring values, which escape the narrow andro/Eurocentric assumptions permeating the current defuturing paradigm. For one, the profession of design, and, likewise, any institutionalized structure, has intrinsic ties to what Fry refers to as the "restrictive economy" (Ibid: 152). The unethical nature of capitalism casts a large shadow[94], and the institution of design has not yet been able to extricate itself from an uncritical subjugation to the "psycho-material structures of unsustainability" (Ibid).

Ethics is so ingrained in the past — in unsustainable paradigms such as institutionalized academicism and, yes, capitalism and all its epistemological and material structures — that it now falters when faced with such defuturing forces.

"So powerful is the blinding force of unthinking and so packaged (by design) are the phenomenal forms of everyday encounters that the familiar has become a primary locus of concealment" (Ibid: 154).

Sound familiar? Ethics has become spectacle; so now it must be remade to actually be impactful if it is to reclaim its impact. The dominant currents of Western ethics and the paradigm which bred them will not call the curtain on themselves, they hold the stage. They hold power over the form, content, and context in which we think ethics. They uphold the paradigm they created for themselves, and therefore impede the introduction of truly novel ideas (Ibid). Even this urge for sustainment is held in direct opposition to present (and pressing) unsustainability. Hence, this endeavor calls for "the remade old conjoined with the new" (Ibid: 155), or, in a single word, *détournement* — the hijacking of the conventional in service of the novel (Debord and Wolman, 1956).

With that in mind, the goal must be to reach a new paradigm; and the way that happens, according to Kuhn, is precisely by building upon the old (Kuhn, 1962). Indeed, as Marshall McLuhan proclaimed once in a panel, "[w]e're just trying to fit the old things into the new form, instead of asking what the new form is going to do to all the assumptions we had before" (McLuhan, 1960). This, as he added, is normal (Ibid),

which is also why the Situationists viewed *détournement* as a preferable method of subversion — because it makes use of the familiar to inscribe new, subversive meaning. That is why the goal here is a new paradigm of sustainment, though not for it to become stagnant. Instead, "[t]he metaphysics of sustainment is proposed as a knowledge of imperatives, which themselves change as Being and beings change" (Fry, 2004: 155). It is, accordingly, a contingent effort, which recognizes that perpetuity, like universality, is fallacious. There can be no fixed goal because there can be no certainty regarding the necessities of the future. We do, however, know what we need now; so, at the very least, we have a place to start.

[89] **See O'Connor and Franklin, 2018 and Rauscher, 2016.**

[90] **See, again, Westacott, n.d..**

[91] **If you'll recall, the HurriQuake nail, which was introduced in Part 1, was meant to literally fix foundational structural problems amplified by the coming of hurricanes (Clynes, 2006).**

[92] **This is yet another reason why professional codes of conduct are inadequate in the face of our contemporary challenges (Fry, 2004). And again, this is not to say they are useless. They clearly show a preoccupation with ethics in the profession of design. They are, however, ineffective, as discussed previously and bolstered here.**

[93] **This is another of the great political challenges of and for design; one which carries with it transformative ethical implications.**

[94] **Its shadow is so large, in fact, that capitalism as a system dates all the way back to the 16th century, and antecedents of capitalist institutions already existed in the ancient world and the European Middle Ages (Duignan, 2020).**

3.7 BEGINNINGS

The rhetoric of futurity is a fixture of design practice, inextricable, even, from various of its genres (Mazé, 2019). "Designers have directly influenced the actions of individuals and communities, changed attitudes and values, and shaped society in surprisingly fundamental ways" (Buchanan, 1989: 93). Design, hence, "involves the vivid expression of competing ideas about social life" (Ibid: 94).

This, as political rhetoric, frames design as being inherently preoccupied with molding society in particular, preferred ways (Mazé, 2019). And because there seldom are singular, simple solutions to human problems, design actions necessitate discussion and decisions regarding human relations and social structures. The political dimensions of design are very plainly laid bare in the (re)production of preferred futures, which revolve around choices as to what kinds of conventions to reproduce, and which to eradicate.

This heavy responsibility has not been completely lost to the field. Indeed, a number of theoretical and practical approaches have sprung up to address it. One such practice is that of value sensitive design (VSD). It was pioneered by researchers Batya Friedman and Peter Kahn as a theoretically grounded approach to the "design of technology that accounts for human values in a principled and comprehensive manner throughout the design process" (Friedman and Kahn, 2002: 1186). VSD emerged from the fields of information systems design and human-computer interaction (HCI) as a way to tackle design problems concerning those disciplines by centering the ethical principles of what Friedman refers to as "direct and indirect stakeholders[95]" (Ibid: 65). These terms describe those who interact directly with the technology — the former — and those who do not interact with it directly but may be affected by it regardless — the latter (Ibid).

The approach defines itself as principled due to its assertion that certain principles have moral epistemic weight regardless of whether they are held by specific groups or individuals (Friedman and Kahn, 2002). The practice, however, remains cognizant of the fact that the same values may be interpreted very distinctly in different cultural contexts (Ibid).

Accordingly, VSD expresses a position of reciprocal action regarding how values become entangled in technological designs (Ibid). In that respect, it is particularly abreast of a virtue framework for ethics, while still remaining conscious of both consequentialist and duty frameworks as well[96]. After all, the field emerged out of a sense of responsibility born out of a preoccupation with tempering the unchecked consequences of any given design project (Friedman and Hendry, 2019). That is also reflected in the concern for the stakeholder as someone who will experience and be affected by those consequences.

To that effect, VSD is anchored in an iterative design process centered on three distinct kinds of analyses — conceptual, empirical, and technical, typically in order though not necessarily (Ibid). A conceptual investigation is aimed at developing a thorough understanding of the values of the stakeholders concerning the technological object in question (Ibid). It seeks to determine whether any conflict between values may arise and how best they can incorporate them into the project (Ibid). An empirical analysis is conducted as a qualitative or quantitative design research study. It is done as a way to inform the designers' grasp of how the users engage with the object, how their values are present and reflected therein, and whether their needs are being met (Ibid). The third and final stage of the method is a technical investigation into the limitations of the technology itself (Ibid). Its purpose is to evaluate how well, or poorly, it supports or constrains the values and requirements identified in the previous stages (Ibid).

This practice reflects a concern for, as Friedman described it, "values that center on human well-being, human dignity, justice, welfare, and human rights" (Friedman and Kahn, 2002: 1186), with the clear implication of an impetus aimed toward progress. In an effort to delineate a list of "human values with ethical import" (Ibid: 1187), they aim to "illustrate how an overarching framework for human values and ethics in design can move one quickly and substantively into new territory" (Ibid) — into a better future.

That same desire is present in other genres of design. This motivation to propel better futures is especially relevant to design activity conducted under the conceptual design umbrella. It, after all, "induces desire and (re)produces cultural imaginaries for particular industrial futures"(Mazé, 2019: 27). Indeed, practices such as speculative and critical design are very explicitly concerned with futurity. Their purpose is, in its essence, to discuss ways in which design might conceive of, question, and ultimately direct the future (Ibid). Conceptual design's distinguishing characteristic is, precisely, its ability to use the language of design to ask questions, provoke, and inspire[97] (Dunne and Raby, 2013).

Speculative and critical are two very intimately connected approaches to design practice (Auger, 2013). *Speculative Everything*, by researchers Anthony Dunne and Fiona Raby, has become the key text to envisage the field of speculative and critical design (SCD), which they define as "[a] form of design [which] thrives on imagination and aims to open up new perspectives on what are sometimes called wicked problems, to create spaces for discussion and debate about alternative ways of being, and to inspire and encourage people's imaginations to flow freely" (Dunne and Raby, 2013: 2). To illustrate the practice, they appropriate physicist Joseph Voros's *Futures Cone*, which maps different types of future scenarios (Dunne and Raby, 2013; Voros, 2003).

This is done to ground the speculative scenarios as "probable, plausible, possible or preferable" (Dunne and Raby, 2013: 2), given SCD's interest in "designing for how things could be" (Ibid: 12). Conceptual design in general is able to provide a framework and the freedom to do just that because it is concerned, by its very nature, with that which is not real. (Yet, at least.) It is, in effect, fictionalized conjecture.

Be it through stories, installations, thought experiments, or all three combined, the act of speculating hinges on imagination; as in the literal propensity to envision alternate realities and scenarios (Dunne and Raby, 2013). This, however, is intended as a challenging exercise. "By embodying ideas, ideals, and ethics in speculative proposals design can play a significant role in broadening our conception of what is possible" (Ibid: 162). It is, then, a medium through which ideas may be put to test, theories may be rebutted, boundaries may be pushed and implications may be explored.

A relevant example of a speculative exercise is Thomas Thwaites's *The Toaster Project*, in which he challenges himself to build a toaster from scratch (Thwaites, 2011; see **Fig. 22**). Surprised by the complexity of the object, Thwaites spent almost a year tracking down all the raw materials he would need. Going from extracting iron ores for smelting, to traveling all the way to Scotland to find some mica, he eventually made an almost functional toaster (Ibid). This endeavor may seem like an absurd extreme, but the artist was aware that the task would likely be impossible. It was done regardless, as part of a speculative thought experiment aimed at shining a light on how reliant we have become on technology while, at the same time, remaining so utterly disconnected from the processes and systems which make that same technology possible and accessible to us on a daily basis (Ibid).

An unknowing of the toaster — indeed, of most technological objects with which we regularly interact — is convenient, yet comes at the expense of knowledge and an understanding of the circumstances in which it was made. It makes us consider how much value we place on convenience, to the detriment of knowledge, and whether it is worth it. It makes us appreciate the expertise and labor that goes into creating and, hopefully, makes us more aware and sensitive to those who hold the knowledge and those who do the work.

Another yet is *Mitigation of Shock*, conceived by design studio Superflux. Its two versions, London and Singapore, are immersive installations, each taking the form of a typical domestic living space set in 2050 (Superflux 2017; 2019a; see **Fig. 23**).

They imagine a future configuration of the world in which social segmentation, economic and political instability, broken supply chains, and food scarcity have become the new norm. The permeating narrative is constructed around predictions on current climate change data trends (Ibid), and thus asks us to consider the impact of our ongoing negligence by examining how it might affect our daily lives in a rapidly approaching future. (More relevant than ever considering we are living through the present and yet longlasting effects of a global pandemic.)

The installations themselves are very intimate and familiar, but with eerie details spread throughout. It's our kitchen, but the cooking books speak of "alternative protein" and teach us how to cook for a time of scarcity by using "pets as protein" (Ibid; see **Fig. 23**). It's our living room, but the space is overrun by homegrown cultures and foraging and hunting tools, as well as makeshift devices (Ibid). It's all so familiar, and yet thoroughly unsettling; perhaps because it is so familiar. We explore the rooms, we look around, we rifle through the books, we look out the window, we listen to the radio. We live it, we see ourselves in that reality. Both because the space itself feels lived-in, and also because we recognize the headlines in those newspapers

Fig. 22 **Thomas Thwaites, 2011, *The Toaster Project*. Image kindly provided by the artist.**

A

B

A: **Superflux, 2017, *Mitigation of Shock London*. Image kindly provided by the studio.**

B: **Superflux, 2019, *Mitigation of Shock Singapore*. Image kindly provided by the studio.** **Fig. 23**

from 2050 and the radio broadcasts playing in the room. They are almost identical to our own and betray an inconvenient truth — we could have prevented this.

The London version includes a video tour of the apartment, accompanied by a voiceover narration of one of its inhabitants. In it, we witness the unfolding of that kind of slow progression we often fail to see while we're in the middle of it. The narrator tells us: "like the people who thought the prices in the supermarket were going to come back down again, or who thought the empty shelves would soon be full. The ones who thought the market could fix global famine, like feeding billions on a dying planet with a broken climate was simply a problem of economics. Actual madness. ... I still remember a time when there were people out in the streets; shouting, fighting, smashing stuff up. But slowly we found ways of working together. Now we get together, we build experiments, we see what works. And we look out for each other. If an experiment fails everyone covers the shortfall; and, if it succeeds, we share the knowledge, and it becomes everyone's success" (Superflux, 2019b).

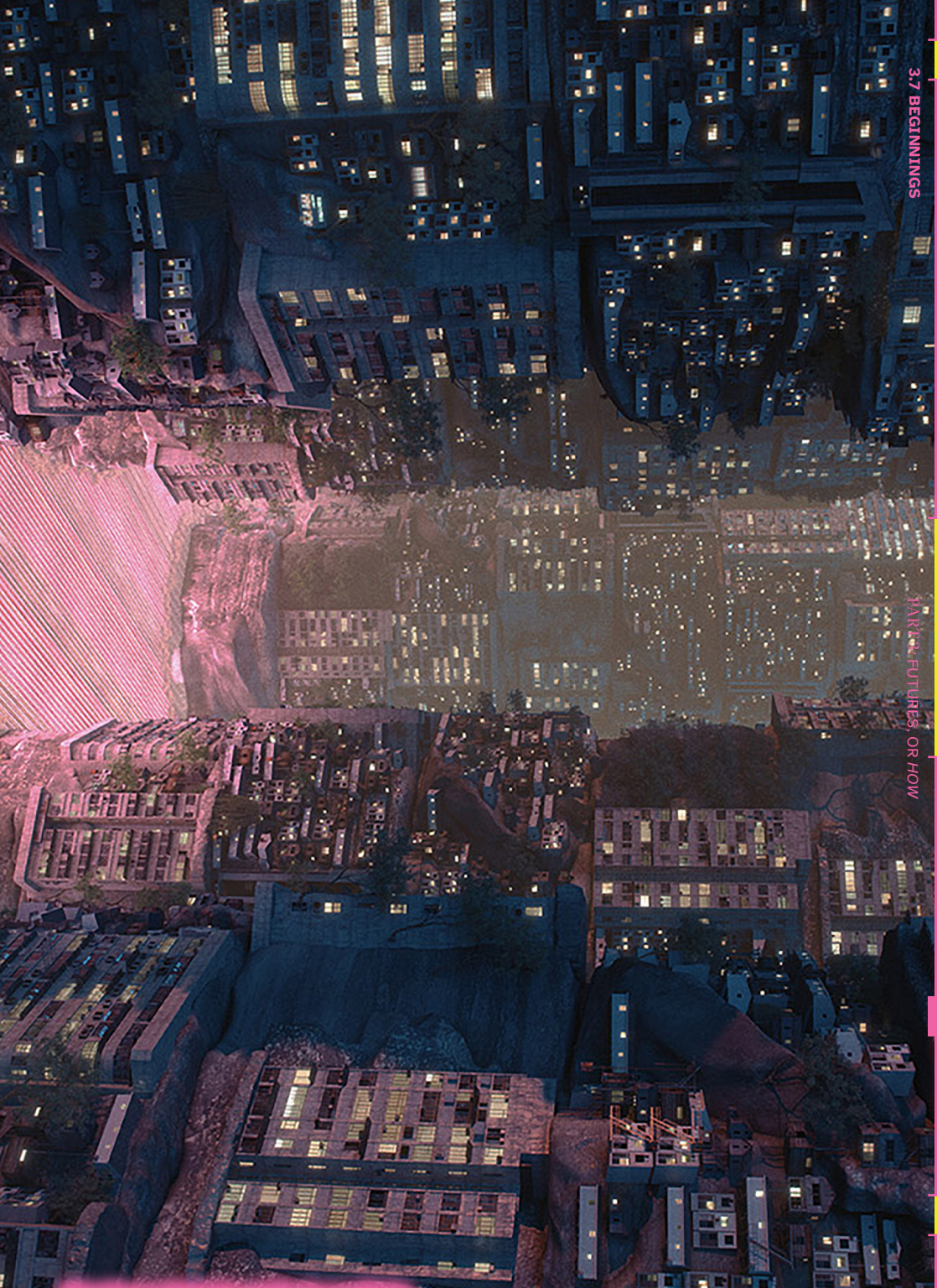
And therein lies the core of the piece, at least in my opinion. It's a powerful example because it manages to be hopeful while at the same time reflecting a dire situation that is so viscerally familiar that we cannot help but feel compelled to engage with its message. Even though it reflects a harrowing future scenario, it describes a fundamental shift in human society and values that feels optimistic. As the narrator says, "[i]t's been a hard lesson but I think we've all made peace with this now. I just wish we could have learned it a little sooner" (Ibid).

Another example I recently had the privilege of experiencing is Liam Young's *Planet City* (2020). The multimedia project, comprising a short film and a companion book, describes itself as "a fiction shaped like a city" (Ibid: §3). The fictional conceit of *Planet City* is that, sometime in a near future, the entire world's population, around ten billion people, voluntarily decided to decolonize the Earth by co-inhabiting a singular hyper-dense metropolis (Young, 2020, see **Fig. 24**). The scenario presented is not one of social homogeneity though. The film depicts a sprawling multicultural city which celebrates diversity in a yearlong celebration of all the distinct cultures therein represented (Ibid).

The city operates as a circular economy, being self-sufficient while occupying only 0.02% of the planet's surface area (Ibid). That figure, Young explained in an interview, is the actual percentage of the Earth we would occupy if we reorganized our world at the scale of our densest cities, adding that would roughly amount to the size of an average US State (Fairs, 2021). Furthermore, all the technology present in *Planet City* is real technology that already exists (Ibid).

Beyond its aesthetic merits, which are plentiful, this work caught my attention for its underlying transformative agenda. It understands the urgency of cultural and ideological change as a necessary requisite for a future in which we are not at serious anthropogenic risk — one of sustainment. It is refreshingly radical in its reversal of our longstanding colonialist project by proposing a utopian future in which we return stolen lands and leave 99.98% of the Earth for rewilding.

Young's *Planet City*[98] understands that sustainment requires more than an abstract response to a growing environmental crisis. It also recognizes that global inequality and conflict are defuturing forces, and that viable social ecologies are equally essential for a future in which we exist. Likewise, it imagines a future ecology that is not only environmental but also social. The voluntary nature of the decision to resettle is, to me, the most meaningful aspect of the evolving narrative. It speaks of a future in which we not only agree that a reprioritization of our values is needed, but also act upon it.



Liam Young, 2020, *Planet City*. Image kindly provided by the artist. **Fig. 24**

The impetus behind speculation is, thus, as Dunne and Raby argue in the words of Stephen Clark, to "unsettle the present rather than predict the future" (Clark, 2011: 17; cit Dunne and Raby, 2013: 88) — to pose important questions, rather than merely generating any number of possible answers. That is, precisely, what these speculative exercises accomplish through their narrative engagement. After all, speculation requires some form of abstract conception. It is, in effect, designed fiction. Through its material grammar, design is able to bring fiction closer to our reality. By virtue of its expressive medium (Dunne and Raby, 2013), especially when coupled with fiction, it is able to deliver powerful critique in subtle and evocative ways (Midal, 2021). Indeed, "designers have continuously appropriated fiction, along with its modes of diffusion (text, manifesto, books, film...) so as to express dimly disguised political and social criticism" (Ibid: §8).

A popular example of this is the television show *Black Mirror* (2012). Its episodes depict speculative scenarios involving a given piece of technology. It accelerates the development of technologies currently in contention as part of its speculative fiction. In so doing, it often depicts a sort of worst-case scenario, which begs us to consider whether we would be comfortable with such a future.

By drawing inspiration from real concepts and objects, the show is designing a familiar reality (Weller, 2018) as a vehicle for effective critique of not just the technological, but also the personal. It's critiquing the nefarious ways in which technology is being used, yet it is, necessarily, also criticizing us for using it, and, as a collective, for allowing it to happen in the first place.

The relationship between the human and the technological artifacts we create has been one of codependence. As discussed, these artifacts are interfaces; such that facilitate and shape the various ways in which humans may interact with their environment while, at the same time, mediating the ways in which that same environment interacts with humans (Colomina and Wigley, 2017). In this way, humans are simultaneously dependent on and challenged by their very own mediums. "The human is inseparable from the artifacts that it produces, with the human body having the extended shape of all the artifacts it has made and each artifact being an intimate part of its biology and brain" (Ibid: 24). As Charlie Brooker, the creator of *Black Mirror*, asserted "[i]t's not a technology problem we have. It's a human one" (Brooker, 2014).

In that regard, a show like this is absolutely designed fiction. Dunne and Raby even cite it in their book on SCD (Dunne and Raby, 2013). It should also be remarked that fiction as a medium unto itself has become increasingly utilized by designers, as has the medium of film (Midal, 2021). "Fiction films by designers associate storytelling with objects or products in a way that reshapes a vaster definition and practice of design" (Ibid: §17).

Moreover, the relationship between design and fiction can be traced all the way back to its origins. Design describes an act of giving form to something, which has etymological ties to the word fiction (Midal, 2021). "Forms, fictions, hypotheses and imagination mingle in design" (Ibid: §18). And this common notion of giving shape is exactly what makes their allyship so affecting. We are able to relate so deeply to a fiction because we can see it designed and enacted — visualized and concrete. And that matters because it can actually yield transformative outcomes.

As Anab Jain, co-founder and director of Superflux, said in a TED Talk: "[w]e have learned in our work that one of the most powerful means of effecting change is when people can directly, tangibly and emotionally experience some of the future consequences of their actions today" (Jain, 2017).

In that same talk, she also tells us the story of when Superflux was invited by the United Arab Emirates' government to help

shape the country's energy policy all the way up to 2050 (which, interestingly, is the same year the studio's *Mitigation of Shock* takes place.) When presenting their proposals, she recounts, one of the representatives told her he could not imagine that, in the future, people would simply stop driving cars and use public transportation instead (Jain, 2017). He couldn't ask his son to stop driving his car, he added. But they were prepared for that too. They had managed to create an approximate sample of what the air in 2030 will be like if we maintain our current behaviors. "Just one whiff," Jain tells us, "brought home the point that no amount of data can," and the next day the Emirati government announced a billion-dollar investment plan in renewable resources (Ibid; see **Fig. 25**).

Designed fiction is a powerful tool for imaginative ideation into a projected future — a kind of world-building, as art historian Nelson Goodman described it (Goodman, 1975; cit Midal, 2021). He argued that worlds were not given, but built — designed — even those we understand to be real (Goodman, 1975). "Worldmaking as we know it," he writes, "always starts from worlds already on hand; the making is a remaking" (Ibid: 61).

And again, that should sound familiar. It is *détournement*[99]. It is "political and social criticism" (Midal, 2021: 8) delivered through the appropriation of the familiar into a designed new. It is SCD. All the works I mentioned here are acts of *détournement*, right down to their intention of shattering the illusions of the spectacle — of the unsustainable. They use familiar objects, familiar technologies, familiar spaces, familiar language to bring you in and spit you out onto another world; one which is not real, but instead true. One where it is made abundantly clear that the only truly radical position is inaction, and that the only way forward is through urgent reprioritization.

Fig. 25 **Superflux, 2017, *Future Energy Lab*. Superflux's projected sample of the air in 2030. Image kindly provided by the studio.**

[95] An important distinction to make is that the term "stakeholder," in this context, is taken literally to mean anyone who has a stake in a given project. It is divorced from the corporate meaning of the word (though it also includes corporate stakeholders as people who are impacted by the endeavor).

[96] This is also further evidence of how much these frameworks are entwined and require each other to acquire meaning in any real-life scenario.

[97] A thing to note though, is that this posture has become more prevalent in contemporary approaches to design practice. As Dunne and Raby state themselves, this centering of critique is not exclusive to critical design, describing the latter as "more an attitude than anything else, a position rather than a methodology" (Dunne and Raby, 2013: 34). As such, the criticality in critical design is a response to affirmative design, which they describe as "design that reinforces the status quo" (Ibid).

[98] This work also brings to mind Buckminster Fuller and Shoji Sadao's work on the *Dome over Midtown Manhattan* (1960). The dome has become an architectural symbol of utopia, a tradition from which Young undoubtedly draws. Indeed, both are "spaces to begin society anew under threats of being rent by conflict and scarcity, and as a means to rescue the planet from bad stewardship, overconsumption, and waste" (Diaz, 2011: 94).

[99] The Situationists even defined it as "[t]he integration of past or present artistic production into a superior environmental construction" (Situationist International, 1958: 13).

3.8 THE IMPORTANCE OF CRITIQUE

But is design actually prepared for that? Does it even want to be?

I've already talked about how design's theory and praxis have been and continue to be biased toward andro- and Eurocentric epistemologies and values. That is, after all, a necessary consequence of the existence and pervasiveness of cultural paradigms. Indeed, they permeate every social and economic structure therein, not just design.

The consequences of that, however, require that we engage in a thorough questioning of the theories and practices derived from such a paradigm. Otherwise, we will be participating in the unknowing of design, which, as mentioned, is something to overcome, and which itself should be designed out of existence (Fry, 2003).

And here, the importance of the exercise of critique becomes apparent, though the critical itself may appear to be in crisis. According to Francisco Laranjo, "[a]t a time when it is fundamental to be critical, the very term has become ubiquitous, cool and vague. While it is possible to identify overlapping levels of criticality, as suggested by the personal (reflecting on own work), disciplinary (expanding disciplinary issues) and public (addressing societal phenomena), what is meant by critical is open for debate" (Laranjo, 2015: §3).

Laranjo warns us, here, against the trappings of the "post-critical," in which a lazy veneer of the critical is presented instead of the affirmative substance of critique — an "aesthetic critique" over a "political critique" (Martin, 2005; cit Laranjo, 2015: §6).

This, of course, does not evade design. As curator Andrew Blauvelt has argued, a widespread uncritical mindset has, for some time, permeated the discipline (Blauvelt, 2003). And though he referred specifically to graphic design (Ibid), an argument could be made for a more generalized affliction (Laranjo, 2015). As Laranjo argues, the

aestheticization of critique "points to a de-politicised manifestation of a new uncritical form of criticality. The lack of ideology is the ideology" (Ibid: §9).

This lack of ideology is insidious. It trivializes the attempts of that which has been known to be critical (Ibid), granting further allowance for design to participate in a state of unquestioned unknowing (Fry, 2003). This is especially relevant in a context of late capitalism, in which design must deal with its accompanying political and economic limitations in its pursuit for critical autonomy (Laranjo, 2015).

Such pressures, inevitably, lead to the establishment of elitist circles (Twemlow, 2017), which are counterproductive to the reprioritization effort. In the words of Alice Twemlow: "Design criticism is, by necessity, more self-aware of its proximity to the marketplace, its complicity with commerce and consumerism, than are other critical genres like art or literature. The incipient strain of amateur design criticism, located at the heart of the biggest online marketplace, illuminates and typifies many of the issues that were central to the reshaping of criticism's status and identity in the early twenty-first century. They included the differences between review and critique, recreation and professionalism, populism and elitism, production and consumption, as well as the role of ethics, consumerism, the nature of work, and time" (Ibid: 238).

The exercise of critique is, likewise, not isolated from the environment in which it occurs. The, social role that criticism takes for itself is one of diagnosis, which implies an inherent and hierarchized distance between the assessor and the assessed — the critic and the public (Ibid).

Philosopher Jürgen Habermas spoke of a kind of "public sphere" wherein people behave as engaged citizens, rather than traders of goods or subjects of statal constraints (Habermas, 1974: 49). This engaged citizen, as conceptualized by Habermas, would not be a consumer, but a debater — the auditorium separate from the marketplace (Ibid). This notion, however, according to Twemlow, "has provided much of the impetus for the performance of design criticism" (Twemlow, 2017: 6).

Indeed, there seems to be an interest in consuming critique, perhaps for the same reason that there is an interest in consuming ethics (Micheletti, 2003; Townsend, 2018; Southey, 2020). As author Deanya Lattimore states, "[t]here is no pre-existing public. The public is created through deliberate, wilful acts: the circulation of texts, discussions and gatherings in physical space, and the maintenance of a related digital commons. These construct a common space of conversation, a public space, which beckons a public into being" (Lattimore, 2008; cit Twemlow, 2017: 6).

So if the public beckons, we must find a way of bringing into being the kind of public the public itself seems to desire to be — one which is aware and ethically engaged. And, perhaps, that begins with critiquing critique itself.

3.9 AN EXERCISE IN CRITIQUE

In 1984, Audre Lorde published a seminal essay, entitled *The Master's Tools Will Never Dismantle the Master's House* (Lorde, [1984] 2007). It was an acute critique of feminist academia, which, she argued, was heavily segregated, with feminist studies and Black feminist studies being completely separate as though feminism did not include Black feminism (Ibid). This, she argued, created the impression that feminism was the domain of white feminists, and anything which deviated ought to have its own segregated space (Ibid).

Lorde speaks to the necessity of not only welcoming, but actively incorporating marginalized groups within feminist discourses, so that we may nurture more diversity of thought within it (Ibid). Though the figure of the white feminist is embroiled within the same system of oppression, not including intersectional[100] perspectives is only perpetuating that same system. Thus, it is only by exercising an intersectional judgment, through "political critique," rather than "aesthetic critique" (Martin, 2005) that we may dismantle the Master's house — by shedding its tools.

Though she presents this idea specifically within the context of feminist thought, this is a larger issue, anchored in broader hegemonic power dynamics. Indeed, it permeates every system with institutionalized hegemony; which is to say, every system. As Lorde highlights, if we're thinking with the Master's tools, we are also designing with them. So let us engage in a more comprehensive critique of the design solutions presented before.

VSD, for example, was built upon an aforementioned list of ethical values deemed to be cardinal (Friedman and Kahn, 2002). Such a list, as I argued, shows a concern for ethics, but also raises a number of ethical questions. Namely, whether VSD should single out certain values as particularly worthy of contemplation (Borning and

Muller, 2012), who should choose them and how (Ibid), and whose values would even be considered (Alsheikh, Rode and Lindley, 2011).

As Le Dantec et al have argued, formulating a list of implicated values incurs the risk of ignoring other important values that could arise from a given empirical case by assuming a set of predetermined values (Le Dantec, Poole and Wyche, 2009). Another of their concerns lies in the prescribed order in which the investigations — which provide the basis for the methodology of VSD — should occur, arguing that they should not be fixed, but malleable and contingent (Ibid).

Though I concur with this criticism, it should be remarked that VSD's methodology has not been interpreted as rigid, with a number of investigations published under the scope of VSD beginning with each of the three types of investigation (Borning and Muller, 2012). Moreover, it's also important to note that VSD's position has evolved over time into a heuristic approach for suggesting values which ought to be taken into account (Friedman, Kahn and Borning, 2006), and that the list itself was never meant to be comprehensive (Friedman and Kahn, 2002).

There is, nonetheless, a significant issue of context (or lack thereof) which ought to be addressed. The theoretical basis for VSD, starting with the original list of values, was founded upon the frameworks originating from a neoliberal and relatively privileged Western perspective. That was, however, never provided as the originating context (Borning and Muller, 2012). The lack of any significant effort to provide the proper and, indeed, owed contextualization ultimately implies a universal quality to the work, which is far from accurate (Ibid; Alsheikh, Rode and Lindley, 2011). Further driving the point, the lists of values put forth as suggestions were largely written in English, employing English phrases and concepts. This can, of course, result in some inaccurate or imprecise translations, which may give rise to issues of its own (Friedman et al, 2008).

In that regard, there is an added challenge to VSD frameworks when applied under an ethnographic lens. Specifically, how does one narrow down all the relevant epistemologies and philosophies which should inform the analyses, and, following in Le Dantec et al's concern about a fixed methodology, when in the design process should they be engaged with (Alsheikh, Rode and Lindley, 2011).

An interesting ethical dilemma is still inherent to this discussion though. On one hand, a hard-lined list may be harmful, as it will inevitably influence the researcher or designer by carrying a certain set of biases favoring hegemonic assumptions which may not always apply (Le Dantec, Poole and Wyche, 2009). On the other, value heuristics, by their very nature, lack a prior moral commitment (Reijers and Gordijn, 2019). A definitive answer is not possible, but there might be a benefit to providing a space for both heuristics and list cues to help secure an ethical commitment from the designers (Borning and Muller, 2012). They should, however, be properly contextualized, and relevant information such as who wrote the brief, what method was employed and what the purpose of the investigation is must always be disclosed (Ibid).

Another key distinction to make is the one between stakeholder values and explicitly supported values, which are deliberately inserted into the design during the design process (Borning, Friedman, Davis and Lin, 2005). Though it's not always easy to accurately assess whether any specific values have been deliberately designed towards or not, it should be observed that those need not be the values the designers themselves hold (Ibid).

This is a matter deserving of attention because, as discussed, values are often imbued and embodied by technology (Friedman and Kahn, 2002) and, if left unexamined, the designers' values become explicitly supported values (Alsheikh, Rode and Lindley, 2011). Moreover, values held by

the designers and those held by stakeholders may differ and conflict. This is why it's so important to disclose the contexts in which one operates by, for example, resorting to methods such as ethnography in an effort to highlight these tensions and adjust accordingly (Alsheikh, Rode and Lindley, 2011). The question of whose values VSD should design for thus becomes especially relevant. In attempting to answer it, we should employ non-hegemonic epistemologies to inform our decisions (Ibid; Borning and Muller, 2012).

"VSD can learn from feminist research methods in the sciences in general, and in social science and HCI in particular, to include diverse voices, to examine the edge cases around a values-question, and to interrogate its own VSD practices with questions such as who is recognized as an analyst of values?" (Borning and Muller, 2012: 8)

Research being conducted on post-colonial HCI may also provide relevant critique and insight (Irani et al, 2010). Being primarily concerned with power, post-colonial theory, when coupled with HCI, might help inform the power relations between the designers/researchers and the users (Ibid). When concurrent with participatory design and feminist theory, post-colonialism could aid VSD in asking questions such as "who is allowed to speak about whom," or "how are values-based decisions made and enacted when their impact is felt by people who are not recognized as design-makers or analysts" (Borning and Muller, 2012: 8).

All this ends up feedings a status quo which will inevitably reproduce neoliberal[101] conceptions of the future, a trend which current SCD projects do not evade (Yin, 2016). In the words of philosopher Álvaro Vieira Pinto, "[s]ticking to reminiscences of the past and predictions about the future, every futurology assumes the shape of a social ideology" (Vieira Pinto 2005: 90). This can either disenfranchise or liberate, depending upon "the collective intentions that make it relevant for society" (Gonzatto, van Amstel, Merkle and Hartmann, 2013: 44).

SCD, as a practice specifically oriented towards abstractions of the future, is mainly focused on questions and scenarios which function simultaneously as vehicles of and for critique and as proposals of the alternative. Dunne and Raby even tell us: "[w]e find the most thought-provoking and entertaining stories extrapolate today's free market capitalist system to an extreme, weaving the narrative around hypercommodified human relations, interactions, dreams, and aspirations" (Dunne and Raby, 2013: 73).

And though they seem keen on the possibility, they have been criticized largely for "falling just short of radical" (Yin, 2016: 3). Design scholar Cameron Tonkinwise, in a review of *Speculative Everything*, describes SCD as a "speculative recuperation of critique, a significant investment in returning criticism of market-based futures back into a source of just more market-based futures" (Tonkinwise, 2015: 184).

Indeed, Dunne and Raby do advocate for design to "step away from industrial production and the marketplace" (Dunne and Raby, 2013: 11) as a way of freeing it from market pressures and making it available to explore issues and concepts that were otherwise constricted. One of those concepts, however, is listed as "alternatives to our current model of capitalism" (Ibid: 12), which ultimately betrays an inability to think beyond that framework.

That same paradigm is also one which constantly reproduces and reinforces the prevailing andro- and Eurocentric hegemony, which also bleeds into Dunne and Raby's descriptions of SCD as well. As scholars Rodrigo Gonzatto, Frederick van Amstel, Luiz Ernesto Merkle, and Timo Hartmann argue, "[w]hen design fiction is problematised and taken in a cultural perspective, it is possible to observe an interplay between

domination and resistance" (Gonzatto, van Amstel, Merkle and Hartmann, 2013: 44), and SCD still maintains the tradition of domesticating the future (Ibid).

Following that, a big focus of critique of Dunne and Raby's SCD is a tendency for homogenization, as well as a more general lack of diversity and blindness to difference (Yin, 2016; Prado de O. Martins, 2014) which only helps reinforce an oppressive hegemony. In the language of philosopher Paulo Freire, naive consciousness favors the oppressor (Freire, 1974). To that end, under the filter of HCI, Pierce et al call for transparency in design practice — beginning with the divulgence of the contexts in which it is conducted — and advocates for diverse and messier[102] epistemologies for producing critique through design (Pierce et al, 2015).

As scholars Luiza Prado de O. Martins and Shaowen Bardzell have argued, a possible pathway to reframing SCD outside the framework of neoliberalism is, precisely, through feminist epistemologies (Prado de O. Martins, 2014; Bardzell, 2010).

Bardzell argues that gender, because it holds sway through its expression in identities and relationships, does indeed influence how the user might interact with technology[103], adding that gender could, in turn, also be shaped by technology (Bardzell, 2010). She is, hence, proposing a model by which feminism may rise above theoretical afterthought and instead assume an active role in the design process (Ibid).

Further, Bardzell contends that design should heed not only philosophies of gender, but also of social class, sexuality, race, emotion, or desire (Ibid). She does this as a way of avoiding prevailing assumptions in design that there is a universal or ideal user (Ibid). By focusing on feminist theory, she seeks to present the idea of a "marginal user" (Ibid: 1302) as a counterargument to the notion that there even is a universal one at all (Ibid). As she asserts, "[a] key feminist strategy is to denaturalize normative conventions, both exposing their constructedness as human discourses situated in sociopolitical institutions and exploring alternative approaches" (Ibid: 1305).

Bardzell also describes two distinct approaches for the active incorporation of feminism into design. The first of those, critique-based, is predicated upon analysis. It seeks to identify the vulnerabilities of a design or design process through a feminist lens in order to reveal what unintended consequences may arise (Bardzell, 2010). The second, generative, is aimed at utilizing feminist approaches to decision-making and the design process (Ibid). This is done with the intention of generating new insights regarding the practice, thereby influencing the design process in concrete ways (Ibid). In so doing, design may gain awareness of neglected contexts and be better informed about user needs and technological affordances[104] (Ibid).

Prado, building on Bardzell and drawing from Kimberlé Crenshaw's seminal work on intersectionality (Crenshaw, 1989), argues in favor of a framework for feminist speculative design as a necessarily intersectional process (Prado de O. Martins, 2014). This, she asserts, is intended as a challenge to current models for SCD, which, she argues, merely reproduce gender oppression through technological objects[105] and their conception (Ibid).

She advocates for a "tangible, non-theoretical" approach, anchored in material artifacts as a way of "[provoking] reflection on the privileges that give undue advantage to one part of the population while oppressing another[106]" (Ibid: 7). This is presented as an active vehicle for critique of the ways in which both feminist and design theory can often be inaccessible by favoring a process anchored in effecting the theoretical into concrete practice (Ibid).

This sentiment is also echoed by Keshavarz, who suggests that we examine the "design-politics nexus" through the examination of an artifact, whereby

"the thickness of politics is skillfully reduced and thinned by design practices" (Keshavarz, 2016: 93). The selected artifact would, in this way, not only confirm the inextricability of the two disciplines, but also inform us as to how exactly they uphold each other by the effects they conduce upon one's life or community (Ibid). Further, the material nature of such an artifact, by converting the theoretical into political praxis, would also "[affirm] the material fabrication of political practices, revealing their power relations as well as affirming the potentiality of rearticulating them in other directions and orientations" (Ibid: 93).

In addition, Prado, like Bardzell, also mentions a number of feminist issues that design ought to incorporate, but centers the issue of privilege in her work. She proposes that we include marginalized epistemologies by "[challenging] observers to question their own roles in maintaining social injustice" and utilize the "already dystopian nature of the present for minorities, and ask how their futures would be like" (Prado de O. Martins, 2014: 8). In that regard, she faults SCD for being "hindered by the issues of privilege" (Ibid: 6), as a "discipline theorized within the safe confines of developed, European countries and practiced largely by a privileged and mostly white, male, middle class crowd" (Ibid: 4) — a larger problem which is, as discussed, shared within the broader design space (Scotford, 1994). She even argues that this is not exclusive to SCD, given that design is the product of a "patriarchal, classist and racist society" (Prado de O. Martins, 2014: 5).

Furthermore, Prado (2014) is also interested in interrogating issues of presentation and representation. Namely, what sorts of environments will these artifacts inhabit, and who might be seen engaging with them. This, she argues, matters because, as she asserts in an example, "if a video or a photo series on a future scenario only depicts white, European, middle class people, what does that say about the future of minorities?" (Ibid: 8). To that point, while asserting the importance of representation, scholar Nicci Yin adds that "there are limits to visibility that can slide easily into merely envisioning another type of consumer without reenvisioning alternative behaviors, relations, or structures" (Yin, 2016: 10). In other words, we must be mindful of not incurring the risk of sliding right back into designed neoliberal reproductions which fetishize — to borrow from Bardzell's "marginal user" (Bardzell, 2010: 1302) — a marginal consumer as the commodity[107].

Moreover, though Bardzell and Prado provide us with valuable insight into how design grows to be more inclusive and well informed — less "unknowinged" — they stop just short of effectivizing what a feminist conception of the future might be. Indeed, "[i]t would be awfully restrictive (even not feminist) to consider that there is a 'right' way to be a feminist and only one correct, feminist way to think about the future ... but these conceptions of futurity are still necessary to at least have a starting blueprint for the ways in which SCD can envision something other than neoliberal visions" (Yin, 2016: 10).

[100] The term "intersectionality" was first coined by scholar Kimberlé Crenshaw, amidst the Black Feminist movement, and began as a dissection of the systematic oppression of Black women (Crenshaw, 1989). As stressed by author and feminist scholar bell hooks, the advent of intersectionality "challenged the notion that 'gender' was the primary factor determining a woman's fate" (hooks, 2000: xi). Today, however, it has evolved to address the experiences of people who are subjected to a plurality of forms of oppression (McCall, 2005).

[101] Neoliberalism, as a term, broadly refers to a 20th-century resurgence of 19th-century thought currents associated with economic liberalism and free-market capitalism (Springer, Birch and MacLeavy, 2016). Its general use typically references the new political, economic, and social arrangements arising within society which emphasize market relations and individual responsibility (Ibid). In that regard, most scholars agree that neoliberalism can be defined as an extension of competitive markets into every aspect of our lives (Ibid). Thus, it views competition as the defining feature of human interaction and relationships, ultimately recasting citizens as consumers (Ibid).

[102] See, again, Martha Scotford's description of messy history (Scotford, 1994).

[103] This, as you'll recall, is a reflection of the exogenous position, as discussed in Part 1, and which states that it is a person's social context — be it race, class, gender, politics, etc. — that will dictate how a given object will be interacted with (Friedman and Kahn, 2002).

[104] See Norman, 2013.

[105] This viewpoint, again, seems to favor the exogenous position of how values become embedded in design. See Friedman and Kahn, 2002.

[106] This is important because, as scholar Gill Kirkup argues, in designing for exclusion and discrimination, even if unwittingly, "[t]he systems and artifacts produced by technoscience [provide] the material foundations for gender inequality" (Kirkup, Janes and Woodward, 2000: xiii).

[107] This would, indeed, be another example of commodity fetishism (Gartman, 1986). See also Canlı, 2020.

3.10 SUGGESTIONS

In an attempt to suggest what that might look like, Yin proposes that we turn to the work of José Muñoz, especially the book *Cruising Utopia: The Then and There of Queer Futurity* (2009). In it, he focuses on intersectional queer futurity as a political project by emphasizing the importance of hope (Ibid). This, Yin argues, is particularly productive "because an analysis of gender only through marginality or oppression is not enough" (Yin, 2016: 10).

To Muñoz, hope is "both a critical affect and a methodology" (Muñoz, 2009: 4). This nomination of hope as affect — as both aspirational and inspirational — contrasts, as Yin asserts, with SCD's penchant for less optimistic narratives, which are most often the ones bred within and encouraged by neoliberal pressures (Yin, 2016). "While the abject can also be a powerful affect, hope can enable more intentionality in the kinds of people SCD is for and what types of worlds it intends to build" (Ibid: 12).

The hope Muñoz speaks to, however, is not ingenuous. If with hope also comes disappointment (Muñoz, 2009), one must wonder how may designers employ hope as part of design's theory and praxis. To that, Yin proposes that it is Muñoz's emphasis on a conception of futurity which prizes relationality and collectivity that makes his queer futurity such a powerful agent against neoliberal defuturing forces (Yin, 2016).

This focus on collectivity and relationality is the backbone of the intersectionality which also permeates relevant feminist epistemologies, making them good complements to help fill in the gaps (Ibid). Indeed, Muñoz evokes projects imagined by queer racialized people, such as the Third World Gay Revolution[108] and the Black radical tradition — of which the Black Panthers were a part — as a concrete way of driving the importance of the collective (Muñoz, 2009). "The queerness of queer futurity, like the blackness of a black radical tradition,

is a relational and collective modality of endurance and support" (Ibid: 91).

This, Yin argues, is especially relevant to how harnessing the power of a collective force would directly oppose the individualistic logic of neoliberalism[109] (Yin, 2016). "By holding the collective and relationality as priorities in this approach to the future, queerness' conception of futurity can work against the designer-centric, consumer-centric, and individual-centric work that has driven so much of humanitarian, social, and speculative design" (Ibid: 13).

A similar idea is present in Augusto Boal's concept of the *Theatre of the Oppressed* (Boal, 1979). Boal, a believer in theater as a means through which to change one's reality, devised this as a series of dramatic techniques, in which spectator would become actor — an active agent—within the performed situation with the intent of exposing systemic othering and oppression. Through this method of expression, people can better understand themselves, their communities, and their world by deconstructing and analyzing societal structures of power and oppression (Macchia et al, 2016).

Thus, through both fiction (Midal, 2021) and performance, this medium and its techniques might provide an interesting exploration into possible methodologies for assisting design and designers to better grasp the "roles, needs, and resources" of those marginalized and translate them "into effective design practices" (Macchia et al, 2016: 126).

As has been argued throughout this book, a concern with these political power dynamics is, likewise, inherent to design and, hence, also to its potential counter-measures. In a lecture entitled *Monsterizing*[110] *the Master's Tools*, a title which intentionally references Audre Lorde's aforementioned essay, scholar Ece Canlı presents us with ways of identifying these "Master's tools," and suggests some others as subversive acts of resistance and reclamation, applicable to all manners is which design permeates our lives (Canlı, 2020).

The first thing to do though, is to identify the Master's[111] tools and how they work. Canlı begins by doing just that (Ibid), and I will briefly detail them here as well in the same spirit, as they share many of the same points I have attempted to make. They are:

- Monsterizing: the Master monsterizes the other[112] as an act of deliberate subjugation[113].
- Taxonomizing: the categorization of the other based on binary hierarchies which define what is "normal" and what is "deviant" as a way of establishing hegemony.
- Ignoring: denying one's existence, knowledge and dignity through exclusion or erasure[114].
- Taming: because the Master is the systemic, the Master's tools can be internalized as a way of upholding the established hegemony.
- Appropriating: the trivialization and removal from context of the other's culture as a way of rendering it innocuous.
- Double-othering: because one's oppression is not linear[115], the othered is not always, nor necessarily, a victim, as they might also participate in the oppression of other others[116].
- Pity: though often well-intentioned, pity is anchored in a very well delineated power dynamic. Those who suffer are the other, not the helper.

Now, in having nominated the Master's tools, we may list those of the Monster (Ibid). These include:

- Embracing the Monster's tools: a way of reclaiming agency anchored in the values of the margins.

A good example is artist Zulfikar Ali Bhutto's work on the *Mussalmaan Musclemen* series (Bhutto, 2016; see **Fig. 26**). The works in this series rework photographs of musclemen and bodybuilders, scanned and blown up onto cotton fabric. The artist then replaced the appearance of muscle with embroidered fabric in the form of colorful flowery patterns with the intent of feminizing a traditionally uber-masculine space through the act of revealing the softness that lies behind the hardness of muscle (Ibid). In so doing, Bhutto's work simultaneously reveals and creates an alternative to the hegemonic masculine by subverting old customs and techniques. Moreover, its clever use of humor further contributes to the discrediting of a toxic culture surrounding the cult of masculinity.

- Exposing the Master's tools: deconstructing them by laying them bare makes them transparent, and thus harder to ignore.

This can be seen in Ece Canlı's work, whose MFA thesis included a project by the name of *Silence of Academy*, in collaboration with the Dikkat! Taciz Var! group and the MSGSU Woman Studies Association. It deals with sexual harassment in academic institutions through a practice-based design research approach which resulted in the publication of a dictionary (Canlı, 2011). As an object, the format of the dictionary was chosen as a collective way of weaving together individual experiences of harassment while simultaneously providing a medium through which to redefine the sexist vocabulary being wielded — and thus lay bare the inherent androcentric power structures through their re/deconstruction. Copies of the dictionary were then distributed among the university's facilities as a discursive intervention intent on breaking the silence of these violent experiences of women (Ibid).

- Counter-memorizing: contesting history, from the viewpoint of the other by rewriting it[117] and begin documenting it henceforth as a way of recuperating suppressed epistemologies.

That is exactly the premise behind the Native Land Digital organization (Native Land Digital, 2018). As the name suggests, this is a digital platform that makes available several educational resources which include an interactive map that tracks Indigenous territories, treaties and languages around the globe (Ibid). This is done to challenge colonialist narratives by highlighting native histories and epistemologies while providing a space for Indigenous communities to share and represent their ways of knowing and being on their own terms. Additionally, in doing so, the platform is simultaneously providing a space for non-Indigenous people to challenge the standing hegemony and learn more about the storied history of the lands they inhabit.

- Boundary-blurring: a conscious effort to move beyond institutionalized hegemonic binary thinking as a way of formulating possible alternatives.

A great example of this in action is Coco Guzmán's ongoing *Genderpoo* project (Guzmán, 2008; see **Fig. 26**). *Genderpoo* is a growing installation of simple vectorized drawing that fill the walls of bathrooms and galleries alike. It eloquently weaves humor into searing social critique by building upon the iconography of bathroom signs as a way of actively questioning the notions of what is deemed normal/other and, through that, make visible those who deviate from such a violently imposed hegemony. The project originated from the artist's response to their experience of navigating public bathrooms

as a genderqueer person, which culminated in Coco's own personal sign of the mustached mermaid (see **Fig. 26**) — always the first one to be put up (Ibid).

- Haunting: enforcing change through violence. This violence is not necessarily physical, but rather an impositional act of resistance, in defiance[118].

Luiza Prado's *All Directions At Once* GIF essay is, in my opinion, aptly illustrative of this very point. The unfolding narrative hinges on the preservation and transmission of Indigenous folk epistemologies and the essay aims to promote and cultivate the notion of radical decolonizing care (Prado de O. Martins, 2018; see **Fig. 26**). It accomplishes that through the recounting of stories focused on contraceptive practices and abortifacient plants which meld together pasts, presents and futures as a political statement in itself (Ibid). On a personal note, I'd like to say that watching the essay unravel is a pretty visceral experience. At least it was to me. At one point the pink text boxes became so seared into my eyes that they began to flash on my computer screen like an optical illusion. Almost as if its message is supposed to be forcefully embedded in your brain, to great effect.

- Othering the self: seeing beyond one's own privilege in search for new solutions.

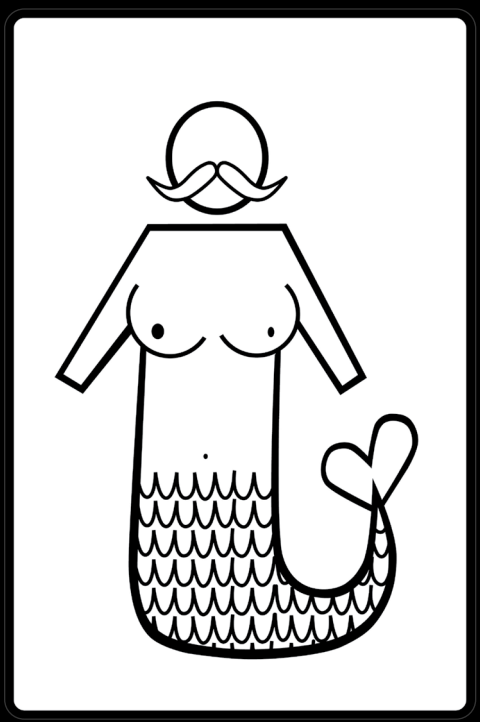
The collective body of work of Octavia Butler is a great example here. Butler, along with Sun Ra, George Clinton, and others is often considered to be one of the pillars of the Afrofuturism movement — a current of systemic Black speculative thought largely formulated as a response to 19th-century technological developments and ingrained scientific racism and the stifling of Blackness is all its forms (Womack, 2013). Butler's work subverts genre conventions and challenges a prevailing andro/Eurocentric hegemony by envisioning fantastical worlds presented through the lens of a transgressive Black feminist Afrofuturist epistemology that reevaluates contemporary reality (Ibid). In *Parable of the Sower*, for example, Butler, in 1993, describes a dystopian future set in 2024 that seems exceedingly relevant to our present. Within that destructive culture, the book excels in its discussion of race. Especially in generating discourse about how it factors into the present by presenting it through the gaze of her future. Its many references to Black culture and history, such as parallels to slavery and the Underground Railroad, show us how these can appear in modernized forms so that we take care to dream of better futures that lay beyond our pasts.

- Surviving: both literally and metaphorically while, of course, not impeding the survival of anyone else.

A good example is Queer.Archive.Work, a nonprofit organization which has available an excellent library of both physical and digital works, a publishing studio and a residency program focused on experimental publishing practices (Queer.Archive.Work, 2020). Its mission is to provide support for artists and writers in the form of free and open access space and resources (Ibid). The work that Queer.Archive.Work is doing is, in this way, actively helping to elevate and foster queer ways of knowing and being by focusing on the production and diffusion of intersectional and anti-racist queer-led interventions of independent publishing.

This last item, as Canlı argues, implies a personal interpretation. Everyone survives in whatever way they may prefer (Canlı, 2020). She, however, suggests that we establish bonds of affinity and create collective spaces in the pursuit of methods of sharing and collaboration. This is, in my opinion, the most radical and effective measure we have, especially if the project herein described is

A



B

A collection of examples curated by Ece Canlı of projects which embody the use of the Monster's Tools (Canlı, 2020).

A: Zulfikar Ali Bhutto, 2016, *Best Body Builder in the World*. Image kindly provided by the artist.

B: Coco Guzmán, 2008 –, *Genderpoo*. Image kindly provided by the artist.

C: Luiza Prado de O. Martins, 2018, *All Directions At Once*. Image kindly provided by the artist.

D: Paul Soulellis, 2019, *Queer.Archive.Work #3*. Image kindly provided by the artist.

Fig. 26


WRITE THE NAME OF EVERY COLONIZER.
SET ON FIRE.
USE THE ASHES AS FERTILIZER.

C

D

one which hopes to defy the individualistic tendencies of neoliberal capitalism.

It is on that feeling of hope then, the same one from which Muñoz (2009) draws, that I would like to leave this. Such exercises of critique and ideation are necessary not only so that we may point out the flaws of a framework, but also so that we may improve upon it. The neoliberal visions that design currently favors and tends to reproduce will not be halted by a different approach, by "soft politics" (Canlı, 2020). Indeed, as Prado points out, design alone will not be capable of resolving anything (Prado de O. Martins, 2014). But, hopefully, by embodying the politics of philosophies such as critical, intersectional feminism or queer futurities, designers may conceptualize the types of futures that Bardzell and Prado and Boal and Muñoz and Canlı advocate for — ones which thrive in plurality instead of reproducing oppression, yet are also anchored in the collective, as well as hopeful.

[108] The Third World Gay Revolution group was an organization that grew out of the larger Gay Liberation Front in 1970 (Muñoz, 2009). As the Chicago Gay Liberation gained cultural exposure, there was still tension between lesbians and gay men, and between Black and white homosexuals (Ibid). As such, a Women's Caucus — which became The Chicago Lesbian Liberation — and a Black Caucus — The Third World Gay Revolution — were formed to address the specific concerns of lesbians and Black gay men. As Muñoz adds, the usage of the term "Third World" relates to a deep identification with the global phenomenon of decolonization, especially as most of the group's members were racialized people (Ibid). It should be noted though, that this term carries negative connotations, which is specifically why it was used in this context. It is a relic of a derogatory and wholly inadequate system based solely around the Gross National Product as a way of classifying the development of nations (Wolf-Phillips, 1987). Thus, it should be said, that it is no coincidence that most of the lower-ranking nations belong to the global south or have otherwise suffered the effects of colonization — it's a system designed to uphold Eurocentric hegemony.

[109] As discussed in Debord and Marx's works (Debord, [1967] 2004; Briziarelli and Armano, 2017).

[110] The use of the monster symbol in this title is very intentional. As one of the Master's tools, to monsterize is to subjugate (Canlı, 2020). This can be traced back to colonial times and has been used as a common metaphor in othering rhetoric such as sexist, racist, ableist, homophobic, and transphobic discourses (Ibid). In this way, reclaiming the figure of the monster is an act of resistance in itself, as it makes use of the symbol with the opposing intent of resistance. Reclaiming the agency of the monster is also to embrace and wield one's threat to the master — that is, to the system of oppression itself (Ibid).

[111] As described above, this Master is not any specific master. It speaks to systems of oppression, not identities (Lorde, [1984] 2007; Canlı, 2020).

[112] This notion of the "other" is centered upon an imposed otherness through an act of othering (Canlı, 2020). It speaks not of some innate dissimilarity between bodies; rather, it implies a form of socially constructed disparity imposed by a group intent on dominating, subjugating, and disenfranchising those deemed not to belong (Ibid).

[113] Examples of this include the violence of slavery and the accompanying, and yet enduring, colonial imagery or even transphobic discourse sourrounding trans and gender-non-conforming people using language which intentionally and maliciously calls on the grotesque to induce repulsion (Monro, 2001).

[114] This harkens back to Scotford's messy history vs. neat history (Scotford, 1994), or to Gunnarsson-Östling's study into feminist conceptions of futures within academia (2011).

[115] See Crenshaw, 1989.

[116] An example might be Audre Lorde's description of the white feminist (Lorde, [1984] 2007).

[117] See, again, Scotford's messy history (Scotford, 1994).

[118] As Canlı argues, design suffers from the problem of "milding the wilding," often electing to resolve issues in a passive, agreeable manner (Canlı, 2020). These "safe politics" are inadequate when faced with the inherent violence present in the hegemonic politics design embodies and reproduces (Ibid).

3.11 SHORTCOMINGS AND FUTURE WORK

The way we do that, as I hope by now I have argued convincingly, is through a concerted effort to reprioritize our values and legitimize marginalized epistemologies — to, in effect, reclaim ethics as an ethics unto itself. The only problem with that is that it's hard. Actually, it's really hard. As Fry states, we know what the cause of our "wounded world" (Fry, 2007a: 88) is. "It is us: we are the problem. We both inflict wounds on 'the world' and are numbered among the wounded. More specifically it is our being (in-the-world) that needs to be healed for the sake of the being-of-being. Human centeredness — anthropocentrism — is thus at the core of the problem" (Ibid).

That is, assuredly, not exactly an easy fix. What we need is a new cultural paradigm, yet are only capable of producing small incremental change. What is required to produce those shifts though, will not look the same to everyone, nor everywhere. This is something of which this type of discourse is aware. It asserts the importance of being contingent and rejects the universal (Id, 2003; 2004; Le Dantec, Poole and Wyche, 2009; Borning and Muller, 2012; Alsheikh, Rode and Lindley, 2011). It is "contingent rather than foundational" (Fry, 2004: 155) for good reason. After all, "there can be no fixed nature as a reference point, nor any certainty about what the imperatives of the future will be" (Ibid).

This does, however, pose a few implicit limitations to the following praxis. In most cases, futures of sustainment are left just short of being named or effectivized, and remain only idealized necessities. Both Prado and Bardzell stop short of just that, as does Fry. "Thinking, talking, planning, acting — it is all there to do" (Ibid: 156).

I believe this to be due twofold. For one, as Yin expressed just earlier, there is no "'right' way to be a feminist" (Yin, 2016: 10), and the same is true of any relevant philosophy. That makes it very difficult to concretize this

type of discourse, as it's necessarily rooted in contingency by its very nature and thus displays no clear path forward. On the other hand, as Fry describes it, "a paradigmatic shift in our 'being-in-the-world' — proffers a condition of limitation that (dialectically) provides an almost unlimited scope of action over an unlimited expanse of time" (Fry, 2003: 295). In other words, the vast array of possibilities is too overwhelming to begin narrowing down.

Another flaw in the present discourse is, precisely, the critique that Prado levels at academia (Prado de O. Martins, 2014), rooted in the same elitism of which Twemlow speaks (Twemlow, 2017). For how critical it is, a critical stance is not always easy to produce, nor to reproduce. Theory, as Prado (2014) argues, is often inaccessible, which inexorably contributes to it being less understood, interpreted, and ultimately even sought out. As a consequence, less praxis will inevitably follow because it's difficult to enact. This, in tandem with its inherent contingency, also implies a necessary space for plurality, which suggests that a singular concrete method or application could be both counterintuitive and counter-effective.

Furthermore, in dealing with heretofore marginalized epistemologies, there is an inherent deficit in visibility, which tends to be followed by higher levels of scrutiny. If something fails, the temptation to say that it would have never succeeded will be that much higher. And because there is such underwhelming representation, much more accountability will be demanded. In effect, one has to not just try, but also do it perfectly. That, of course, places an undue burden on ideation and subsequent creation, which will also contribute to there being less of it.

Unfortunately, we ultimately end up backing ourselves into a corner a little bit. This is a very understandable, even necessary problem; but that also means it can be quite difficult to overcome. Even so, this tension must never be resolved. It is what will keep us from reversing the progress we've made, and also what will help us strive for ever better.

"Making the first move toward remaking one's self to become a 'being-in-the-world toward-sustainment' requires an initial exercise of embracing the 'dialectic of sustainment' at a personal level of elimination and remaking of thought and action, with the aim of becoming a more clear(ed) thinking, responsible and critical actor. Essential to this exercise is the rejection of a utopian view of 'sustainability' and recognising the creation of the epoch of sustainment as an enduring work, without an endpoint, but just process (the process of being sustainable)" (Fry, 2003: 295).

Future work will have to do just that. It will have to build the net onto which we can take the leap. Indeed, following Brian Massumi's conception of ethics, the latter itself becomes a means of becoming (Grosz, 1999) — becoming towards what he describes as affect[119], and shaped by change itself (Massumi, 2015). As he expounds, "[e]thics is completely situational. ... [It] happens between people, in the social gaps. ... The ethical value of an action is what it brings out in the situation, for its transformation, how it breaks sociality open. Ethics is about how we inhabit uncertainty, together. ... Basically the 'good' is affectively defined as what brings maximum potential and connection to the situation. It's defined in terms of becoming" (Ibid: 11).

To Massumi (2015), ethics is more than merely living in ambiguity. It is also about the acts of gauging this "potential" within a given sociocultural environment, and contemplating their ascribed implications (Ibid). This notion of potentiality is, hence, a key feature of his thinking, as it refers to the awareness one need have so as to be able to assess not only what is indeterminately unfolding, but also how things may differ from their current form (Ibid). In this way, Massumi's ethics places emphasis on attentiveness to affect, as a part within

the larger societal collective. Heeding the potentiality found in affect, even if it cannot immediately be understood, implies a means of conceptualizing change — of becoming (Grosz, 1999) — and, by extension, a potential way through which to reconsider ethics (Massumi, 2015).

This affective ethics demands simply that we be aware that something is to occur, and that that may call on us for reciprocation. The potentiality Massumi describes, through attentive affective recognition of the social happenings within a given context, is itself something that could make tangible the intangible, and possible the uncertain.

This I find very valuable in the face of such a project. Sustainment entails a thorough and transformative reprioritization of our values and assumptions; and feminist, queer, and post-colonial alternatives must be given a space to be adequately explored as critical to that cultural remaking, even if that means failure. Perhaps especially if that means failure, particularly of the queer kind[120] if not only because, in Massumi's view, we can use such trying uncertainty as the very thing to mold from (Ibid).

Because all these blueprints exist, we can now take from them all the best parts and eliminate or transform those that are found to be inadequate. These methods are valuable, albeit incomplete. The caution of VSD and SCD's ability to so viscerally visualize and therefore also to repudiate bad futures are really great bases upon which to build. The consequentialist, duty, and virtue frameworks for ethical decision-making are great places to start, especially when coupled with Massumi's conception of ethics. We just need to strive for substance, not settle for its aesthetic. To, in Massumi's terms, tentatively, be affectively cognizant of the potential for how things could be, rather than as they presently are (Ibid).

It's true that design alone might not be "capable of changing society" (Prado de O. Martins, 2014: 8). Indeed, the establishment of a new paradigm requires fundamental cultural and epistemological shifts in, well, everything it permeates. "Nonetheless, as both product and producer of societal values it could trigger visible cultural shifts when approached with an interdisciplinary and critical stance[121]" (Ibid).

Design absolutely can help, we just need to care. But the kind of caring that is required here is not one based simply on empathy[122] or pity, which, as argued, can be one of the Master's tools. And this is so because that kind of care is anchored in a power dynamic which places the self above the collective[123]. What is required, then, is a collective sense of care — care of and for resistance, a radical care[124]. That is how we incorporate ethics into the design practice — how we achieve "a convergence of meaning and method whereby 'Good Design' and 'embodied ethics' become the same thing" (Fry, 2007a: 91). It must become integral to the way we think about design's theory and praxis. And not just because it already is, but also because it's the only way forth to sustainment.

I do not, however, wish to lose the hope that was so dear to Muñoz's conception of queer futurity in this exercise of critique. Critique is necessary, but complacency is not sustainable. All of these things already exist as they are, and, as such, they can only be improved upon.

[119] Massumi distinguishes between emotion and affect, which, as did Baruch Spinoza, he defines as "the capacity to affect or be affected" (Massumi, 2015: 93). In so doing, Massumi (2015) places the affect in external and interpersonal interactions within a society, rather than on one's internal psyche.

[120] In *The Queer Art of Failure*, scholar Jack Halberstam advocates for the embrace of queer failure, as an act of antinormative, anticapitalist, and antidisciplinary resistance (Halberstam, 2011). Through this work, the author aims to deconstruct the traditional/hegemonic views on success, accounting for the possibility to fail well by not winning — that is, by disrupting conventional boundaries and, through that disruption, not contribute to a capitalist culture which views success as the accumulation of material goods (Ibid). In so doing, Halberstam hopes to bring our attention to an entire body of non-traditional, non-normative work that ought to be taken seriously, though seldom is (Ibid).

[121] Indeed, the recent developments in the discipline of transition design might help facilitate the kind of societal and cultural shifts required (Irwin, 2015).

[122] According to scholar Paul Bloom, though often well-intentioned, empathy is, ultimately, a bad guide for ethical judgment (Bloom, 2016). Further, he argues that ethical decision-making on the basis of empathy — a type of caring which is focused, rather than dispersed — can render one hyper-focused on individual struggles and insensitive to the plight of the collective (Ibid).

[123] To be clear, I am not deriding acts of self-care; merely, the power dynamic inherent to a type of care which focuses on one's privilege. In the words of Audre Lorde: "Caring for myself is not self-indulgence, it is self-preservation, and that is an act of political warfare" (Lorde, [1988] 2017: 130).

[124] See Hobart and Kneese, 2020.

CONCLUSION

PP. 182 – 187

As argued throughout, whether implicit or explicit, ethics is an inescapable facet of the design process. They are impossible to separate, and thus their relationship is simply unavoidable. Ethics is always there, even if we don't think about it. Indeed, perhaps especially if we don't.

I first began by posing the question of whether ethics could help shape the ever-expanding field of design. Now, at the end, we see that not only can it, but it must. Ethical implications abound in the design choices we make. The problem, however, is that we are largely not considering them when it matters — before the damage is done.

Failing to consider ethics, and thereby failing to act as ethical agents, makes us complicit in a design which perpetuates and thus communicates oppression. This is why an approach that centers ethics as an integral and explicit part of the design process is so important. Design mediates our interactions with the world, with others, and even with our own selves. Including ethics as a basal and a priori step within its process is, therefore, essential so that we may design futures that are inclusive, rather than exclusionary — which requires a paradigm built on a holistic notion of sustainment.

There are, nonetheless, some limitations inherent to an investigation such

as this. Namely, the confines of a traditional academic setting and a significant contextual bias. The fact that this is an inquiry informed largely by Eurocentric research methods — with their accompanying epistemological and ethical priorities — for a Eurocentric institution conducted in an Anglophone language, though it doesn't invalidate the work itself, should also not be ignored. Language in particular shapes a lot of what one finds when engaging in research projects. English being my principal language inevitably eschewed search results which favored literature and methodologies already valued within the Eurocentric hegemony herein described, and also which exclude any contributions made in a language I am not familiar with.

Moreover, my own privilege as someone with access to higher education and the economic means as well as the time to conduct this type of research is, likewise, something that should not go unnoticed.

This is something that, hopefully, might be improved by future work that breaks epistemological ground. Given the nature of what is being discussed though, what this work will look like is impossible to define in fine strokes. Contingent solutions must be found in each specific context, which makes it abound in possibility. Literature on marginal topics is increasing in circulation, which means

that future work — especially if considering Massumi's conception of an ethics anchored in potential as well as Muñoz's transformative power of queer hope — is not just promising, but also exciting.

Practical solutions are also crucial in bridging the gap between often inaccessible academic theory and concrete implementation. Additionally, an ethics which centers marginal priorities must be foregrounded if we are to envision and ultimately suggest what these designed futures might look like. As such, spaces for unencumbered and unmarred experimentation are important in order to iterate potentials in a manner that does not sustain or reproduce harmful epistemologies.

Design alone may not be capable of such transformative agency, but it certainly informs as much as it is informed by socially codified values and priorities. Further, given design's yet short and unstable history, what we choose to do now will carry significant sway in molding the discipline into one which is capable of producing and upholding sustainable values. We are, quite literally, shaping this history, and what it will look like is up to us.

Faced with all this, we can now take these insights and strive for ethical work that challenges rather than acquiesces. Or we can ignore them and keep on producing

work that is dismissive, exclusionary, and which merely reproduces that which is already assumed to be known and valuable — thereby making it stale, stagnant, and, above all,

UNETHICAL.

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B) Source: <https://superflux.in/index.php/work/mitigation-of-shock-singapore/#> Courtesy of Superflux. © Superflux.
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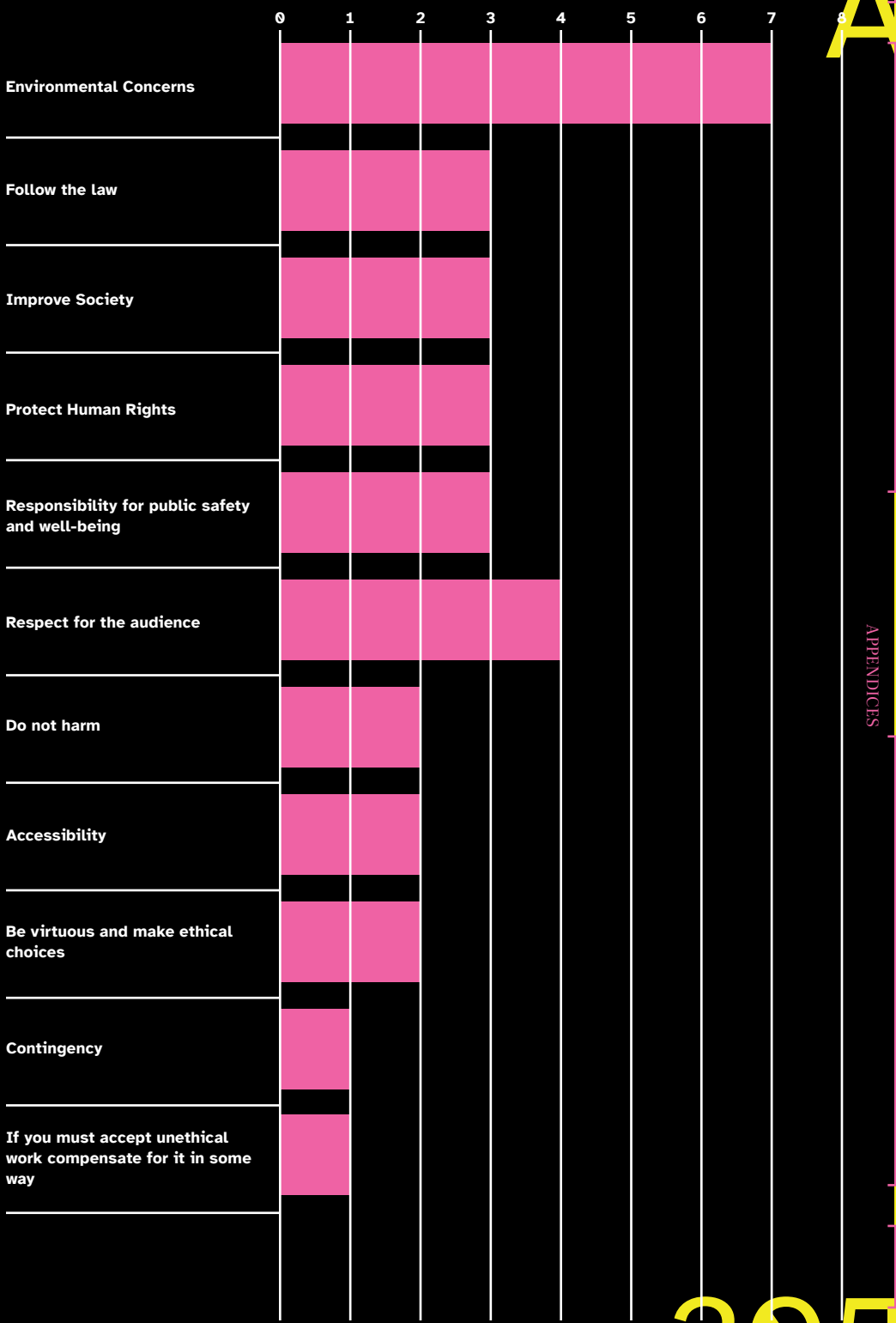
APPENDICES

PP. 204 – 215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Environmental Concerns
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Improve Society
Protect Human Rights
Responsibility for public safety and well-being
Respect for the audience
Do not harm
Accessibility
Be virtuous and make ethical choices
Contingency
If you must accept unethical work compensate for it in some way

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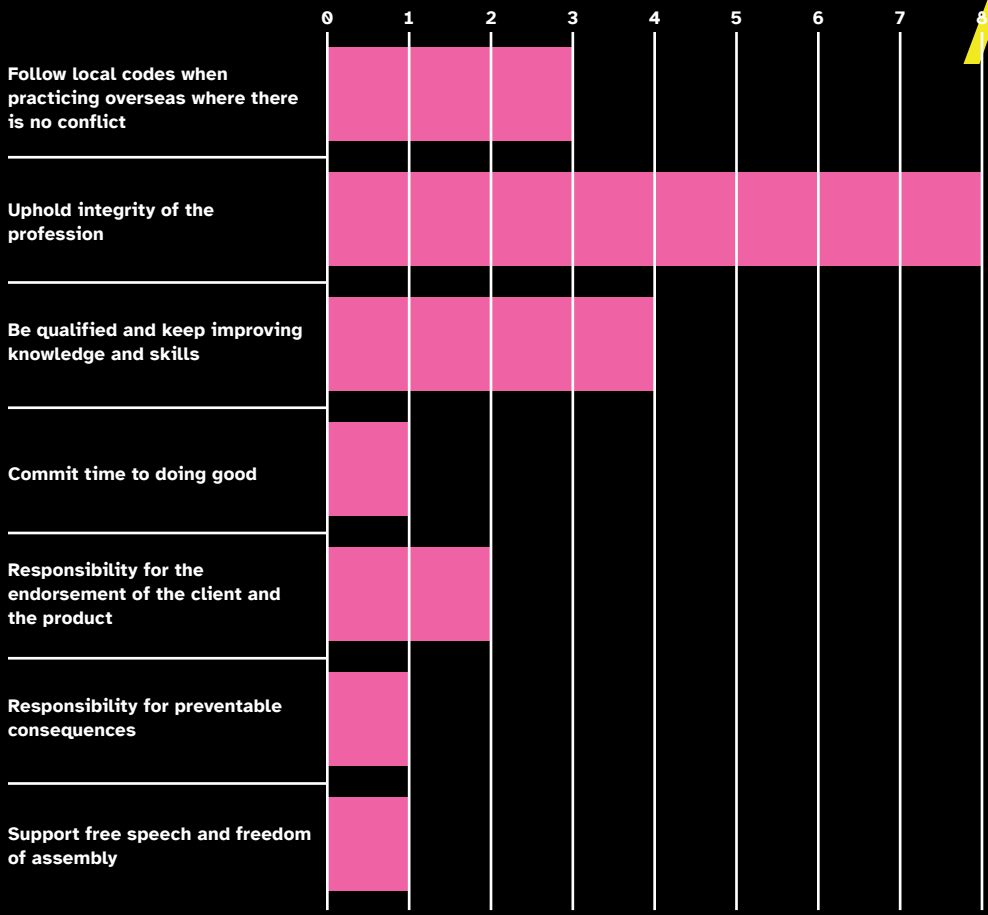
Responsibilities for employers
Responsibilities for educators
Conflicts of Interest
Responsibility to the client
Plagiarism/copyright/licensing
Do not hinder other designers' work
Professional minutia
Honesty and transparency
Wage fairness
Follow/do not violate the code
Encourage others to follow the code



Graph of the frequency by topic for all documents (AIGA, 2009; AFD, 2012: AGDA, 1996; CSD, n.d.; ESD, Goh, 2012; GDC, 2019; ICoD, 2011; IDSA, 2020) **APPENDIX A**

Categories	Topics	AIGA	AFD
Social Responsibilities	Environment	●	●
	Follow the law		
	Improve society		●
	Protect human rights	●	
	Responsibility for public safety and well-being	●	
	Respect for the audience	●	
	Do not harm	●	
	Accessibility		

AIGA: American Institute of Graphic Arts
AFD: French Designers Alliance
AGDA: Australian Graphic Design Association
CSD: Chartered Society of Designers
ESD: Ethics for the Starving Designer
GDC: Graphic Designers of Canada
ICoD: International Council of Societies of Industrial Design
IDSA: Industrial Designers Society of America

AGDA	CSD	ESD	GDC	ICoD	IDSA
●	●	●	●	●	
	●		●		●
			●	●	
			●		●
		●			●
		●	●	●	
			●		
			●		●

Categories	Topics	AIGA	AFD
Social and Personal Responsibilities	Commit time to doing good		
	Responsibility for the endorsement of the client and the product	●	
	Responsibility for preventable consequences		
	Support free speech and freedom of assembly	●	
Personal Responsibilities	Virtuosity		●
	Contingency		
	If you must accept unethical work, compensate for it in some way		
Personal and Professional Responsibilities	Uphold the integrity of the profession	●	●
	Be qualified and keep improving knowledge and skills	●	●

AGDA	CSD	ESD	GDC	ICoD	IDSA
			●		
		●			
		●			
		●			
		●			
		●			
●	●	●	●	●	●
			●		●

Categories	Topics	AIGA	AFD
Professional Responsibilities	Conflicts of interest	●	●
	Responsibility to the client	●	●
	Plagiarism/copyright/licensing	●	●
	Do not hinder other designer's work		●
	Professional minutia	●	●
	Honesty and transparency	●	●
	Wage fairness	●	●
Responsibilities to Designers	Responsibilities of employers		
	Responsibilities of educators		

AGDA	CSD	ESD	GDC	ICoD	IDSA
●	●		●	●	●
●	●	●	●	●	●
●	●		●	●	●
●	●	●	●	●	●
●	●	●	●	●	●
●	●		●	●	●
●	●	●	●	●	●
		●	●		
		●			●

Categories	Topics	AIGA	AFD
Responsibilities to the Code	Follow the code/do not violate the code	●	●
	Encourage others to follow the code		
	Follow local codes when practising overseas where there is no conflict (stressing the importance of following a code)		

AIGA: American Institute of Graphic Arts
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APPENDIX B Table of each topic covered in the texts by category in every document (AIGA, 2009; AFD, 2012: AGDA, 1996; CSD, n.d.; ESD, Goh, 2012; GDC, 2019; ICoD, 2011; IDSA, 2020).

AGDA	CSD	ESD	GDC	ICoD	IDSA
●	●	●	●	●	●
	●				●
●			●	●	

HELLO,

This is where we get to explain the making of process behind this book. We worked very closely together to make sure that the design matched and complemented the text. Ana, as the author, was very involved with the design process and was responsible for all the minutia of bringing this book to life. Diogo's design expertise was invaluable. He is the one that actually got the words on the page and also very patiently acceded to Ana's last minute changes to the text. (Thank you for that ☺).

This was a somewhat grueling but gratifying process of navigating bureaucracies and learning about EU copyright laws without any editorial support beyond ourselves. But we worked our way through it, developed a friendship, and are now finally able and extremely proud to be bringing this book to YOU.

(We would also like to take this opportunity to thank everyone for answering our emails and being so kind! And thank you to the authors especially for granting us permission to use their work).

Neither of us was compensated as this is a publicly funded non-commercial project focused on academic outreach. Given our limited budget, there were some constraints that we had to abide by which conditioned a lot of our design choices. For one, we had a limit of 224 pages, which we could not exceed. This is largely why the text was set in two columns — so we could fit everything we wanted to include. We also opted for a standard size for the physical book in part because of this very reason. Beyond being the most inexpensive format, it also had the benefit of being the one which produced the least amount of waste. Plus it's the format that fits most comfortably in most people's hands.

In addition, we were, essentially, introducing a collection, which meant we had the privilege as well as the added

responsibility of setting the tone. This was done through some design elements that could fit this book and still be coherent and distinctive enough to be perpetuated and identified as that which unifies all the books released under the **DESIGN MATTERS** collection. Here, they are the spine and the colored edges.

Regarding the choices specific to our book, we focused on creating something that matched the content while still granting Diogo the creative freedom he is owed as the book's designer. We began by setting an important rule: we only allowed ourselves to use open-source fonts with women designers. From that pool we selected Literata — which is featured in the Badass Libre Fonts by Womxn project mentioned in the book — and Atkinson Hyperlegible — a font designed in collaboration with the Braille Institute to increase legibility and improve comprehension.

Following in that vein, we also created a navigation system to help situate the reader in the book. We accomplish that

through clear separation pages, always positioned on the left to help establish a pattern, and a handy navigation bar designed to provide relative as well as absolute information. Moreover, the large page numbers are also meant to facilitate navigation while also introducing an element of traditional hierarchical subversion that does not compromise on readibility. In addition, we also made use of chromed ashes as a visual motif for the cover. Ashes, while being the result of destruction, are also an excellent fertilizer — an evocative metaphor which embodies the arguments put forth in this book. The chromed layer, beyond merely aesthetic reasoning, is also a way of illustrating the complexity of what is described, as chrome plating itself is quite a long and intricate process.

As for colors, we went with black and white, yellow, and pink. Yellow was actually the first color we picked. Well, after the staple black and white. Yellow, as a color with many different and complementary meanings seemed particularly appropriate.

For one, it is pretty consistently used among a wide array of cultures to represent positive feelings of optimism and creativity, which we want to tap into as the ultimate message of this book. It is also the most visible color of the spectrum, which is why it is widely used in signs and traffic lights to indicate a need for caution — something we wish to foment as well. In addition, yellow is often considered to represent existence outside of binary structures, which is something this book advocates for.

As a complement to yellow, we picked a vibrant shade of pink. Pink is an interesting color. From being associated with masculinity to becoming feminine-coded to being subverted and appropriated, pink has enjoyed mutating connotations. It is also associated with some crucial elements to this text. Namely, hope and queerness — the result of an act of anti-fascist reappropriation, as pink now features on a number of Pride Flags. Specifically, we chose a dynamic and intense shade of magenta, to help create a sense of urgency.

Magenta, moreover, is also a shade of purple, yellow's opposite color, thus contributing to a larger metaphor symbolizing the holistic approach herein described.

This project was a true collaboration between both of us. This book would certainly not exist as it is if had been any different. Each of us brought our distinct strengths to the table and together ended up creating something we are both proud of and very happy to be able to distribute free of charge. Thank you so much for reading and please let us know your thoughts!

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DESIGNING FUTURES: HOW CAN *ETHICS* SHAPE DESIGN THEORY AND PRACTICE

DESIGN MATTERS COLLECTION #1

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Diogo Lourenço: *The World's Most Famous Designer.*

Revision
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José Gomes Pinto;
Victor M Almeida.

Translations
Ana Henriques.

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