**W**hat **W**ent **W**rong: A Design Oriented Response to Techno-Pessimism in Social Media

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**Chapter 1**

The history of the perceptions of new media of communication is variations on the same phenomena: The early enthusiasts who make a grand claim about the new world of possibilities the new medium has opened up, followed by the critics who claim that the world the new medium has created is an arm's reach from a dystopia. When the newspaper appeared in the 18th century, Enlightenment thinkers praised it as the necessary grounds for a public sphere in which individuals can engage in rational reflection and advance as their societies (Habermas, *Structural Transformation of the Public Sphere).* Soon after, Kierkegaard castigated the very same medium for creating a place for pure reflection with no place for action (Dreyfus, *On the Internet*). Following the global acclaim of the television that would finally bring voice to a global audience, Heidegger pessimistically noted on the impeding loss of any understanding of closeness of ideas or people (Heidegger, *The Thing*).

Similarly, the early enthusiasts of the Internet imagined that the ease of communication it would eventually allow would bring human beings closer to one another, allow for more meaningful interactions between those who had previously no access to one another. In its early days, techno-optimists described the World Wide Web as the ultimate abolishment of barriers in global communication. Utopic euphemisms such as the romantic "cyberspace" and unbounded "information highway" (Dreyfus, *On the Internet*) were used to articulate the beginning of a wholesome interconnectedness that was rivaled by no other age.

Following its historical predecessors, the Internet soon met its critiques as well; the tecno-pessimists. Among the first arguments against the Internet was that it would make all alternative forms of communication irrelevant and declare its reign as a "technopoly" (Neil Postman, *Technopoly: The Surrender of Culture to Technology)*. The argument made its way to the question of whether or not *Second Life,* a role-playing computer game, would take the place of the physical world (Dreyfus). Today, the techno-pessimist critique targets social media most fiercely. The prevalent claims against social media include that it is not a platform of mass communication, but mass dissemination (Gershon, *Unfriend My Heart*), that YouTube is creating a dystopia for the sake of higher ad revenue (Tufekci, *We're Building a Dystopia just to Make People Click on Ads*), and that Facebook has undermined democracy in an irreparable way (Vaidhyanathan, *Antisocial Media*). In the fields of social anthropology, tech sociology and political science, social media takes the fault for a considerable part of the prominent polemic of our day.

There is no doubt that the critique is insightful. Theoretical discussions are supported by empirical epidemics. In 2018 alone, Facebook has received public outcry for allowing foreign influence to enter US general elections, was cited by the UN as one of the actors responsible for the religious slaughter of Muslims in Myanmar and had its founder Mark Zuckerberg testify before the American congress for leaking close to 90 million users' data to a third party (45). Although Facebook seems to be the most scandal-ridden of the platforms, each platform receives its share of public outcries. Even during the first months of 2019, a new scandal has emerged as YouTube is partially blamed for the rise of anti-vaccination movements, one of the top 10 global health threats according to the World Health Organization (46). Both supported by theory and in practice, there are clear problems with social media that need to be addressed.

However, the critique also often misses a critical point of distinction, namely that between what is inherent in the medium and what is added by design. In other words, the critique of social media, while insightful, is misdirected at the medium itself, whereas it should target particular design decisions, which can be fixed with alternate design forms. As a set of applications that live on top of the World Wide Web, which itself lives as an application on top of the Internet, social media is only bound by the rules of the rules of communication of the Internet. Furthermore, the design of the Internet follows an "hourglass model", in which the layers are largely independent of one another, and the middle of the hourglass is intentionally designed narrowly (Zittrain, *The Future of the Internet*). In other words, there is a wide freedom left for the applications on the Internet to fill through their own design. As a conclusion, in how social media platforms behave, little is due to the nature of the medium, while much is due to design choices made by the particular platforms.

Therefore, the question of social media is not a medium question, but a design question. What is meant by design not a set of aesthetic decisions, as the word is colloquially used, but a set of structural and architectural decisions, in the technical sense of the word. Anything that forms the frame around the content of the platform is considered design. As Marshall McLuhan writes in a famous piece on media theory: "The medium is the message" (McLuhan, *Understanding Media*). Any content within a medium cannot be separated from the structure of the medium. Similarly, for the case of social media, any interaction a user has with a social media platform cannot be separated from the design of the platform. Whether or not it is intentional, the design of the platform already nudges the user towards certain behaviors, encourages some interactions over others, and eventually has an undeniable influence over the totality of ways in which users use the platform.

  Furthermore, design not only refers to what is made possible and what is not; but also, to what is made easily accessible and what is not. Perhaps the theoretically conscious and technically skilled user can make use of the full spectrum of the platform's possibilities, but most users will limit themselves to the uses that they see as clear and beneficial. The "80/20 rule" of human-computer interaction suggests that 80 percent of the users will use 20 percent of the functionality of a platform, which make up the easily accessible and basic features of the platform. What the platform holds is not only a question of what is available to the user, but also of what is easily accessible. Therefore, the evaluation of the critique of social media and its response should be approached as a design problem.

In the following pages, we discuss some of the central critique of social media, some of which has been alluded to already. We attempt to rescue the medium itself from the critique, instead directing it at particular design decisions that we argue have given rise to the problems articulated. To assure the legitimacy of this claim, we argue for the possibility of alternative design choices that would alleviate the critics' concerns. Specifically, we categorize a wide set of arguments into three groups, according to the design features from which they originate, namely: notification settings, structure of posted content, and engagement-based optimization algorithms. For each of these categories, we provide the said critique and give evidence to it in order to display its legitimacy. Then, we demonstrate their connection to the design feature, and give suggestions for alternative design features. In Chapter 3, we anticipate counter arguments to our claims. Once again, we give grounds for these counter arguments to display their legitimacy and provide responds to them. We categorize these counter arguments into three groups, namely: system-wide arguments, general arguments that pertain to multiple claims, and specific arguments that pertain to a singular claim. Finally, in Chapter 4, we turn to a discussion of wider implications of our claims.