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Annotated Bibliography

My capstone project is an informative website that contends with the issue of “dark patterns” in UI/UX, which are unethical design choices that mislead or influence users in some way. The site will highlight the types of patterns present in mobile and online interfaces, their impact on cognition and society, and potential frameworks of digital wellbeing that can be instituted. In order to convey this information, my hope is to publish a highly interactive website that engages with users’ sense of play in order to make them resonate better with the content.

Medium

Boyl, Brian L. M. *Interaction for Designers: How to Make Things People Love*. Routledge, 22 Mar. 2019, pp. 187–216, books.google.com/books?id=RS-ODwAAQBAJ&pg=PT308&lpg=PT308&dq=. Accessed 15 Sept. 2023.

This chapter is an excellent analysis of microinteractions, or the moment-to-moment, discrete interactions that a user experiences when interacting with an interface. It fully breaks down the design thinking behind a comprehensive list of microinteractions, providing examples, use cases, and visualizations to accompany them. Evidently, this will be directly useful for the design process, as it enables me to think about the minute interactions on my site from the beginning. By considering the functionality, utility, and impact of all the different microinteractions, their compounding effect can make a much better experience. No credibility issues with the book can be identified.

Kang, Hyo Jeong, et al. “How 3D Virtual Reality Stores Can Shape Consumer Purchase Decisions: The Roles of Informativeness and Playfulness.” *Journal of Interactive Marketing*, vol. 49, no. 1, Feb. 2020, pp. 70–85, <https://doi.org/10.1016/j.intmar.2019.07.002>. Accessed 18 Sept. 2023.

Though the basis of this research focuses on a different medium—3d application in VR—it outlines points that I think are directly applicable to my design process. It argues that perceived playfulness and interactivity are important concepts in interaction development, as it heightens user focus,

engagement, and their sense of control over the application. Incorporating these tenets would be useful for several reasons, but I think for my purposes it would help maintain people's attention and enjoyment of the site, allowing them to absorb information in a way that doesn't feel spoon-fed to them. Additionally, my initial DNID love has always been game design, and I think there's a lot to gain out of incorporating those techniques into web development (in academia, there are several articles also supporting this theory of gamification). No immediate conflicts of interest.

Longstreet, Phil, et al. "Towards an Understanding of Online Visual Aesthetics: An Instantiation of the Composition Perspective." *Technology in Society*, vol. 65, May 2021, <https://doi.org/10.1016/j.techsoc.2021.101536>. Accessed 16 Sept. 2021.

This research article is useful toward substantiating a better understanding of good design. It outlines seven primary design dimensions (lines, shapes, colors, textures, forms, values, spaces) and argues for the necessity of composition during web development. While I was already planning on making a visually appealing site, this helps ground me with specific principles to keep in mind and leverages empirical research to support their inclusion. I don't see any issues with authorship, except for the fact that their perspective might be more IS inclined than strictly artistic.

"Design Threads." *www.designthreads.report*, www.designthreads.report. Accessed 18 Sept. 2023.

This is an interesting site that compiles many of the issues we've discussed in class readings and lays out a greater context of the design world and all that it entails. The site itself is beautiful and offers a lot of inspiration, and it delves into key issues regarding the kind of "user" projects are developed for. Additionally, it outlines the barriers—or lack thereof—that designers face in the industry, and places more individual responsibility onto them. While this is not necessarily a technical framework, this site remains an important part of my understanding of this medium and will help me understand the greater discourse I am slotting myself into. Evidently, however, designthreads.report was created with a deliberate purpose in mind, and is not an unbiased academic article, so I should keep its persuasive intentions in mind.

"How Functional Animation Helps Improve User Experience — Smashing Magazine." *Smashing Magazine*, 2017, www.smashingmagazine.com/2017/01/how-functional-animation-helps-improve-user-experience/. Accessed 18 Sept. 2023.

Within this magazine article, the importance of functionality for animations is highlighted. Animations within a website should serve a purpose and enhance the user experience, and they provide invaluable visual feedback. For considerations in interactivity and engagement, they're paramount to creating a site that feels dynamic and responsive. Though this article is sponsored by Adobe, it's purely informative and doesn't convey a sales pitch anywhere. Animations are probably going to be far down the line in my design process, but these are still good things to keep in mind.

Intervention

Aranda, Julie. "The Search for JOMO: New Research on Digital Wellbeing." *Google*, 5 Sept. 2018, blog.google/products/android/search-jomo-new-research-digital-wellbeing/. Accessed 17 Sept. 2023.

This is an official blogpost published by Google. It emphasizes the importance of digital wellbeing, and coins the phrase "JOMO", or the joy of missing out after disconnecting. I don't love some of the corporate-speak in this, but I think I can use it as a metric for industry initiatives regarding the topic. Additionally, this poses a question into the profitability of digital wellbeing: as accessibility rises due to its advantageous quality to companies, would digital wellbeing practices have a similar effect? Or is it too counterintuitive to the business models of these companies? Obviously, it's important to be careful given that the source comes from Google, and I'm not sure what sort of stake they have in this matter, but it's an interesting perspective. For my purposes, I'll use this to further contextualize the issue of dark patterns and the solutions that are being instituted from the largest entities in technology.

Brignull, Harry. "Deceptive Design – Formerly Darkpatterns.org." *Www.deceptive.design*, www.deceptive.design. Accessed 16 Sept. 2023.

This provides an interesting legal perspective to the various kinds of deceptive patterns. Different types are not only broken down but are also given context in the form of legal proceedings and regulations, slotting their usage against a tangible backdrop of real-world implications. I don't think this is a core resource for my intended website, but it features a legislative framework that I could easily incorporate into any sections leading to further reading, or as a sort of add-on at the end of a page. I think it's important to stay up to date with the regulations regarding this topic, and to understand how well the government is maintaining the rapid pace of UX development.

Mildner, Thomas, et al. “About Engaging and Governing Strategies: A Thematic Analysis of Dark Patterns in Social Networking Services.” *ArXiv (Cornell University)*, 19 Apr. 2023, <https://doi.org/10.1145/3544548.3580695>. Accessed 15 Sept. 2023.

This study denotes and provides insight into various UX “dark patterns” found across social networking services, providing a table that lists out all the tactics developer use in order to guide users toward a certain action. This is an invaluable resource in developing a website portion dedicated to identification of dark patterns. It also indicates to me that I need to conceptualize a visualization method that can deliver this multitude of pattern types in a deft manner, as I don’t want to bog down the majority of the user experience by listing out every single possible design choice that fits into this category. It’s a reputable source that comes from the proceedings of the 2023 CHI Conference on Human Factors in Computing Systems.

Roffarello, Alberto Monge, et al. *Defining and Identifying Attention Capture Deceptive Designs in Digital Interfaces*. 19 Apr. 2023, <https://doi.org/10.1145/3544548.3580729>. Accessed 12 Sept. 2023.

All of Alberto Monge Roffarello’s work is excellent for the purposes of this project (he appears to be a leading figure in this field), and there’s several more of his papers I’ll be touching on throughout my design process. Within this paper, Roffarello *et.al* define the term ACDP, or Attention Capture Damaging Patterns. Essentially, they review the value of attention in the modern infosphere and the ways in which it’s commandeered through interaction design. They utilize a comprehensive literature review and discuss the in-depth psychological impact that these patterns induce. They also provide extensive insight into the typology of 11 attention capture damaging patterns—while most are in line with other patterns I’ve read about, I really enjoy their psychological perspective and considerations of the cognitive impact. For the purposes of my project, I think this may be one of my primary sources when outlining the issues that come from deceptive design, as it highlights the quantifiable effects it can have on people. While other sources delineate a list of dark patterns, I enjoy the depth these authors provide for each of their categories, and I think it’s more tangible information to depict. It also provides digestible definitions, and I highly trust its credibility as this paper has, as mentioned above, a holistic literature review.

Roffarello, Alberto Monge, et al. “Understanding Digital Wellbeing within Complex Technological Contexts.” *International Journal of Human-Computer Studies*, vol. 175, July 2023, p. 103034, <https://doi.org/10.1016/j.ijhcs.2023.103034>. Accessed 12 Sept. 2023.

Helpfully, this paper outlines a definition of digital wellbeing and reviews the research done on this topic. An intervention feels futile without offering potential solutions, and this is an excellent starting point for the revelations and conceptions surrounding the concept of digital wellbeing. For my purposes, I'm going to be taking a closer look at DSCTs (Digital Self-Control Tools) that are currently on the market, as well as experimental ones developed for research purposes. I want to include a part of my site that examines them, and potentially focus some case studies on DSCTs that are in circulation. It's an exciting time to be broaching this subject, because it's only recently appeared to reach a sort of critical mass, and this paper denotes that the discussion around pervasive technology use and the need for self-control tools has risen. As, essentially, a literature review, there's no identifiable biases within this paper and no competing interests are declared. I'm cognizant of the fact that a lot of my academic sources seem to draw from the same guy (Roffarello), but his work is invaluable to this field of research, as there really hasn't been much significant academic study into this topic as of today.

Wallet, Bas. "Who Should Take Responsibility for Evil UX Design and Digital Ethics?" *Medium*, 9 May 2023, uxdesign.cc/who-should-take-responsibility-for-evil-ux-design-and-digital-ethics-4d96597908e8. Accessed 10 Sept. 2023.

An excellent blogpost from a UX designer that considers the ethical and philosophical responsibilities of designers' role in implementing dark patterns. As the original article that initiated my interest in this topic, it raises interesting questions about participation and perpetuation of the attention economy and reevaluates the weight of decisions developers make. This is the initial ethical framework I'm basing all my research off, of and even if I don't cite the article directly during website development, all of the issues brought up in it will be pertinent in one way or another. This author has experience with the industry and Medium is a fairly reputable platform, so it appears to be a fairly reputable article.

"Coglode Cookbook." *Www.coglode.com*, www.coglode.com/cookbook. Accessed 14 Sept. 2023.

The premise of this site is to inform developers of different behavioral science quirks that they can use to optimize attention. This is an interesting find for several reasons: it serves as an immediate toolkit for my own UX development, has an interesting layout that capitalizes on its behavioral research, and has some insidious implications about the deliberate choices behind branding, loyalty, and retention within interaction design. It is presented as purely informative, but it's hard to ignore the motivation behind the site's inception, which appears focused on monopolizing the cognitive and material capacities of the user. This is a more supplemental resource, as it doesn't directly address my content matter, but I think it provides valuable insight into the mindset of UX designers and norms accepted by the industry.

