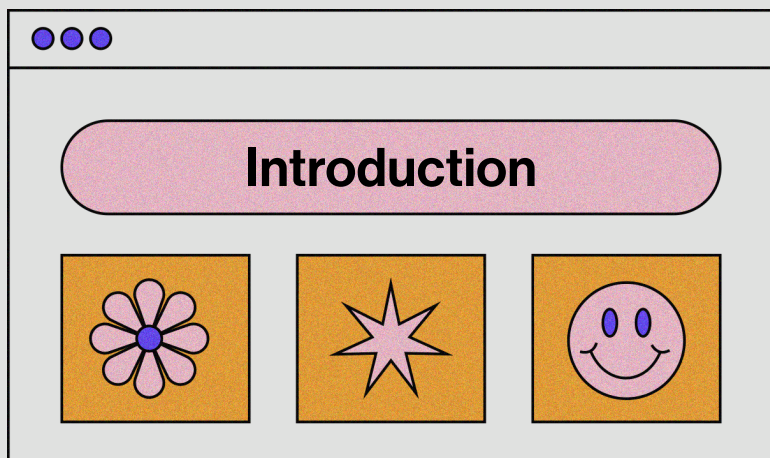


Thesis Prospectus

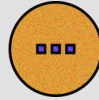


Brooklynne Worthington



Born in the mid-'90s, I grew up on the web and it has consistently served an integral role in my life. Developing early design and coding chops from my middle school Tumblr, I became continuously interested in how different design elements change the user's experience, even if I wasn't cognizant of it at the time. As I decided to pursue a degree in graphic design, I became increasingly interested in UX/UI and motion graphics. I was excited to learn more about the relationship between these fields but quickly realized that there was a large gap in resources that connected the two. While motion graphics have become an important staple of UX/UI and product design, it felt as if there was no specific source that I could reference when creating designs. Through these realizations, I developed my thesis that analyzes the principles that successfully incorporate motion graphics into UX/UI, and aim to create a concise user guide with resources on how to create engaging and fluid designs.

Research



As the integration of motion graphics into UX/UI has not been historically taught in traditional graphic design programs, I interviewed three industry professionals who actively use these practices in their work. The questions that I asked regarding best practices for using motion graphics in UI/UX were:

What do you think is the most important role that motion graphics plays in UX design?

Why do you think that there is still a big gap between UX and animation design?

What is an example of a website that you think uses great motion graphics and why?

What is an example of a website that uses poor motion graphics and why?

What elements of an animation do you think allows it to blend into an interface?

What are three rules that you follow when designing animations for web or mobile?

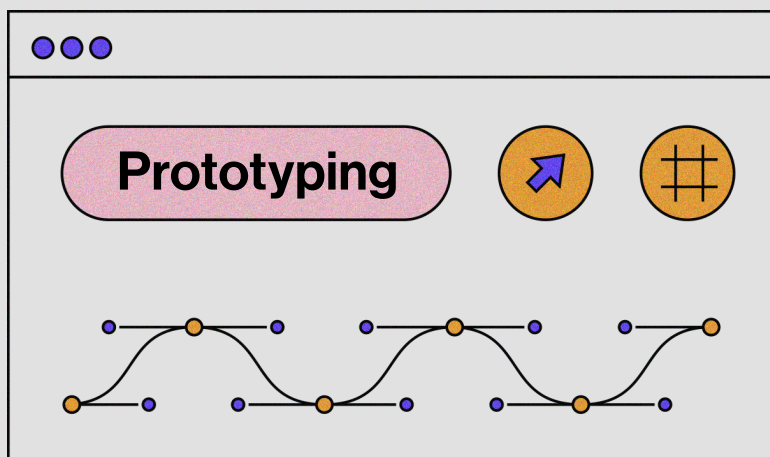
Through these interviews, I learned important information about intuitive and human-centered design, prototyping for motion graphic integration, motion as a branding element, and the motion/UX gap that could only come from those who are actively designing in these fields. Their comprehensive knowledge of these fields was also insightful in recognizing the reasons behind the gap between UX/UI and motion graphics. Furthering my research, I took two courses: the Advanced Prototyping with ProtoPie Course and the Meaningful Motion UI Course. These were imperative in developing my knowledge on how to use motion graphics in UX/UI design, teaching important technical skills through practice. These primary findings through interviews and tutorials are detailed in the following pages.

Human-Centered Design



Looking back on web designs from ten to twenty years ago, websites felt stagnant and removed from the user. Even if beautifully designed, the display presented information and the user digested said information as best as they could, with little visual cues. Today we navigate virtual spaces with ease and feel connected to the information or experience through motion graphics. Motion graphics serve as the body language of a product or interface, guiding the user through the experience. Whether a gentle nudge in one direction or hands waving excitedly, telling the user “over here!”, motion graphics are an important element of human-centered design (Head, V 2019).

Tools such as After Effects, Lotti, and Protopie among many others allow designers to create a two-way conversation between a website or app and the user. Through the use of various tools, designers are able to create integrated motion graphics that increase user experience and allow the user to enjoy their experience interacting with information. Human-centered motion graphics serve a purpose and are subtly intertwined into the user’s experience to make it engaging and rewarding. As brought to light in an interview with an industry professional, they are also simple and intuitive to maintain accessibility. Human-centered motion graphics must be designed with consideration to human physiology, complimenting the way that view and digest information and movement (Laubheimer, P 2020). They are choreographed, giving an expected reaction to the user, creating a flowing experience rather than confusion. Motion graphics have completely transformed the way that we consume digital information, making us feel connected to what is presented and able to navigate with ease.



Prototyping is an important tool in creating designs that are thoughtful, consistent and practical to ensure they can be handed over to the developer without considerable hiccups. Just as it is important to prototype layout, components, type, and buttons, it is also important to prototype interactions and motion graphics. In an interview with an industry professional and university instructor, it was brought to my attention that a style guide for animations must be used in the prototype to maintain the continuity of motion graphics. By using a style guide, animations can use the same principles of timing, speed and easing, which makes for more fluid designs. Through prototyping, the designer can also test out these principles, and make adjustments accordingly before they hit the screen.

Branding



Despite the main uses of motion graphics in UX/UI being functional, motion is a powerful tool for creating a brand experience. While many websites and apps use the same motion graphics principles to create a good user experience, branding animations are responsible for creating emotional engagement with users (Babich, N 2017). Motion graphics can be used to allude to the companies values, or speak to a products strengths without having to explain directly. In an interview with an industry professional, the interviewee displayed how the skincare company Plenaire uses subtle motion graphics to highlight the strengths of their products. Soft scrolling transitions on their website nod to the company's emphasis on gentle skincare, as gentle moving bead overlays on images and scroller make the user want to gently scrub their face. As branding animations at first glance provide the user with joy by adding sparkle to the display, they further inform the user of the company's values and strengths in a subtle, flowing manner.

While motion graphics are a powerful tool for developing emotional engagement, they are also useful in building brand recognition and creating a cohesive brand experience. In an interview with a university professor educated in UX/UI and motion graphics, the interviewee highlighted how motion graphics can be used as a branding element when they use the same speed and transitions, exemplifying how timing and movement can be used to unify a brand experience. The interviewee discussed how easing and timing can be brought into the style guide to build consistency, further creating a more cohesive brand experience. Adding easing and timing into the style guide is also an important practice to keep the designer/developer handoff running smoothly. Through attention to detail in the speed, transitions, easing, and timing, motion graphics can elevate a brands identity in an understated fashion.



While motion graphics have become increasingly interwoven into UX/UI, there is still a considerable gap. This is in large due to the designer/developer handoff, creating a barrier between what the designer envisions and what the developer is capable of (Naimark, J 2019). If the designer or design team doesn't have the resource of a developer skilled in integrating motion graphics, it creates further strain. Though the disconnect between these two fields presents challenges, I learned in my interviews about programs such as Lottie that are putting more control into the designer's hands to simplify the designer/developer handoff. Lottie is a library developed by Airbnb that allows After Effects animations to be exported with a plugin and render natively on a website or mobile device. Innovations like Lottie that recognize the hurdle that web and mobile motion graphics present are imperative in merging the gap.

In the interview with aforementioned university professor, it was highlighted that the gap is due in part to the way that skills are taught. Motion graphics has been previously taught as its own field, used for either film or short animations for enjoyment, and UX/UI has been taught to create stagnant designs. The interviewee stated that the tools that are taught in courses are usually separated, but prototype weaving is helping to close the gap. In my personal research, I found that among the thousands of universities in the US, very few offer degrees in UX/UI as a design discipline, and even fewer provide comprehensive education on motion graphics within web and mobile design. The lack of emphasis on the connection in higher education was further inspiration to create a handbook for designers who are looking to educate themselves.

Audience



The idea of learning how to integrate motion graphics into virtual spaces is a daunting task for many. Designers who choose to pursue this must be versed in various disciplines, not all of which are offered in traditional undergrad graphic design programs. From having a classical training in graphic design visual principles, designers in this field must have an advanced understanding of motion design, with knowledge of how to integrate timing, scale, and transitions into an interface. With all of that in combination with a refined understanding of UX/UI and product design principles, it is undoubtedly an intimidating field to dive into.

My educational ebooklet will be created for designers who are intrigued and excited by the integration of motion into UX and product design, but feel overwhelmed by the amount to learn and lack of thorough resources. Whereas many resources require a fundamental understanding of UX, product, and motion design principles, my ebooklet will be a starting point for graphic designers to learn more advanced technical skills and the theory behind them.

Outcome



The conclusion of my research will result in an ebook that is comprehensive of UX/UI and motion graphics design principles and theory, and focus on the connection between these fields. Using traditional design pedagogy, one will be presented with and acquire the necessary knowledge and skills before moving onto the next step. Compiled from articles, tutorials, and interviews, it will cater to a variety of learning types to achieve optimal inclusivity. It will be published on Issuu, available for free to those who wish to view and use it as a resource for their learning. While I have found many informational and insightful resources through my extensive research, I believe that many will feel settled by an extensive resource on this intricate and compelling field.

Weekly Timeline



- 1 Begin researching articles and tutorials. Contact design professionals for interviews.
- 2 Continue researching articles and tutorials. Begin interviewing design professionals.
- 3 Synthesize articles and tutorials. Continue design professional interviews. Provide a survey to university students to learn about what they feel is missing in curriculum and what they would want in a resource.
- 4 Transcribe and edit design professional interviews. Evaluate student survey and adjust content as needed.
- 5 Finalize ebook content. Begin visual design research.
- 6 Receive professor and peer revisions on content. Layout ebook in InDesign.
- 7 Revise content as needed. Receive professor and peer revisions on visual design.
- 8 Revise visual design as needed. Finalize first draft.
- 9 Receive professor and peer revisions on first draft. Revise ebook as needed.
- 10 Complete final draft. Send out invites to university design programs, students and design groups to view ebook in a week.
- 11 Digitally publish on Issuu. Send out ebook to design programs, students, and design groups.

Estimated Budget



Protopie subscriptions x 2 months = \$26

Adobe Creative Suite x 2 months = \$60

Issue = \$19

Total = \$105*

*While I would gladly use monetary compensation to support those who donate their time and knowledge through interviews and surveys, I am unfortunately unable to without outside funding. I would also gladly provide monetary compensation for the use of articles and tutorials as recognition for their hard work and expertise, but further will not be able to without outside funding. As I will not be receiving any compensation for the cumulation of my research and completion of my ebook, Fair Use laws allow the use of copywritten materials for the purposes of research and education. Proper attribution will be given to those providing articles and tutorials, and interviewees if they wish.

Annotated Bibliography



Babich, N. (2017, January 11). *How Functional Animation Helps Improve User Experience*. Smashing Magazine, Adobe. Retrieved from www.smashingmagazine.com/2017/01/how-functional-animation-helps-improve-user-experience/.

In an article for Smashing Magazine, Nick Babich explores the ways in which meaningful and functional motion graphics can create a successful user experience. Babich shows how animations that provide visual feedback, visibility of system status, visual hints, and navigational transitions can create a human-centered design that is intuitive and clear. Maintaining that those points are necessary for logical designs, and he further explains how branding animations are necessary for establishing emotional engagement with viewers. This article is important to my research as it goes past theory and dives into practice, clearly providing guidelines for how functional motion graphics can be used as a tool for human-centered UX design.

Laubheimer, P. (2020, January 12). *The Role of Animation and Motion in UX*. Nielsen Norman Group. Retrieved from <https://www.nngroup.com/articles/animation-purpose-ux/>.

In *The Role of Animation and Motion in UX*, Page Laubheimer uses an anatomical approach to examine how subtle feedback and micro-interactions are generally the most appropriate forms of motion graphics in UX design. By establishing why human anatomy makes us sensitive to distraction, the article provides guidelines for grabbing attention in subtle ways without hijacking the user's experience. Presenting how noticeable feedback, motion to communicate state change, and supplemental cues are necessary to guide a user through an interface, it also provides examples of how too much motion can hinder user experience. The article explains how a lack of visual cues and feedback can cause change blindness. This article is important to my research as it takes a scientific approach to evaluating the type and amount of animation a functional interface should contain.

Seelie, M. (2019, June 29). *Designing Animation: 6 Principles for Using Animation in UX*. The Adobe Blog. Retrieved from <https://theblog.adobe.com/designing-animation-six-principles-using-animation-ux/>.

In this article, Margaret Steel speaks to animation expert Val Head about how to use animation to create exceptional UX experiences. The article examines how motion in today's UX design has rejected animations' traditional linear storyline for an experience that interacts with the user. Exploring the principles of timing, clarity, organic motion, and hierarchy, Val Head presents guidelines to create interactions that do not distract the viewer. Further exploring the principles of visual continuity and spatial orientation, she presents a framework on how to place a user within a virtual space. The article includes videos for the six principles, working through common design problems to create solutions for a seamless UX experience. This article is important to my research in providing applicable principles that integrate the user into an interface with ease.

Naimark, J. (2019, May 17). *Motion Design Doesn't Have to Be Hard*. Medium, Google Design. Retrieved from <https://medium.com/google-design/motion-design-doesnt-have-to-be-hard-33089196e6c2/>.

In this article, Google motion designer Jonas Naimark touches upon the relationship between UI and motion graphics. He argues that while motion graphics make UI expressive and easy to use, the lapse in advancements between the two has made them difficult to combine. While he does hold this lapse accountable for motion graphics current hole in UI/UX, he states that it doesn't actually need to be difficult and supplies relevant information on making motion graphics easy. He explains and provides examples of transitions within and out of a container, and further provides examples of how to use transition patterns, easing and simplicity to create natural and subtle motion graphics. This article is important to my research as it provides visual and written examples of how to correctly use motion graphics within an interface, and touches upon principles such as transition patterns that are not widely written about.

Head, V. (2018, December 12). *How Animation Adds Meaning to UI: Adobe XD Ideas*. Adobe. Retrieved from <https://xd.adobe.com/ideas/principles/human-computer-interaction/animation-ux-how-animation-adds-meaning-ui/>.

While animation is often regarded as just an aesthetic flourish or something to charm the user, Val Head argues that when animations have purpose and

style they can be used to elevate user experience. Stating that animation is the design tool that most often uses its “outdoor voice”, Head explains how motion can be used to direct attention and make important callouts. She illustrates the pros and cons of this concept through examples that web users experience on a daily basis. While an animated banner does grab one’s attention, it is often seen as annoying and distracting. But examples such as CodePen’s “shake to save” reminder or Stripe’s ringing phone motion, help to subtly direct the user’s attention towards information that is pertinent to them. Further presenting other examples of how motion callouts can direct attention and aid the user, Head displays how purposeful animation is principal to refined user experience. This article is important to my research as it provides examples of how various sites use motion graphics to make their interface more intuitive and human-centered.

Jordan, J. (2018, February 12). *5 Examples Of Web Animation Done Right*. Inside Design. Retrieved from <https://www.invisionapp.com/inside-design/web-animation-ux/>.

In this article, Joe Jordan explores the fine line between static websites and visual overload to provide examples of web animation done correctly. With each website displayed, the author notes what makes it successful and the design principles behind it. He suggests keeping the interface clean by only animating one element at a time, watching the time, and making it meaningful. In contrast to that, he proposes ditching linear animation and putting animation at the forefront of the design process to keep motion graphics fun and fresh. With all of these principles in collaboration, he presents a way to balance out UX animations to make them engaging yet effortless. This article is important to my research as it supplies the principles behind and examples of how to keep web animations fresh, subtle, and engaging to the user.