

User Experience Design to Synchronize Government Acquisition Strategy and Schedule

(Technical Paper)

Disney's Influence on Technological and Societal Advancement

(STS Paper)

A Thesis Prospectus Submitted to the

Faculty of the School of Engineering and Applied Science
University of Virginia • Charlottesville, Virginia

In Partial Fulfillment of the Requirements of the Degree
Bachelor of Science, School of Engineering

Agni Stavrinaky
Fall, 2019

Technical Project Team Members

Amber Ecelbarger
Parker Hamlin
Shannon McGrath
Kelechi Nwanevu
Nicholas Smith
Daniel Xu

On my honor as a University Student, I have neither given nor received
unauthorized aid on this assignment as defined by the Honor Guidelines
for Thesis-Related Assignments

Introduction

Will we continue to experience exponential growth in technological advancement seen in recent decades, or is there potential for a developmental plateau? If we take a look at the major players in the business of technological research, perhaps, we will be able to reach a moderate understanding of how technology has affected societal growth and vice versa. The Disney Company has been monikered the happiest place on earth as well as a capitalist multi-billion-dollar conglomerate. It is evident how all-encompassing the Walt Disney Company has become in the entertainment industry and beyond. Any large company such as Disney gets constant critique on the morality of their business, however what sets Disney apart from other companies like it? It can be argued that it is their extraordinary dedication to societal and technological progression. The goal of this research would be to explore how Walt's ideas of progress can be applied in our own society. Disney has recently done a lot to in the realm of promoting diversity in animation and film as well as developing technologies in areas not limited to animation and film but also urban planning, transportation, robotics and sustainability (Telotte, 2008). It is becoming increasingly important to study what successful companies like Disney are doing right, from a moral and business standpoint, and how we can incorporate those ideals in our daily lives. Similarly, government contracting moves billions of dollars every year, however the difference between the Disney company and government contracting is that Disney has been part of the exponential growth experienced by the technological movement and the enabling technology relevant to government contracting is stuck in the 1980's. The aim of the technical topic discussed in this paper is to design and develop an app interface with a creative approach to guiding new acquisition personnel through the development of unique strategies and proposal writing. No current tools deliver the support necessary to bridge the gap between efficient task

and team management and new personnel learning the ropes of government contracting. We plan to do just this through introducing gamification, or the use game elements in a non-game context (Zichermann & Linder, 2010).

User Experience with a Focus on Gamification for a Government Contracting App

Government contracting is an incredibly involved, multi-billion-dollar business. The complexities involved in making deals with the right contractor for a project are beyond what one might imagine. Often, acquisition personnel bear the burden of juggling the technical aspect, which might mean recruiting the right engineers with relevant expertise, as well as the political side of acquiring a contract, which might involve making sure the allocated funds are used before they are taken away by Congress. There is an incredibly large scope of projects out there in the world of government contracting, from artificial intelligence applications to cyber and homeland security. Along with this large scope of projects there is consequently a myriad of diverse strategies that acquisition personnel can exploit to plan the deal, of which each is different and requires a unique approach. It is important to note that although this is a massive business, the technology used to facilitate the process is the same as what was used 40 years ago and thus it has up to now been a slow, painfully inefficient, process (Burke, 2017). A journal article discussing procurement in the information technology sector (Douglas, 2017) states that although public sector technologies of today are wildly different than that of the 1980s and 1990s and despite the fact that we have seen the pace of technological innovation to be exponential in recent decades, timelines for procurement have not kept up with this technological growth. This is another problem acquisition personnel must deal with on top of the already complex process of government contracting.

With these issues in mind, our team has been tasked with designing a mobile app to help expedite the process of creating and managing plans as well as dealing with setbacks within the scope of project proposal writing. We are primarily concerned with creating a positive user experience, in an article about how gamification improves user experience the cruciality of a positive experience is summed up nicely: “This point of view emphasizes that the creation of value involves not just selling memorable experiences but also giving people an excellent experience of every moment of their the relationship with a product/service provider, one which ideally exceeds their expectations.” (Hsu & Chen, 2018).

Many current technological systems that address this particular issue are obsolete, or at least should be, and are therefore slowing down the acquisition process. This is particularly problematic for new personnel that lack hands-on experience. Our capstone team’s objective is to design an intuitive interface that serves as a guide through the development of unique acquisitions strategies since no current tools provide this specific type of support. By the end of our research project we hope that our app design will be intuitive and engaging while simultaneously providing the support necessary to jumpstart the acquisition process and share knowledge amongst team members. To accomplish this goal, the design must provide the user with modern take on contracting tools. We plan to achieve this by introducing gamification to our design to serve as a novel approach in dealing with task allocation and timeline management. Gamification can be described as taking video-game elements and using them in non-game contexts (Simões, Redondo, & Vilas, 2013). Several existing programs, such as JIRA or Asana provide similar functionality within the concept of task management and ability to track the progress of the team. We aim to break that linear process in order to stray from the monotony associated with contracting deals and change the way this process is viewed.

Thus far the client has defined the users and necessary features envisioned for this app. By the end of the project we hope to have gone through various iterations of potential designs for the app. These designs will include, but are not limited to general timeline management, progress tracking and estimation of task completion date, individual task and responsibility tracking, a starter menu, a help page, the ability to review previous tasks and completed projects, and a people finder. We hope to conduct some user testing in the final stages of the project to provide us with some insight on the friendliness of our design and therefore be able to make necessary changes.

Disney's Influence on Technological and Societal Advancement: An Investigation of Theme Park Infrastructure and Promotion of Diversity in Animated Films

How do multi-billion-dollar media conglomerates such as Disney and its sub-companies contribute to societal progression? The idea of technological momentum is important in this case, this term is coined by Thomas P. Hughes who says that technological momentum is "... a concept that can be located somewhere between the poles of technological determinism and social constructivism." (Hughes, 1994). When we look at a large company such as Disney, it is no secret that its influence on our surrounding society is almost overwhelming. We see Disney everywhere; on TV, at the movies, in clothing and toy stores, etc. But how has the Disney Company reached this level of success? Is it inherently harmful for our society to be so easily influenced by what is, at its core, an entertainment company? Or is the amount of work that Disney has done in terms of technological advancement enough to overlook the morality of such large industries? I argue that Disney has impacted our society for the better, one study on brand experience and customer loyalty named Disney a strong experiential brand and customers

associated it with good childhood experiences, imagination/ innovation, and wanting to be part of the magic (Brakus, Schmitt, & Zarantonello, 2009).

Disney has contributed to technological advancements in the field of animation through breaking ground with Pixar's computer animated *Toy Story* and following films thus becoming the world's dominant animation studio (Price, 2009); they have promoted diversity through films such as *Coco* (Zurcher, Webb, & Robinson, 2018) and in theme parks such as "the World Showcase", in Epcot; they have created an ideal community on their property, filled with various methods of transportation and imaginative ways to create queues to mitigate customer boredom (Weiss & Tucker, 2018); they have set a stellar standard for sustainability practices within large businesses through their agricultural research and education through Epcot's "The Land".

To delve more specifically into the contributions made by the Walt Disney Company, we must first understand its history. With the Walt Disney Company being originally established in 1923 and Walt Disney Imagineering being founded in 1952, there is quite a bit to sift through when discussing the impact in development of technology and how this applies to the concept of technological momentum. One major area of revenue for the Walt Disney Company, is its theme parks. Starting in 1952, there have been 12 theme parks created in 5 locations around the world. Every year new projects are released in these parks to take their guest experience to the next level. With a combination of imagination and technological thought (Causer, 2019), which we will call "Imagineering", park attractions and aesthetics are created with one main thing in mind, the customers experience. Queues are created with space efficiency and customer enjoyment in mind (Weiss & Tucker, 2018). Every attraction has a themed waiting area, this reduces customer dissatisfaction caused by wait time and increases overall positive customer experience. With regard to space efficiency, Disney theme parks place line barriers in specific ways to maximize

space. Disney theme parks do both these things particularly well since people are often willing to wait hours in lines. This of course also speaks to Disney's technological prowess. Customers will typically wait up to four hours on any given new attraction and then afterwards say it was worth the 7-15 minutes they spent immersed in the magic. For example, the Flight of Passage attraction at Disney World's Animal Kingdom is one that still attracts millions of people regardless of its 2017 release (Bevil, 2017). This particular attraction is an immersive experience where the user flies through the forests and mountains of Avatar's Pandora, it is 5 minutes long but consistently has a 3 plus hour wait. I can say that from personal experience this wait is worth it for this attraction, but why do I think this? Because Disney does well in the business of creating magic and how much they have advanced technologically shows in many of the newer attractions in the Disney theme parks.

In recent years, large scale corporation and increased technology usage have become points of contention within our society. With that in mind, is Disney doing more harm than good when it comes to contributing to the push for technology to solve all our problems? I argue that they are contributing more positively than some people give them credit for. In an article about digital modernization with a focus on Pixar (Herhuth 2014), it is stated that Pixar has been largely influential in technological innovation and that it "...compels investigation into how their narratives and aesthetics have participated in this recent phase of modernization, which includes the proliferation of computer programming, digital media, and communication networks, as well as anxieties about human intimacy and new technological forms of life..." The idea of modernization has become controversial and it would be interesting to understand how the leaps we are making in technology have been catalyzed by one of the most creative companies in the

world. Subsequently, we must ask how we can deal with this fast track to modernization without in turn sacrificing values.

The ideals and beliefs held by Walt Disney helped him create a business that has been successful for over 70 years. The things that make this company so popular revolve around the imaginative approach to problem solving. Imagineers are constantly working on projects that will take Disney to the next level. Their success boils down to their unwavering loyalty in crafting the perfect customer experience (Goldsby, Mathews, & Mathews, 2018).

Research Question and Methods

How has Disney created and maintained such a strong following in terms of brand loyalty and positive customer experiences. Has this influenced the way other businesses approach creating their own brand experience? User engagement is a major proponent in retaining customer satisfaction, Disney goes above and beyond in crafting attention grabbing stories and magical experiences (Loeffler & Church, 2015). But how exactly has Disney created the perfect formula for stimulating brand loyalty? In my research I will go about answering this question by employing two methods, autoethnography and historical case studies. These methods are best suited for my particular question, how exactly does Disney create and maintain brand loyalty? Autoethnography will allow me to explain first hand how the average person experiences Disney, I live in Florida and go to Disney World very consistently so I have a lot of first hand experience already and it is completely feasible to physically go to Disney World for the purposes of this research. Historical cases could come in handy when assessing what Disney has done to maintain this level of success for so long. I plan to delve into the documentaries created by Disney, “The Imagineering Story” to explore their own take on what made them so successful.

Conclusion

Change is often difficult for people to wrap their head around; the way Disney broaches the topic of technological and societal change eases the population in to accepting the constantly developing innovations of tomorrow. People are always looking for new ways to shape their communities. If we look closely at how Disney runs its company, we may find that the solutions of tomorrow are just a dream away. Truly focusing on user experience is likely why Disney has been so successful as well as influential. The aim of the capstone research project discussed in this paper is just that. Focusing on user experience to ensure the delivery of an intuitive and joyful interface for the development of a government contracting app with a focus on team development and guidance for new acquisition personnel. Our design will meet the needs of this particular type of project management in a way that handles task and team management through use of gamification in a novel way.

References

- Bevil, D. (2017, May 27). Live updates: Pandora crowds build line after line at Disney. Retrieved November 1, 2019, from Orlandosentinel.com website:
<https://www.orlandosentinel.com/travel/attractions/the-daily-disney/os-live-pandora-avatar-disney-world-opening-20170527-story.html>
- Brakus, J. J., Schmitt, B. H., & Zarantonello, L. (2009). Brand Experience: What Is It? How Is It Measured? Does It Affect Loyalty? *Journal of Marketing*, 73(3), 52–68. Retrieved from JSTOR.
- Burke, R. (2017). The Contracting Tools of the Future. *Contract Management*, 57(4), 28. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=oih&AN=122005811&site=ehost-live&scope=site>
- Causar, C. (2019). Disney tech: Immersive storytelling through innovation. *IEEE Potentials*, 38(5), 10–18. <https://doi.org/10.1109/MPOT.2019.2919851>
- Douglas, T. (2017). *Picking Up the Pace: Three It Agencies Work to Bring Procurement into a New Era*. 6.
- Goldsby, M. G., Mathews, R., & Mathews, R. (2018). *Entrepreneurship the Disney Way*.
<https://doi.org/10.4324/9781315185286>
- Herhuth, E. (2014). Life, Love, and Programming: The Culture and Politics of WALL-E and Pixar Computer Animation. *Cinema Journal*, 53(4), 53–75. <https://doi.org/10.1353/cj.2014.0042>
- Hsu, C.-L., & Chen, M.-C. (2018). How does gamification improve user experience? An empirical investigation on the antecedences and consequences of user experience and its mediating role.

Technological Forecasting and Social Change, 132, 118–129.

<https://doi.org/10.1016/j.techfore.2018.01.023>

Loeffler, B., & Church, B. (2015). *The Experience: The 5 Principles of Disney Service and Relationship Excellence*. John Wiley & Sons.

Price, D. A. (2009). *The Pixar Touch: The Making of a Company*. Vintage Books.

Simões, J., Redondo, R. D., & Vilas, A. F. (2013). A social gamification framework for a K-6 learning platform. *Computers in Human Behavior*, 29(2), 345–353.

<https://doi.org/10.1016/j.chb.2012.06.007>

Telotte, J. P. (2008). *The Mouse Machine: Disney and Technology*. Retrieved from

<http://ebookcentral.proquest.com/lib/uva/detail.action?docID=3413989>

Weiss, E. N., & Tucker, C. (2018). Queue management: Elimination, expectation, and enhancement.

Business Horizons, 61(5), 671–678. <https://doi.org/10.1016/j.bushor.2018.05.002>

Zichermann, G., & Linder, J. (2010). *Game-Based Marketing: Inspire Customer Loyalty Through Rewards, Challenges, and Contests*. John Wiley & Sons.

Zurcher, J. D., Webb, S. M., & Robinson, T. (2018). The Portrayal of Families across Generations in

Disney Animated Films. *Social Sciences*, 7(3), 47. <https://doi.org/10.3390/socsci7030047>