

The Sail Model – Professional Pathways for UI/UX Designers in the Digital Age

Benny Lim and Roy Soetantio

The Chinese University of Hong Kong and Xchanging Malaysia

Abstract

Designers and artists have been engaged in rivalry for over a century. The importance of creating viable intellectual properties has further propelled the contributions of designers towards the creative economy. In the last decade, professional opportunities for UI/UX designers have significantly increased with the proliferation of websites and the usage of interactive mobile applications. Today, UI/UX designers are also amongst the highest paid designers. This research traces the professional career of a UI/UX designer based in Singapore and Malaysia for 12 years between 2006 and 2018, and thereafter proposes various professional stages of UI/UX designers in the digital age. Several qualitative research methods are employed in order to effectively trace and analyze the professional pathways of UI/UX designers. Through the categorization of three broad professional stages for UI/UX designers in the digital age, this paper introduces the Sail Model as a means to understanding and charting the professional pathways of UI/UX designers. The Sail Model also triggers further explorations into the current state of design education in Singapore and Malaysia.

Introduction

The consideration of user experience (UX) and user interface (UI) in design is not a recent phenomenon. Although UX and UI are two rather different functions, they overlap within the larger context of achieving the common goal of interactions. Like any other designers, UI/UX designers seek to solve problems (Cabrera, 2017). The creation of many products considers the users' comfort and safety, alongside usability. Walt Disney is often known as one of the first UX designers, and he created an empire of fantasies, dreams, and other magical experiences for his audience. Yet, it was Apple that professionalized the roles of UI/UX designers, with the introduction of a graphical user interface for its mouse-controlled Macintosh personal computer in 1984, subsequently revolutionizing user-friendliness of computers (Reilly, 2003). In the 1990s, Apple also engaged their first UX designer to research into multiple aspects of human experience, in order to develop the interface of their computer systems (Riley, 2018).

The professional opportunities for UI/UX designers have been significantly enhanced in the last decade, specifically with the proliferation of websites and the usage of interactive mobile applications (Hinton, 2018). Today, UI/UX designers are also amongst the highest paid designers (Rein, 2018). This paper traces the professional career of a UI/UX designer based in Singapore and Malaysia for a period of 12 years between 2006 and 2018, and thereafter proposes various professional stages in the evolution of UI/UX designers in the digital age. One significant contribution of this research is the introduction of the Sail Model as a means to understanding and charting the professional pathways of UI/UX designers. The paper also discusses the current state of design education in Singapore and Malaysia in relation to the Sail Model.

Professional Status of Designers

Compared to fine artists, the idea of designers as a profession is relatively new, stemming from the Bauhaus movement of the early twentieth century (Southerton, 2011). The founder of the movement, Walter Gropius, proposed the idea of a ‘new kind of artist’, who could address human needs through creativity (Baynes, 1976). This clearly laid out the core function of a designer – one who would solve problems through creations. Yet, to claim that designers are a new kind of ‘artist’ raised some eyebrows, for designers were not accorded the same status as artists. The influence of craftsmanship towards the Bauhaus movement differentiated designers from traditional fine artists (Karatani, 2011), for crafts were considered manual work done by people of lower status than artists (Shiner, 2001).

While the age-old rivalry between designers and artists remains relevant today, their power relations have become significantly more complex, especially with the advent of the creative industries discourse since the late 1990s. Design plays an important role as sub-design within the heterogeneous construct of the creative industries. The importance of creating viable intellectual properties (IPs) has further propelled the major contributions of designers towards the creative economy (Dong, 2008). Florida’s (2014) concept of the creative class includes people who are engaged in creating meaningful new forms, including designers and artists.

UI/UX Designers in the Digital Age

The third industrial revolution, also known as the digital age, began in 1980s (Kagami, 2003). In this networked society, it is common for people to own at least a smart mobile device, yet the digital divide is no longer a simple urban-rural divide. Castells (1998) used the term ‘Fourth World’ to represent people who have no access to technology. These people include the underclass of wealthy and cosmopolitan cities such as Singapore, Hong Kong, New York, and London. Yet, it must be noted that the digital age is never constant, with several developments throughout the course of the last 30 years. For instance, the internet began with Web 1.0, which was characterized as a static information portal for the purpose of passive reading and receiving, with limited interactions between the websites and their users (Berube, 2011). The era of Web 2.0 signifies a period where consumers have been called prosumers, people who are empowered and enabled to actively produce and share information (Langner, Brune, & Fischer, 2013). An example of Web 2.0 would be social media, which allow users to create profiles for sharing user-generated or curated digital content in the form of text, photos, graphics, or videos within a networked community of users that can respond to the generated content. While the concept of Web 2.0 is still relevant today, there is a shift towards Web 3.0, which involves machine-to-machine interaction, partially replacing the input of the prosumers with artificial intelligence.

Pinch and Bijker’s (1984) concept of ‘Social Construction of Technology’ suggests that our needs, wants, and demands propel and shape the current technologies. In this digital age, UX designers plot the entire experience of the targeted users of the product, be it a website or mobile application (Lindberg, Meinel, & Wagner, 2011). When thinking through what the user should experience, UX designers must consider the usability and user-adaptability of the product (Quiñones, Rusu, & Rusu, 2018). UX design could be regarded as a pre-production stage, combining the processes of design thinking and research. Websites or mobile applications with good UX design but poor UI will not lead to successful adoption by users. UI design is part of the production stage, where designers put together the best route for users to enjoy the experience. At

this stage, graphics is important, giving the ‘look and feel’ of the product. Interactivity is therefore important, from the users’ understanding of the interface, to carrying out the actions to complete the experience (Stone, Jarrett, Woodroffe, & Minocha, 2005). A good UI design should allow the product to be responsive across several platforms (Wood, 2014), especially in this era of media convergence, where content passes through several media (Jenkins, 2006). Thorstein Veblen noted that technologies also shape our actions and behaviors. Indeed, successful UI/UX designs have led to behavior changes (Marcus, 2015). Since its first launch in 2007, iPhones has brought about new affordances, such as swiping the screen left or right, or using two fingers to zoom in/out the screen. Today, people do not even need to think about performing the above-actions on their smartphones. Eventually, new needs will arise, and UI/UX designers will continue to play crucial roles in responding to these needs.

Methodologies

Several qualitative research methodologies have been adopted in this research to effectively explore and trace the professional pathways of UI/UX designers in the digital age. Each of the two researchers adopted a separate approach of ethnographical research. On the one hand, Lim (the first author) followed and observed the professional development of Soetantio (the second author) as a UI/UX designer for a duration of 12 years between 2006 and 2018 in Singapore and Malaysia. On the other hand, the second author carried out an auto-ethnographical research of his own professional career over the same period. According to Ellis (1999), auto-ethnography is the methodology best suited for sociological introspection and emotional recall to understand a life experience and write it as a story. Maréchal (2010, p.43) described auto-ethnography as a form or method of research that “involves self-observation and reflexive investigation in the context of ethnographic fieldwork and writing”. Soetantio explored his personal experience, and connected his autobiographical story to wider cultural, political, and social contexts. Despite different ethnographic approaches, both researchers considered the personal cultural construct of the designer at different stages, alongside the working environment for which the designer carried out the UI/UX designs. On completing the ethnographic research, both researchers compared their findings through a number of intensive dialogue sessions. As a research method, dialogues are useful in generating new knowledge through clarifications and eventually arriving at a common understanding of the outcomes (MacInnis & Portelli, 2002). Finally, the researchers also reviewed brochures, websites, and other secondary sources to better understand the current design education situation.

Professional Stages of UI/UX Designers in the Digital Age

Soetantio’s professional experience as a UI/UX designer could broadly be categorized into three different stages. The first stage was between 2006 and 2010, when he offered his design services for a non-profit theatre company in Singapore. In the four years with the company, he designed hundreds of publicity visuals, and worked on over ten websites. This stage could also be understood as ‘Design for Information’, whereby designers use their creativity and design capabilities as methods to visualize ideas and concepts. A conventional designer-client relationship is also common at this stage, during which the clients provide a brief on the expected deliverables. As Suhr (2014) mentioned, the power relations between designers and clients are usually asymmetrical, and clients choose designs beyond aesthetic merits. Yet, as the designer-client relationship concretizes over time, the designer’s agency increases with the growing

trust and appreciation of his/her professional contributions by the client. This stage, however, faces the limitation of a one-way communication, where the designs serve to inform, persuade, and remind their intended audience, who are generally passive.

The second stage took place when Soetantio moved to Malaysia in 2011, till 2013. During the three-year period, he created seven unique mobile themes for iPhones and iPads, which received over 100,000 downloads worldwide. Then, Dreamboard was a popular jailbreak platform for UI/UX designers to upload and sell their mobile themes for Apple phones and tablets. Jailbreaking refers to the process of removing the restrictions set by iOS. These mobile themes could be downloaded, to replace the existing UI/UX of the iPhones and iPads, thus changing the entire experience of using these devices. 'Design for Customization' could best describe this stage, where designers, develop platforms or systems that allow users to participate in the co-design and co-creation process. Similar to many social networking sites, these designs are user-centered, facilitating a two- or multiple-way communication process, akin to the idea of participatory design (Richey, Klein, & Tracey, 2010). The mobile themes designed by Soetantio offered brand-new experience for iPhone and iPad users, by allowing them to further customize the themes to best suit their personal needs. The users of his designs also became an important community for his design process. Prior to the official launch of each mobile theme, Soetantio would allow the selected user community who brought his earlier themes to try out the new theme, and offer feedback to improve the UI/UX design. Furthermore, as it was impossible for him to design the icons for all the available applications for iPhone and iPad, the user community chipped in to contribute their own version of icon designs. Simply said, the interactions went from creator-users, to users-users.

The third stage was between 2014 and 2018, where Soetantio served as a UI/UX designer in a technological solutions company. Though profit-oriented, this company exposed their UI/UX designers to projects that generate impacts to individuals, communities, and the environment. Examples of such projects in which he was involved include a wastewater management dashboard, as well as a crowd management application to avoid stampedes and save lives in the process. In fact, the crowd management application has been highly successful, and is still being used today. Plans are now underway to adapt this application to other major sporting and racing events, transportation hubs such as airports and train stations, as well as theme parks. A suitable classification for this stage would be 'Design for Change', where designers become active researchers and strategists, using creativity as insights, and design as an opportunity to bring about changes in our society. This stage is also aligned to the concept of social design, which is defined as design services or products that are specifically planned for the benefit of humanitarian, community, societal and environmental development, as well as welfare. Social designs seek to improve the well-being of human beings (MacGregor, 2014).

The Sail Model

The three professional stages experienced by Soetantio offer insights into possible pathways for UI/UX designers in the digital age. In 'Design for Information', the design outcomes are mostly meant to transfer information or generate awareness, with minimal or no direct interactions with the users. While these designs can offer information of high importance, their actual impacts on individual, societal, and environmental changes are mostly low. The 'Design for Customization' stage implies a higher level of interactivity, allowing for users' participation. Yet, these designs may not necessarily

imply high impacts. For instance, a mobile game for the sake of pure entertainment can be highly interactive, but without actual social impacts. On the other hand, the user experience and interface of Facebook are both interactive and impactful, which fits with the stage ‘Design for Change’.

This research introduces the Sail Model (Figure 1) as an approach to illustrate the possible pathways for UI/UX designers. The word ‘Sail’ is chosen for two reasons. First, the model is a right-angle triangle, resembling a sail on a ship. Second, ‘sail’ also relates to the idea of navigation, which fits the discourse of professional pathways.

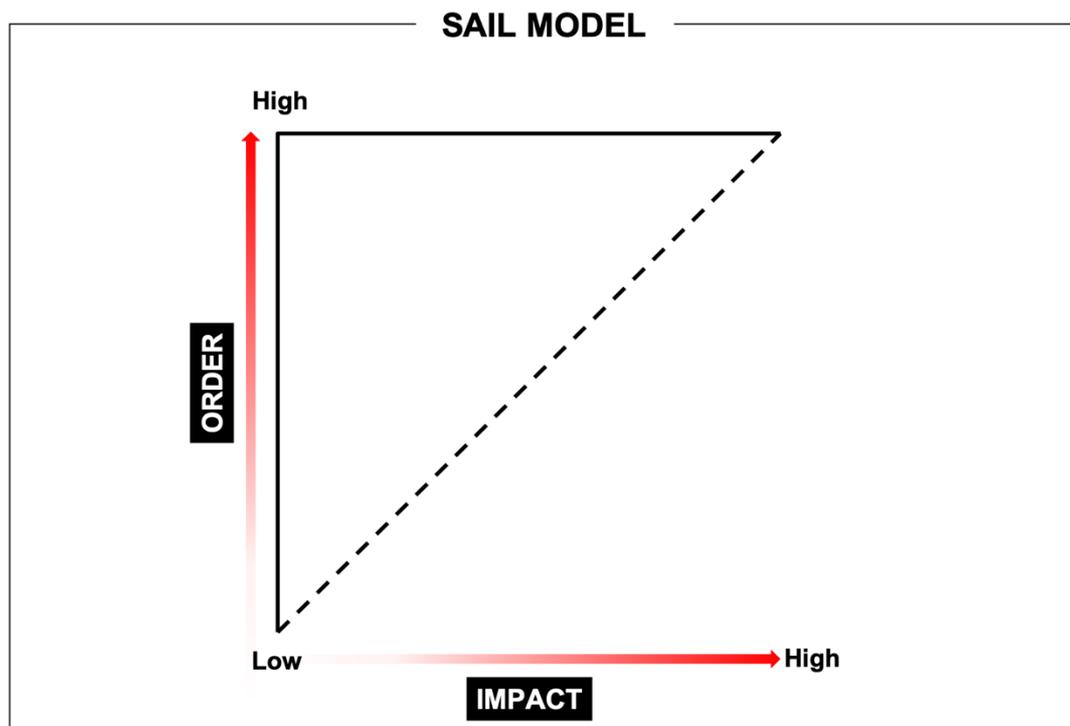


Figure 1. The Sail Model

The model is made up of two different dimensions, top-bottom and left-right. The top-bottom dimension refers to the interactivity, or order, of the design. Simply, this means that the less interactive a design is, the lower order it would be. As low order designs are not customizable, the designers are more visible. Visibility, in this case, does not suggest that the designers’ identities are known to the users. Rather, it suggests that the users are aware that they are using somebody else’s design. Along the same lines, designers of higher order designs are less visible, since users would have interacted with the designs and customized them with their own preferences and/or content. The left-right dimension reflects the extent of impacts of the designs. The depth of impact increases from left to right of the model. Designs meant for awareness, entertainment, or infotainment purposes are of lower impacts, while designs that alter and reshape cultures, as well as generate new behaviors and norms of communities, are of much higher impacts. While the model illustrates that the impact becomes greater when the order of the design increases, the dotted line suggests that the increase is not fixed. The Sail Model also establishes that there are no UI/UX designs on the extreme low order, but with very high impacts. In order for a design to impact and change communities in the digital age, there must be some forms of interactivity and customizability by its users. Figure 2 below depicts how existing UI/UX designs possibly fit into the Sail Model.

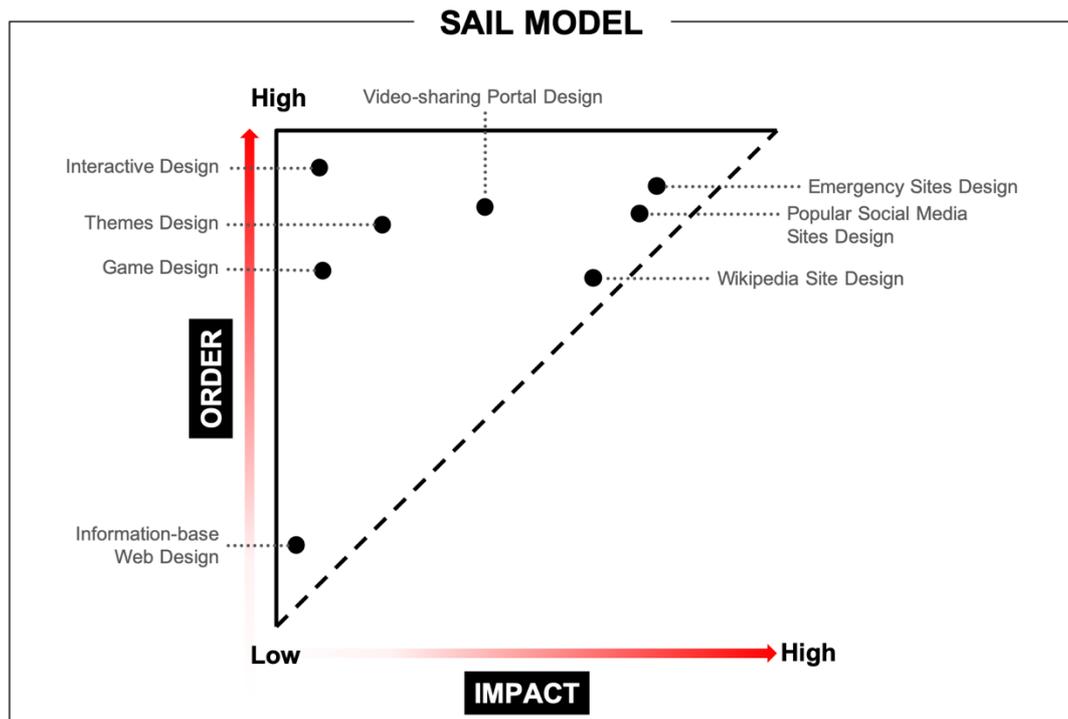


Figure 2. Likely levels of existing UI/UX designs

While research has shown that UI/UX designers working on high order designs receive higher salaries than those working on lower ones, the Sail Model does not determine which level is most ideal for designers. In fact, the model has deliberately excluded any markers on income and profitability levels, as UI/UX designers could generate income or profits at any point on the Sail Model. UI/UX designers who create informational websites for clients could earn a good living if their professional capabilities are accepted and recognized by clients and relevant stakeholders. On the same note, some designers could deliver high order and impact designs, while working for non-profit organizations or charities. In this case, these designers might be paid less than those working in corporate environments. Rather than just considering economic returns, the Sail Model charts the current levels of UI/UX designers, and encourages designers to consider alternatives, leading to the reevaluation of the kind of skillsets they need, or career choices they could go for. In Soetantio's situation, he moved from designing at lower order to higher order through self-learning of coding and programming language capabilities through online tutorials. His move towards design projects with higher impacts was also made possible because of the nature of work within the technological solutions company he joined.

Design Education in Singapore and Malaysia

Designers need to consider their professional development in order to navigate the Sail Model effectively. This prompts the need to devote a section on design education in Singapore and Malaysia, where the research took place. Earlier research suggests that a majority of the design education in Singapore and Malaysia does not quite prepare the growing demand for UI/UX designers (Lim, 2015). The lack of pre-production competencies in design education suggests a lack of adequate training of UX designers. Even the focus on production in design education fails to adequately equip graduates to

be capable UI designers in the digital age, mainly due to the absence of coding and programming components in the curriculum. Nevertheless, given the exponential development of digital technologies in Singapore and Malaysia in recent years, there are some new trends in design education.

In Singapore, there are few design programmes in public universities. Most programmes are concentrated in private institutions of higher education, mostly at Diploma level which is lower than that of a Bachelor degree. Nonetheless, programmes in public universities are better aligned to the requirements of UI/UX designers in the digital age. An example would be the undergraduate programme in Information Systems Technology and Design offered by the Singapore University of Technology and Design. The programme focuses on areas such as visual computing, artificial intelligence, software design and interactive design. Compared to Singapore, Malaysia has substantially more design programmes. A search on the Malaysian Qualification Register reveals over 400 academic programmes in design at all levels, including doctorates. There are also more design programmes merging graphic design with multimedia, including the Creative Media programme offered by Taylor's University, and Sunway University's Graphic and Multimedia Design programme.

Conclusion

This paper traces the professional career of a designer for a duration of 12 years, and attempts to offer insights into the possible professional development pathways of UI/UX designers in this digital age, when human identities are so intertwined with technology. In fact, mobile devices have shaped and become part of our identities, thus creating our sense of dependency and emotions for these devices (Vincent, 2009). With the shift from user-focus to user-centricity in the digital age, the role of UI/UX designers is not only getting more prominent, but also increasingly important. However, designers should not just stop at embracing technological elements in their designs. The Sail Model encourages designers to also consider the possible social impacts in their tech-embedded designs. After all, designs that are high order but with low impacts have to compete for attention in this giant, globalized marketplace of mobile applications. This is not unlike the concept of consuming entertainment, where the major challenge is to keep alive the consumers' feeling of being entertained. Even more importantly, the Sail Model seeks to encourage UI/UX designers to think about their professional careers, and the different actions they need to take in order to navigate the model with ease.

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