

A CASE STUDY ON HOW DIGITAL LITERACY IS COALESCING THE BOUNDARIES IN DESIGN WORLD

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ABSTRACT

The study aims at the escalating frequency of digital literacy in a post humanism era, bringing the users of every sphere to learn and adapt to the change and how current digitally literate and digital native designers from different disciplines are encashing on this phenomenon to magnetize the user.

Keeling & Lehman (2018), "The Posthumanism era perspective assumes agency is distributed through dynamic forces of which the human participates but does not completely intend or control." The world is changing at a rapid pace. The consumer employs more time on a digital screen in comparison to interacting physically with the product. To involve a user for any product / service, digital literacy plays an vital role in today's time.

Gilster (1997) explained Digital literacy "as an ability to understand and to use information from a variety of digital sources and regarded it simply as literacy in the digital age. It is therefore the current form of the traditional idea of literacy per se—the ability to read, write and otherwise deal with information using the technologies and formats of the time—and an essential life skill."

One of the ways to connect with the growing digitally literate user is via design communication tools and techniques. Hence, for today's designer digital literacy encompassing communication design tools is a necessity. This is the skill one requires to learn, live and work in a society, where information access and communication is done through social and digital platforms using digital devices.

With the enumerable tools available on the websites: few paid and few free, the boundaries of different design disciplines are getting weak and intermingled. Every designer irrespective of their core discipline is catering to this big unified world of growing digitally literate users. Though the foundation of every design project is still Human Centric i.e. based on User Experience, but the digital era has made User Interface a key element of digital literacy and user experience. This digital transformation with amalgamation of Humanism and Post Humanism phenomenon is changing players within the fashion industry.

This paper illustrates one such case study where digitally skilled and digital native designers from a textile discipline mixed User Experience study with communication tools like Skeuomorphic Design, Pictographs and Semiotics to cater to growing digitally literate clients of a hardcore financial company. The research talks about how designers catered to the B2B clients of different age groups, coming from various backgrounds and serving at higher hierarchy

in retail premium organizations to increase the business.

1. INTRODUCTION

As per Statista report 2023, the digital population of India by February 2023 is 692 million people who are active users of internet and 492 million who are active social media users. With the introduction and rapid use of internet in India the technology plays an important role in every Indian's life. In this technology driven present and future we are looking forward for techno cultural mind influenced by the technology. There are new relationships and bonding among the people. People are more dependent on the technology rather than on physical relations.

To understand today's scenario of the consumer requirements designers have to understand human behaviour with exploratory research, strategic thinking, innovative prototyping and instant iterations. To cater to the need of these techno cultural valued humans, the designers use interaction design as a communication medium to create perceptive interfaces blending technology with aesthetics. Designers have adapted designs to address human needs and usability concerns.

There have been an empirical research on how designers cater to these changes and requirements of the consumers and what strategy or method do they imply to get to their goals.

Many companies are shifting their physical platforms of interaction with their customers to online digital platforms for broad basing and also to cater to today's digitally literate consumer. One such company which sells insurance to its consumer using technology as the tool is Zopper. This research paper is based on a project given by Zopper to the designers and how they followed a design process to cater to its technology driven clients based on their technology driven policies.

1.2 Zopper

Zopper is a company which mixes insurance with technology and caters to B2B and B2C customers. It has about 700+ employees and has presence in 1200+ cities.

Their mission is to "To build a seamless, intuitive & cognitive experience for any person trying to sell, purchase or consume insurance." (www.zopper.com). And their vision is to distribute insurance to all the buyers and sellers of insurance in every part of the country through technology. Zopper's approach is customer driven, technology driven and distribution driven.

The financial company Zopper has multiple financial security and insurance schemes for B2B (Business to business) and B2C (Business to customers) clients as already mentioned above.

They have their own website with details of their insurance schemes including its target client, benefits, and details of the process to apply & use the schemes. They wanted to introduce impactful images for the new and existing insurance policies on the website for attracting the digitally native client of current era.

Hence in attempt to get the attraction of the user who is a B2B client for Zopper and is holding a reputable designation in a firm.

The task was handed over to a team of designers from Textile Design background, who had both hand and digital skills with good design sensibilities. The project engaged three designers from the textile design background who were well versed with the design process to follow and were digitally native designers using softwares to create the artworks for their insurance policies.

2. VISUAL COMMUNICATION

Many studies have confirmed that during pandemic visual communication became the most popular media of communication. As mentioned by Josephson et.al (2020) visual communication accelerated in the 20th century, stating that more than reading people are interested in watching. "As a result of these developments, the need for a digitally competent population and the demand for a digitally skilled workforce has grown even more pronounced." Teltscher.S (2020).

This also got supported by teaching pedagogy in design institutes which used visual communication and videos during online classes. A plethora of visual elements and tools came into business because of the demand by the consumers from across the spheres. With this change in going online since pandemic, Digital literacy, Digital Skills and Digital thinking became important aspect of the design industry.

2.1 Digital literacy

Digital literacy is the competency and skill required for navigating through complex information ecosystem created by involvement of technology integration by a user (Blau et.al., 2020). Eshet-Alkalai (2012) created 'Digital Literacy Framework' with six categories photo-visual thinking, information thinking, real time thinking, branch thinking, social emotional thinking and reproduction thinking. According to Heitin (2016), there are digital literacy clusters which find, consume, create and share the digital content. The Digital Competence Framework for Citizens (Dig Comp 2.1.) which talks about responsibly use of digital technology for performing a task at work and to socialize in the society. It defined five areas under digital literacy: data interpretation skill, communication skill, content development, privacy and problem solving skill, which were also described by Carretero et.al. (2017).

Digital literacy have affected various aspects of human life and have changed the thought process of today's human. Researches in terms of case studies are required in the area of digital literacy to understand the variables like age, socio economic status, gender, digital exposure, cognitive capability etc. and their effect on the digitally literate consumers. To develop any material for digitally literate consumers a qualified team requires technologists, communication and instructional designers and content experts. The term digital literacy is a huge term encompassing Artificial intelligence, big data and digital intelligence. Hence all these terms have a great impact on the digitally literate consumers of today. Spiliotopoulos et. al. (2018), described that the digital literacy have changed the perspective of humans to think beyond human leading to post humanism perspective development.

2.2 Digital skills

Correspondingly along with digital literacy comes digital skills of the creator. Vaan Laar et al. (2017), have described digital skills into seven classifications for any worker to accomplish any given task: information management, problem solving, innovative, critical thinking, technical and associative. To be able to grasp digital skills a user have to have understanding about the above mentioned seven classifications. There are studies indicating a huge gap in digital skills across the world and hence industries, academia are working towards bridging up the gaps after the pandemic attack.

2.3 Digital thinking

Ferrari (2012), informed that thinking skills is an important content of digital literacy. Critical thinking, creativity, innovation with interdisciplinary thinking using information and communication technology to solve the problems are part of the concerns of Industry 4.0 (Ozkan-Ozen & Kazancoglu, 2021). As per Sulzer (2018), with increase in the information and data gathering, cyber security has become an important part of the digital thinking as well.

2.4 Digital native designers

This term was introduced in the 21st century. Today's generation is digital native which uses internet at a great

speed. The designers of this project were also digital native learners who knew how to use digital tools and softwares available online. As per Dede (2005), Oblinger and Oblinger (2005) and Prensky (2001), digital native are designers who have an ability of doing multitasking with reliability on technology for their personal needs and create their social contacts. They are quick to adapt new technologies and experiment with the same.

The research question arose from the Zopper's brief was how textile designers will develop creatives which show the gist of the policy with a great impact in just one look for digitally literate users. There have been an empirical research on how designers cater to these changes and requirements of the consumers and what strategy or method do they imply to get to their goals. The visual communication tools and elements were the channel to get to the design process for the designers in this project.

2.5 Visual communication tools

Visual communication is the oldest method of communication started as early as cave paintings. It has been part of human culture and is a way of how one can design and share communication with meaning without any written words.

2.5.1 User interface

Even the communication channel between humans and non-humans is affected by the digital and technology mentioned factors. The communication researchers talk in terms of human communication and communication environments. One of the major factor in this influence is User Interface (UI), it's the interface of a mobile app or web page in terms of its effectiveness and its overall experience for the user. It is comprised of visual elements using colour, texture, text to create a communication medium with the user or the client on different screens of the gadgets. It includes use of skeuomorphic designs, flat designs, illustrations and semiotics for achieving the results.

2.5.2 Skeuomorphic design

This user interface has various elements for creating the interface, one of them is skeuomorphic element which is the graphical interpretation of a physical object. Borowska informed that these elements not only have physical but also functionality imitation of the object. Apple company used these elements in visual designs to make users understand the app with the help of the icon and the user experience attached with the icon/ image.

2.5.3 Flat design

The term flat design is use of elements which have lost their styling qualities like any kind of texture/ gradient/ shadow anything which gives it a 3Dimensional look. The element becomes a flat 2 Dimensional drawing with bold colours to communicate its meaning. The elements are made in a very simple outlines and make it very easy for the user to understand its meaning with a quick look.

2.5.4 Illustrations

The third kind of element mostly used in the interface design is illustrations. These are used where only drawings / sketching in clear lines in black and white colours are drawn to communicate. Illustrated element means an important element among all the other elements used in an artwork.

2.5.5 Semiotics

Semiotics is the scientific study of the signs or representation of anything. The colours, forms and textures have cultural representation for the users. Reira (2020), stated three phases of semiotics, sign, context and meaning. A sender should choose the visual elements and illustrations with thorough research about its social and cultural context in regard to the user, so that the message can be communicated in a very effective manner to the user.

3. OBJECTIVES OF THE STUDY

- To understand the requirement of the digital literate consumer.
- To use the visual tools for creating artworks which are attractive for digitally literate consumers.

4. METHODOLOGY

The process followed was based on the text given by the company for their policies followed by the designer's interpretation of the text given in respect to the user and creation of the artwork as per the digitally literate user.

Constraints:

- To use interesting creatives for development of the artwork for each policy shared.
- The colours were given by the brand.
- To understand the client or the user who belongs from middle age to senior citizen category, well educated, well versed with the technology and have good position in the Multi-National Companies like Samsung, Godrej etc.
- The artworks are to be created for disseminating the knowledge about the policies the company has with great assurance and must be visually very impactful.

The study used a mix method approach of qualitative and quantitative research methods. The sampling technique used was purposive sampling technique including all the three designers involved in the project.

A semi structured questionnaire was developed with open ended and close ended questions and was administered on all the three designers involved in the project to understand the process they followed. The questionnaire was circulated using google forms. The close ended questions were created on 5- point Likert scale with strongly agreed (1) to strongly disagreed (5).

The close ended questionnaires were analysed using descriptive analysis while open ended questions were analysed using content analysis. Both qualitative and quantitative data was analyzed to draw the conclusion of the study.

The process followed was first to understand the brief and the requirement of the client.

1. Understanding of the user (Figure1 above)
2. Understanding the policy
3. Understanding the digital literacy
4. Use of appropriate communication tools

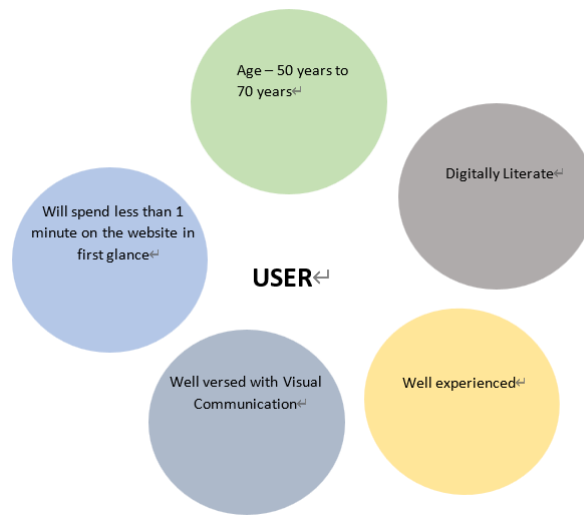


Fig. 1 User's characteristics

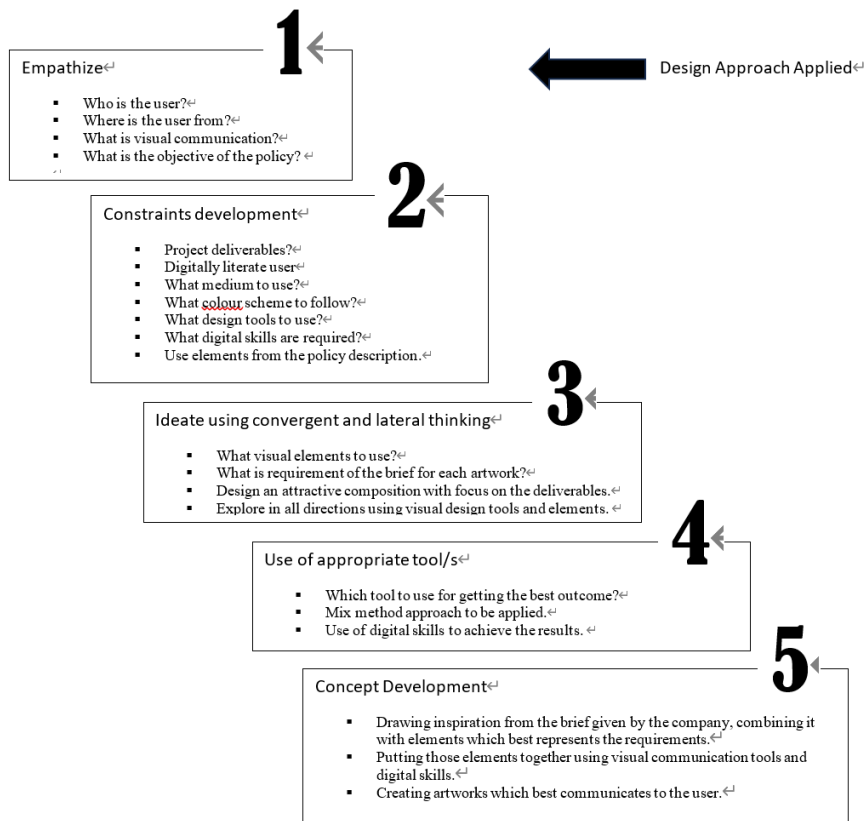


Fig. 2 Design Process Undertaken

5. RESULTS AND DISCUSSIONS

The questionnaire administered on the designers gave following results and points of discussions regarding the zopper assignment.

5.1 Client profile

The designers working on the project were well aware about the client or the user as CEOs of large businesses, fintech companies and also people who are seeking knowledge regarding insurances through online portals.

The designers explained their users as the one who understand the design language and the topic by looking at the artwork which is eye – catching and is straight forward. One of the designers also explained user as “The user is a person who goes online to fetch for his needs in place of meeting people in person and try to gather as much information as possible through the digital portal. The user is one who uses iphones and all updated gadgets and is well aware about the communication design.”

5.2 Digital media influence

The designers used the design process comprehending the human use of technology and the relation of human with the digital world. By understanding this aspect designers were able to map down the tools to be used to grab the attention of the user.

The designers emphasized on the usage of visual communication tools through skeuomorphs, illustrations and flat designs, which also emphasized on the importance of digital media awareness of the user.

One of the designers stated, “It was more client-oriented with very specific characteristics like colour, style etc. It pushed me think beyond my understanding of digital media.”

5.3 Technology driven

All the designers agreed that technology played an important role in this project in many ways. The designers required software to design the artworks, to understand the shift in the thought process of the users from physical to digital world, becoming digitally literate and the introduction of AI in every field.

They all agreed that technology is important for designing in today’s time. The exposure to various medias, websites, blogs, not only give awareness to the viewer but also familiarizes viewer’s brain with many new terms, semiotics, compositions, visual language, innovations happening in the world. As described by Vaan Laar et al. (2017), designers used all the aspects of digital skills to create associative and problem solving artworks.

5.4 Digital literacy

The designers considered digital literacy of the user as one of the main factors while designing their artworks, however they considered emotions, values, culture, environment also as other factors / parameters for designing.

5.5 Use of visual communication tools

They used a mix of visual communication tools like Illustrations, Flat designs, skeuomorphic designs to create their artwork few examples of which are illustrated below. They worked on Ted Polhemus, a cultural anthropologist’s theory who favoured visual imagery as a most effective method of conscious and subconscious communication specifically when human figure and personal image are used as a way of self-expression.



Fig. 3 Artwork 1, 2 and 3 created for Zopper policies

For all the artworks designers used the flat designs of the humans/ hands showcasing the client profile. Each element was finished properly and had a metaphor for the client to understand. Real images were used as skeuomorphic designs for user's lateral thinking to understand its metaphor in the artwork. Flat designs were also used to give emphasis to certain points like data analysis bar graph, umbrella and privacy symbol. Semiotics was used wherever the symbolism was required like in Rupee, emoticons, privacy sign etc. (Figure 3 above)

The designers used all the elements available at digital platforms on the websites like freepik.com. The company paid to the website for using these copyright free digital elements to be used in their artworks. Such websites help designers from interdisciplinary field to enhance their skill and deliver as required. Correspondingly, the same benefit was enjoyed by the textile designers working on this project.

The first artwork (Figure 3 above) is about the importance of customer feedback in today's digital world. Using the above-mentioned design process, their digital skills they created these artworks. As Ted Polhemus (2003) stated, the designers used the image of a high-profile professionals in the artwork so that the client can relate with the image, with the buildings as image representation of their workplace and their feedbacks on digital platforms.

The second artwork (Figure 3 above) illustrated the big data, big benefits in the medical policy. The policy emphasized that more the data is collected about the medical records of any customer, the better services can be provided with minimum risks. The policy assures good, transparent, affordable and satisfying plans and schemes as per the requirement of the customer based on the data stored in the system, which in turn leads to good customer feedback. To show this medical policy, the designers used the images of doctors with data storage files in digital formats in the computers, policy cover symbol as umbrella for medical protection, privacy symbol for data security and emoticons as customer experience.

The third artwork (Figure 3 above) talks about the growing influence of AI in the insurance industry. This artwork talks about how AI and Machine learning is gauging the requirement of the customer and providing them customized solution with full security and quick service with good returns. In near future AI will take over the place of humans and will speed up the process as per the requirement of the customer.

5.6 Beyond human centric approach

Two designers out of three agreed that the designs created for this project involved steps and design thinking beyond human centric approach. They were majorly dependent on the technology and its effect on the humans. For designing the artworks, the approach was first technology, its impact, cognitive learning of the client through digital technology mediums and then human needs added in it. All this was done keeping in view the digitally literate clients of the project. For two designers the process of catering to the needs of digitally literate clients made their jobs a little difficult while for one of the designers it made the job very simple.

5.7 Need of the hour

As per the designers all of them agreed that the digital world and technology is overpowering the human needs and human skills. In today's world more than human needs and emotions, data, information, and analysis have become important. Humans are like files with numbers and their needs have become a data which is fed in the computer's algorithms and metadata for reference.

6. CONCLUSION

The influence of technology is growing at a rapid speed across the spheres of the world be it health, education, fashion, or any industry. The human computer relation is the core of the study nowadays. The internet availability is making the population a digitally native learners and the number is growing every day. Visual communication and its elements like colours, line, textures, forms have escalating direct influence on the human mind after the pandemic. Every human relates to digital images with more familiarity rather than the text, and the best example are emoticons/ GIFs, which reflects the exact emotion in a straight forward and impactful manner. Use of laptops, mobile phones have increased the digital vocabulary of the user belonging to any age, gender, profession and financial background.

Baltezarevic, R. & Baltezarevic, V. (2015) stated that visual communication has a great influence on the consumer and it directs the thought process of the consumer to think and take a final decision. It provides consumers a rich and innovative experiences. Correspondingly Reignn- Garron, N. (2011) also supported that designs and layouts have a great impact on the consumers/ users.

The digitally native designers who worked on this project linked all the above facts about the user and created designs which influenced them to comprehend the insurance policy through the artworks. This project shows that the even the designers who are the creators have to be digitally well literate to serve to the users of today's world. As these designers were from textile design background which is more a handskill area, developing artworks which are more based on visual communication made their task a little challenging.

An interdisciplinary design approach was implied to work with visual design elements and tools using digital software. The elements used in the artworks were shortlisted after thorough research and cognitive understanding of the client. With so many options available on the websites, blogs, social platforms and media designers picked the elements which communicated the best and were clear to the user, whose mind is now attuned to the digital language available everywhere around him.

The design process emphasized on the technology and its influence on the user with emotions, values and culture as its sub elements. The designers tapped in the new area of human computer interaction which is also part of techno driven industry of today.

As stated by Meyer and Norman (2020) in their study regarding change in design education in 21st century, that now adays designer "design for a world in which intangible content often exceeds the value of physical substance." The other most important factor for the successful completion of this project was the educational training of the designers in interdisciplinary fields, with opportunities to explore their digital skills and technology after the pandemic through their curriculums. The design institutes are now training their budding designers to cater to the new generation of the users / clients emerging after the rapid introduction of the internet and digital media among huge population from different strata of the society.

The study emphasized the global fact that how the vast design process of making big flow charts, hand drawn skill, human emotions and reactions have been replaced by computer generated designs/ artworks. Now inplace of long driven thought and research process with tactile outcomes both consumers and designers are interested in digital deliverables as it's a fast process to achieve and can be edited multiple times with less efforts compared to physical deliverables. This whole process has changed the thought process of the designers and are shifting them from physical world to digital platforms.

This is just the starting of the digital technology influence in the design industry, sooner the influence of AI will enhance and escalate the design approach taking it away from human centric to technology and data centric in the coming future.

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