Design Thinking – HW1

Tell me ONE thing that I should know about you.

The one thing I would like you to know about me is that I am an avid gamer and I love to play single player RPG games and online multiplayer games like DOTA 2. The reason I wanted you to know this is because whenever I think of any design or I am designing something (especially software since I am from a Computer Science background), I take a game designers perspective. I try to look at how or when things might break, how might things scale especially when there are a large number of users, what is the most efficient way to bind keys to give the best possible experience, etc. Since, this course is about design thinking I wanted to share my perspective about the same with you.

What were you expecting to learn when you registered for this course?

When I registered for the course, my expectations were somewhere along the lines of design thinking for software system design (since we are going to work on the Challenge Lab after this). Hence, I was expecting to learn some methodologies like Agile that we can follow for designing any software that we might be developing in the Challenge Lab.

Having participated in the first lecture what are the top three learning objectives that you will strive to achieve in this course?

Having participated in the first lecture and going through the course description and curriculum thoroughly I have come up with the following as my top three objectives that I wish to learn from this course:

1. Learn to ask the right questions which are not too specific nor too general so I can identify the right problem before I try to design and develop a solution.
2. Learn to create efficient prototypes and build them quickly so that I can iteratively improve them to arrive at a final solution.
3. Understand how to build human centred designs to create software products that are more problem oriented rather than technology oriented.

If there is anything else that you would like me to know to better help you with your learning in this course, please tell me.

Since, I am from a Computer Science and Engineering background and wish to advance my career in same, I would love to learn how to build designs that are more in line with the problem and the people rather than the technology. While working as a software engineer, I have found myself digressing towards a solution that is not in line with the original requirement because it was technologically more feasible and easier for me. I would love to understand if design thinking and the tools and techniques that we learn through this course will in any way help me stay on the right path when working on big software projects which have multiple independent but connected components. I would like to learn if design thinking can help me to stay aligned with the larger goal of such projects that I work on.

Design Thinking by Tim Brown - Summary

The article, by author Tim Brown, unravels the idea of Design Thinking for the common man. He takes the example of Edison and his holistic solution of electricity along with the light bulb that conceived a fully developed marketplace. Design thinking is a discipline that uses the designer's sensibility and methods to match people's needs with what is technologically feasible as well as a viable business strategy. Brown mentions design thinking as not just a mere wrapper around the idea but to make an already developed idea more attractive to consumers, companies are asking them to create ideas that better meet consumers' needs. To support his idea, he gives the example of 'Kaiser Permanente' and how they improved their services to their patients as well as the work satisfaction of their nurses by reengineering the nursing staff shift changes through innovation. He mentions **prototyping** as an inexpensive and lightweight tool that should command only as much time, effort, and investment as are needed to generate useful feedback and evolve an idea. He also talks about – **Empathy, Integrative Thinking, Optimism, Experimentalism** and **Collaboration** as the characteristics of design thinkers. He also mentions the concept of spaces and how ideas pass through the spaces of **Inspiration, Ideation,** and **Implementation** for refinement and to identify new directions. Brown also explains that great ideas are not just the creative genius of brilliant minds but rather a product of hard work augmented by creative human centered discovery process followed by iterative cycles of prototyping, testing, and refinement. Taking the example of Shimano, a Japanese bike manufacturer, he explains how the vision of the design team led to the creation of the concept of "Coasting" which brought about paradigm shift in the US bike market by enabling common people to relate emotionally and nostalgically to bikes. All this was a result of research and human centric design. In the section on Systems view he explains how Aravind Eyecare built a systemic solution to a complex social and medical problem of poverty combined with healthcare issues through a deep understanding of the consumer's needs. Finally, Brown also talks about the aesthetic aspect of the product and its importance in the process of design by giving examples of success stories like the Apple iPod, but concludes that transformation is, if anything, greater now than ever before a require a human-centered, creative, iterative, and practical approach to finding the best ideas and ultimate solutions. Design Thinking is the approach to do just that.