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2.1 Literature Review



Diagram 2.1 UIP Logo

UIP is known as University - Industry Partnerships, is as AI-as-a-Service (AIaaS) platform for educators in Universities to convert their expertise and professionals into various prototypes, curriculum, industry-friendly collaboration models and develop new areas or research with AI-enabled engine. The researches will help UIP to expand their coverage and researches will be developed into fully-ready AI-based expert systems for industry adoption and commercialisation.

In UIP platform, It will help the educators to design its own personalised AI expert system based on their specialisation and achievements from their education biography, then transform their researches prototype into full commercialisation tools. Moreover, education community may need not ever spend enormous resources and credits in completing their prototypes such as the infrastructure, human capital expertise, capital expenditure costs and et cetera.

2.2 Feasibility Study

2.2.1 Technical Feasibility

Web Scraping

In order to develop this platform, Web Scraping method is very vital to assist in getting all sorts of information from various websites. Unlike screen scraping which only copies pixels displayed onscreen, Web Scraping is the process of using specific bots to extract data and information that is underlying HTML codes in the websites. It is undeniable that web scraping have been widely used in current digital businesses when they require the needs of data harvesting. Once the data were scrapped, it will be stored into a database for future uses.

Data in databases from scrapping ministry websites, agencies and university will be used to analyze the contents so the platform able to perform some analytic on the specific tasks. Bots type such as ParseHub, Selenium and BeautifulSoup are used for Web Scrapping as they are fully customizable to:

- 1) Recognize the uniqueness of HTML site structures
- 2) Easily to extract and transform all sorts of content
- 3) Assisting to store scrapped data
- 4) Data from APIs are managed to be scraped and extracted

2.2.2 Operational Feasibility

To allow the platform to perform at its best, design thinking is a must process for creative problem solving in the platform. Design thinking has a human-centered core which easily to encourages organizations to focus on the people they are creating for to lead into a better products, services and internal processes. The “standard of procedure” to create a solution with design thinking is to figure out the desirable of a party from a human point of view with technologically feasible and economically viable. The challenges with this creative tools is to starts with making right actions and understanding the right questions. All the technique is about embracing the simplest mindset shifts and tackles the problems from a different directions.

Design thinking is best to addressing problems where multiple spheres of business and society issues, logic and emotions, rational and creative, human needs and economic demands collides each and another at the intersections between systems and individuals.

To go through the phases of design thinking, we have to go back and forth with the questions to leads us into a new innovative solutions. The phases of design thinking such as below:

- Frame a Question. By identifying the driving question which able to inspires others for a creative solutions.
- Gather Inspiration. Inspiring new thoughts to discover what the community really need.
- Generate Ideas. Segment past obvious solutions to get ideas breakthrough from a state of point.
- Make Ideas Tangible. By building rough and simple prototypes to learn how to improvise and make ideas better.

- Test to Learn. Refining ideas by gathering various feedback from others and then experimenting it afterwards.
- Share the Story. Craft and create a scenario that able to inspire others to be attracted for an action.

2.3 Chapter Summary and Evaluation