Legal Awareness App Using Design Thinking Approach

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Abstract
The legal awareness app is designed to address the problems arising due to the lack of legal awareness. The various modules and quiz features will make it engaging and interesting. Every individual takes utmost care to improve themselves and increase their knowledge. But in some situations, they fail to face it rather than hide and let it go as they are afraid of the consequences. So we take the first step by building an app that helps them gain basic awareness about the legal rights in India to make informed decisions in critical situations.

Keywords: Legal – Students – Educational App – Design Thinking – Awareness

1. INTRODUCTION
Students' legal rights are critical for a safe, fair, and equitable education experience. This safeguards the students against discrimination, harassment, and abuse and they ensure that they have access to high-quality education and the resources they require to succeed. Understanding these rights promotes a fair and impartial environment in which the students feel empowered, respected, and safe.
Legal rights are not mere privileges but instead the essential base for a student's future. The knowledge about the basic laws protects the student from physical and emotional harm. Schools must take up the responsibility to educate the students about any kind of harm such as discrimination, bullying, and harassment.
The current educational system is based on rote memorization and standardized testing instead of testing their problem-solving and critical thinking. This leads to students failing to apply their knowledge in real-life scenarios. The 21st century expects students to be confident, and good in communication but the system focuses on traditional subjects such as maths, physics, etc.
Rather than the monotonous mode of study a fun, engaging mode of study can be used to make the students understand the concepts in a better way. This can make the students make informed decisions voice out their opinions and stand up for themselves in times of need rather than depending on another person.
There are a lot of legal procedures and practices society is unaware of and is at a disadvantage. The current students are the future of the country so schools and colleges are the starting point to start raising awareness about their rights.
In a country like India, where the literacy rate is at 74.04% the government is still bringing new schemes to provide affordable education. Students must know their rights to foster a sense of civic responsibility. This will also prepare the students for the challenges they will face as an adult.
The introduction emphasizes the problems faced by students due to a lack of knowledge of legal rights and responsibilities, disadvantages in the current education system, and changes that can be made to promote an inclusive society. The further parts will discuss the features included in the app, its benefits, and the methods followed to build the app.

2. LITERATURE REVIEW

1. “The mobile Apps Usage of Higher Education in Taiwan” done by Hsu Chen CHENG, Tsuei Ping KUNG, Chia-Ming LI, and Yu Jou SUN, collects information regarding mobile apps and determines whether the mobile app is official and it examines the content of the app to check whether it is suitable for children. The drawbacks are the content of the app can’t be found easily and also no information is provided about the installation of the app.

2. “A study of Mobile App Use for Teaching and Research in Higher Education” by Annika Hinze1, Nicholas Vanderschantz2, Claire Timpany2, Sally Jo Cunningham1, Sarah-Jane Saravani3, Clive Wilkinson3. This study explains the technologies used in academia and the technology available to students. The limitation of the study is that the accuracy of the data samples is limited to a small region.

3. “English Learning on the Move: A Survey and Study of Mobile App Assisted English Learning in Chinese Tertiary Education” by Ji Li, Shuangchu Li, and Yu Li, The new learning method was welcomed by the students they liked this app assisted learning, it also increases the student efficiency and make learning fun. The students should be guided properly to use the mobile app and not allow students to misuse their phones. Students should cooperate and collaborate with peers in using mobile apps to ensure all students are on the same track.

4. “HedhiHelp – A Health Education App for Girls in Rural Kenya “by Arbelina Bebla Mira Diwan; Elizabeth Smith Michele T. Parker. This study shows how in many countries, girl children miss 5 days a month at school due to mensuration due to a lack of knowledge about mensuration and can’t talk about that openly. To tackle this, they developed an app that after entering the information about the user gives the mensuration calendar, a discussion forum, and information about mensuration.

5. “Internet of Things(IoT) with mobile educational Apps” NH kamarudin, WS Chung, Bakri Madon, Asem Khmag, This focuses on using the Internet of Things to give education to students. The usage of mobile and cellular phones is not limited to calls as it extends to diverse tasks and purposes. It focuses on educating all students equally. This system is expensive and can’t be applied on a large scale.

6. “Educational mobile Apps for Negotiation: Evaluation and Design Criteria for Curriculum Designers and Developers” by Nguyen TQ, Dang TN, Hoang CL, Truong DTN, Nguyen VA. It aims to develop an app to educate Vietnamese people about negotiating. They chose this educational app because mobile learning allows learners to participate in the learning process at their own pace and time through the use of mobile devices. People lack knowledge in using technologies so the people must be taught to use the app.

3. METHODOLOGY

The study method followed here is the design thinking approach. Design thinking is an iterative, non-linear process that is used by teams to understand the user needs, define the problem statement, and create
an innovative solution. The five stages involved in the Design Thinking process are empathy, define, ideate, prototype, and test.

3.1 Empathy

Concept
The empathy stage involves understanding the user’s thoughts and needs. Through this, we can understand the problem they are facing from the user’s point of view and connect with how they feel. Some activities involved in the empathy stage are finding users, observing user behaviour, and connecting with users.

Process
In this stage, interviews and surveys were conducted for a group of students to understand the difficulties they face due to a lack of legal knowledge and the monotonous mode of study. All the responses were anonymous. Students were asked to illustrate themselves. This was recorded in the form of a persona as illustrated in figure 3. The teachers were also interviewed about the difficulties they face in teaching the students and making them understand the subjects and the change they need.

3.2 Define

Concept
The main step in the define stage is to formulate a meaningful and impactful problem statement by analyzing the findings from the empathy stage. This gives more clarity on the final solution.

Process
The problem statement can be defined as “Students make uninformed decisions about their basic rights and responsibilities in real-life settings due to a lack of legal expertise. Existing approaches give pupils knowledge in a subjective way rather than practical methods. There is a need for a fun, dynamic, and engaging platform to educate pupils about their rights.” We also tried to understand the difficulties in learning the basic rights and applying them in real-life scenarios.

3.3 Ideate

Concept
In the ideate stage, multiple ideas are generated for the problem statement from which the most innovative solution is made into a prototype.

Process
For the problem statement defined in the define stage, a brainstorming session was conducted inside our group to tell the ideas from which the solution was selected. A Mobile App that the teachers can use to teach the children or the college students can use to educate themselves about the legal rights and responsibilities of India.

To create inclusivity and accessibility the app would include language translation features and speech-to-text features. Modular and adaptive learning methods that provide progressive tracking paths. The main feature of the app is the quiz-based system which includes questioning the students on real-world scenarios to test their knowledge on it.

This approach decreases the difficulties of students in understanding the legal procedure and applies them to make informed decisions. The app must be made available to all the students around India regardless of their socio-economic background, gender, or other demographic factors.
3.4 Prototype

Concept

The prototype stage involves building your solution with specific features in it to test with the users. Some activities involved in the prototype stage are clay modeling, role play, sketches and diagrams, and storyboards.

Process

A low-fidelity model of the app was built in this stage in which the quiz section of the app was designed using Figma. It had questions about the basic laws and real-world scenarios to test their knowledge. The app contains many modules which the teachers can even use as a mode of evaluation. The students can even use it themselves to enrich their knowledge on specific topics. This can be implemented from government schools in villages to private schools in cities to educate the students about their laws and college students can you it by themselves.

3.5 Testing and Redo

Concept

This stage involves testing the prototype built with the users to find the problems and in it and changing them.

Process

The model is tested among a set of students and teachers to check its effectiveness. Many suggestions are given for the betterment of the solution to make it more feasible and effective. Ongoing feedback will be collected in order to keep improving the app and releasing it in its best form.

Figure 1: Modules
Figure 2: Scenarios

Figure 3: MCQs
Shalini S

About: Shalini is an engineering college student who wants to excel in various fields. She is a continuous learner and studies person. Her dream is to combine her studies with social studies.

Age: 21 years
Education: Pursuing Engineering
Family: Shalini lives with her parents and has a younger sibling
Location: Urban Area

**Figure 4: Persona**

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**EMPATHY MAP**

**SAID**
- I hope this website is fun
- I want to learn about laws and rights.
- I am not sure about the basic laws and rights

**THOUGHT**
- I want to learn fundamentals in laws and rights
- I hope this website helps me test my knowledge in laws

**DID**
- Regularly visits the website
- Shares the website with peers
- Utilizes hints and resources for improvement

**FELT**
- Curious about how laws work
- Excited to learn new things

**Figure 5: Empathy map**
**Customer Journey Map**

<table>
<thead>
<tr>
<th>Awareness</th>
<th>Consideration</th>
<th>Decision</th>
<th>Service</th>
<th>Loyalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Actions</td>
<td>Understand the importance of the website</td>
<td>Simple registration process for students</td>
<td>Options to save their progress and share it with other students</td>
<td>Understanding the importance of laws and legal rights that an Indian citizen can exercise</td>
</tr>
<tr>
<td>Customer Actions</td>
<td>Engage the students in quiz related to legal rights in India</td>
<td>Choices to attend quiz in different modules</td>
<td>Tapping process for finding the faults in the website</td>
<td>Checking related other websites to avoid plagiarism</td>
</tr>
<tr>
<td>Customer Actions</td>
<td>Basic introduction to get the started with the basics of law</td>
<td>Make your website as unique as possible before releasing it</td>
<td>Changes can be made as per user feedback</td>
<td>Make students understand the basics of legal rights</td>
</tr>
<tr>
<td>Customer Actions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 6: Storyboard*

*Figure 7: Journey Map*
4. CONCLUSION
The challenges of this app lie in building without any legal knowledge and bringing it to use. We took on this issue in response to cases where the public has been taken advantage of due to a lack of awareness. Through the process of design thinking we were able to understand the user's feelings, emotions, and challenges. This made it easy for us to understand the problem and build the solution. On the journey of creating the solution, we understood the importance of awareness about our rights. We believe this is a step towards a positive society that are ready to voice out their opinions and stand up for themselves.

5. FUTURE SCOPE
This App can further cover detailed laws not only the basic laws. The app can incorporate multimedia features to make it more fun entertaining and engaging. The app can provide personalized learning paths tailored to individual user preferences. Social and Community Feature to interact with other users or students, and legal experts to create a sense of community. A more gamified experience can be provided for younger children to make it easy for them to understand it. Integration with child rights organizations and support services for students and children to get legal aid in times of emergency. We aim to create an accessible and user-friendly app to increase legal literacy and awareness.

6. REFERENCES
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