

STATEMENT OF INTENT

Multimedia Project Planning – Zakhren Yazid – The Interactive Textbook

Topic

The main idea was to revolutionise high school classrooms; to exhibit a sort of 'Classroom of Tomorrow' but with technology available today. Secondary level education today, privatised or government, is severely lacking. I am proposing that a refocusing of the core components of education, with the integration of useful interactive digital media tools, can greatly enhance the learning experience and performance of students and teachers. 3 key elements of the high school environment are the textbook, the blackboard, and a communication system between students, teachers, and parents. Transforming these into dynamic, progressive, and easily utilised digital tools will help bring schools into the modern age.

As this scale is too large and unfocused, I decided to funnel my efforts into producing what I consider most important. That is, how can I create a dynamic, interactive textbook that cultivates cognitive development and self-teaching methods among high school students? The interactive textbook needs to be easy and fun to use with features that will interest generations born into the 21st century. Using theories and understandings such as fun theory, distributed cognition, and socially mediated cognitive development will help guide me in ensuring the textbook functions as intended and is actually a useful tool.

Genre

This project is embedded in education, teaching, and learning methods. The interactive textbook is a new kind of educational software, a powerful and versatile educational tool that will be easily adopted by students who have access to computing devices.

Form

The interactive textbook will be an AIR application that runs on desktops, laptops, tablets, or mobile devices, connected to the Internet to access hosted XML documents that contain all the content for the textbook, but will function offline as well by occasionally saving the data locally. For the purposes of my final project, I will limit the content presented to the transformation of a single high school textbook, most likely a year 11 science textbook as it is a core subject in any education system and often is considered a boring topic. The content will be the same, but with the addition of tools and functions such as:

- dynamic loading of content for easy updating
- saving/highlighting of content to personalise learning experiences
- integrated YouTube videos based on chapter topics
- access to search engine features such as Google images
- additional information via Wikipedia
- fun theory based tasks with milestones to encourage learning
- and social integration with Facebook and Twitter.

Target Audience

The application's target is 2 fold. First, it is a useful learning tool for tech savvy high school students, aged 13-17. Second, it is a tool that teachers can use to improve their lessons. The target market would mostly be in urban areas, but any area or school equipped with computers and an internet connection can utilise the interactive textbook. Marketing wise, it would be promoted to school administrations, and perhaps even the Ministry of Education, to consider implementing it in schools nationwide.

Existing Skills & Knowledge

The construction of the interactive textbook will require a strong proficiency with Actionscript 3.0 and some knowledge of website construction that includes HTML, CSS, XML, and PHP scripting. These are areas that I specialise in and have significant experience working with, so I should not encounter any technical problems when it comes to these. As for the subject matter, I come from a family of educators and have a firm grasp on the purpose and problems of education. I will be able to consult with experienced teachers as my project develops, allowing me to solve some of the problems of an outdated education system.

Degree Essay Relation

"Exploring interactive digital media's ability to enhance the learning experience of secondary level students today". This is the research question that I am pursuing for my degree essay and it carries over to my final project. Although not as specific as my degree essay, the interactive textbook can share some of the academic findings and resources I discover during my research processes. It will be strongly supported by my degree essay but will still require substantial research on its own as the essay does not cover all topics.

New Skills & Knowledge

Elements that I am not experienced with is integration of 3rd party APIs. Linking the interactive textbook with YouTube, Google, Wikipedia, and Facebook is something I have to learn. Twitter, however, I have already experimented with and should not be a problem. Academics is also a new area for me. Because education is such a vast topic, there are innumerable theories, concepts, methods, and experiments that I have yet to study and discover.