ICT Project Nomination Form 2011

The teams choose projects based on this short description. There is no guarantee that your project will be taken, make it sound as interesting and as educational as possible.

Project Title:
‘Build a Body’ – bioscience educational software

Client retains Intellectual Property: No
Confidentiality Agreement required: No

Project Description:
When was the last time that you, your family or your friends were treated by a nurse or paramedic? Would you like to be involved in an innovative project that could produce measurable improvements in learning for nursing and paramedic students, has the potential to be marketed nationally and internationally and could improve the quality of care that health professionals deliver?

This project will allow you the flexibility to negotiate the most appropriate operating system, programming tools and utilities as members of a software design team. You will have the opportunity to develop and implement a range of skills including interactive system design, educational gaming development and analysis, CGI and 3D CGI.

Background

Most nursing and paramedic students in Tasmania are enrolled in accelerated degrees whereby they are required to learn the entire anatomy and physiology of the human body (bioscience) in a dramatically compressed time frame compared to traditional degrees. This process is extremely daunting, especially considering many students are mature aged and/or have English as a second language.

Current teaching strategies for bioscience revolve around formal lectures and information dense text books, while newer software-based resources are minimally engaging and often present large chunks of bland information.

The ‘Build a Body’ educational game is aimed at bringing anatomy and physiology to bioscience students in a fun, engaging and informative way that encourages interest, motivation and knowledge retention.

The early parts of the game will be based upon learning basic body structures (anatomy) and, as the game proceeds, the user will be set tasks in discovering how the system works (physiology) and then in dealing with states of disease/illness (pathophysiology).

The development of this software will begin with the digestive system as a model. After selecting organs and building the system, the user will unlock progressively more advanced tasks, tests and features. Additional features will include mini games
to enhance knowledge of key terms, building individual organs and unlocking investigative tools (eg. stethoscope, microscope, scalpel, 3D imaging, real tissue, endoscope etc). In the physiology tasks, the user will be required to make the system work, ie. administering food items, activating organs, releasing enzymes and so on.

There is a severe lack of interactive introductory level anatomy and physiology educational software on the market. The current project presents a unique opportunity to develop innovative software that could dramatically enhance the learning experience of a large cohort of students locally (over 500 students at UTas alone) but has the potential to be marketed both nationally and internationally.

Project Technical Information:

Two or three lines. If you want particular development tools used (development environments, programming languages, database systems), you must state them. If you have no preferences then leave blank and the students will negotiate with you.

Contact Information:

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