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3D virtual interactive learning environments for art, design & architecture

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multi player gaming and educational gaming

“As multiplayer game platforms become increasingly powerful and lifelike, they will inevitably be used for more than storytelling and entertainment. In the future, virtual worlds platforms will be adopted for commerce, for education, for professional, military, and vocational training, for medical consultation and psychotherapy, and even for social and economic experimentation to test how social norms develop.

Although most virtual worlds today are currently an outgrowth of the gaming industry, they will become much more than that in time.”


"Virtually all college students have had experience with games. Games represent active, immersive learning environments where users integrate information to solve a problem. Learning in this manner incorporates discovery, analysis, interpretation, and performance as well as physical and mental activity. An increasing number of colleges and universities are exploring the use of games to enhance learning.”

(http://www.educause.edu/Games/1008)
Educational learning theories and game play
Social networking/Computing

- Instant messaging: MSM
- Image/sound/movies and 2D graphics
- Hi5, Flickr, Coroflot, Facebook, Friendster, Youtube, Dodgeball, ...
2004: Collaborative FE CoVE Virtual Fashion project. Andrew Taylor CoVE Researcher worked collaboratively with LCF & Chesterfield academics for 1 year in online real time studio space / gallery and Exhibited collection at Rootstein Hopkins Space at LCF.
University of Huddersfield
Online 2D/3D/ R&D projects

- www.Laser 3D.co.uk: scanning research and development
- www.Huddersfield3D.co.uk: extensive student portfolio, links and tutorials
- www.Yahoogroups: 3D student communication and discussion board
- Hi5 profile: past/present student social staying in touch
- Library virtual map: finding location in learning centre
- Multimedia/VR Simulation of Canal side East
- Virtual 3D campus Map walk through

http://crete/virtualtour/aVirtTour.aspx
NANYANG Virtual Campus is a shared virtual world of the real campus of Nanyang Technological University in Singapore.
Avatars: are Virtual characters
Multi Player Virtual Worlds

1. **Infinate Shared Space**: the virtual world allows many users to participate at once.

2. **3D Graphical User Interface**: the virtual world depicts space as in real world as a highly interactive immersive 3D environments.

3. **Immediacy**: all interaction takes place in real time.

4. **Interactivity**: the world allows users to alter, develop, build, or submit customized content.

5. **Continuous**: the virtual world’s existence continues regardless of whether individual users are logged in.

6. **Socialisation/Community**: the world allows and encourages the formation of in-world social groups like friends, clubs, schools, neighbours, housemates, neighborhoods, employment, etc.
3D Interactive multiplayer environments social integration
Educational use of the Sims
3D interactive economics - Virtual High street Fashion brand product placement in www.there.com
Second Life.com

• What is it?

• How many users?

• What happens in Second Life?

• How can you become a resident?
Making your character
Second life: lifestyles
Second life: lifestyles
Virtual School of Art & Design in the University of Huddersfield Virtual World
Behind the scenes: Virtools programming
Click on the yellow boxes. Try all the KEYPAD buttons.

Use the arrows and shift keys to move Eva.

Press the Space Bar to look through the next camera.
Avatar Eva watches Patrick Stewart talking to everyone
Click on the yellow boxes. Try all the KEYPAD buttons.
Use the arrows and shift keys to move Eva.

Press the Space Bar to look through the next camera.
Bookshelves contain links to dissertation abstracts.

Tom Rapier Abstract: This dissertation researches the relationship between psychology and design within advertising and asks how psychological theory may be married with design skill in order to inspire the creation of more effective advertising contents in industry. In order to achieve this, both primary and secondary resources have been used to provide a balanced perspective on the subject. Chapter One studies academic theories of consumer psychology and refers to real world industry opinion in order to discover the extent of the practical application and constraints that professionals from the advertising industry face. Chapter Two then focuses on the theory behind ads and uses a case study, professional to reveal the roles and restrictions that are present in order to generate appealing content. An interview was then carried out with psychology and advertising experts to learn more about the relationship between psychology and creativity. This paper finds that the core difference between the application of psychological theory and design instinct in industry is that the science of psychology is quantifiable by tests and, as a result, is welcomed as a means to provide a measurable justification. However, it is also recognised that the internal development—or autopodas—designs experience whilst developing their craft, is a valuable asset as it enables creative to generate targeted and appealing concepts. Concurrently, research shows that designers use theoretical restrictions as a potential benefit to the design process. The dissertation concludes that psychological theory and design instinct can work together in an industrial context. If psychological science is applied at the ‘brief’ stage of the project it can then provide the creative team with the necessary quantifiable constraints to work within.

Press the Space Bar to look through the next camera.
Interactive RP machine
student learning Simulation
Avatar Eva watching a learning tutorial on a large screen in the virtual shorehead carpark
Map camera view for checking your location
Interactive feedback
learning through play

• Play is learning through experience!

• We welcome your views/ideas/questions