Immersive Technologies and the Future of Learning and Development

(Įtraukiančios technologijos – trimačiai internetiniai Žaidimai, virtualūs pasauliai bei socialiniai tinklai – ir mokymo[si] ateitis)

PRANEŠĖJAS: David Wortley
Director, Serious Games Institute, Coventry University Enterprises Ltd
http://www.seriousgamesinstitute.co.uk/

LAIKAS: spalio 29 (penktadienis) 10:15-12:00

VIETA: Vilniaus universiteto Matematikos ir informatikos fakultetas
Vaizdo konferencijų studija (VU MIF Informacinių technologijų centre tarp XII ir XIII auditorijų, Naugarduko g. 24/Šaltinių g. 1A)

SANTRAUKA

Immersive Technologies is a collective term for a portfolio of applications which include
- video games,
- virtual worlds, and
- social networks.

These applications successfully engage the hearts, minds and wallets of millions of users globally and are most responsible for transforming the way in which current and future generations will learn, communicate, trade and collaborate. These applications are also revolutionising our relationship with technology and creating opportunities for not only improving the cost effectiveness of training but also providing competitive advantage to their users.

This presentation will illustrate their potential in a variety of application areas with practical examples from paramedic training, disaster management, tourism, management training and relationship management. It will describe some of the benefits of using these applications and give a glimpse of the future of training.
Serious Games and Immersive Technologies

Immersive Technologies and the Future of Learning and Development

David Wortley FRSA

Serious Games Institute

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Key Take Away Questions

● What are Serious Games & Immersive Technologies?
● Why are they important?
● What is their impact on Business, Education and Society?
● What applications are being developed?
● What are the future trends?
Introduction to the SGI
Serious Games Institute (SGI)

“An international centre of excellence for the application of immersive technologies to serious social and economic issues”
West Midlands Region

Coventry

London

Serious Games Institute

www.seriousgamesinstitute.co.uk
Stratford upon Avon
SGI Areas of Interest

- Education
- Health
- Environment
- Smart Buildings
- Relationships
- Interface Technology
- Innovation & Enterprise

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Immersive Technologies
Immersive Technologies engage our hearts, minds and wallets
Games
Serious Games
Virtual Worlds
Serious Virtual Worlds
Social Networks

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**DatingDirect.com**

The UK's largest dating website*
with over 3.5 million members

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2,996,33 members online

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**Discover your instant Messenger**

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**Last chat contact**

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**Currently Online:**

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**New Members:**

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**Quick search:**

- **Her region**
  - Choose from the list
  - From 25 to 45

- **Her city**
  - Choose from the list
  - With photo

**My profile:**

- Visited 200 times

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**Serious Games Institute**

[www.seriousgamesinstitute.co.uk](http://www.seriousgamesinstitute.co.uk)
Serious Social Networks

Artificial Intelligence, Geo-location, profiling

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Serious Social Networks

Social Networks have powerful political impact
11 million people running their own virtual farm with friends
WeForest the Game, giving players the opportunity to plant, grow, nurture and protect a virtual tree.
Impact on Society
Did you know?
Machines were invented to fulfil tasks more efficiently, mechanically, reliably and predictably.
Knowledge Professionals train for many years to deliver their skills and knowledge more efficiently, and effectively.
The internet and digital media delivers current information and knowledge faster, more efficiently, and on demand

*but what is missing?*
Human beings use intelligence, judgement, sensitivity, emotions, empathy and experience to deliver unique and personal experiences - *differentiating us from machines*
Machines and Humans

Power, speed, efficiency, accuracy, stamina, capacity, availability, inflexible

Judgement, sensitivity, care, humanity, fallibility, creativity, versatility
## Humanising Technology

<table>
<thead>
<tr>
<th>Humans</th>
<th>Machines</th>
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<tr>
<td>To love and be loved</td>
<td>vs devoid of emotion</td>
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<tr>
<td>Personalisation</td>
<td>vs one size fits all</td>
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<tr>
<td>Easy to use interfaces</td>
<td>vs unnatural devices</td>
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<td>Persistent history</td>
<td>vs blank pages</td>
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<tr>
<td>Facilitated new discovery</td>
<td>vs delivery of existing</td>
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<td>Understanding &amp; Wisdom</td>
<td>vs Memorisation</td>
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<tr>
<td>Need to be Connected</td>
<td>vs isolated</td>
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<tr>
<td>Motivation and challenge</td>
<td>vs boring &amp; repetitive</td>
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<tr>
<td>Creative expression</td>
<td>vs standard responses</td>
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Humanising Technology

Tamagotchi is technology which responds to human relationships
Technology bringing a Human Touch

Yesterday

One size fits all

Today

Intelligent entertainment

Tomorrow?

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Immersive Applications are Humanising Technology

Delivering more control over our lives, our world and our relationships - giving us access to a global network - building personalised relationship with our technologies
Immersive Technologies deliver personalised experiences based on building “intelligent” relationships.
Some Examples

1949

More speed, power, capacity, less cost PLUS?

2010
Humanising Transport Technology

1949

2010

Using your car as a navigator, entertainer and mobile phone

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Advantage West Midlands

Project Part-Financed by the European Union
European Regional Development Fund

Coventry University

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Impact on Education & Learning
Technology and Learning

We use technology to try to make learning faster, easier, more powerful and more efficient in a world which is exploding with information and new knowledge.
Who do we learn most from?

Technology can help us disseminate information to a global network of learners and through repetition develop skills and memory but humans inspire us, influence us, motivate us, shape our attitudes and behaviours and help us to imagine, innovate, dream, discover, desire and act.
The Challenge of the Digital Native

Immersive Technologies are changing the face of education

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The Multi-Tasking Generation

There is medical evidence to indicate that the brains of young people are becoming increasingly “hard-wired” for multi-tasking - making them able to handle (and expect) multiple simultaneous information sources and to make judgements on which sources to give attention to.

How can/should society respond to this?
What does Education need from Technology?

In a rapidly changing Knowledge Society, Education needs tools and technologies to inspire us, influence us, motivate us, shape our attitudes and behaviours and help us to imagine, innovate, dream, discover, desire and act.
Conclusion

Tomorrow’s learners are using technologies access and manage a rapidly growing wealth of information **BUT** they need inspiration, motivation, and ability to live in a fast changing world.
Humanising Technology

We are developing immersive technologies that recognise our voice, our actions and our preferences to deliver personalised experiences.

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Interface Technologies
New Devices

Brain wave controllers
New Devices

Motion / Voice Controllers

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New Ways of Learning

Use your Kinect® for Xbox 360®

FIRST SPOKEN LINES

I’m a friend of Sarah Connor.
No. You can’t see her. She’s making a statement.

The Terminator

Desk Sergeant

I’m a friend of Sarah Connor.
I was told that she’s here. Could I see her please?
No. You can’t see her. She’s making a statement.

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Immersive Technologies changing the face of Learning

Watch, Copy, Feedback, Learn

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Emerging Immersive Technology Applications
RescueSim is a virtual training platform
the Roma Nova project
A serious game for cultural heritage
VEHICLE CHECKPOINT DEMO
Shaping the Future
Collective Human Wisdom

Combining the power of humans and machines
Our Relationship with Technology

- To love and be loved
- Treats me as an individual
- Easy to get on with
- Remember everything about me
- Every day brings new discoveries
- Help me to understand
- Encourage & challenge me
- Help me to express myself

We will drive technology to empower us to shape our world
and in the process the world will shape us

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Linking Physical & Virtual

 blijt vloos to on fun health
Linking Physical to Virtual

Climate Change Games linked to personal energy usage

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