Stories of the virtual mind

A Science Fiction Prototype

Anasol Peña-Rios / University of Essex, UK
Emmanuel Ferreyra-Olivares / Fundación Iberoamericana, Spain
Alejandra Peña-Rios / Universidad del Valle de México, Mexico

About the authors
Creative Science: Predicting the future of Education

• How would education be in the future?
• How technology can affect/enhance the learning process?

The stories...

SOPHIA
• Neuroscientist
• Owner of a company focused on creating virtual experiences for people.

HANK
• Rich septuagenarian widower
• Obsessed with the possibility to live again the happiest moments of his life.

CLEM
• Hank’s second child
• Sociable young woman
• Involved in the family business
• Food pills

PAULO
• Middle-aged gamer
• Spent most of his time (and money) betting on illegal 3D casinos
• Many debts
• Suffers from anxiety
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Science Fiction Prototype

Some day in the future...

“What is reality? Reality, like time is just a concept for human beings. Certain situation could be real for you, but not real for everyone else. When does it become real?” - Sophia

- So realistic that people could lose their mind.
- Laws to regulate this activity: Banning human-avatar interaction. Limiting the number of hours (except on medical treatment).
- Common experiences: travel to real or imaginary places.
Science Fiction Prototype

- Similar to the idea that people can see their life in a flashback when they have near-death experiences; but with the bonus of choosing which memories they wanted to bring back.
- In older times, people did this voluntarily, uploading their photos, achievements, activities and thoughts to social media.
- People selected what things to upload, creating a different digital persona from the one they really were.
- Early experiments on memory transfer of information from digital media to the brain failed because of this.

How to program a brain?

- A person can learn through his/her input devices: the senses (visual, auditory, kinaesthetic, etc.)
- Happens when learners are willing to digest and accept the information provided by the senses
- Reusing experiences, preserving memories and specialised knowledge to transfer it to a different individual.
- Imagine that you could transfer the experience of a skilled surgeon, or the genius of a musician, or... well the possibilities could be unlimited!
How to program a brain?

Create an environment able to provide external stimulus to human I/O devices (aka senses):
- Musical memories
- Visual stimulus
- Olfactory memory

“The machine started to recreate an incredible cocktail of sounds, visual images and colours and olfactory inducements along with other electrical stimuli for skin...”

Background of the story

- Immersive Education
- Accelerated learning
- Learning styles (personalisation of learning?)
- Immersive technology
- Virtual reality
- Life logging
- How to program a brain?
- Experiential learning
- Effects of music on the brain
- Olfactory memory
- Visual stimulus
Creative Science: Predicting the future of Education

Ideas & science behind the stories

- Life logging - http://vimeo.com/76031372
- The Matrix - http://youtu.be/SRs8DgV1cDE
- “Perceptual learning incepted by decoded fMRI (functional magnetic resonance imaging) Neurofeedback without stimulus presentation” - http://bcove.me/cwpg585v

Reflections

- What could it be the positive and negative effects on people's lives if everyone could have access through this sort of learning to any subject they would want to learn?
- Has the human brain the capacity to hold unlimited knowledge?
- Would it be any side effects?
- What kind of laws would be necessary to implement in order to regulate this imaginary scenario?
- What impact would that cause in the world?
- Would that completely modify for good the present educational model?
Thank you for your attention!

References (short version)


