#iLRN16_SFP

Thinking about ‘The Future of Immersive Education’ through the Lens of science fiction prototyping

http://www.creative-science.org/activities/ilrn16_sfp/

Organisers

**Organising Locally**
- Dennis Beck, University of Arkansas, USA
- Vic Callaghan, University of Essex, UK
- Michael Gardner, University of Essex, UK
- Christian Gütl, Graz University of Technology, Austria
- Leonel Caseiro Morgado, Universidade Aberta, Portugal
- Jonathon Richter, Salish Kootenai College, USA

**Imagination Workshop (Advisor)**
- Hsuan-Yi Wu (Jen), National Taiwan University, Taipei, Taiwan

**Organising Online (Remotely)**
- Anasol Peña-Ríos, University of Essex, UK
Overview of Afternoon

“This workshop seeks to introduce micro science-fiction prototyping (µSFP) as a methodology for thinking about how immersive education might develop in the future”.

- 2pm – Welcome to iLRN (Jonathon Richter)
- 2.15pm – Introduction to µSFP (Vic Callaghan)
- 2.45pm – Invited talk Brian Johnson (via Skype)
- 3.30pm – Coffee/tea & Ideation Sessions (divide into 6 groups, done at registration) (Dennis Beck, Christian Gütl, Leonel Caseiro Morgado, Michael Gardner, Jonathon Richter & Vic Callaghan facilitating)
  - Brainstorm ideas (30 minutes)
  - Discuss and prioritise ideas (15 minutes)
  - Create at least one µSFP to present in following session (15 minutes)
- 4.30pm – Group presentations (5 mins per group) (Michael Gardner)
- 5.00pm – Vote on best group µSFP (Michael Gardner)
- 5.15pm – Prize (Jonathon Richter)
- 5.20pm – Overview of follow-on µSFP competition (Vic Callaghan)
- 5.30pm – Concluding Session (Jonathon Richter)

This PowerPoint is available to download from:

Outcome of Workshop

- An important aim of this workshop is to introduce you to a method of generating creative ideas called Science–Fiction Prototyping (SFP).
- You will write a short story of just 140 characters (around 25 words) to describe an immersive education related innovation.
- Award for best short story (to make it a bit more fun!)
Part 1 – Introduction to SFP

- The Intel Story
- SFP Workshops
- Introduction to SFP
- μSFP writing

The Intel Story

- Introducing new chips takes Intel 7–10 years from concept to shipping (with 15 years of product life)!
- How can they specify chips for worlds that don’t exist?
- The main Intel resource is engineers (but traditional engineering education encourages structured & incremental thought!)
- Intel decided the magic ingredient was imagination
- The Intel solution was to ask their engineers to write fictional stories about technologies they are working on, to inject imaginative leaps in their thinking!
Science Fiction Prototypes (SFPs)

- Are simply stories describing a future (and an innovation) you would desire.
- Written to persuade people to buy into your innovation (through credibility & emotion)
- Loosening remit from *the likely* to *the possible* allows leaps & disruptions to be addressed
- Two types of SFP
  - Micro-SFP (µSFP): a very small SFP
  - Macro-SFP: a large SFP
- As part of this workshop you will create an µSFP
SFP uses short stories about the future to inject imaginative leaps and provide a shared language for innovation.

No agreed specification; Range from 6 to 1000 words; Popular size 25–30, words (text message size!).

Similarities to fables, parables, anecdotes, sayings, adages, proverbs and maxims.

English speaking world called micro-fiction, nano-fiction, flash-fiction, sudden-fiction or postcard-fiction.

Around the world called microrrelato or ficcione (Latin-America); nouvelles (France); minute-long or smoke-long (China); Haibun (Japan).

Technology based – Mobile-phone (Ketai) fiction (160 characters ~30 words); 'Twitter Lit' (140 characters ~25 words).

Examples can be found at
- Wired (6-word) - http://www.wired.com/wired/archive/14.11/sixwords.html
- Espresso Stories (25 words) - http://espressostories.com
- Micro-SFPs (Twitter-size) - http://www.creative-science.org/activities/microsfp/
Writing a μSFP

μSFP components

1. User
2. Innovation (technology / service / process)
3. Event
4. Benefit

Twitter / SMS sized fiction (140 / 160 characters – 25 words)

Simple writing procedure

1. Name a user (use a very short name eg Joe)
2. Identify an innovation (technology, process etc)
3. Then create an event that illustrates the use and benefit of the technology, process or service (should include an inflection point)
4. Start big, then reduce it to <140 characters / 25 words

Simple μSFP template


Examples – 6 Word micro fiction

“For sale: baby shoes, never worn“ – Ernest Hemingway (who, according to science fiction writer Arthur C. Clarke, in the 1920’s bet $10 he could write a complete story in just 6 words, starting this genre!).

“Lie detector eyeglasses perfected: Civilization collapses.” – Richard Powers

“TIME MACHINE REACHES FUTURE!!! – nobody there“ – Harry Harrison

Wired (6-word) – http://www.wired.com/wired/archive/14.11/sixwords.html
Examples – μSFP (text size 160 characters, 25 words) … created by 16/17 year-olds in 90 mins!

- Jack fell asleep in the sun. His smart sun protection sensor woke him up with an alarm & soft vibration. He avoids sun strokes!
- Amy can’t diet but her bracelet helps stop her eating a naughty treat over a salad. It clamps tight on her wrist & shocks her.
- OMG where did you get your coat from? It was the only one left in the store. But I can 3D-print it for you. Thank you so much.
- With my new eFridge I can have my cake & my stay at home. I come home 2 a full stock of food & no court orders for a drunkard.
- I’ll just pop off to get some sushi. Bob established a wormhole link to Japan and vanished.

Currents, Essex, 2014

1. technology
2. user
3. event
4. benefit

Part 2 Practical Work

- Brainstorming
- μSFP writing
- Presentations
- Voting / Prizes
Imagination Workshop
Mediator - Jonathon Richter

- Brainstorming (30 minutes)
  - Form groups of 3, 5 or 7 people (from registration)
  - Elect a coordinator & scribe (to record ideas)
  - Choose an innovation focus (see next slide)
  - List as many ideas as possible (choose quantity above quality)
  - Do not worry about practicality of ideas
  - Don’t criticise ideas (out of the box thinking is encouraged)
  - Offer new ideas, plus build on other members ideas

- Discuss & prioritise ideas (15 minutes) / Create µSFP (15 minutes)
  - Each person might try to write an SFP and then you can decide amongst yourselves which one to put forward


EXAMPLES
Jack fell asleep in the sun. His smart sun protection sensor woke him up with an alarm & soft vibration. He avoids sun strokes!

Amy can’t diet but her bracelet helps stop her eating a naughty treat over a salad. It clamps tight on her wrist & shocks her.

Cross-Impact matrix (a brainstorming tool)

- Your brainstorms / µSFP needs to focus on immersive learning
- To get started – Use the xmatrix table to consider what happens when (pick) one of those trends combines with immersive technologies: how might they impact learning opportunities?
- You can also add to the list of technologies in the xmatrix table

<table>
<thead>
<tr>
<th>Technology</th>
<th>Impact on Immersive Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>3D printing</td>
<td>?</td>
</tr>
<tr>
<td>Robotics</td>
<td>?</td>
</tr>
<tr>
<td>Nanotechnology</td>
<td>?</td>
</tr>
<tr>
<td>Biotechnology</td>
<td>?</td>
</tr>
<tr>
<td>Internet of Things</td>
<td>?</td>
</tr>
<tr>
<td>Maker spaces</td>
<td>?</td>
</tr>
<tr>
<td>Big Data</td>
<td>?</td>
</tr>
<tr>
<td>Visualisation</td>
<td>?</td>
</tr>
<tr>
<td>Cloud Computing</td>
<td>?</td>
</tr>
<tr>
<td>Social networking</td>
<td>?</td>
</tr>
<tr>
<td>E-paper</td>
<td>?</td>
</tr>
<tr>
<td>Bitcoin / blockchain</td>
<td>?</td>
</tr>
<tr>
<td>MOOC</td>
<td>?</td>
</tr>
<tr>
<td>Game Technology</td>
<td>?</td>
</tr>
<tr>
<td>Intelligent Systems</td>
<td>?</td>
</tr>
<tr>
<td>Mobile / wearables</td>
<td>?</td>
</tr>
<tr>
<td>Smart glasses</td>
<td>?</td>
</tr>
</tbody>
</table>
5 Minute Group Presentation
Adjudicator – Michael Gardner

- Present your µSFP by:
  - Reading the µSFP
  - Providing an extra information you think useful
  - Explaining its benefits to immersive education

Include
1. technology/process
2. user
3. event
4. benefit

Prize for best µSFP (Certificate for each member of group)

Competition & Voting
Adjudicator – Michael Gardner

- You will be the judges (voting by a simple show of hands)!
- Each person can vote for one group (but not their own) using the criteria:
  - How good the idea is
  - How good the benefits are
  - How ‘story–like’ the SFP is
- The µSFP with the most votes will be the winner (in the event of a tie, organizers will have casting votes).
...and finally (a Twitter µSFP competition)

- **Competition**
  - You are invited to write an individual µSFP describing how you foresee immersive learning technologies and pedagogies changing the nature of future immersive education.
  - The top 3 µSFPs (as voted by attendees) will receive an Amazon voucher

- **How to enter the competition?**
  - Tweet your µSFP using the hashtag #iLRN16_SFP no later than midnight on the 29th June 2016 (you have 129 characters for the µSFP as the hashtag uses 11 of the 140 characters allowed)
  - All µSFPs will be retweeted in our official Twitter account @CSciFoundation. Once we have retweeted your story, you are officially in the competition!
  - Results will be announced, and prizes awarded, during the closing session
  - The mechanics of this online competition is being organised by Anasol Peña-Rios (@prlosana).
  - A useful guidance form for writing µSFPs is available
  - More information is available from:

That’s it!

"How do we change the future? Change the story people tell themselves about the future they will live in."
Brian Johnson

"We are what we pretend to be, so we must be careful what we pretend to be?"
Kurt Vonnegut

http://www.creative-science.org
https://immersivelrn.org/