





WELCOME TO CREATIVE SCIENCE 2014

29th June 2014, Shanghai Jiaotong University, China
(a workshop of the 10th Intelligent Environments conference)
Vic Callaghan



The 10th International Conference on Intelligent Environments (IE'14)
Shanghai, China
30th June - 4th July 2014

www.intenv.org

Photo by Vic Callaghan June 2013

Schedule

• Schedule – 1st July 2014

- 9.00 – Vic Callaghan, “Welcome & Introduction to the workshop”
- 9.30 – Tiina Kymalainen, Farrukh Sahar, Jarmo Palviainen “White Knights of the Smart City Interaction Space”
- 10.00 – Invited talk by Brian David Johnson
- 10.30 – TEA BREAK
- 11.00 – Jan Zyburá “Science Fiction Prototyping as a Tool to Turn Patents into Innovative Marketable Products”
- 11.30 – Peng Liu and Shumei Zhang “Some thoughts about the future of intelligent buildings and smart transportation”
- 12.00 – Vic Callaghan “Micro-Futures”
- 12.30 - invited talk by Hsuan-Yi Wu (Jen)
- 13.00 - LUNCH



Science Fiction Prototyping (SFP)

- Core methodology is the use of science fiction to motivate and direct research into business & science via science fiction prototypes (*imaginative stories about business, services or products in the future*)
- SFPs grounded in existing research, and written for explicit purpose of acting as prototypes for people to explore a wide variety of futures.
- Outcomes of SFPs are used generally to create new business models or innovative products.



Immervu created by Immersive Displays Ltd from a SFP

[http://dces.essex.ac.uk/Research/iieg/papers/TalesFromAPod\(Paper\).pdf](http://dces.essex.ac.uk/Research/iieg/papers/TalesFromAPod(Paper).pdf)
<http://www.immersivedisplay.co.uk/pdf/immervu.pdf>

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The Challenge That Started SFP


- **Fear** – All companies fear failure; for small companies that is often related to finance but for large companies, that is often being overtaken by better products or business practices as they struggle to react to survive the *effects of technology and societal changes*.
- **Examples** - IBM & DEC, Blockbuster, Borders, Kodak, Nokia
- Intel's challenge was particularly difficult as 'chip life cycles' occupy about 7-10 years from concept to shipping (with another 15 years of product life)!
- How can they specify chips for products & worlds that don't exist yet?
- Intel came to view that the magic ingredient was **imagination**
- Intel's main Intel resource is engineers (but traditional engineering education encourages structured (incremental?) thought !)
- **The Intel solution** - use fictional stories as a shared language to explore the possible implications of technology on humans, societies, and the world.





'Science' or 'Engineering' or 'Business' + Imagination = *Science Fiction Prototyping*




www.creative-science.org




- **Charitable organization founded by Intel in 2010 to promote:**
 - creativity in STEM disciplines
 - engagement between companies, academics, schools and the wider public
- **Methodology:**
 - Uses SciFi stories (prototypes) as a *shared language* to enable researchers, companies and ordinary people to explore the possible implications of new technology on people, society, business, and the world.
- **Brian Johnson:**
 - Intel's Futurist applying SciFi-Prototyping
 - Join CSf and/or create your own CSf events



[http://www.linkedin.com/groups/
Creative-Science-Foundation-4081352](http://www.linkedin.com/groups/Creative-Science-Foundation-4081352)


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The CS'14 Workshop

- **Four Presentations**
 1. *"Knights of the Smart City Interaction Space"* (Tiina Kymalainen, Farrukh Sahar, Jarmo PalviainenWhite)
 2. *"Science Fiction Prototyping as a Tool to Turn Patents into Innovative Marketable Products"* (Jan Zybura)
 3. *"Some thoughts about the future of intelligent buildings and smart transportation"* (Peng Liu and Shumei Zhang)
 4. *"Micro-Futures"* (Vic Callaghan)
- All four papers touch on variations of the SFP methodology (rather odd, since the call was for regular SFPs!)
- The first paper uses a science fiction storyboard as a means for discussing future technology innovations, the second describes how SFPs might provide a tool to foster commercialization of ideas originating from patent applications, the third demonstrates that SFP can be used as a tool for teaching foreign languages while the final paper introduces a shortened genre of SFP, micro-SFPs



Once you have listened to these we might discuss:

- *Is SFP a good tool for supporting STEM Innovation?"*
- *Are there new ways or areas SFP might be applied?"*

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Keynote Speakers

The Business of SFP

Hsuan-Yi Wu (Jen)

Graduate School of Business Administration, National Taiwan University

Biography

- Specialist in technology and innovation management
- Inventor of evolutionary model for SFP creation
- Pioneer in application of SFP to business innovation
- Developer of Imagination Workshops ("The World in 2050")



21st Century Robot: A Science Fiction Prototype

Brian David Johnson

Futurist & Principal Engineer – Interactions and Experience Research
Intel Labs, Hillsboro, Oregon, USA

Biography

- Futurist at Intel Corporation,
- develop an actionable 10 -15 year vision for the future of technology.
- Author of 'Vintage Tomorrows', 'Science Fiction Prototyping: Designing the Future with Science Fiction', 'Screen Future: The Future of Entertainment Computing and the Devices we Love' (in your pack) , and 'Fake Plastic Love'
- Has directed two feature films and is an illustrator and commissioned painter.



Lets Get on With the Workshop!

