Open Data Innovation
Introduction

Dr Sepi Chakaveh
Concept
What is the course about

• *This course is about:*
  – **OPEN**
  – **DATA**
  – **INNOVATION**

• *This course is also about you & how you can learn about the processes of using abstract ideas & form them into useful & profitable ventures.*
What is this course about?

1) Understand The Basics of Data & Open Data
   Learn some Tools

2) Found a problem

3) Solve the problem by making a product Using Open Data
Data
What is Data?

- We live in an Information Age!

- Data is the *fundamental* element of the Information. – More Later

- Many already assume that Data will be the next global currency.

- In this course we look at the Data from Social-Economical perspectives.
Open Data
What is Open Data?

Open in the context of DATA means anyone can freely access, use, modify, and share for any purpose (subject, at most, to requirements that preserve provenance and openness).

– Availability and Access

The DATA must be available as a whole and at no more than a reasonable reproduction cost, preferably by downloading over the internet.

The data must also be available in a convenient and modifiable form.

– Re-use and Redistribution

The DATA must be provided under terms that permit re-use and redistribution including the intermixing with other datasets.

– Universal Participation

Everyone must be able to use, re-use and redistribute. There should be no discrimination against fields of endeavour or against persons or groups.
What is open Data?
What is an Open Data Process?

Open Government Platform (OGPL)

**Data Management**
- Data Catalogs
- Workflow
- Standard Metadata
- Validation
- Analytics

**Data Portal**
- Single Point Access
- Search & Discovery
- Open Formats
- Citizen Engagement
  - Rate
  - Social Media Connect

Feedback, Discussions, Ideas

Agriculture  
Education  
Communities  
Health  
Energy

[Diagram showing interactions between government and citizens through data management and portal features]
Innovation
What is Innovation?

Something *original* and *more effective* and, as a consequence, new, that “breaks into” the market or society.

- wikipedia
Relationship Between Open Data & Innovation
Breaking into market
Finding a problem...

“We’re totally reliant on the exposed numbers, and the outdated and vulnerable magnetic interface — which by the way is five decades old — and the security codes which all of us know aren’t so secure.”

- Apple CEO Tim Cook on Credit/Debit cards
Be Bold!

*All the new innovation giants have created something that it has disrupted the system;*
New Product Development

1. Idea Generation
2. Idea Screening
3. Concept Development
4. Business Analysis
5. Product Testing
6. Technical Implementation
7. Commercialization

Successful entrance to the market
Challenges

• Understanding Data (Week 1)
• Data processing in imperfect systems (Week 2)
• Finding a problem and creating a new experience using appropriate technical resources (Week 3, 4)
• Data analytics and visualisation (Week 5)
• Sustainable open data businesses (Week 6)
• Creating a hook and keeping people hooked (Week 7)
• Securing venture capital (Week 8)
Course Structure
Schedule

- Normally a double lecture until Easter
- From week 2 bring/share a laptop
- There are a lot of different lecturers, so some lectures may move.

**KEEP UP WITH EMAIL!**

- Keep an eye on the website and turn up to find out what is happening.
- [www.ecs.soton.ac.uk/notes/comp6214](http://www.ecs.soton.ac.uk/notes/comp6214)
Course Outline

• First Four weeks
  • – Open Data
  • – Discovering Open Data
  • – Importing
  • – Validating
  • – Aligning
  • – Visualising

• Coursework 1 - Visualisations
Team

*Dr Sepi Chakaveh*

Applied Data Scientist

*Dr David Tarrant*

Senior Trainer & Data Scientist
Team

Christopher Gutteridge
Open Data Expert &
one of the founders of
Thee Temple ov thee Lemur

Dr Ash Smith
member of iSolutions
responsible for the University's
linked open data
External Industrial Guest Speakers

Mr Peter Brown
Innovation Manager, BC

Mr Stephen Crompton
CTO, BC
External Research Guest Speakers

**Dr Mike Head**
Researcher Infectious Diseases, University of Southampton

**Mr Mark Braggins**
Director & the initiator of “Open-Data AHA” group
External Research Guest Speakers

Chris Cooper
Co-Founder & Director
KnowNow Information LTD