Penelope J Lister *MA MSc MBCS FHEA*

"Designing Effective Smart City Learning"

Proposal Presentation

PhD

Evaluating learning in 'Smart Cities' with learners and theory in mind

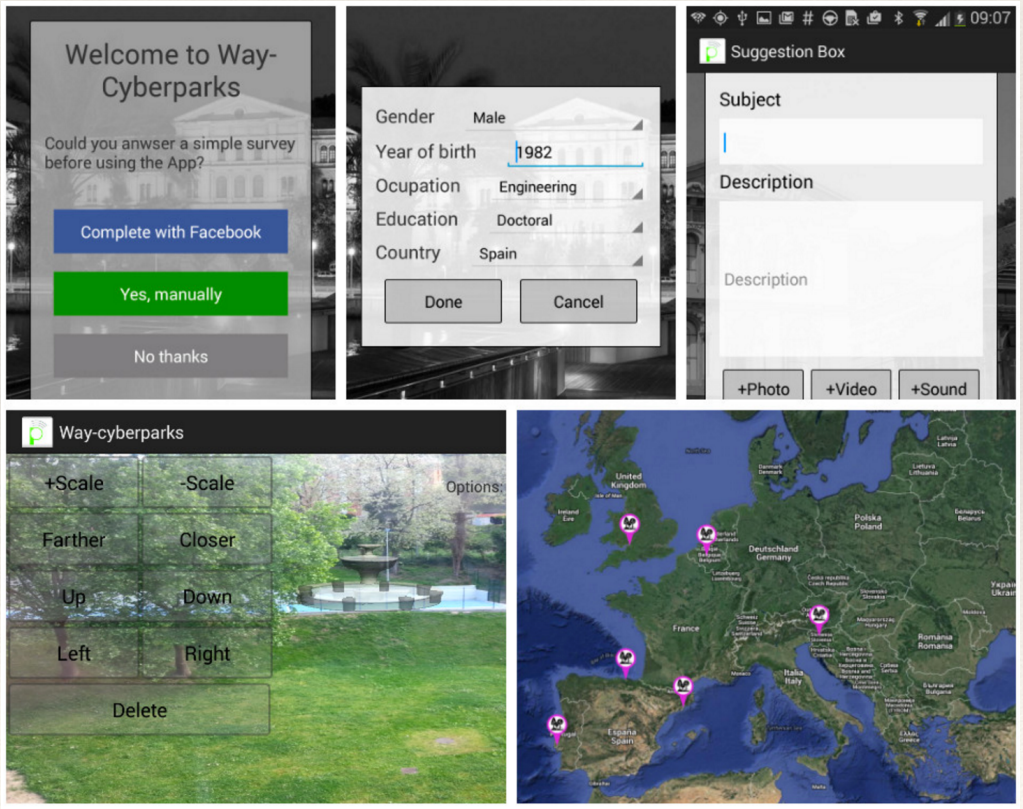
Theoretical Context

- Practical evaluation of ***immersive*** learning experiences, in a context of theoretical ***significant factors***.
- A framework that has ***primary data*** to evidence theory
- An insight into the relevance of Connectivism

immersive learning	***significant factors***	***connectivism***
learning enhanced by authentic environment and technology	theoretical factors common to many relevant networked learning settings	represents an epistemology for pedagogy and networked learning

Objectives

The main objective of the proposed research project is to evaluate ***mobile learning*** using the **WAY-Cyberparks Application**, which will provide location-based learning in identified places of historical or scientific interest.



http://cyberparks-project.eu/

http://cyberparks-project.eu/app

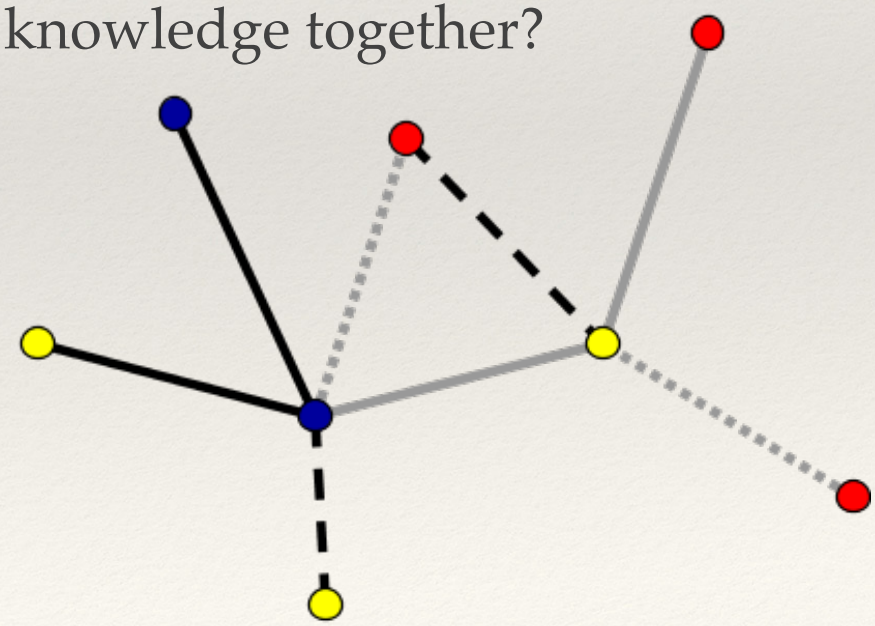
"As users walk through these public spaces, the mobile app collects data about your itinerary; that data provides researchers with real-time information and therefore increases our knowledge on the interaction between you and the spaces…."

Research Questions

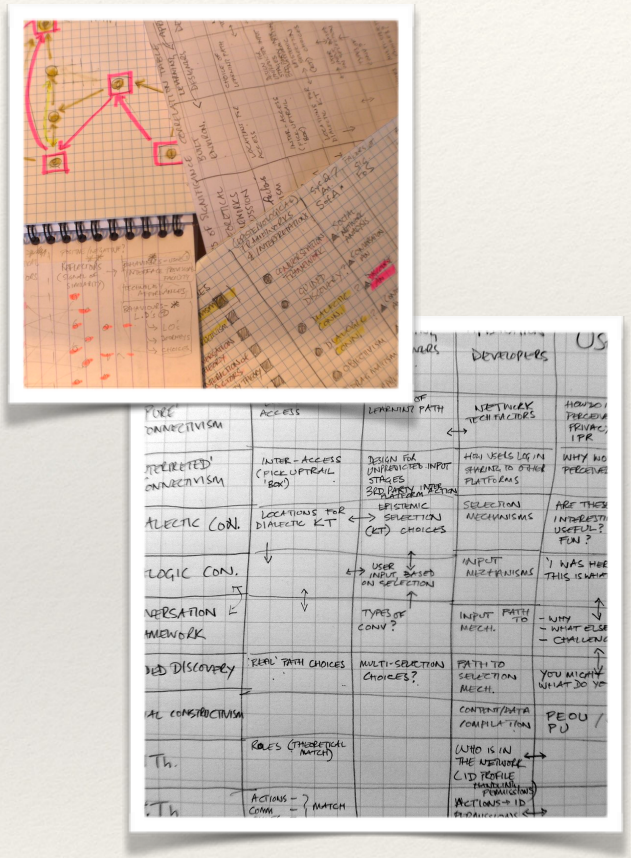
- How can we formulate an effective pedagogy for Smart City Learning using Connectivism as a foundation?
- How does this pedagogical framework inform the design of smart city learning?
- How can we measure the effectiveness of smart city learning involving both assessment of learning (content) and assessment for learning (process)?

Networked Learning

- Is networked learning different from classroom learning?
- Does technology significantly impact learning experiences - if so, how?
- What if any is the relationship between technology and learning design?
- Does technology enhanced learning benefit from being social?
- Do networked learners really construct knowledge together?



Stages of Analysis



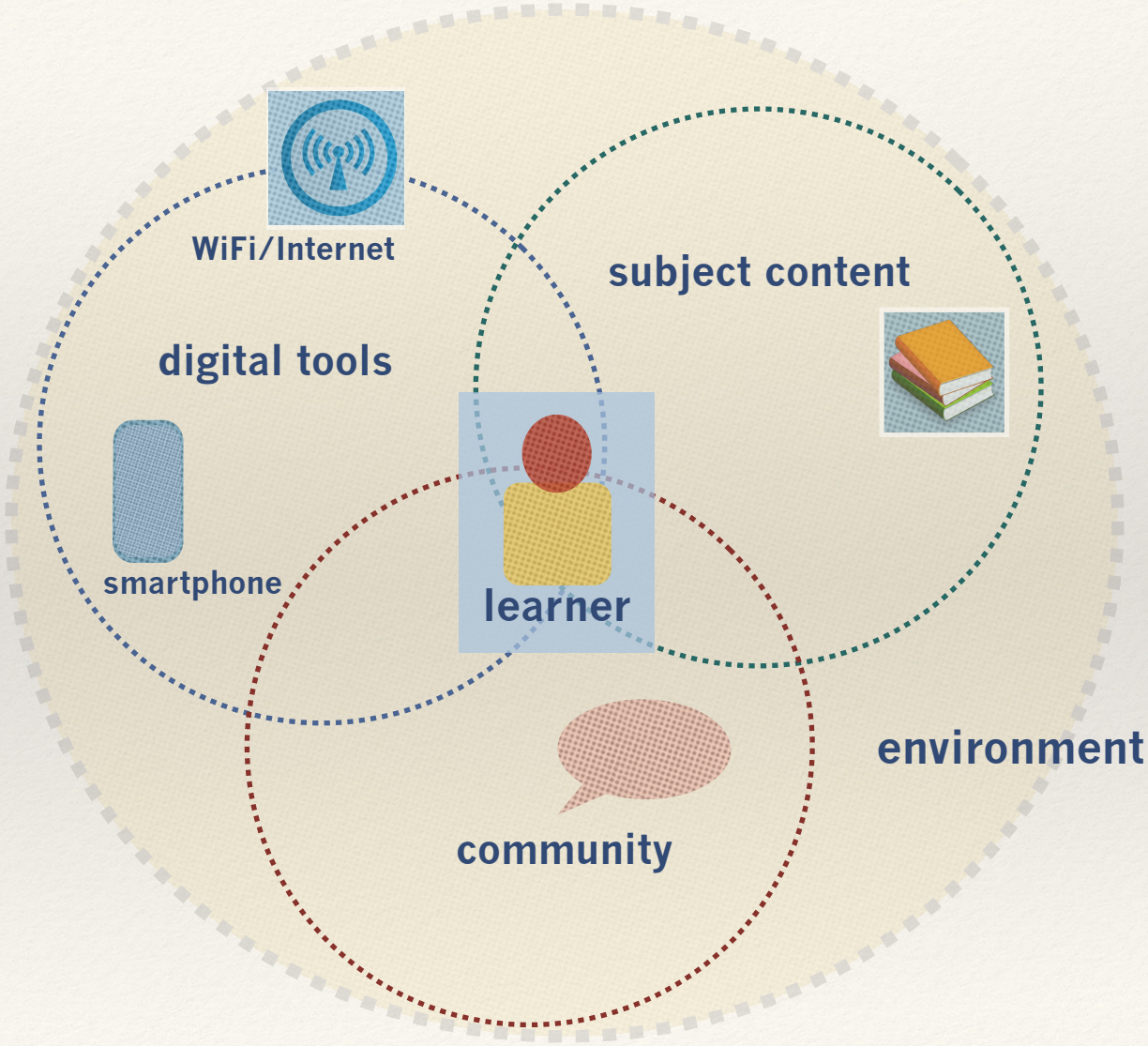
- ***Section 1:*** *Theoretical Factors of Significance table*
- ***Section 2:*** *Theoretical Factors of Significance correlation table showing relationships between Factors of Significance and proposed 'Signals of Similarity'*
- ***Section 3:*** *Matrix of measured relationships between Theoretical Factors of Significance (TFoS) and 'Signals of Similarity' (SoS)*
- ***Section 4:*** *Correlation Confirmation (Comparison Checking)*
- ***Section 5:*** *Theoretical Factors for Consideration*

Sample Groups

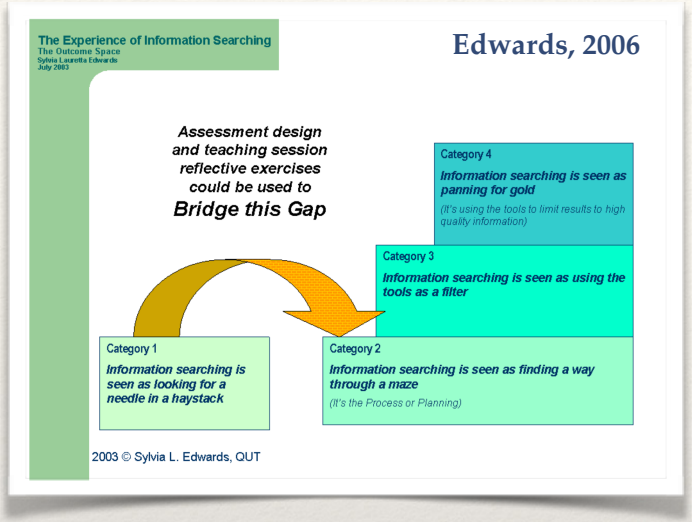
- Who are the learners?
- Who else is involved apart from the learners?
- Why have these groups been selected?
- How can they be sourced?
- What can they tell us?

Category Variables

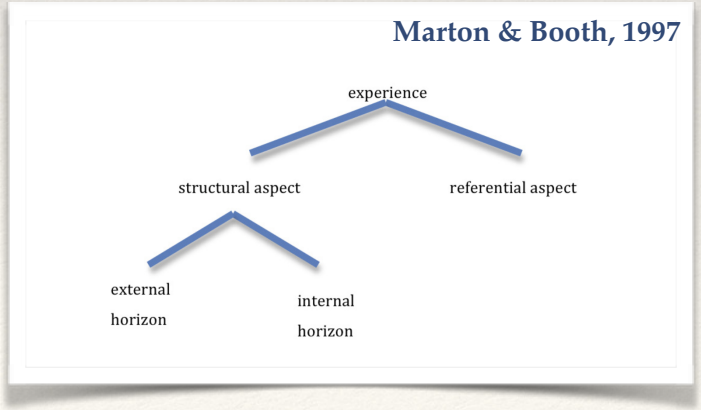
- *Interactions*
  - Digital Tools
  - Content
  - Community



Analysis: *Challenges*



Phenomenography - ideas, design and methods



- *What, when, how, with whom*
  - Context, role, direction, affordance, interpretation

- Interactions
  - Digital Tools
  - Content
  - Community

- *Systems of potential categorisation:*
  - **Phenomenography: anatomy of experience, variation theory, outcome spaces**
  - Conversation theory: 'limits of togetherness', p-individuals
  - The Dialogic Space
  - Network theory (e.g. Social Network Analysis)

Findings

- *Aims & Expectations*
  - Shed light on practical applications of theory for smart city learning
  - Critique Connectivism for smart city learning design
  - Importance of social or networked facilitation
- *Reporting & Discussion*
  - Visualisation of data relationships
  - Summarised tables and findings for ease of use and understanding
  - Framework suitability for practitioners
  - The usefulness of methods and methodology - critique of 'fit for purpose'
  - The relevance of research questions - critique of aims and purpose

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Thank you for listening