

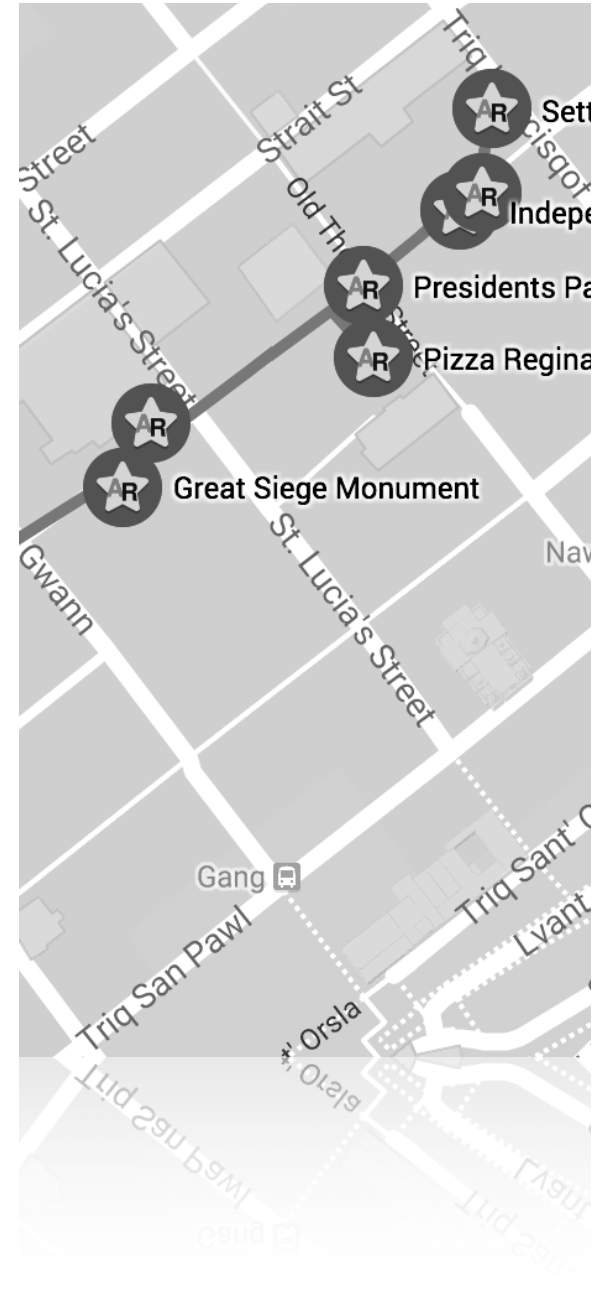
# Smart Learning

## and Open Access

*A summary of doctoral research at the University of Malta to develop a pragmatic pedagogy for smart learning, based on connectivist-inspired learning experiences*



Pen Lister. MA MSc MBCS FHEA



# Smart Learning & Open Access

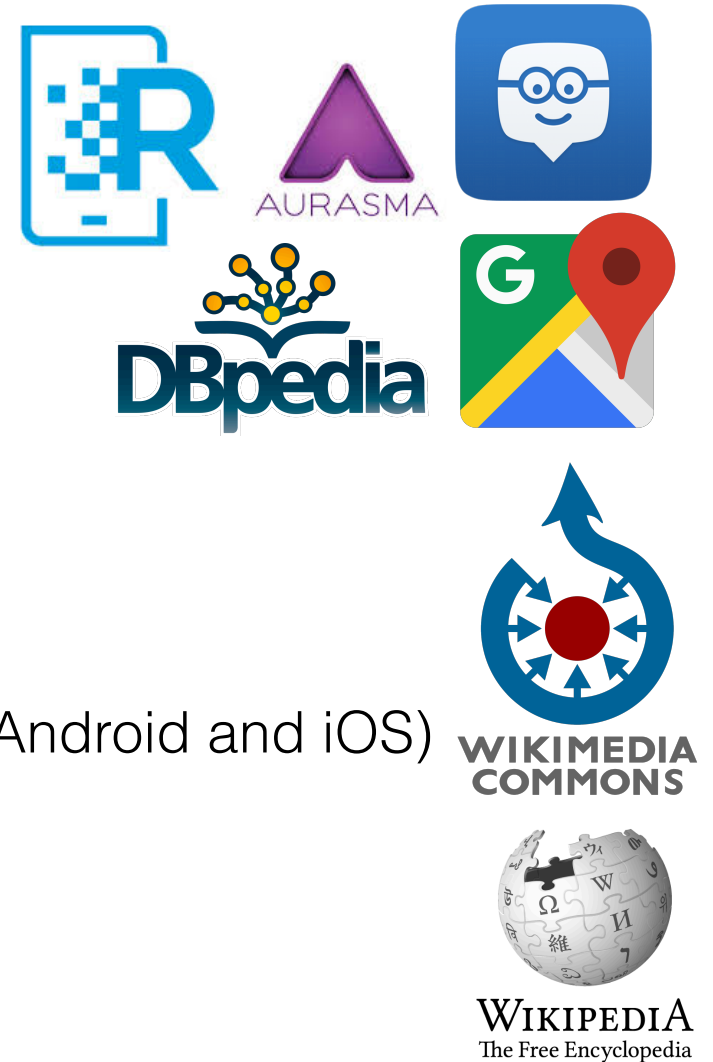
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- Collaborative learning in real places
- Creative and connected *connectivist-inspired* pedagogy
- Under-graduate and post-graduate level
- Formal or semi-formal learning

# Smart Learning & Open Access

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- Use of free apps:
  - HP Reveal (Aurasma)
  - Edmodo
  - Google Maps
  - DBPedia Places (Android), Geoflow (Android and iOS)
- Open Access knowledge
- Original knowledge shared in CC BY-SA

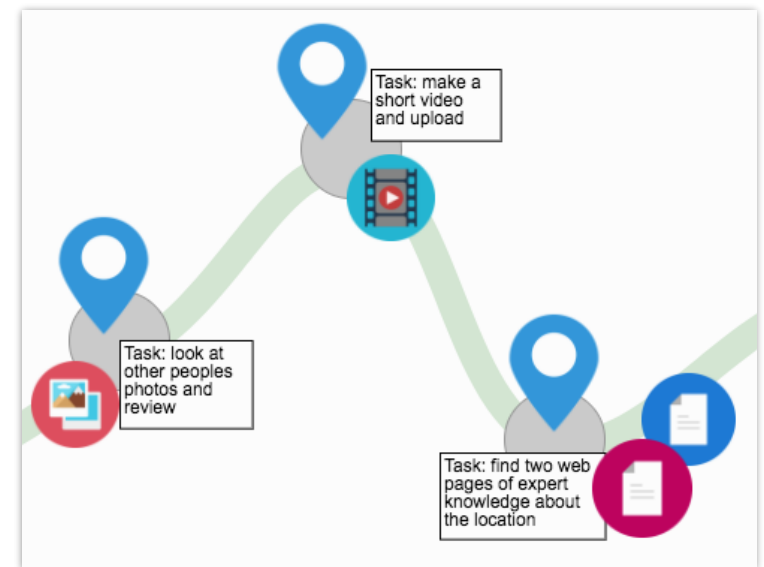


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Developing learning journeys in real locations with digital content augmentations and collaborative learning activities

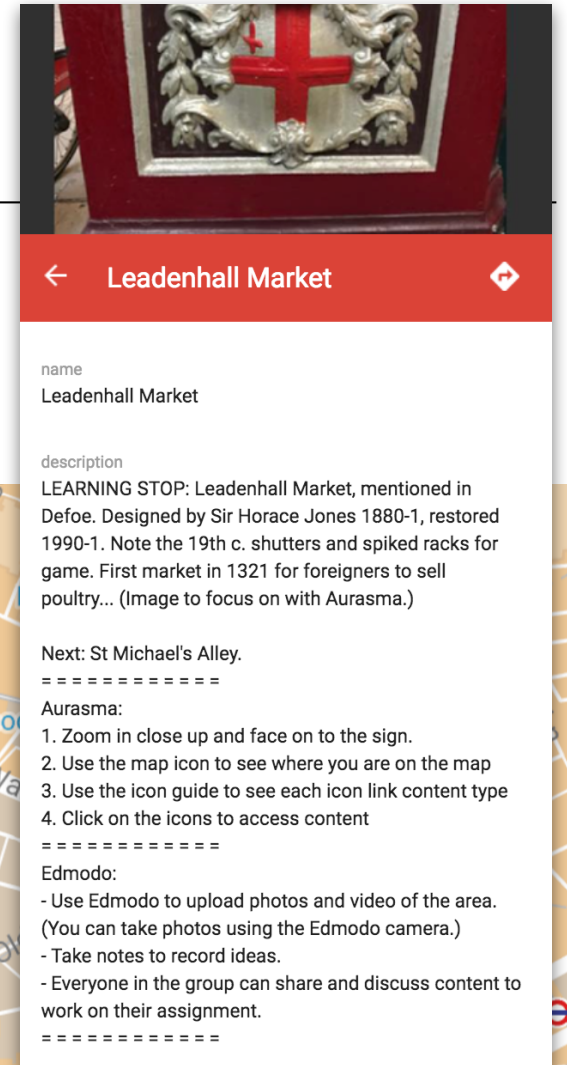
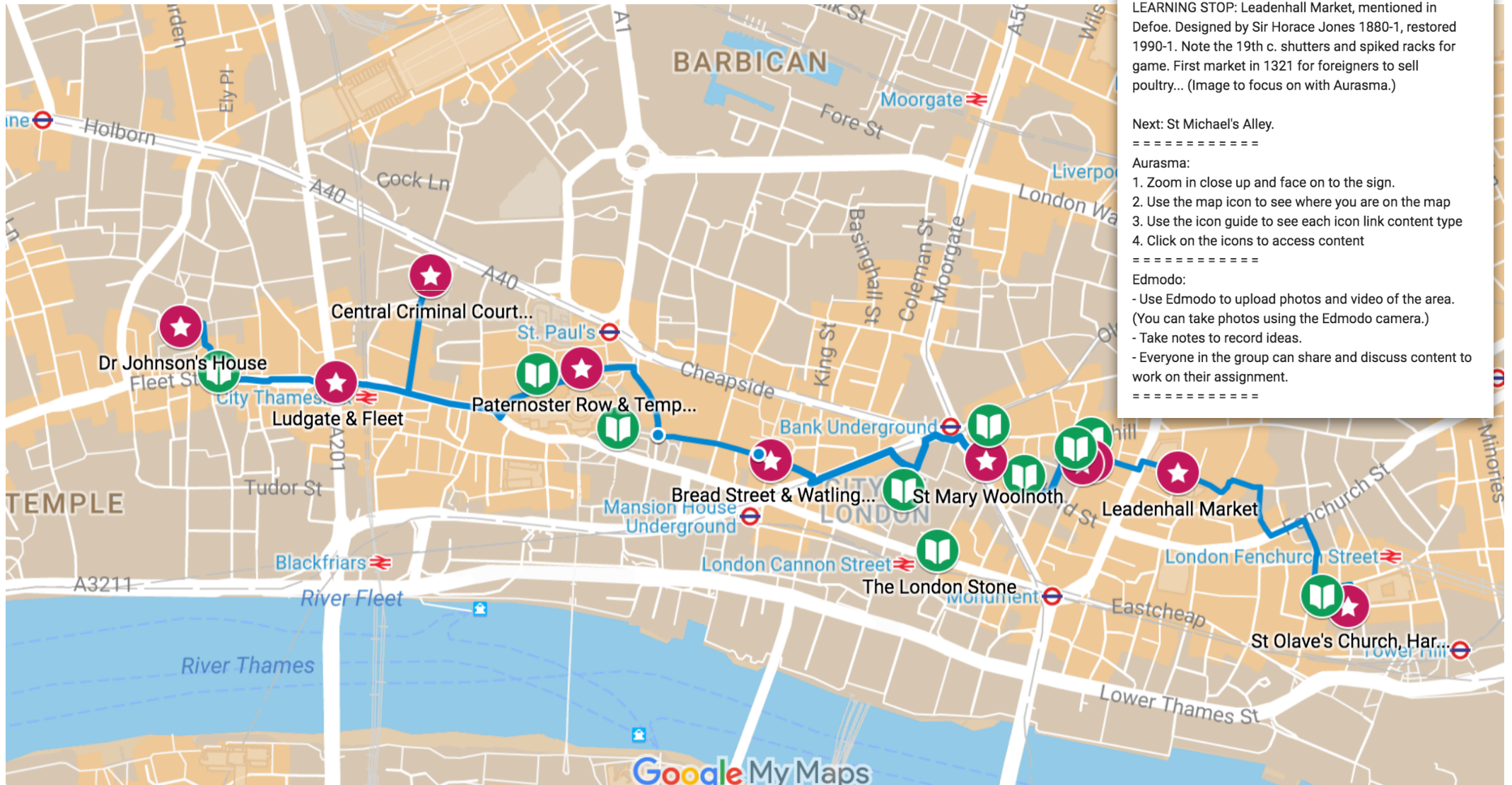
- Literary London, The City of London, UK
- Democracy in Republic Street, Valletta, Malta
- Prospective new journeys in London, UK:
  - *London History of Infectious Disease Prevention*
  - *Education and Encounter in the Global City*





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## Literary London, The City of London, UK



# Smart Learning & Open Access

## Literary London 'Auras'



Criminal Court - Literary Lo...  
literarylondon's Private Auras



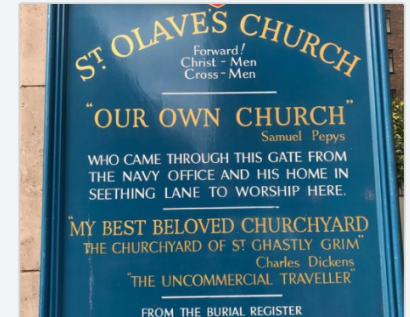
George & Vulture - Literary ...  
literarylondon's Private Auras



Jamaica Wine House - Litera...  
literarylondon's Private Auras



Leadenhall - Literary London  
literarylondon's Private Auras



St Olave's - Literary London  
literarylondon's Private Auras

### Icons Guide

- Page icon is a knowledge webpage
- Video icon is a clip on Vimeo or YouTube
- Images icon links to Google or Flickr free-to-use images of this location
- Folder icon is further resources
- Location on Map

click to close X



focus on feature as shown in above image using the Aurasma camera. Use camera corner guides to position feature.



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## What the learners think

Learners react differently to these kinds of smart learning activities. Some engage and feel very positive about the experience however others are less engaged and react as if they were obliged to go, and that the activity did not provide what they needed for their study. Using the methodology of the thesis - Phenomenography - I hope to build a hierarchy of types of learning approach to smart learning, helping to form the pragmatic pedagogy for smart learning.

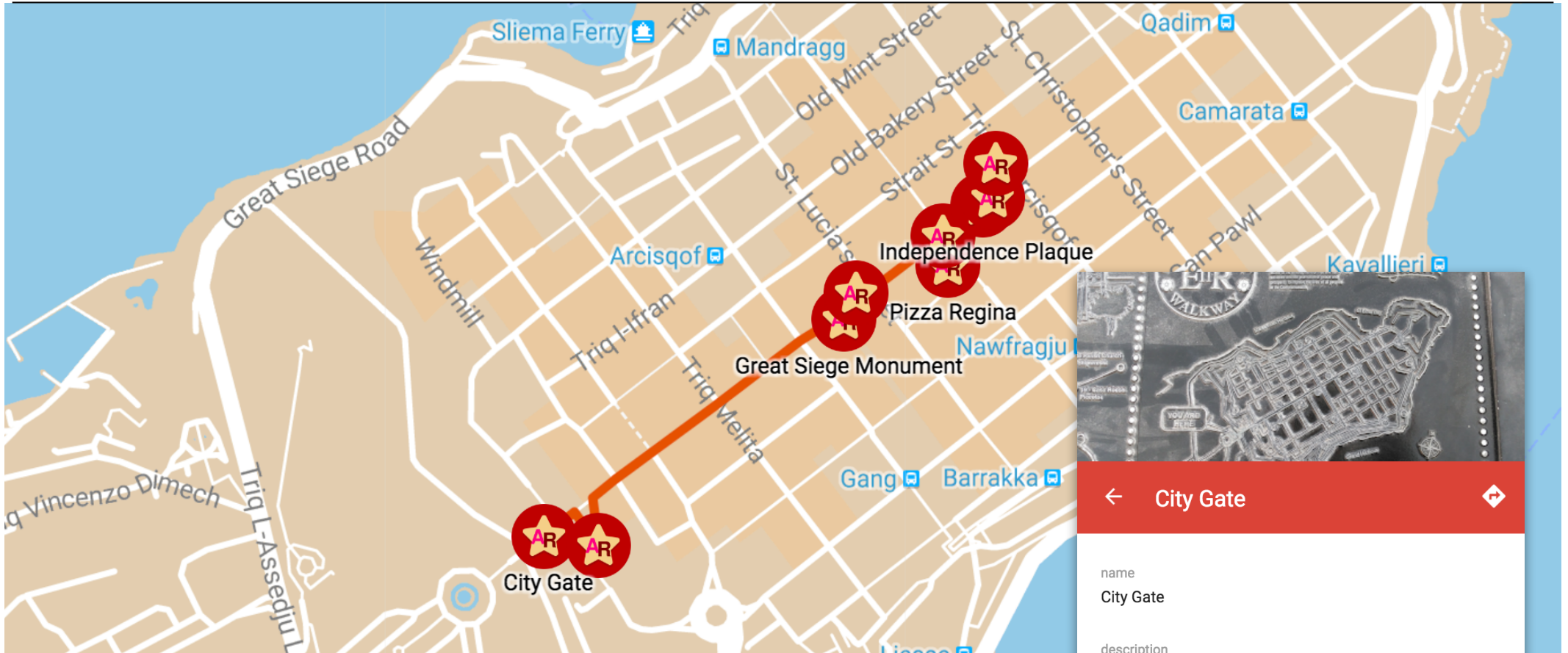
“I think (being in) the place really does make a difference because it’s like a layering of knowledge feeling”

“We walk around, use the app where you move your phone over it and it gives you information. It’s kinda like I can get that information if I just google it and searched a few things couldn’t I?”

“What it does is in putting you in the place it almost gives you another level of access to something”

“Well in a way it is (too much content) because when we went on the tour I could see some of the information that was displayed at every location and I could see it was a lot of information and a lot to read and I don’t know [...] I think that’s the thing about smart phones on the Internet, being always connected you know. It’s the like overload of information you can get some time and I’d like to avoid that”

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# Democracy in Republic Street, Valletta, Malta

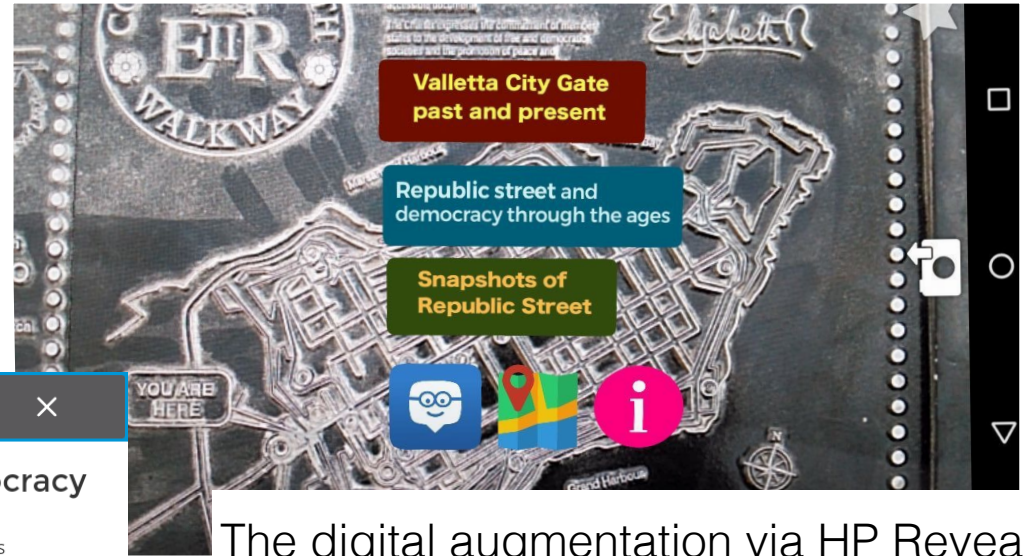
1. Use HP Reveal app to focus on above trigger image to access further digital content
2. Refer to Edmodo for your tasks at this location
3. Remember to note down important features and ideas that occur to you while you are here
4. Check the surroundings: especially Triton Fountains (<https://goo.gl/UAWAfJ>) and Hotel Phoenicia (<https://goo.gl/kWeQJZ>)

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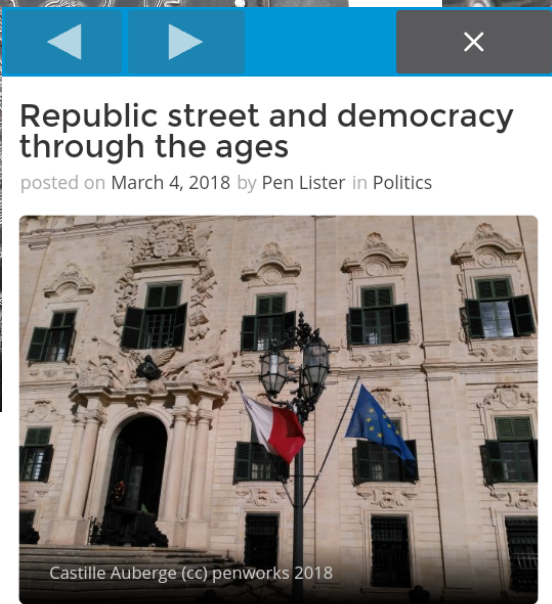
## Democracy in Republic St 'Auras'



The way-finding sign at City Gate



The digital augmentation via HP Reveal



This post is intended for use with the Maltese Democracy walking tour and smart learning activities.

### Historical dates in Maltese democratic history

- 1530 – 1798: The coming of the Order of the St John and their establishment as the

### Introduction

Republic Street is a living monument bearing witness to the Democratic aspirations of the Maltese nation. Its name, buildings, monuments and event memorials document the journey along time of the development of democracy in MALTA.

The map and journey show the Points of Interest chosen to illustrate this process. The set itinerary would take you on this path to democracy starting from the seat of where current democracy is executed in this highest institution of the country to where it all started from. In between, the history which is told is rich and ongoing.

The introduction message via information icon

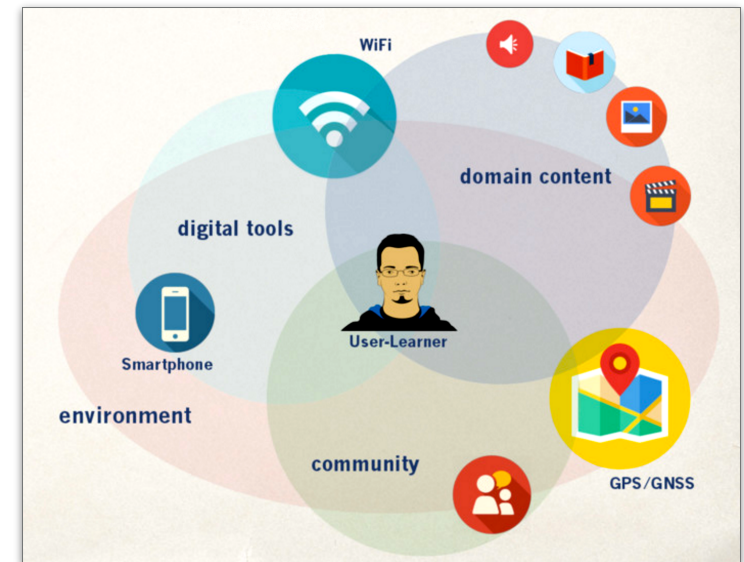


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## Interactions and app integration

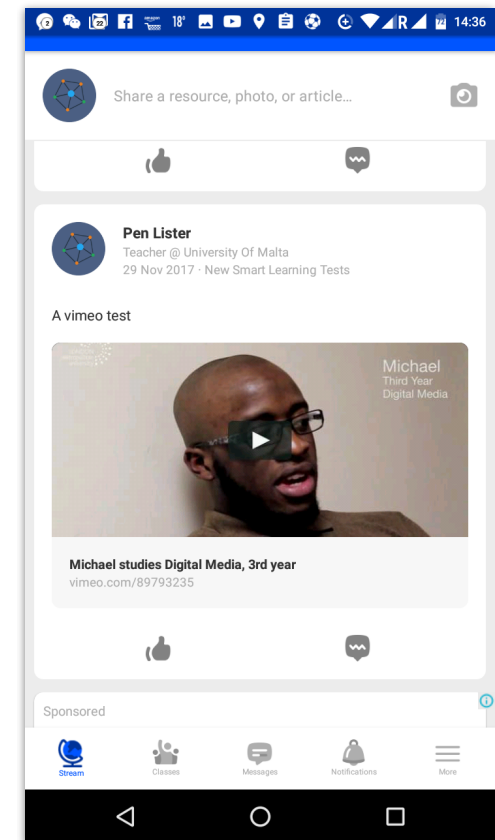
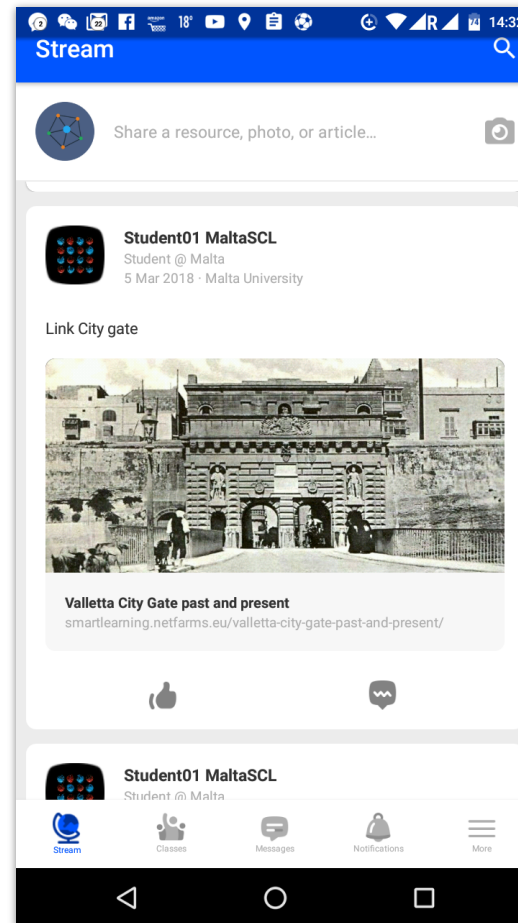
- Interactions are varied
- Digital, with apps and websites
- With co-learners
- Interactions between the learner and the place
- Seamless (at home, in the classroom, on location)
- Asynchronous interactions
- Interaction design needs to acknowledge this multi-layered learning experience



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## Edmodo class interfaces

- Edmodo provides the learner with a collaborative and creative space to upload and share content, work with co-learners ask questions, giving feedback and opinions
- Edmodo works either mobile or via desktop browser
- Edmodo has a very easy learning curve - its functionality is exactly like Facebook or other social media networks



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## Problems and considerations

- The complex user-learner experience
- External factors: weather, real-world safety
- Data protection
- Data ownership
- Intellectual property
- Accessibility



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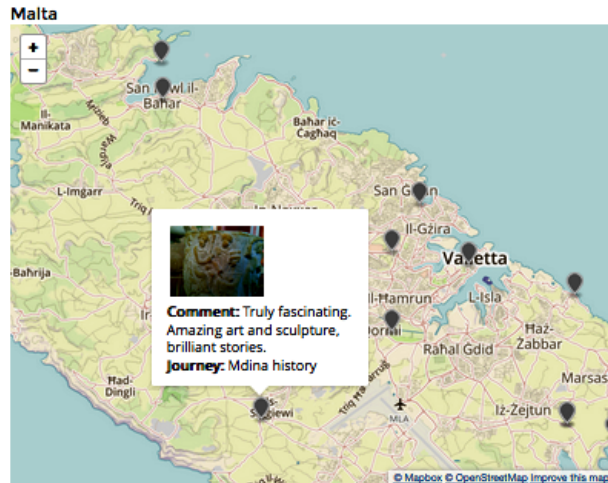
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## Further implications - a Smart Knowledge Commons

- Mapping the Knowledge Commons
  - Gathering data from real world locations to contribute to finding and delivering knowledge more accurately
  - Uses of (open access) knowledge with coordinates in smart learning pedagogy
- Linked Open Data

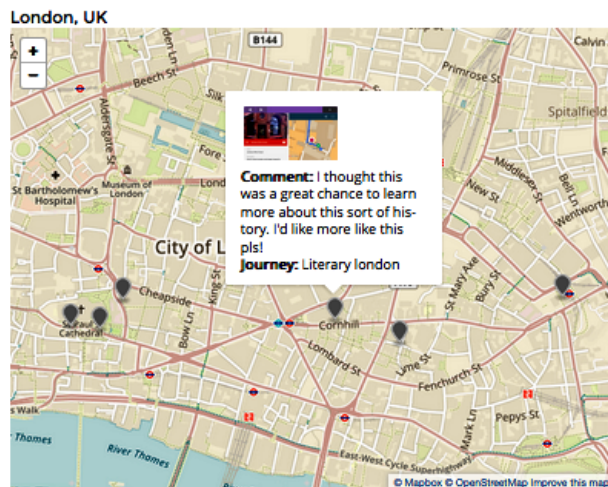
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## Further implications - Learner Feedback Maps



**Learner Feedback Maps** are created using Jotform free forms and a Javascript library to load form submission data to a map using OpenStreetMaps. This displays learner feedback with details of location, comments and any uploaded images.

Learner feedback maps develop urban community digital learning memory, a resource that might contribute to community input and participation in deeper ways both for life-long learning cities but perhaps also in areas of community initiative and social support.



**Learner Feedback Maps** could provide almost real time learner feedback for each learning journey available at any location. Ratings, comments and images might be made available to browse or review.

*A visualisation of community learning*

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## Resources and background

- [OpenStreetMap](#)
- [Jotform](#)
- [Edmodo](#)
- [HP Reveal \(aka Aurasma\)](#)
- [DBPedia Places](#)
- [The Linked Open Data Cloud](#)
- [Handbook of Learning Analytics, Lang, Siemens & Wise.](#)
- [Ben Williamson](#)
- [Culture of Connectivity, Jose Van Dijck](#)
- [Intertwined, Peter Morville](#)
- [Phenomenography: Learning & Awareness, Marton & Booth](#)

### About this project:

This is the PhD research project of Pen Lister, based at University of Malta, Faculty of Education, in the Department of Leadership for Learning and Innovation. Pen Lister is a former senior lecturer from London University, having lectured there from 2006-2015 in Digital and Multimedia, and also acted as Senior Blended Learning Facilitator for their Centre for the Enhancement of Learning & Teaching.

### People involved in this project:

- Pen Lister, PhD Candidate, University of Malta, Faculty of Education, formerly of London Metropolitan University
- Dr Philip Bonanno, 1st supervisor, University of Malta, Faculty of Education
- Prof John Cook, External supervisor, University of the West of England
- Trevor Norris, Course Leader BA English Literature and Creative Writing, London Metropolitan University