DEVELOPING A PEDAGOGY FIT FOR SMART CITIES

PENELOPE J LISTER MA MSC FHEA MBCS

WHAT IS A SMART CITY?

- technological

- economical

- social

- interconnection

- synchronization

Giannakos et al., 2016, and Höjer & Wangel, 2015

SMART BEHAVIOUR

SHARING
LIKING
SEARCHING
MEMORY MAKING
KNOWLEDGE MAKING
MEANING MAKING
WAYFINDING

LEARNING AS PART OF *SMART* CITIZEN LIFE

- Find the knowledge we need *when we need it*

- Recognise the *best* content - location, skill level, relevancy

- Ask questions easily, get answers quickly

- Develop a personal learning history

HOW DO WE DESIGN LEARNING FOR SMART CITIZENS?

A *theoretically* based pedagogy **of** and **for** learning

- knowledge networks

- community and identity

- findability of knowledge **and/or** people

- personalised learning trails

ANATOMY OF A SMART PEDAGOGY

KNOWLEDGE NETWORK
FOLKSONOMIES
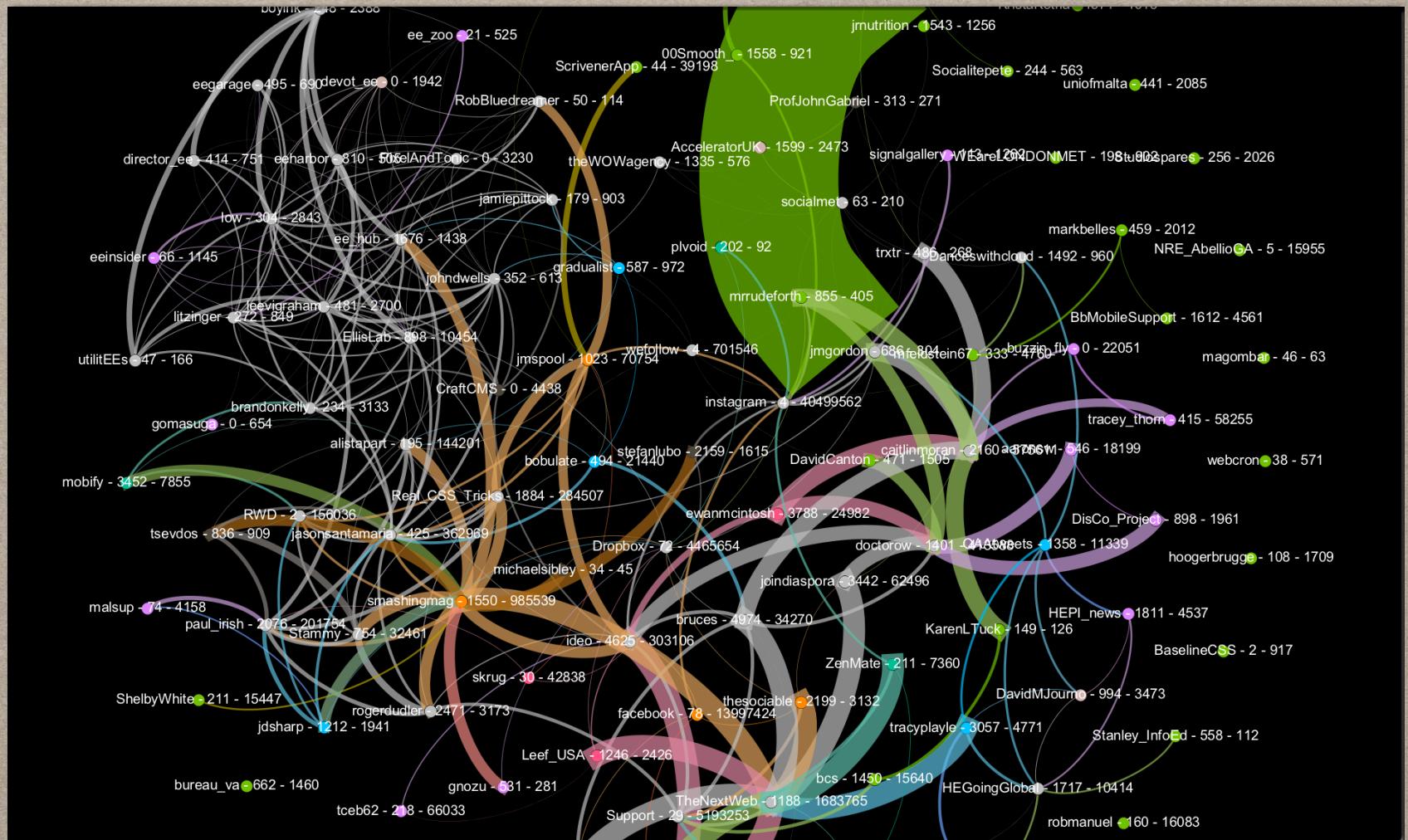
TAGGING
SORTING
CATEGORISING
LABELLING
DESCRIBING
ASSOCIATING
ATTACHING
CONNECTING
FILING

Explore Tags

1960s 1970s 1980s 1994 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 20th century 2D 2D animation 3D abstraction academic journal activism ad Adobe Flash advertising aesthetics algorithm animated presentation animation Aotearoa New Zealand Apple applied research appropriation architecture archive art art and design artist artistic practice artists artwork audience Australia authorship autonomy avant-garde BBC belonging black and white blog body branding business camera Canada change chart children choreography cinema citizenship city civic engagement classification collaboration collect collection colour commodity communication communication design community conceptualisation conference consumption contemporary art content context control convergence copyright craft creative economy creative industries creative practice creativity critical theory critique cultural codes cultural heritage cultural signals culture culture jamming dance data data visualisation database death design design education design for the screen design formalism design process design research design thinking designers device diagram digital digital culture digital media digital technology discovery distribution documentary documentary film drama drawing education emotive manipulation empowerment engagement engineering enquiry enterprise entrepreneurship environment ethics everyday life exhibition experience experience design experimentation Facebook figures in space film filmmaker France funding game games gender geometry Germany Gilles Deleuze globalisation Google Inc graphic design graphic representation heterotopia higher education history humour hypertext ICT identity illustration illustrative style improvisation India Indigenous industrial design information information aesthetics information design information graphics information in context innovation insight installation integrate integration interaction interaction design interactive interactive media interdisciplinary Internet interpretation invention iPhone Japan JISC juxtaposition knowledge knowledge management knowledge-based economy language learning learning and teaching location London Maori map mash-up media media art memory metaphor Michel Foucault mobile modernism motion design motion graphics movement multimedia museum music music video narrative nature Netherlands network new media New York North America notation Nottingham Nottingham Trent University NTU obsolescence old media online open source ordering ownership painting paper parody participation pattern pedagogy Peoples Republic of China performance performativity photography pioneer pioneering place play politics power preservation problem-solving product design psychology public space publishing re-purpose remediation remix remix culture repository representation research research centre resource science scriptible sculpture search sequence design short film Simon Perkins simulation social change social constructionism social interaction social media social networking social reality social software society sociology software solution sound space spectacle speculative design story structure students sustainability teaching technology technology innovation TED Talks television theatre theory building timeline tool toy tradition transformation truth TV Twitter typography UK university USA usability video video art video game viral virtual virtual reality visual abstraction visual arts visual communication visual depiction visual design visual visualisation
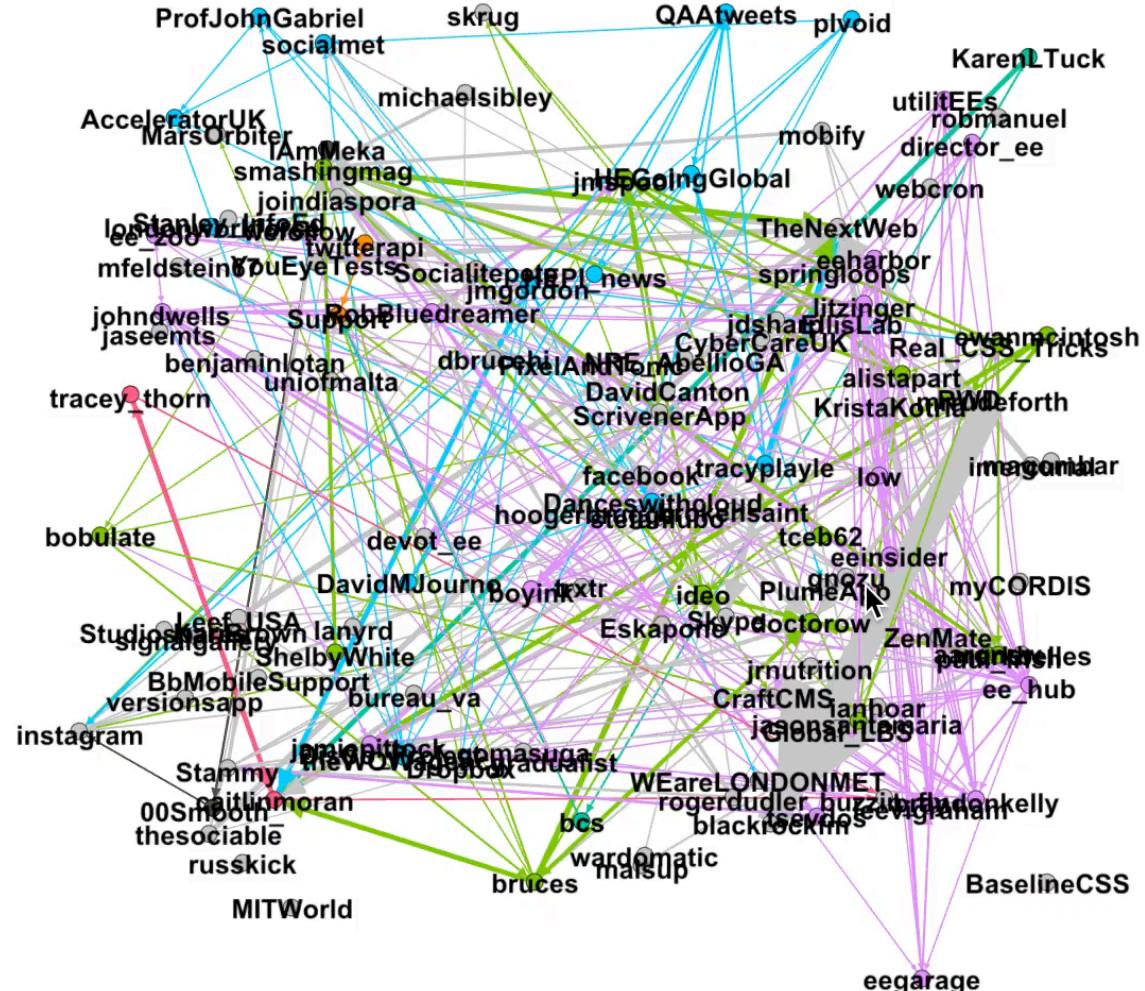
ANATOMY OF A SMART PEDAGOGY

PEOPLE NETWORK: TWITTER
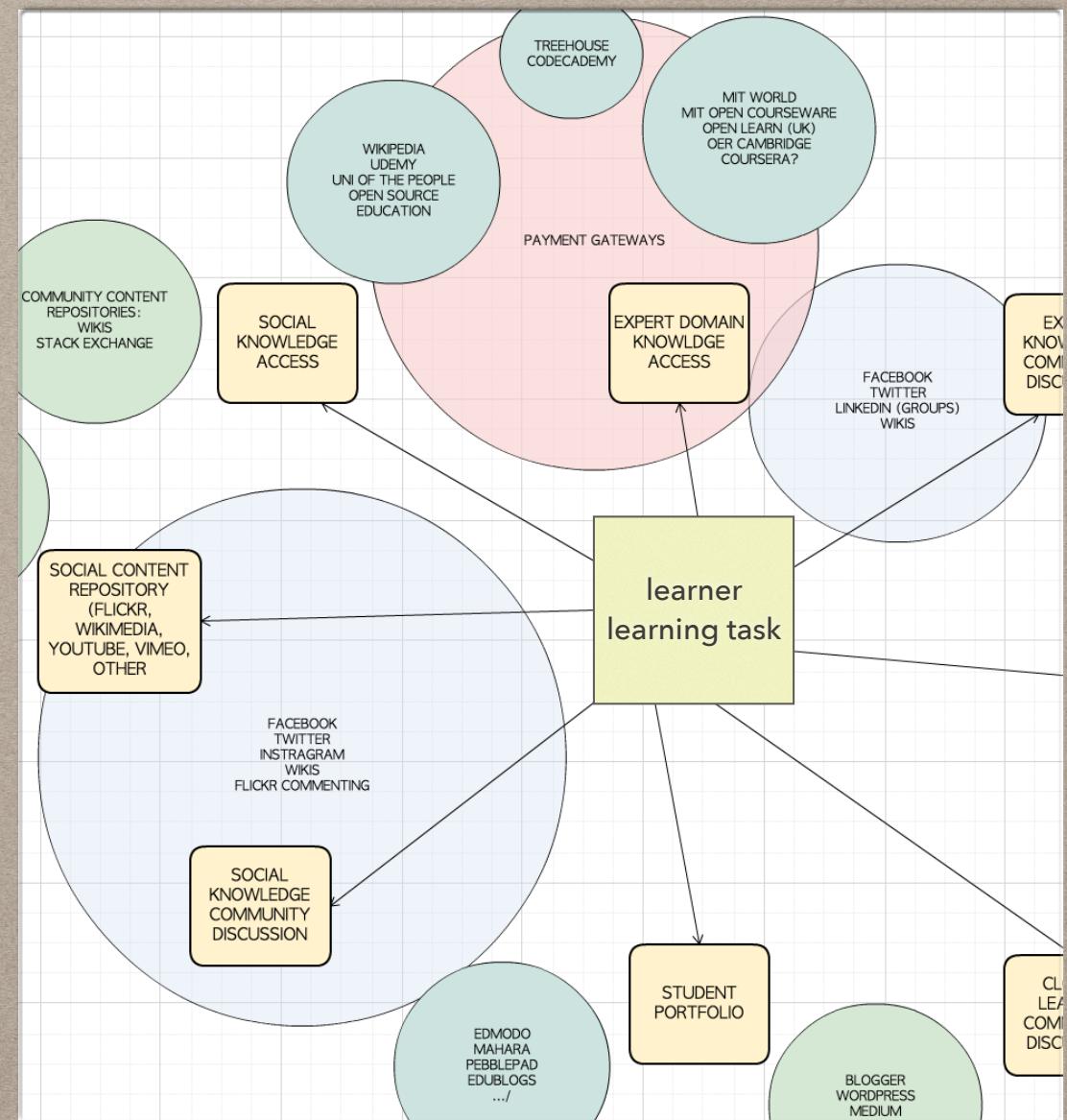
ANATOMY OF A SMART PEDAGOGY PEOPLE NETWORK CONNECTIONS (VIDEO)

ANATOMY OF A SMART PEDAGOGY

KNOWLEDGE NETWORK
*MAPS*
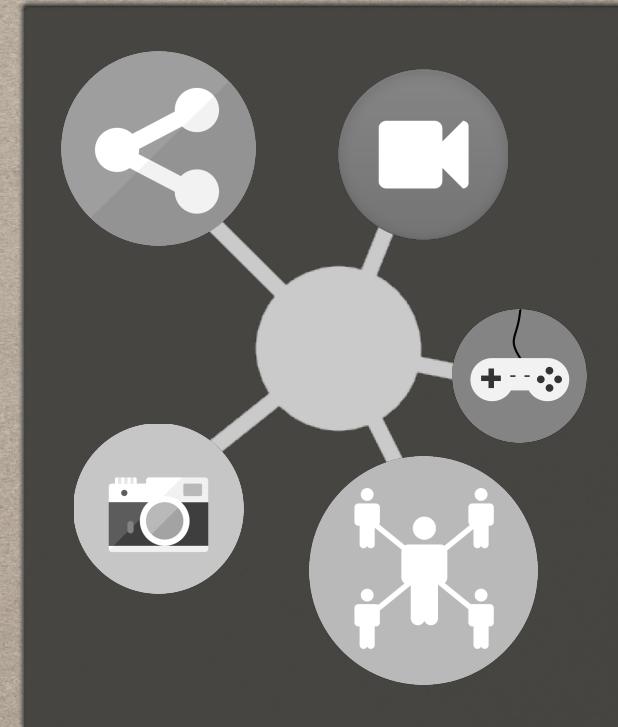
WEB OF TRAILS

COMMUNITY
GROUP
KNOWLEDGE
CONTENT
EXPERT
NOVICE
FREE
PAYWALL

SMART MODES OF LEARNING

A pedagogy for *smart modes of learning*
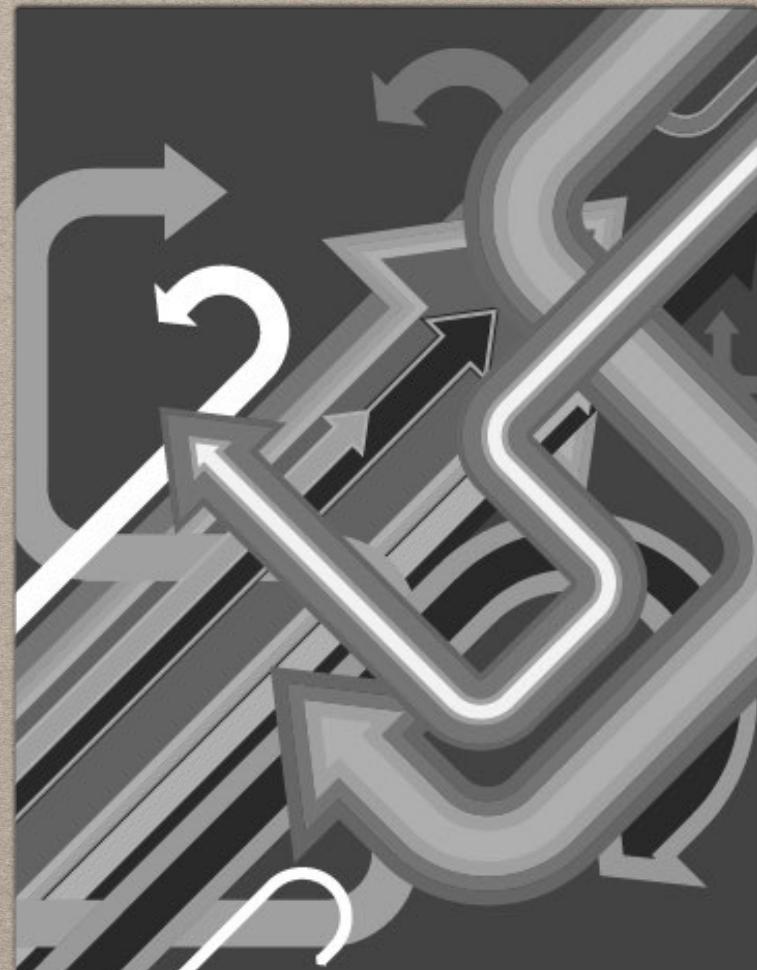
- **Mobile**
  - Hyperlocal, local or glocal
- **Personalised**
  - Creative learning design
  - *Smart* interactions
  - *Smart* delivery
- **Connected**
  - Social knowledge networks
  - Expert knowledge networks

SMART MODES OF LEARNING

A pedagogy for *smart modes of learning*

- Knowledge **in the pipe** and knowledge **of the pipe**

- Community network knowledge

- Experts, practitioners & novices support learning

- Academic, vocational & informal learning

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QUESTIONS

BIBLIOGRAPHY

- **Giannakos et al. (2016).** Introduction to smart learning analytics: foundations and developments in video-based learning, Smart Learning Environments, 3:12 DOI 10.1186/s40561-016-0034-2

- **Höjer, M., & Wangel, J. (2015).** Smart Sustainable Cities: Definition and Challenges, in ICT Innovations for Sustainability, Advances in Intelligent Systems and Computing, ed. by L.M. Hilty, B. Aebischer (Springer, New York, 2015), pp. 333–349

- **Morville, P. (2005).** Ambient Findability, O'Reilly Media

- **Schiltz et al. (2007).** Cutting the Trees of Knowledge: Social Software, Information Architecture, and Their Epistemic Consequences, Thesis Eleven, Number 89, May 2007: 94–114, SAGE Publications, DOI: 10.1177/0725513607076135

- **Siemens, G. (2005).** Connectivism: Learning as Network-Creation, ElearnSpace. Available from: http://www.elearnspace.org/Articles/networks.htm [26/1/17]