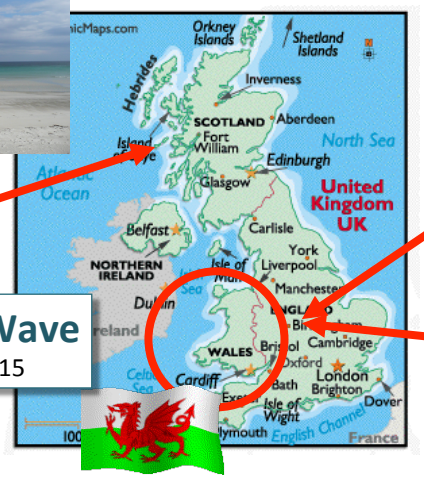
the Big Story of Small Data

Alan Dix

Talis & University of Birmingham

http://alandix.com/alanwalkswales/

about me and what I do



Tiree

University of Birmingham

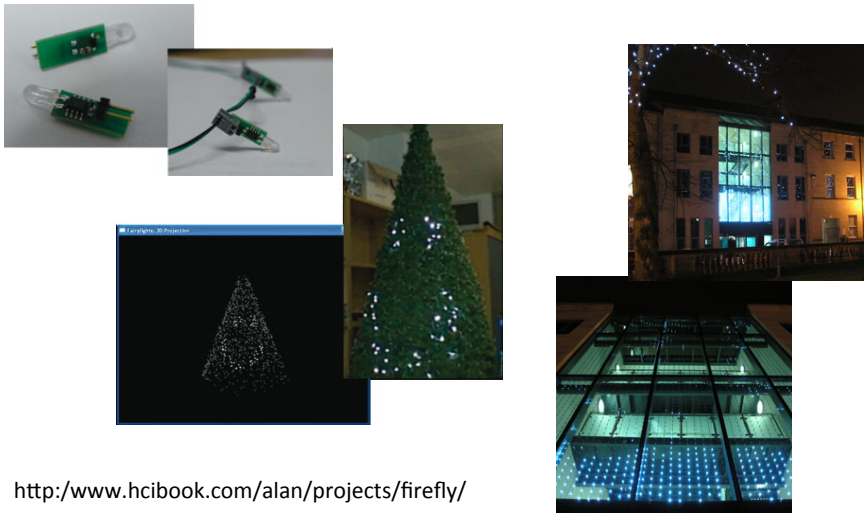
Tiree Tech Wave
next March 2015

talis

today I am not talking about …

- intelligent internet interfaces
- visualisation and sampling
- situated displays, eCampus, small device – large display interactions
- fun and games, virtual crackers, artistic performance, slow time
- creativity and Bad Ideas
- modelling dreams and regret
- Tiree: mobile heritage & youth communication

… or even lots of lights



http:/www.hcibook.com/alan/projects/firefly/

… let alone

now at
interaction-design.org

KNOWLEDGE WANTS TO BE FREE
INTERACTION DESIGN FOUNDATION
Est. 2002

http://hcicourse.com/

I am talking about ...

data

Big Data

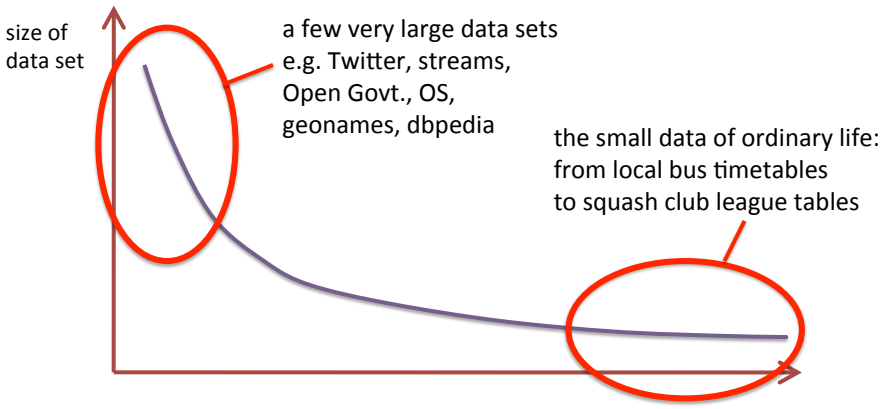
everyone is talking about it

Twitter, Google, Facebook, NSA, universities, … and funding

Big Data does it with MapReduce

Semantic Data does it with RDF

the long tail



stories of small data …

Walking Wales

Musicology

Learning analytics

Open Data Islands and Communities

Alan Walks Wales

one thousand miles of poetry, technology and community

1058 miles (1700km)

3 million footfalls

3 ½ months

April-July 2013

focus on IT at the margins

vision

personal

encircling, encompassing, pilgrimage, homecoming,

practical

IT for the walker & IT for local communities

philosophical

reflections on walking and space, locality and identity

research

personal agenda and living lab ← lots of data

data

The largest ECG trace in the public domain

location

GPX ... batteries ... sporadic signals ....

bio-sensing

ECG (heart), EDA (skin) and accelerometers

audio and images

in the moment

text

after the event

implicit

explicit

challenges (1)

location

GPX – merging and mending

bio-sensing

ECG & EDA – special formats & volume

audio and images

volume, transcription and annotation

text

semantic markup, synchronising sources

challenges (2)

documentation

methodology of creation, data formats

for other people to use!

meta-data

for machines to use

PR

telling the world about it!

academic culture

we do not value data!

an offer

multiple synchronisable data streams
largest public domain ECG trace

post-hoc analysis
simulate real use

please use it!

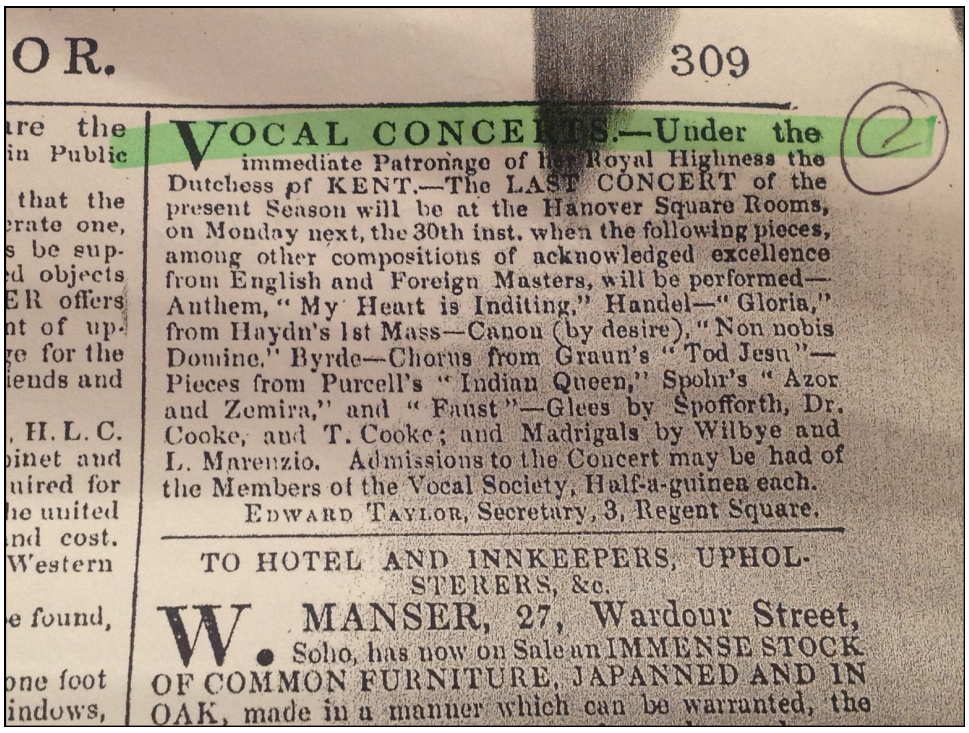
In Concert

Concert ephemera

- 1750–1800 Calendar of London Concerts
- 1815–1895 Concert Life in London
- 1894–1944 Concert Programme Exchange (BL)

External sources

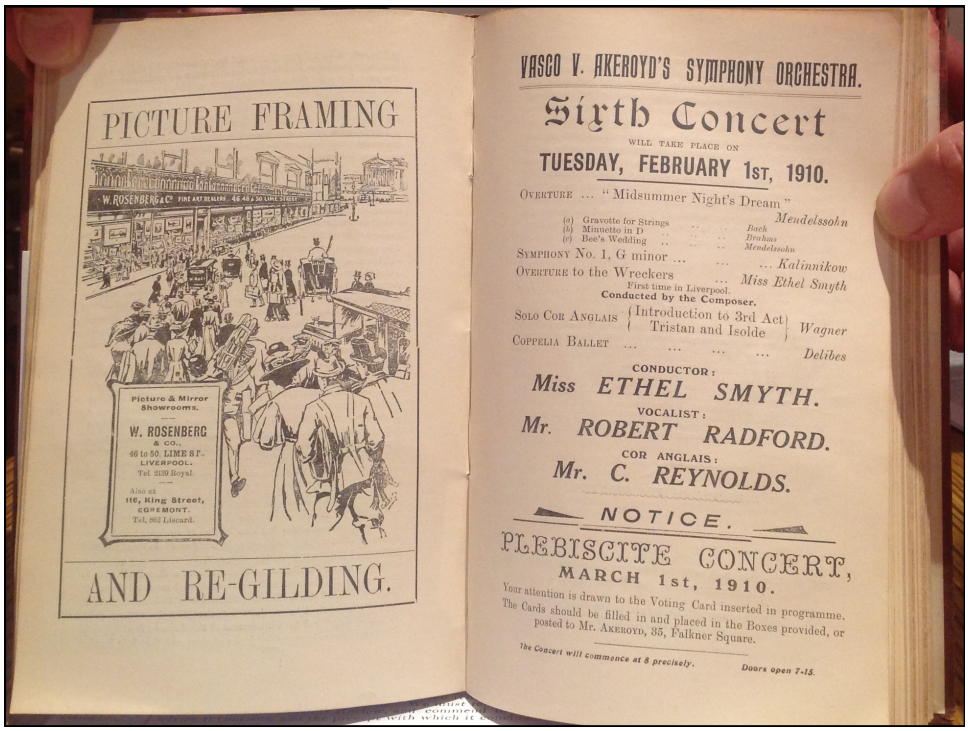
- MusicBrainz
  - MBz id as connect into Linked Data, BBC, etc.
- Authoritative sources (future)
  - e.g. British Library BNB, Concert Programmes metadata



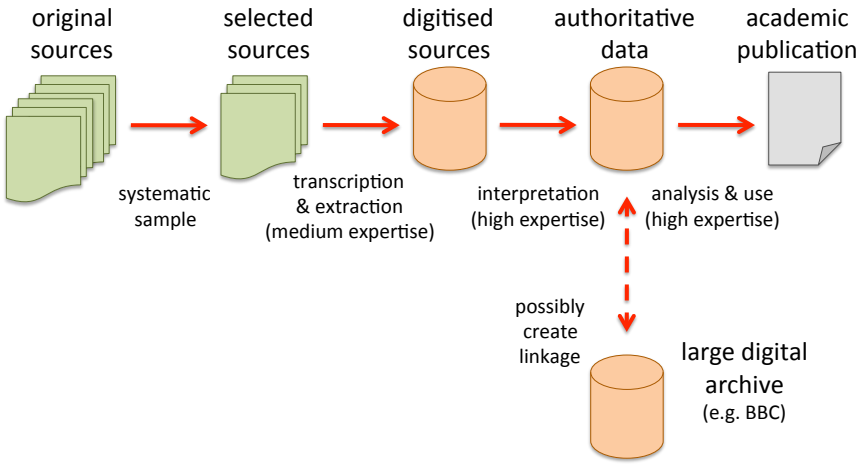
O R. 309

VOCAL CONCERTS.—Under the immediate Patronage of her Royal Highness the Dutchess of KENT.—The LAST CONCERT of the present Season will be at the Hanover Square Rooms, on Monday next, the 30th inst. when the following pieces, among other compositions of acknowledged excellence from English and Foreign Masters, will be performed—Anthem, "My Heart is Inditing," Handel—"Gloria," from Haydn's 1st Mass—Canon (by desire), "Non nobis Domine," Byrde—Chorus from Graun's "Tod Jesu"—Pieces from Purcell's "Indian Queen," Spohr's "Azor and Zemira," and "Faust"—Glees by Spofforth, Dr. Cooke, and T. Cooke; and Madrigals by Wilbye and L. Marenzio. Admissions to the Concert may be had of the Members of the Vocal Society, Half-a-guinea each.
EDWARD TAYLOR, Secretary, 3, Regent Square.

TO HOTEL AND INNKEEPERS, UPHOLSTERERS, &c.
W. MANSER, 27, Wardour Street, Soho, has now on Sale an IMMENSE STOCK OF COMMON FURNITURE, JAPANNED AND IN OAK, made in a manner which can be warranted, the



concert database
classic digital humanities?



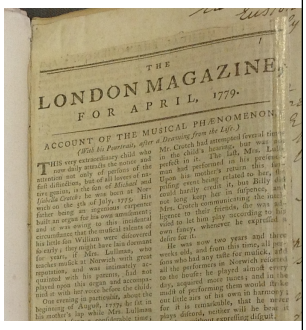
Barriers to progress

effort and expertise
authority and quality
digital acontextuality
openness

Openness and Reward

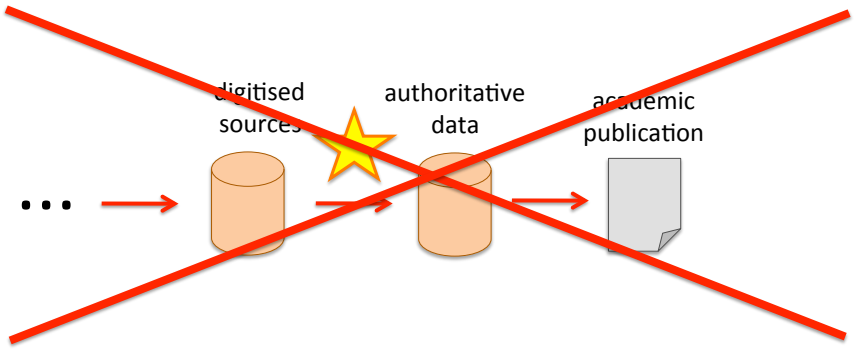
Career development
Leverhulme & REF
Building the discipline?

Re-envisioning the Digital Archive: Curation and Use

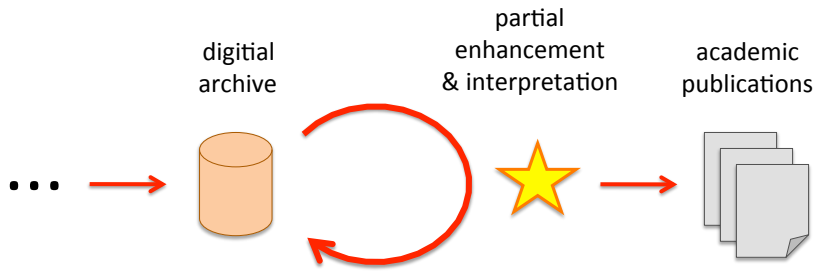

THE
LONDON MAGAZINE,
FOR APRIL, 1779.

ACCOUNT OF THE MUSICAL PHÆNOMENON

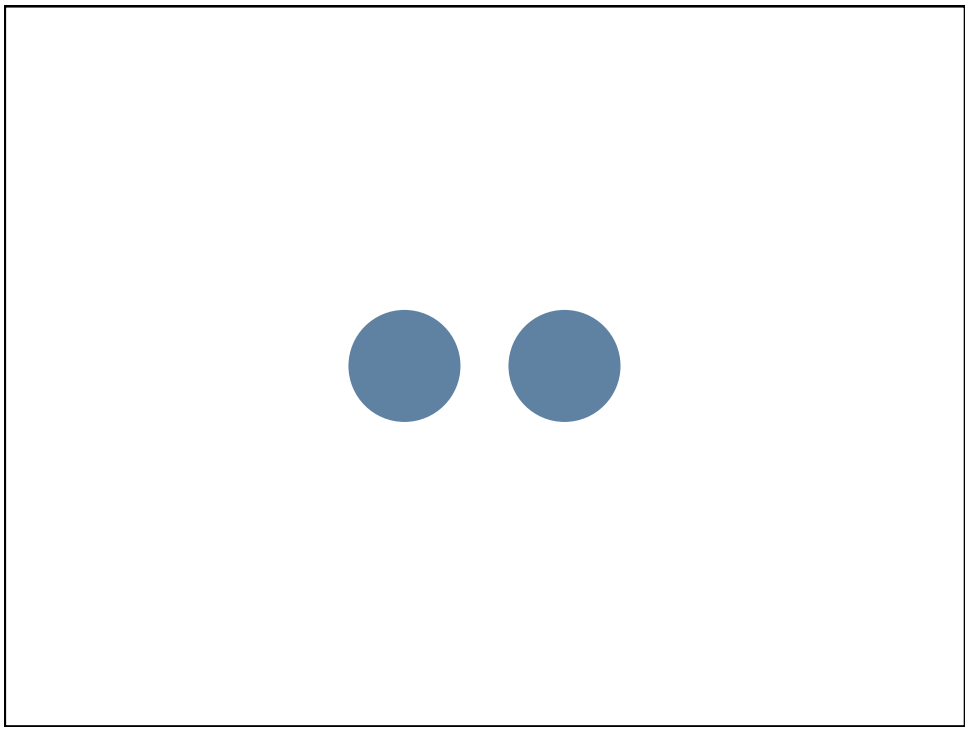
big bang to incremental

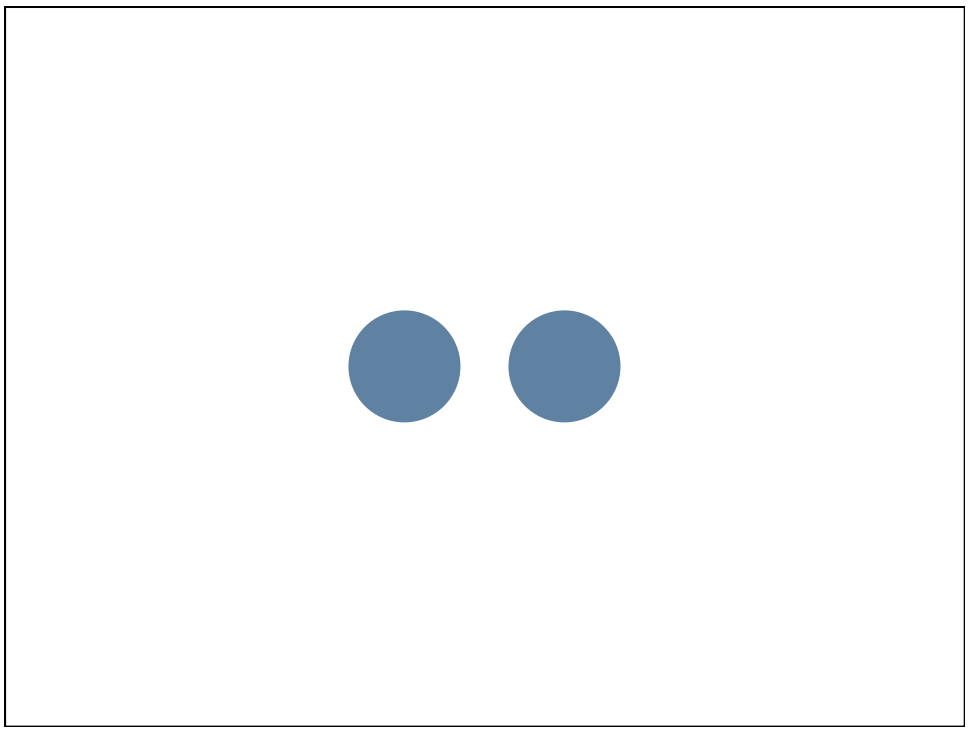


big bang to incremental



problem focused augmentation
transform cost-benefit





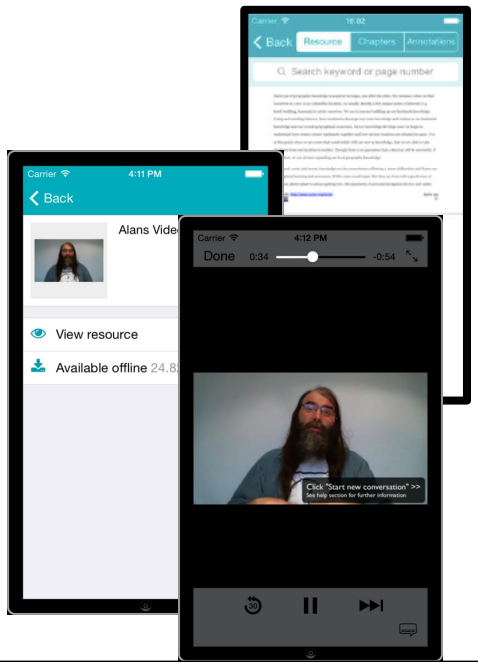
Learning analytics

macro-analytics

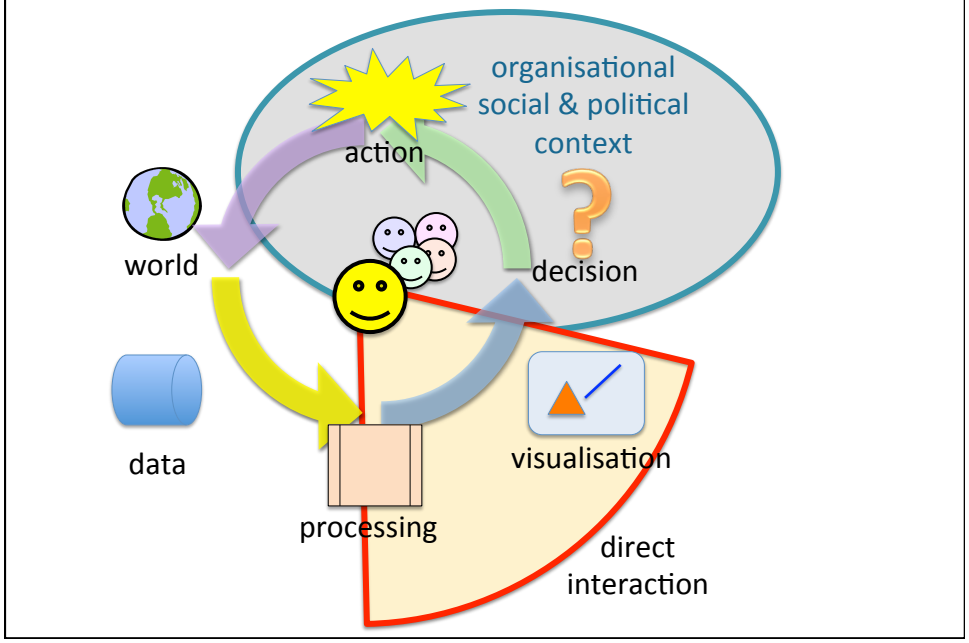
- university strategy
- MOOCs

micro-analytics

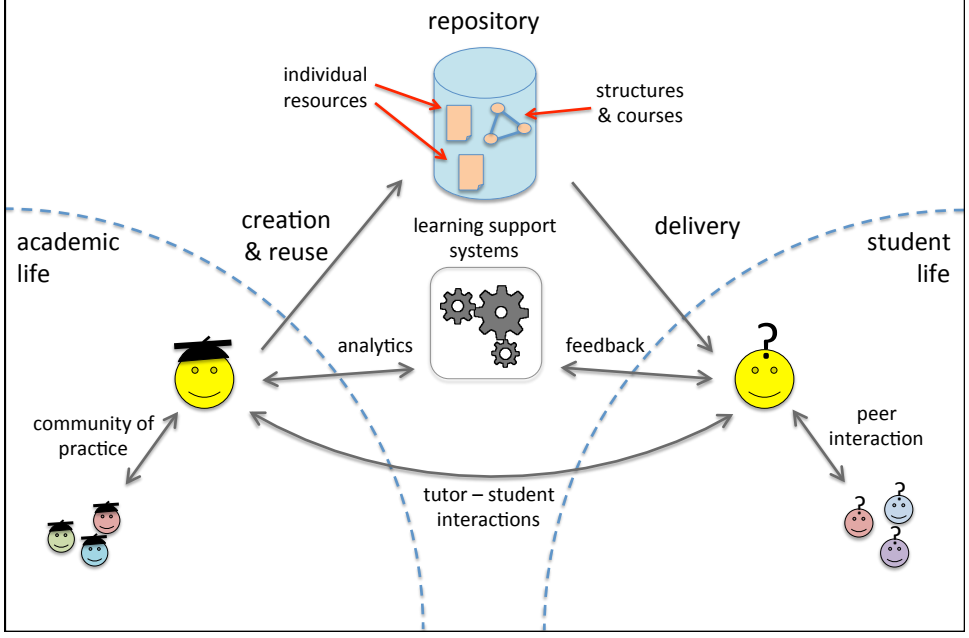
- individual course,
- student,
- resource



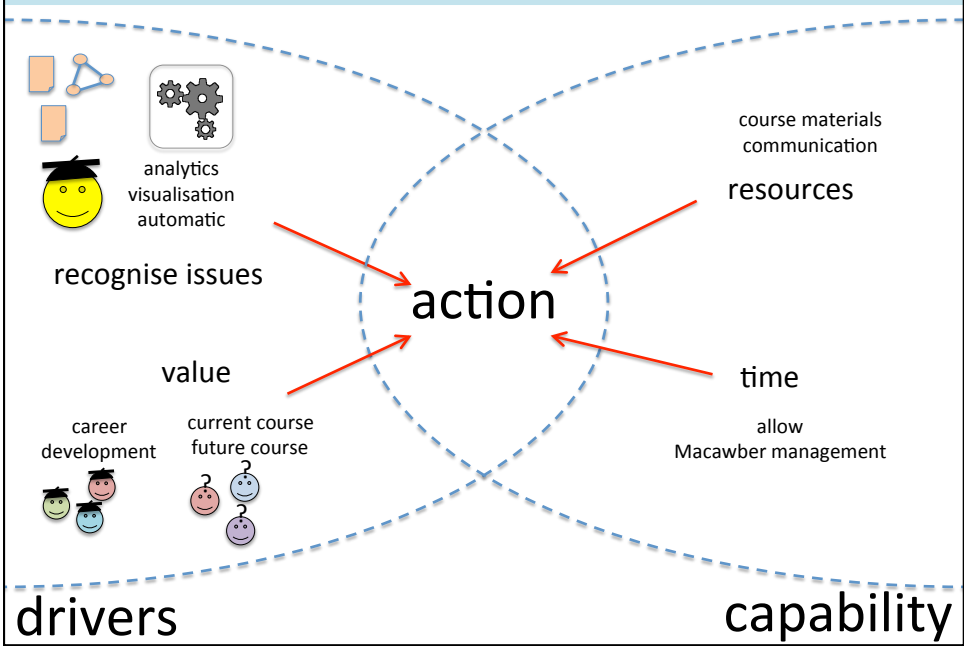
visual analytics the big picture



simple model: actors, agents and events



analytics and action



time frames for learning analytics

days and hours
- email, during lectures and labs, stduent meetings, gaps

week
- preparing for teaching, exercises

months/mid-semester
- reporting points, staff meetings, cohort/student progress

end of semester/term/year
- exams, exam boards, course revew,

start of semester/term/year
- preparing for new courses or re-runs, rollover!

years
- new courses, professional development, appraisal, promotion

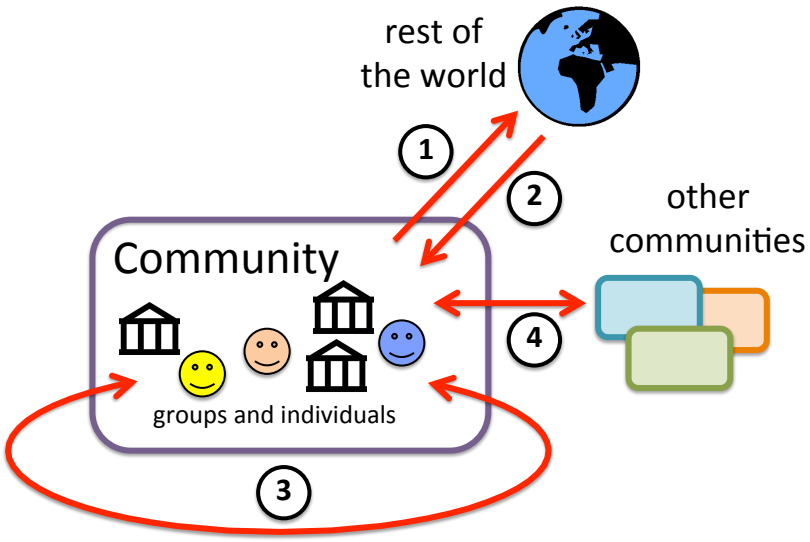
Open Data

everyone is doing it

Governments, Cities, local gov.

In C21 Data is Power

island data flows



island data flows
from community to world

1

- visibility and control
- identity and empowerment
- level of detail
- local knowledge

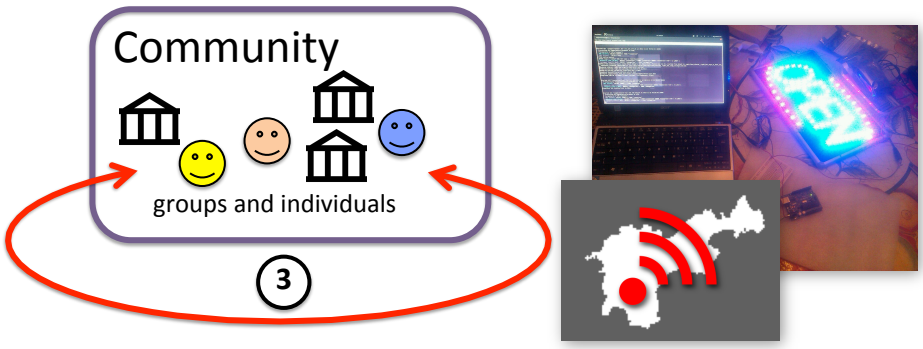
island data flows
from world to community

2

- making the most of open data
- local decision making
- lobbying and negotiation

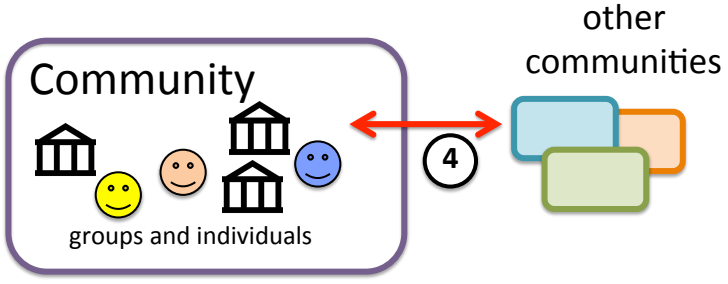
island data flows
within the community

- gossip is not enough!
- sparse, dispersed population
- social cohesion and economic benefits



island data flows
between communities

- sharing best practice
- brand presence
- interlinked data



benefits to …

the community

- empowerment and control
- availability of information
- communication within and between communities

the world

- improved quality of data
- level of detail of data
- local knowledge and understanding

themes and take-aways ...

data in context

heterogeneity and linking

value and values

ethics and empowerment

…. and please use my data ☺