27-29 March 2019

National Library of Australia, Canberra

Australian Academy of the Humanities' 2nd Humanities, Arts and Culture Data Summit

and

3rd international DARIAH Beyond Europe workshop

DARIAH-EU
Digital Research Infrastructure for the Arts and Humanities

Australian Research Data Commons

#DARIAHBeyondEurope #HACDS2019

United Nations
Educational, Scientific and
Cultural Organization

Curtin University

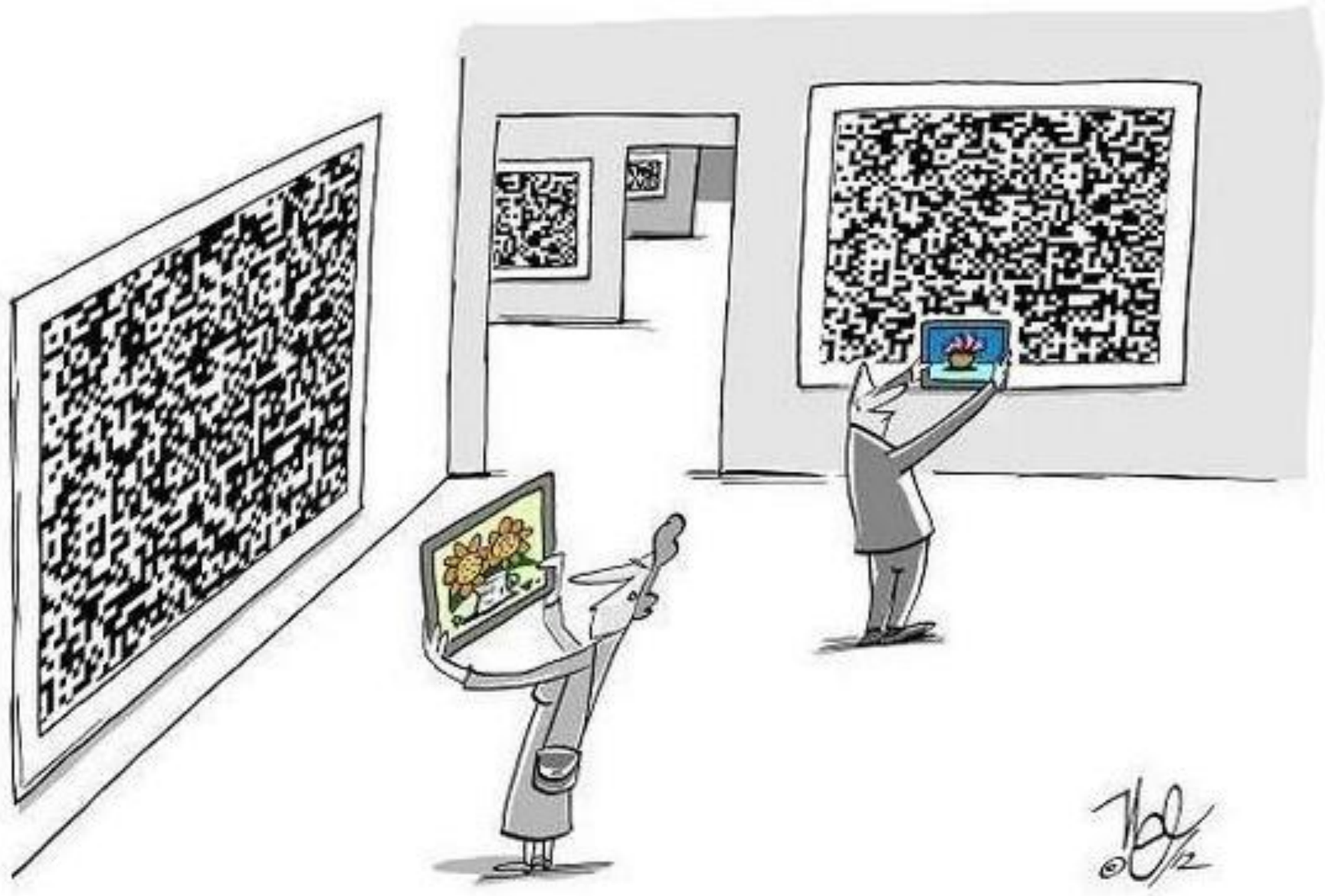
UNESCO Chair in
Cultural Heritage and Visualisation
Curtin University

3D-DH&VH DOWNUNDER

HUMANITIES, ARTS AND CULTURE DATA SUMMIT
+ DARIAH BEYOND EUROPE WORKSHOP

27-29 MARCH 2019 CANBERRA

ERIK CHAMPION CURTIN UNIVERSITY, CIC
UNESCO CHAIR OF CULTURAL HERITAGE & VISUALISATION

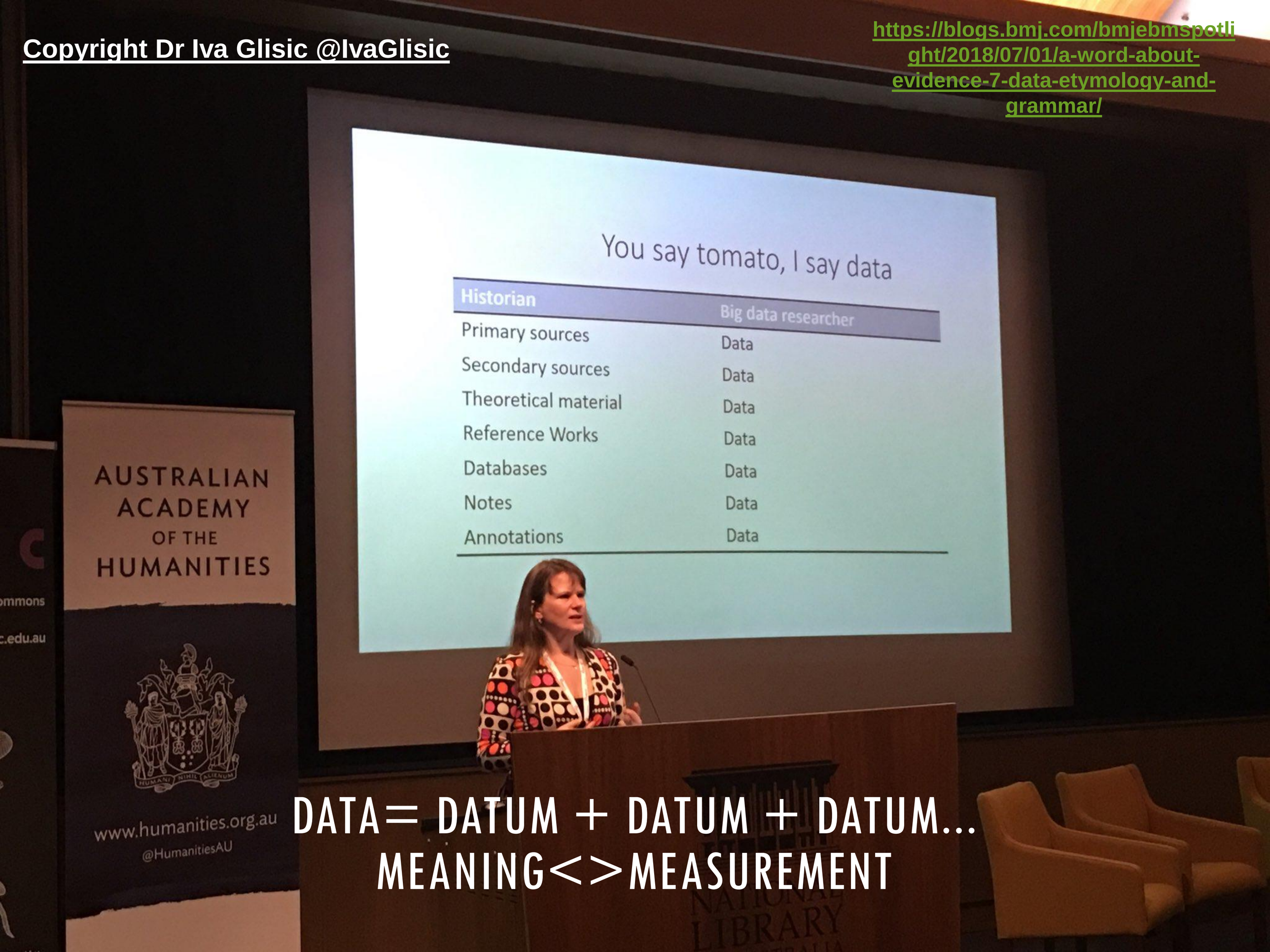


WHY ARE WE HERE?

1. What is happening?
2. What could be happening?
3. Where are the potential overlaps?

Copyright Dr Iva Glisic @IvaGlisic

https://blogs.bmj.com/bmjebmspotlight/2018/07/01/a-word-about-evidence-7-data-etymology-and-grammar/



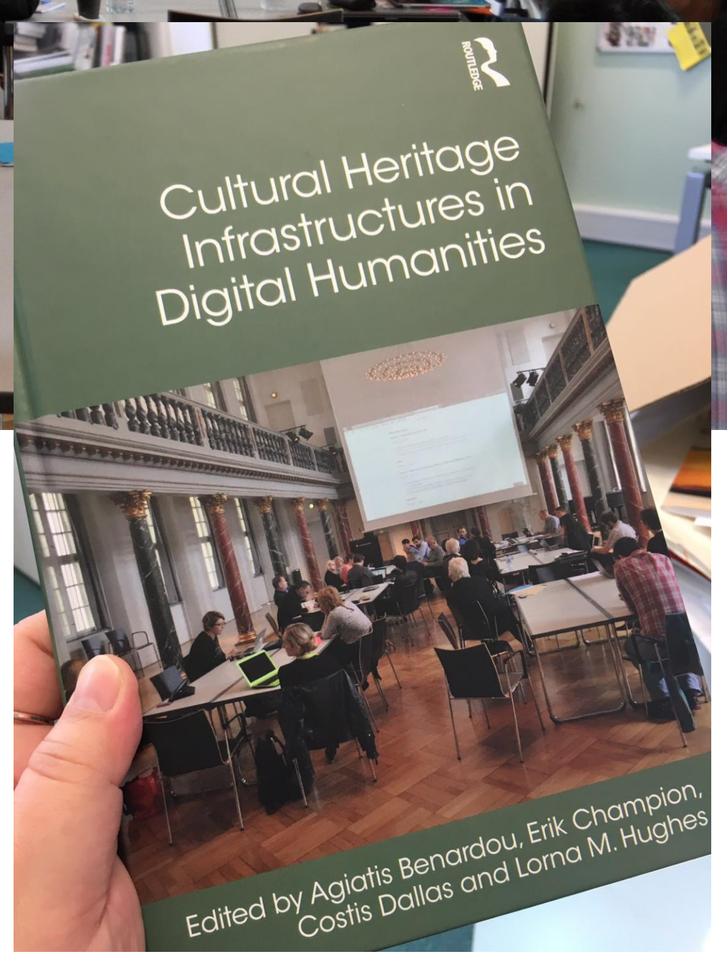
GLAM+COUNCILS INTEREST IN SHARING..

2018 National Digital Forum (19–21 November, Wellington)

- How can we work collaboratively and effectively with people outside the sector?
- How does our sector work with educators and students in the digital realm? How should it?
- How can we share experiences of things not going well and learn from our mistakes?
- How can we embrace new modes of research?
- How can we share the work we're doing to make a tangible impact in our communities

http://www.ndf.org.nz/call-for-presentations/

CULTURAL HERITAGE CREATIVE TOOLS AND ARCHIVES WORKSHOP COPENHAGEN 26-27 JUNE 2013



DH INFRASTRUCTURE

- Roads not infrastructure
- Roading is infrastructure
- Roads used by people + modified for people
- Infrastructure is the ecosystem of resources + people + feedback system

QUIZMOB Hackathon, Lithuania 2013

2014 DH METHODS, PROJECTS, PEOPLE EVENTS

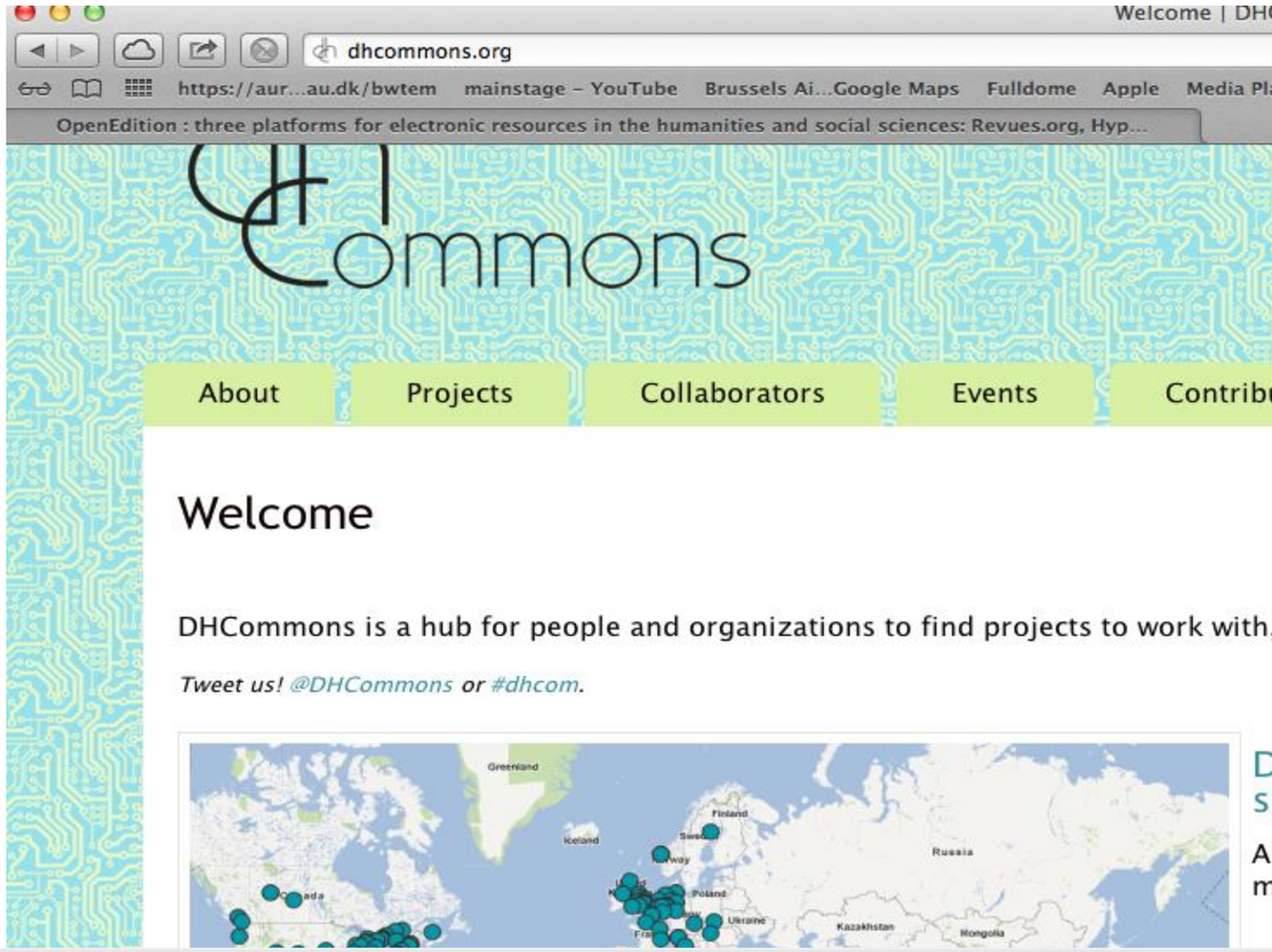
Christof Schöch
@christof77

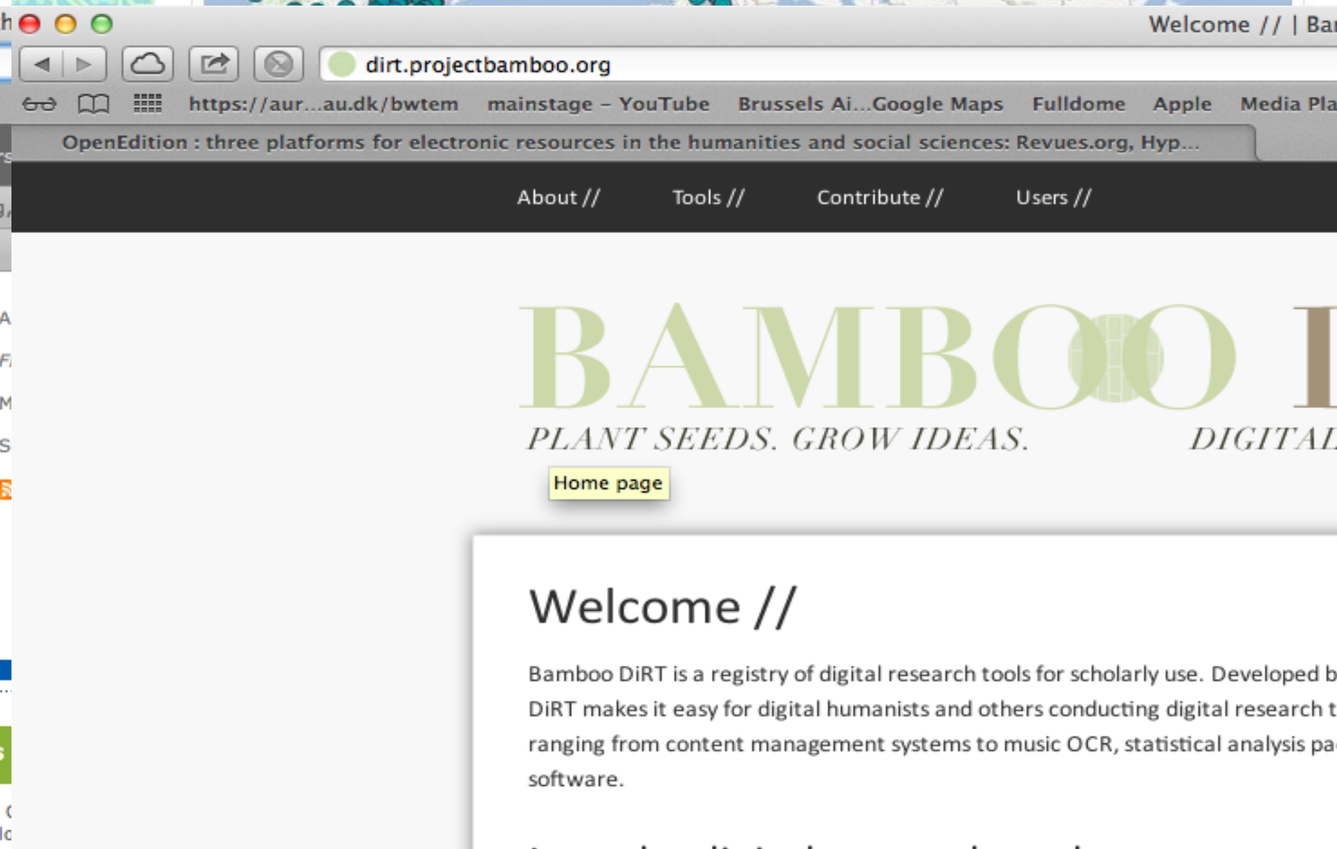
	Tools	Methods	Projects	People	Events	Tool Reviews	Journal Articles
DiRT	tagged repertoire of tools	methods-based tagging system (in revision)	--	--	--	will include tool reviews; already has comment function	--
DARIAH	collection of tools (work in progress) – may contribute tools to DiRT; would like to link to tools from taxonomy of methods	taxonomy of methods (with NediMAH); first shot at taxonomy of methods for bibliography; may want to link to DiRT tools	--	is meant to create a community of DHers around methods, tools and infrastructure services	--	(is thinking about a seal of approval for tools)	may soon have a „working paper series“
NeDiMAH	may include tools in the taxonomy	taxonomy or ontology of methods (with DARIAH/VCC2)	--	--	--	-	--
DH Commons	--	--	repertoire of projects; reviews of projects	repertoire of people	listing of events	also reviews of tools on DH Commons itself?	--
DH Answers	can include Q&A about tools	can include Q&A about methods	--	is building up a community	--	--	--
Open Edition	--	--	--	no repertoire, but many many users	listing about DH events and many more - DH events could be pushed to DH Commons	--	strong and large journal platform (300+ OA journals on revue.org); also, a blogging platform
OLH	--	--	--	--	--	--	will most likely be big in this area

https://docs.google.com/document/d/187tP4-NTbSCVzEl4fGrSaMr3u4l8piRQE_1mT9lZBgw/edit

DH ECOSYSTEM

- projects: DHCommons
- methods: NeDiMAH
- tools: DiRT bamboo
- publication: Open Edition
- hosting + communities: DARIAH

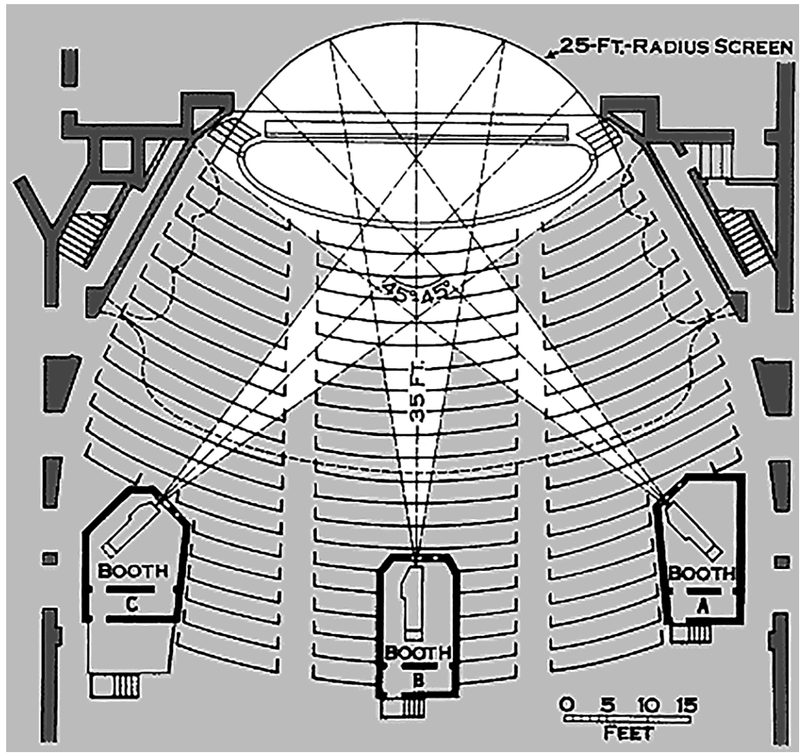




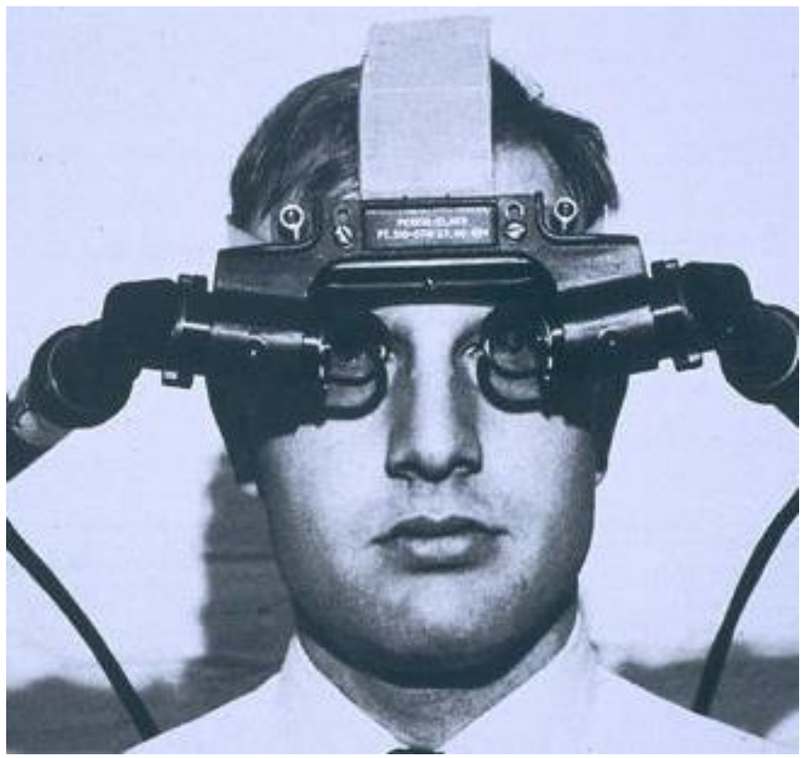
DH IS TEXT-HEAVY VISUALISATION LIGHT .. AND PEOPLE-ADVERSE

- So why Virtual Heritage? Why should we do it?
- How to engage and educate on: cultural significance
- What to preserve: survey data; models; cultural knowledge; remains; paradata; audience understanding feedback?
- When to stop: artistry, findings, audience interaction, experts, technical platforms..
- Where to find .. Run into a good virtual heritage project lately?

1955-6 Sensorama



1960 Cinerama (1939 Vitarama)



1965-8 Sword of Damocles

1992 CAVE

2018 Selfie+HMD+Pano-movie

VR CANNOT MATCH THE REAL THING??

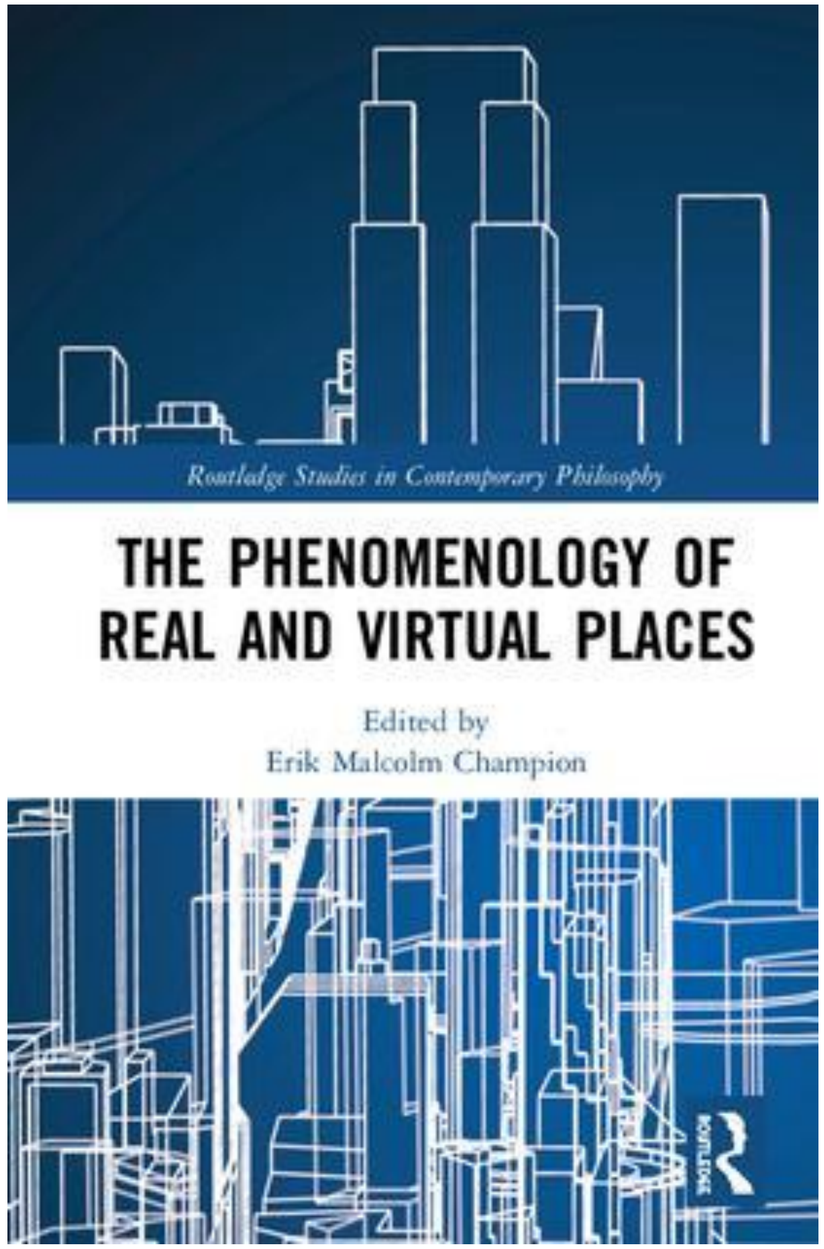
… the emotions you feel when you have a virtual experience are not as valuable. When you actually see Niagara Falls, especially if you get up close, you feel awe and even fear in the face of an overpowering force of nature… Computer simulations, however good, contain only what photography, laser technology and pre-existing expertise put into them… Real experiences connect us to the deeds of past people and place us in contexts where history was made… VR will never be a substitute for encounters with the real thing.

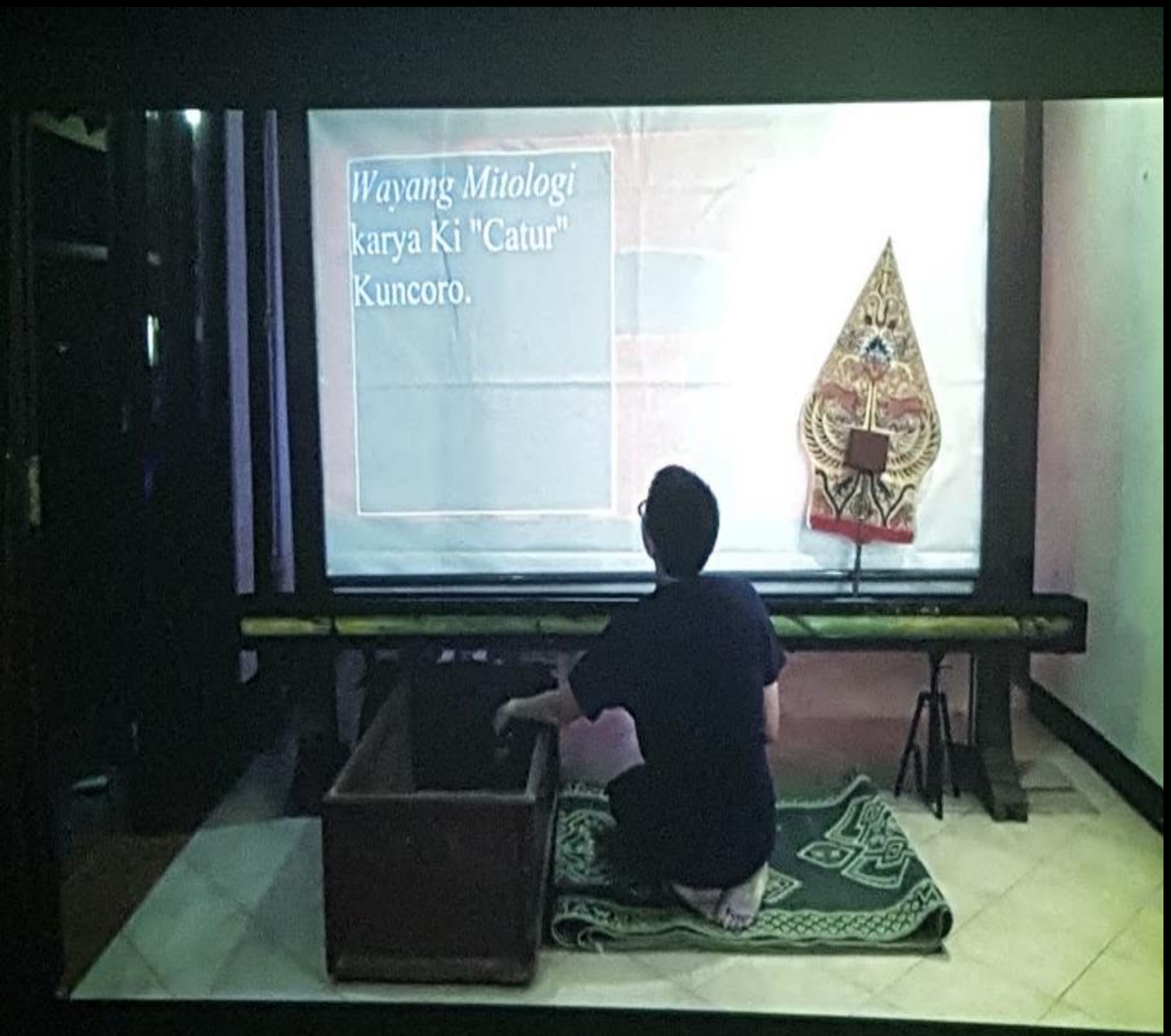
Janna Thompson, Professor of Philosophy, La Trobe University
https://theconversation.com/why-virtual-reality-cannot-match-the-real-thing-92035

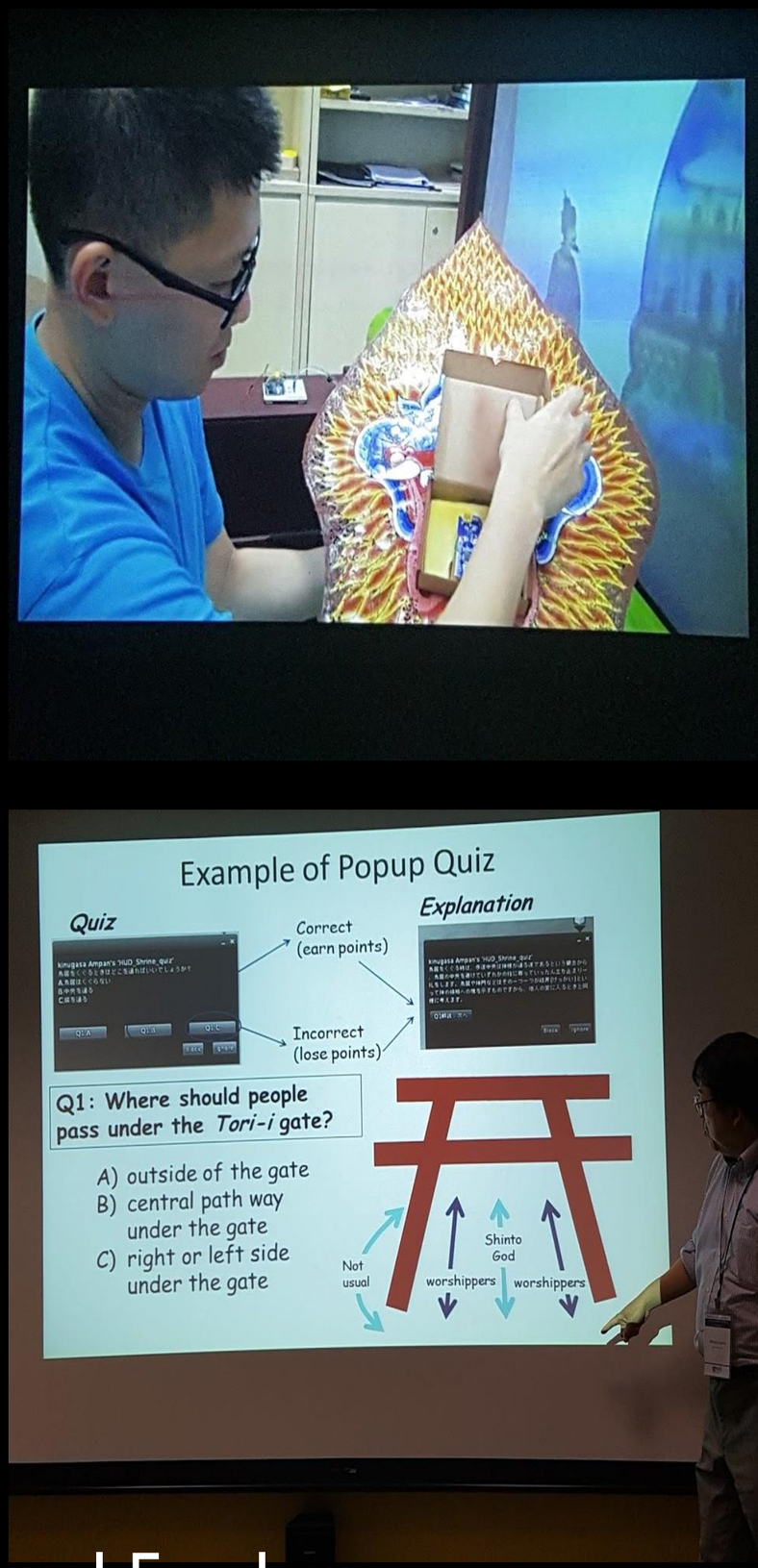
BOOKS CANNOT MATCH THE REAL THING??

… the emotions you feel when you have a LITERARY experience are not as valuable. When you actually see Niagara Falls, especially if you get up close, you feel awe and even fear in the face of an overpowering force of nature… LITERARY simulations, however good, contain only what WRITERS AND PUBLISHERS put into them… Real experiences connect us to the deeds of past people and place us in contexts where history was made… BOOKS will never be a substitute for encounters with the real thing.

Devil's Advocate, Editor, Phenomenology of Real and Virtual Places







Digital Heritage Interfaces 2017 NUS – Miguel Escobar

VH DEBATES, ISSUES

1. Recreation or “the fallacy of” reconstruction (Jeff Clarke)
2. Completeness or authenticity
3. Levels of realism
4. Presence
5. Ownership and shareholders
6. Cultural appropriation
7. Obsolescence
8. Gamification/playerfication

EU Chess project DH2013 Marseilles

3D: THE GOOD, THE BAD, THE UNARCHIVED

Remove or add parts of the model.

Change wireframe to textured view.

Take screenshots.

Incorporate annotations.

Pose and change field of view.

Measure parts of the online model.

Handle large file sizes.

Import and export various options.

Timelines: show changes over time.

Zoom in, zoom out, rotate, walk around.

Text can link to camera views.

Frozen products

Lack of situated agency

No dynamic linked resources

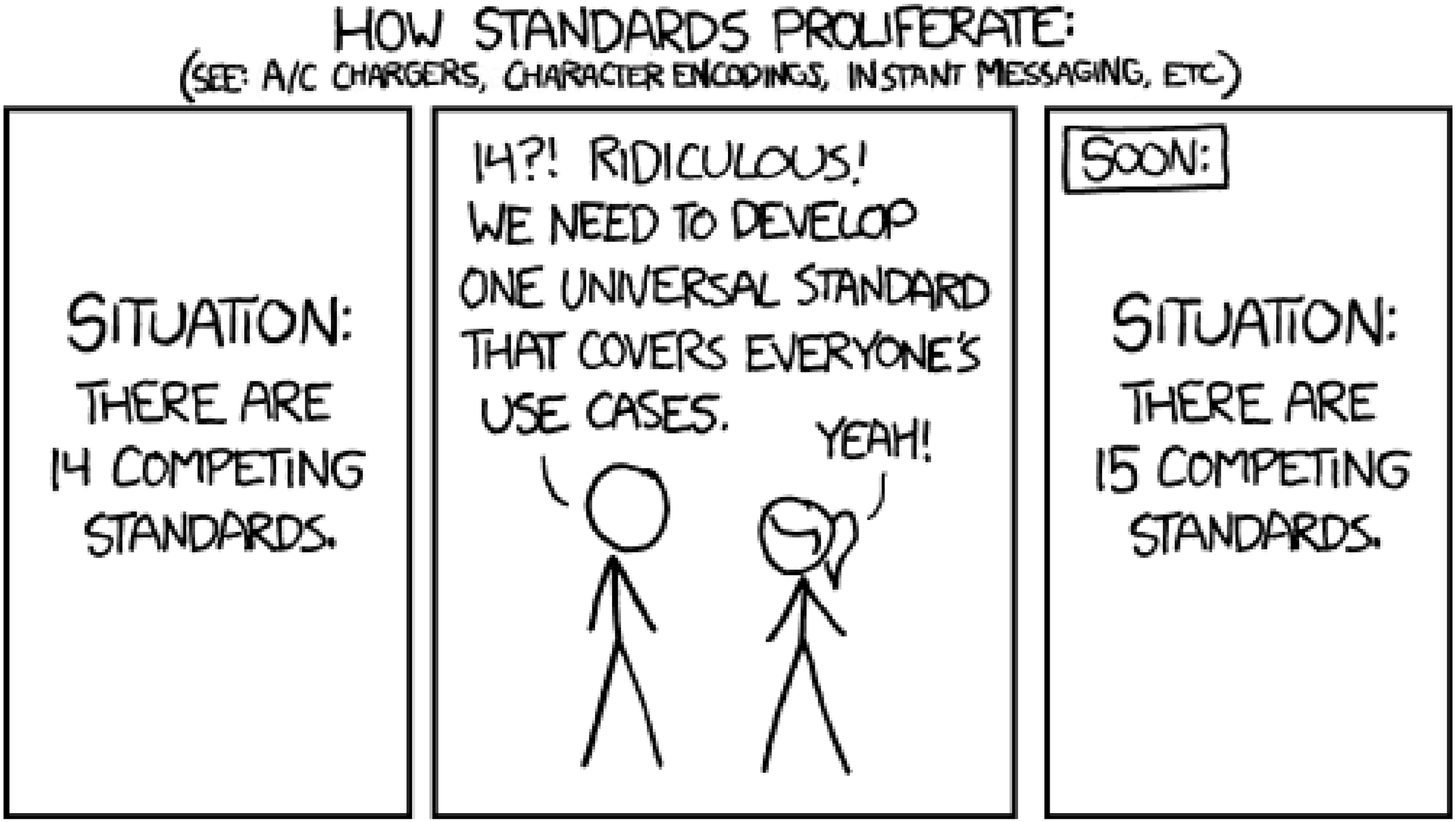
Designed mostly by one individual

Sense of scale and proportion

Lacks rich range of interactivity

No measuring or analytical tools

Continual feedback, review missed

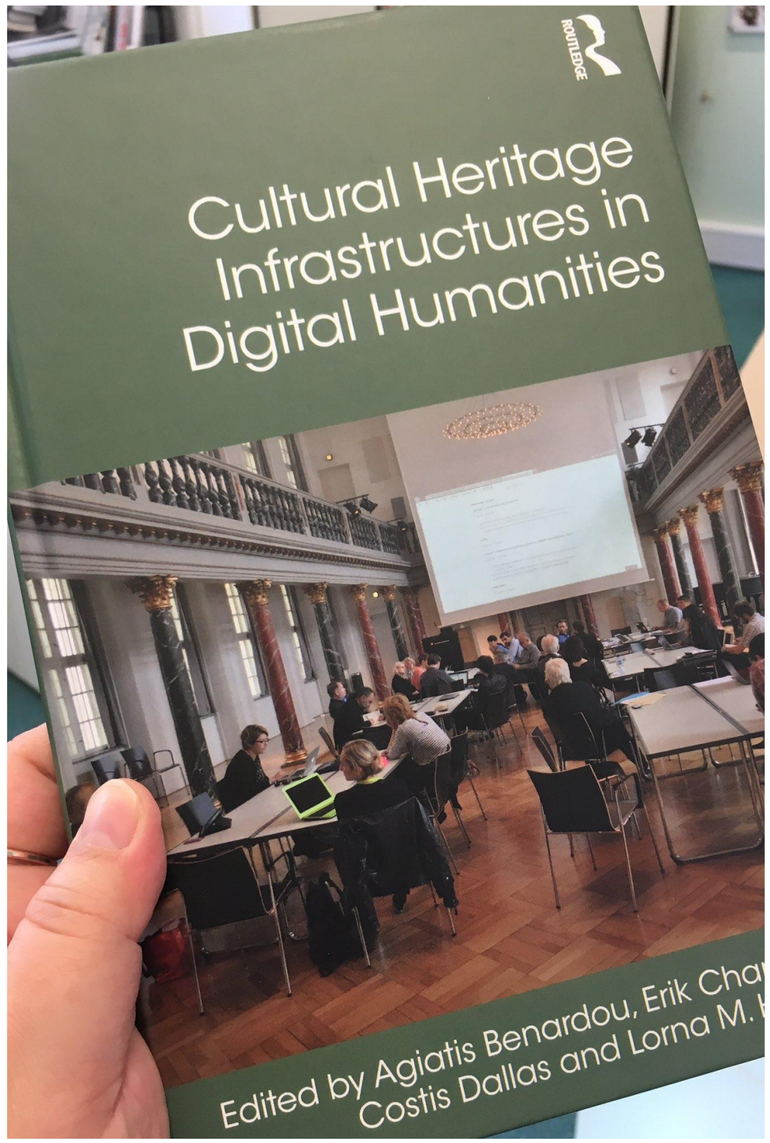


https://xkcd.com/927/

CHALLENGES OF ACCESS AFFECT EVERYONE- THE 'VANISHING VIRTUAL'

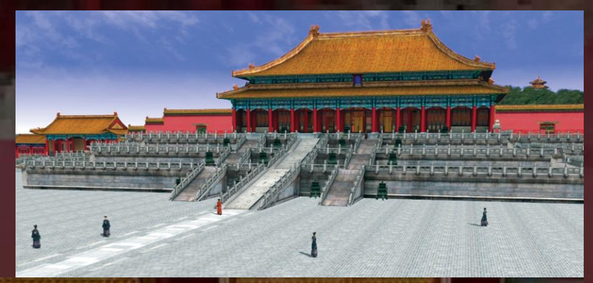
Disappearing Virtual Heritage-Becoming Archaeological *p33, Ruth Tringham University of California Berkeley, USA, Michael Ashley CODA*

"While searching in 2014 in Erik Champion's Playing with the Past (2011) for web-based virtual cultural environments that could act as models for a game, … **we found that at least half of his examples have disappeared by now**, … according **to the Library of Congress, the average lifespan of a webpage is only 100 days**. Many of the disappeared, like Okapi Island, can be seen as tempting fragments displayed through video documentation on YouTube or Vimeo (e.g. Leavy n.d.)."



FORBIDDEN CITY: BEYOND SPACE & TIME

- VHEs vs gamification
- Don't seriously entertain or work easily with dynamic, valuable interactive content
- Are NOT easily preserved, let alone scholarly accessible



Mure Dickie, 10.10. 2008 Financial Times: "A virtual Forbidden City offering the kind of immersive and interactive online experience pioneered by multiplayer role-playing games such as Second Life."
http://www.geek.com/news/expore-the-virtual-forbidden-city-courtesy-of-ibm-593731/ OR
http://www.beyondspaceandtime.org/

"A VIRTUAL REALITY APP THAT RECONSTRUCTS ANCIENT ROME MAY HAVE EXPLOITED ITS DEVELOPERS"

https://hyperallergic.com/480239/a-virtual-reality-app-that-reconstructs-ancient-rome-may-have-exploited-its-developers/

AR ISSUES: UCLA/MASS. NEH WORKSHOP 2015-6

Conference/event name		VSMM		CAA		CIPA		EUROMED		Digital Heritage	
Accessible articles & year of publication **3D MODELS in Journals**		Year	No.	Year	No.	Year	No.	Year	No.	Year	No.
		2017	55	2015	117	2017	111	2016	105	2015	270
		2016	65	2014	73	2015	82	2014	84	2013	211
		2014	53	2013	50	2013	112	2012	95	-	-
		Total	173		240		305		284		481
Articles reference 3D heritage assets			31		38		79		61		55
References include											
(a)	Accessible 3D contents		0		1		3		1		4
(b)	Accessible Videos		1		2		1		2		6
(c)	Other accessible visual materials (VR models, photographs, images of 3D models etc.).		1		4		6		5		17
(d)	Non-accessible/dead web links		3		0		5		3		8

UNESCO CHAIR IN CULTURAL HERITAGE & VISUALISATION

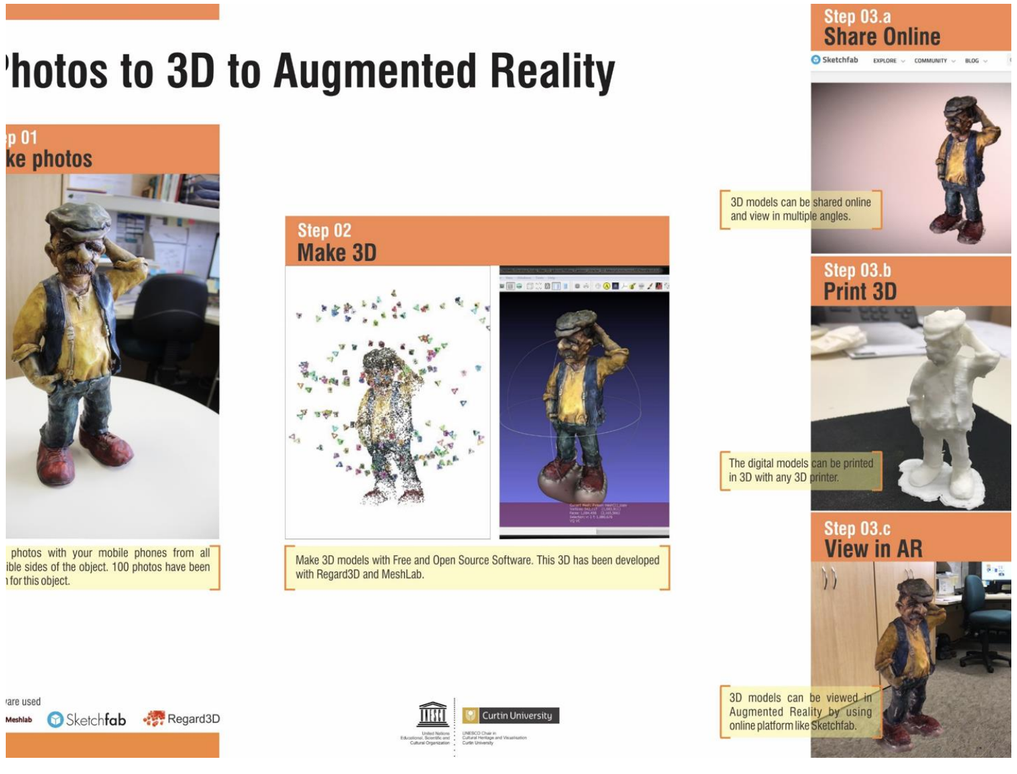
1. **Create** a network to use & advise on 3D models of World Heritage Sites & show how 3D models can be employed in teaching & research

2. **Build** capacity through community workshops, learning materials, distributing the teaching resources digitally at no cost the end user, train research students, postdocs, research fellows.

3. **Recommend** long-term archive guidelines, linking 3D models to scholarly publications, scholarly resources & infrastructures;

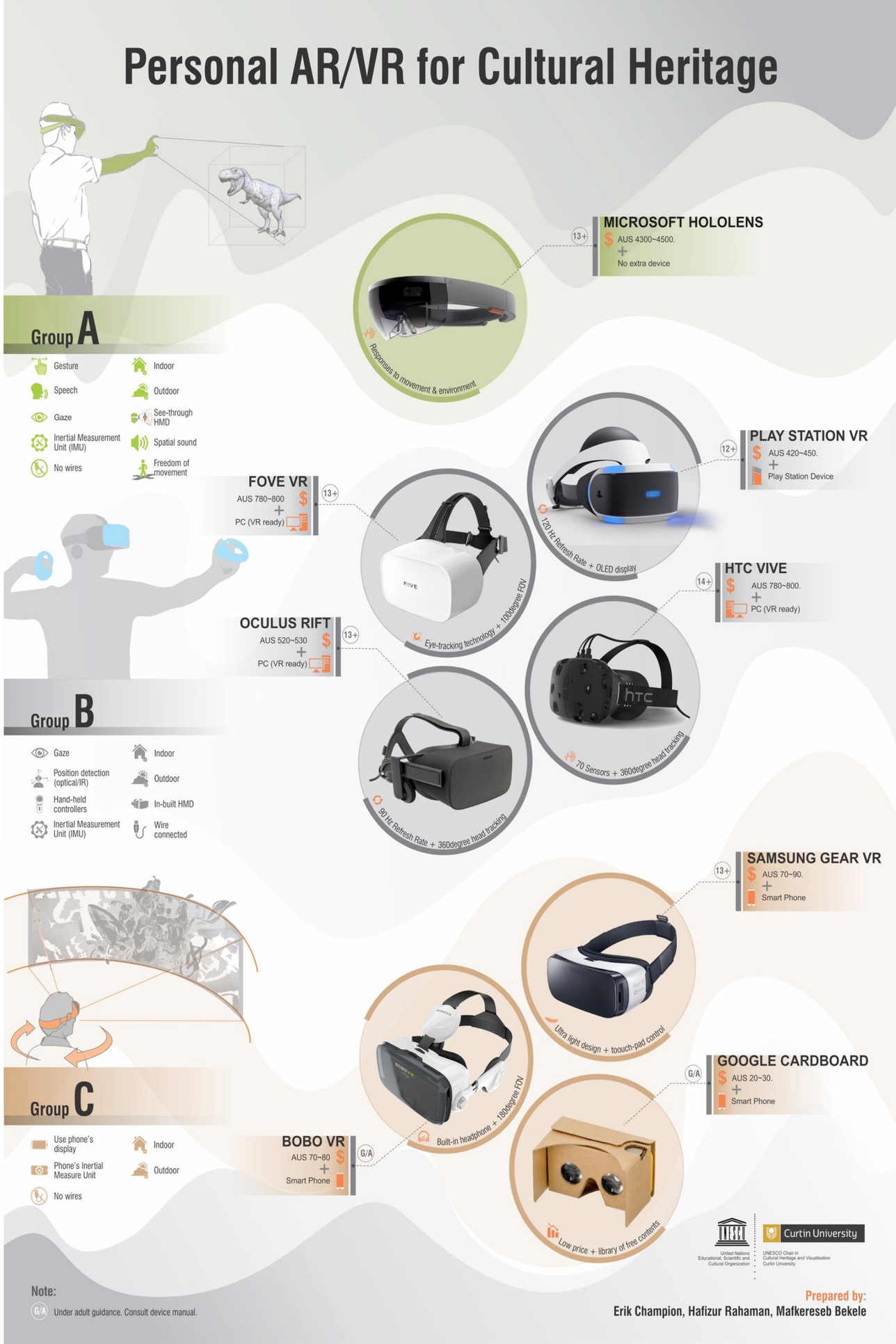
4. **Disseminate** the results of research activities at conferences & workshops, via online papers, applications & learning materials.

5. **Cooperate** closely with UNESCO on relevant activities.



3 PROMISING TRENDS

1. VR equipment is moving towards the consumer level, based on the notion of a component based system.
2. Smartphone both stereoscopic viewers & PCs (e.g. Samsung Gear).
3. Consumer technology frameworks will help improve access..



LINKED OPEN DATA IN AUSTRALIA

- Move to open data here https://www.pmc.gov.au/public-data/open-data
- If data is described as 'open', it means anyone can access, use or share it. All Australian Government agencies are encouraged to make their data available (using an appropriate open license) on the data.gov.au website. Also Data Transformation Agency supports LOD. ALSO http://www.linked.data.gov.au/
- Australian researchers have been talking about it since at least 2011 http://blogs.unsw.edu.au/amaha/blog/2011/09/linked-open-data/
- OZ-NZ experts http://conaltuohy.com/blog/linked-open-data-visualisation/
- http://commons.pelagios.org/ "..online resources and a community forum for using open data methods to link and explore historical places"
- "Cultural Heritage Markup Language-How to Record and Preserve 3D Assets of Digital Reconstruction" Hauck & Kuroczynsk https://github.com/chml-3d

IMAGES STREAMED FROM TROVE INTO UNITY 3D TEXTURES

2016 workshop on taking NLA images from TROVE database dynamically into UNITY as textures-Michael Wiebrands, Curtin

IKROM NISHANBAEV, 3D, GIS, SEMANTIC WEB

Geosemantic Web

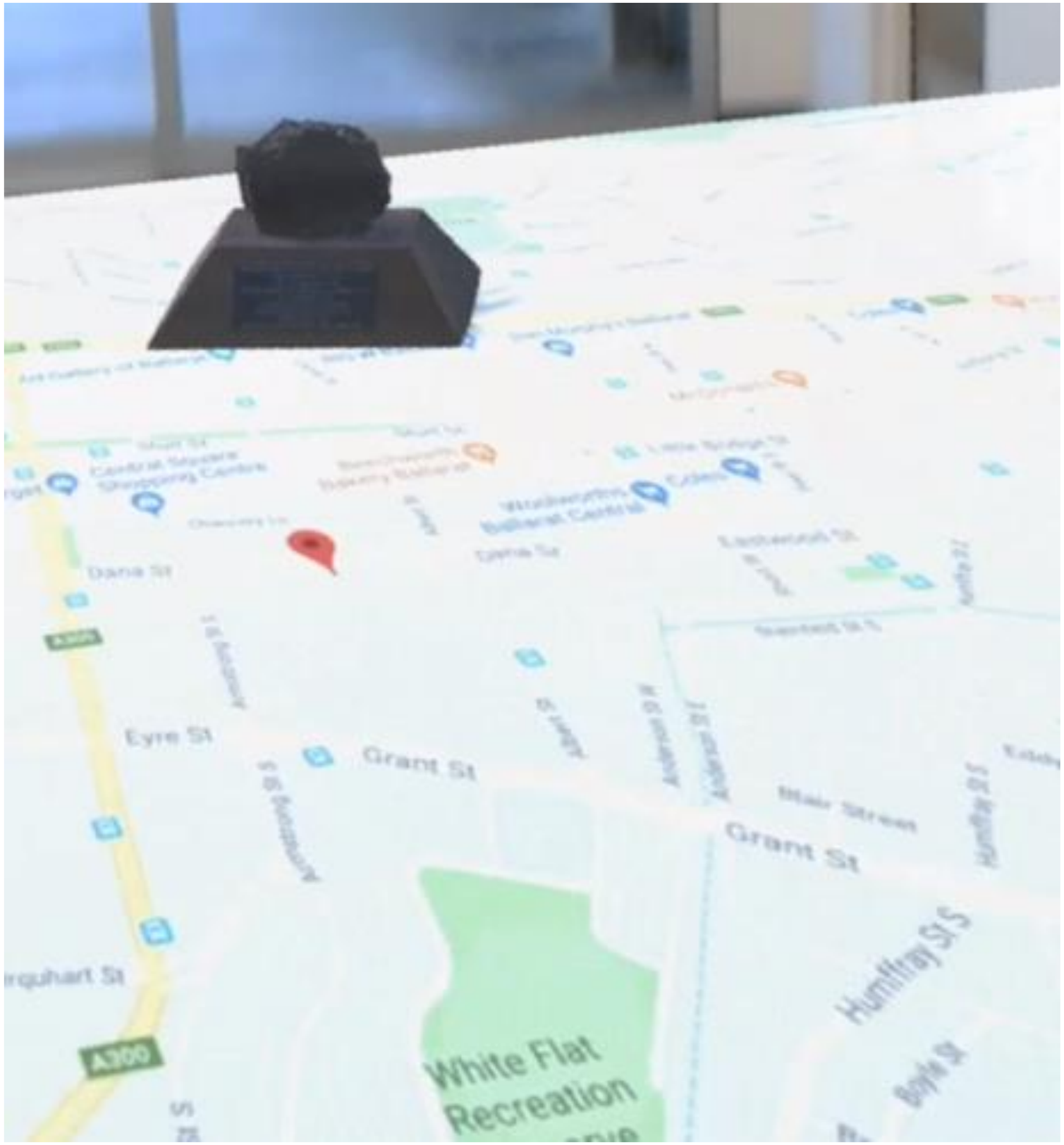
Many 3D visualization APIs and libraries – WebGL, OpenGL, Threejs, Mesa3D

GIS in Digital Humanities (When, Where)

Difference between Geosemantic Web and Semantic web

Time usage example: Find all Cultural Heritage events occurred between X and Y

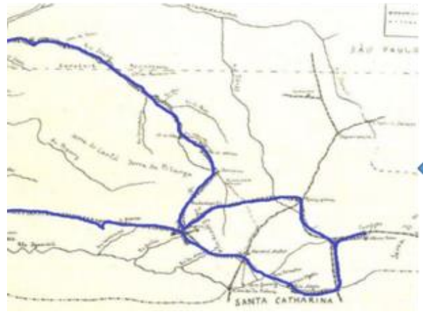
Geolocation usage example: Find all Cultural Heritage sites located within X region

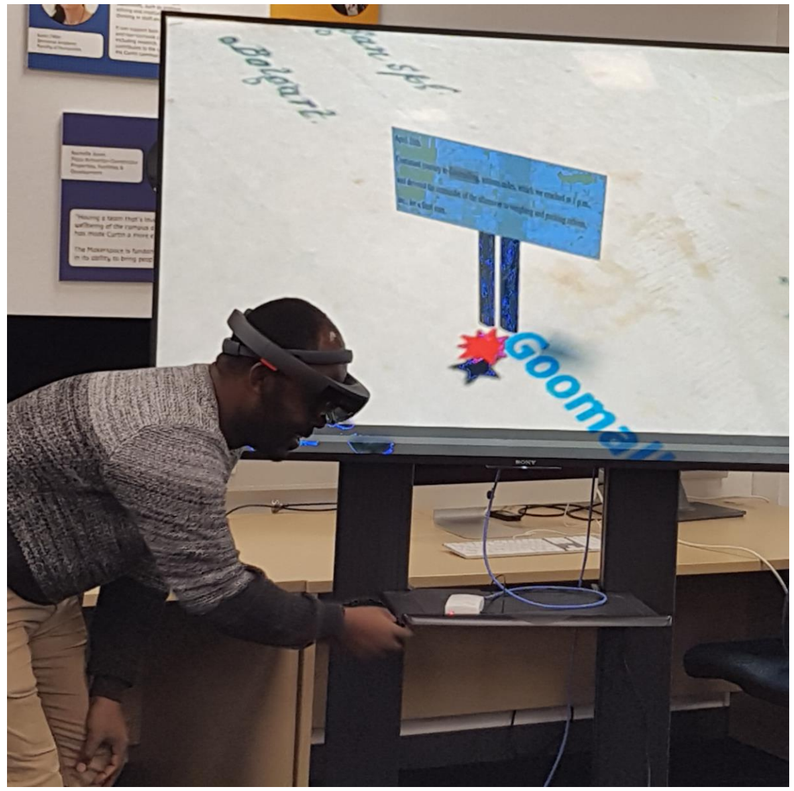


Historical texts and maps
est's expedition reports and maps from the period)

Annotation and geocoding
nd maps will be annotated and exported as GeoJSON)

Mixed Reality development
e and interactive visualisation expereince)





QUESTIONS ON LOD

Kathryn Greenhill Librarians Matter, Curtin

- What if a concept is fuzzy, sitting between two concepts with URIs?

Jane-Heloise Nancarrow, UWA

- LOD.. uses a human-applied, subjective and imperfect linguistic syntax and classification system…
- How do we create metadata for intangible heritage…
- Clarity in definitions: ..Semantic web, linked data, and linked open data …
- How do we include or enforce LOD considerations for DH projects that generally have other aims … funding for DH projects is already so tight. … a published contacts list of LOD practitioners would be a great start :)
- ..Aboriginal heritage and ownership of indigenous knowledge (and even more pertinent when that data is produced within colonial contexts)…
- How well do 3D data formats fit into any or all of this at present?

Karen Miller, Curtin: the data is "squeezed out of publications" [Tim Sherratt]

© Ian Brodie (2005)

IMAGINED SPACES IN REAL PLACES

Screen Tourism, VR & Cultural Heritage

Keynote speaker: Ian Brodie (http://www.ianbrodie.net/)
Other presenters include: Dr Christina Lee, Professor Erik Champion, Mat Lewis (South West Development Commission).

This Symposium brings together scholars and industry presenters to discuss how screen-based tourism can augment local economies,regional branding and promote cultural heritage with VR and AR technologies.

IMAGINED PLACES
IN REAL SPACES

lanbrodie.net

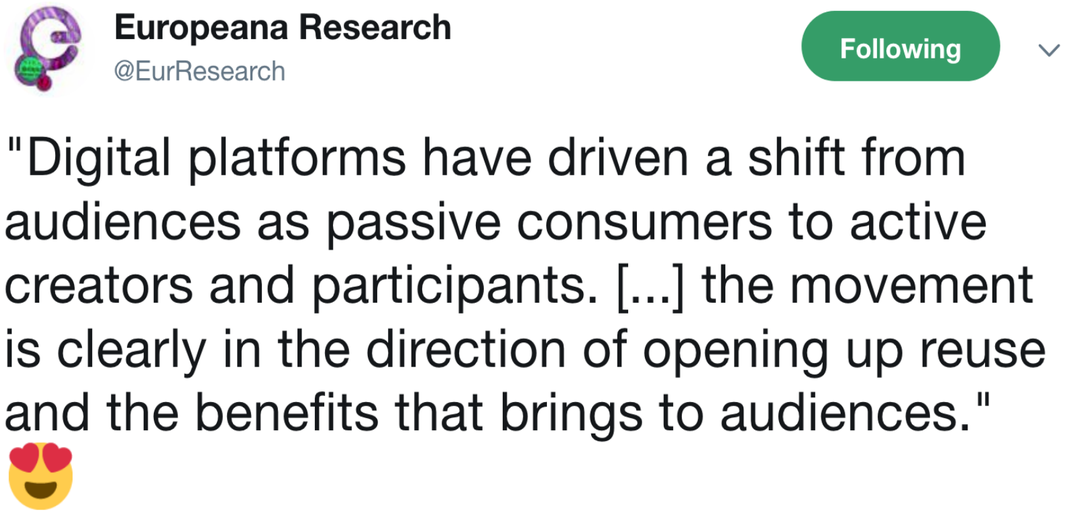
PANO-ARCHIVE, BEATA DAWSON

DESIGN ACTIVISM, PALESTINE
RUSAILA BAZLAMIT

DUYFKEN, MAFKERESEB BEKELE

Intern project Agathe Limouzy Toulouse (Collaborative Learning)

SUMMARY



1. DATA and EXPERIENCE/INTENTIONS
2. Interaction design and visualization is part of DH
3. Virtual Reality is an ecosystem (ideally)
4. Virtual heritage is your heritage
5. GLAM essential people-centric role in DH
6. Linked Open Data: Interesting Problem Looking to be Appreciated
7. Collaborating with overseas: standards, bootstrap research projects

Erik Champion, Curtin University @nzerik

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