Why have data become the common challenge (and opportunity)? And a pocketful of suggestions for moving forward (as soon as possible)

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President
Social Sciences and Humanities
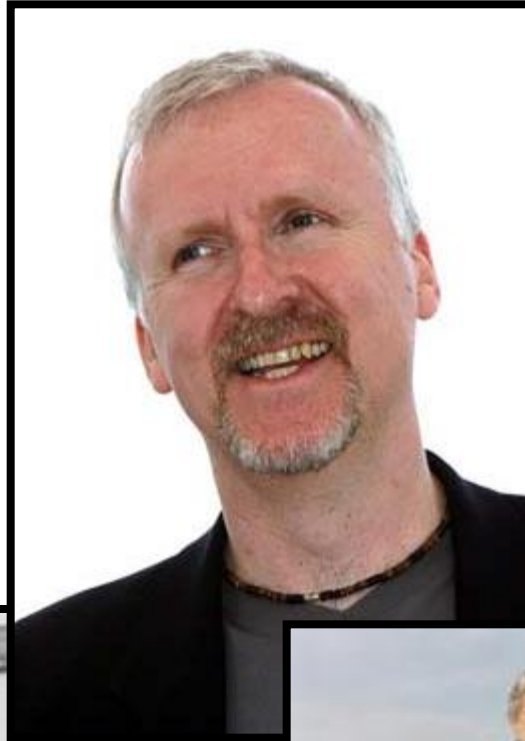Research Council of
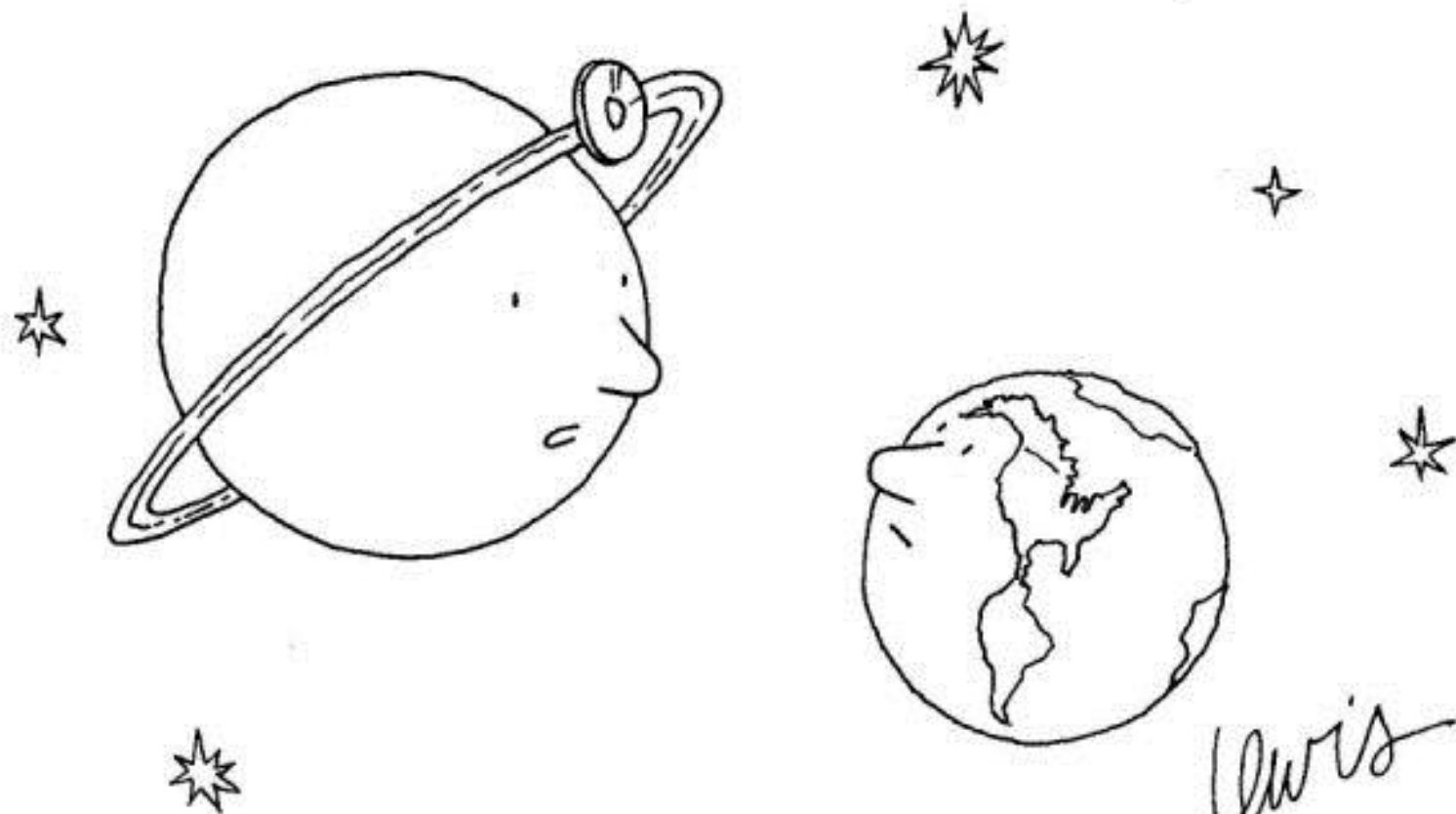Canada

Copenhagen 2012

Technology-driven age?

Rather, deep conceptual changes are being enabled, accelerated and influenced in iterative ways by digital technologies.

Patented in 1867
by William Lincoln

"I'm afraid you have humans."

Three deep conceptual changes:

1) CREATIVITY = *from* a tiny group of creators (pre-ordained elite) for a majority of appliers *to* trying to tap the entire pool of talent

2) DIVERSITY = *from* diversity as a problem to be eliminated *to* diversity as the foundation of strength and resilience

3) COMPLEXITY = *from* the conviction that complexity is only apparent (simplicity if we just looked closely) *to* recognition of complexity as a common phenomenon

How the digital triangle is framing the 21st century

Digital Technologies

Digital Content

Digital Literacies

Multiple types of research infrastructure

- **Type 1 - Content specific infrastructure and tools**
  - *Research and research transaction spaces*
  - *Physical infrastructures*
  - *VREs or Virtual Research Environments*
  - *Digital data infrastructures*
  - *Hybrid physical/digital infrastructures*
  - *Meta-infrastructures*

Multiple types of research infrastructure (cont'd)

- **Type 2 - Research eco-system infrastructure and tools**
  - *E-infrastructures*
  - *Research dissemination infrastructure*:
  - *Data infrastructure/environment*

Janet Halliwell, Research Infrastructure and Tools in the Social Sciences and Humanities: A discussion paper,March 9, 2012 (based on ***Research Infrastructures in the Digital Humanities***. Science Policy Briefing September 2011. European Science Foundation. http://www.esf.org/research-areas/humanities/strategic-activities/research-infrastructures-in-the-humanities.html Accessed December 2011)
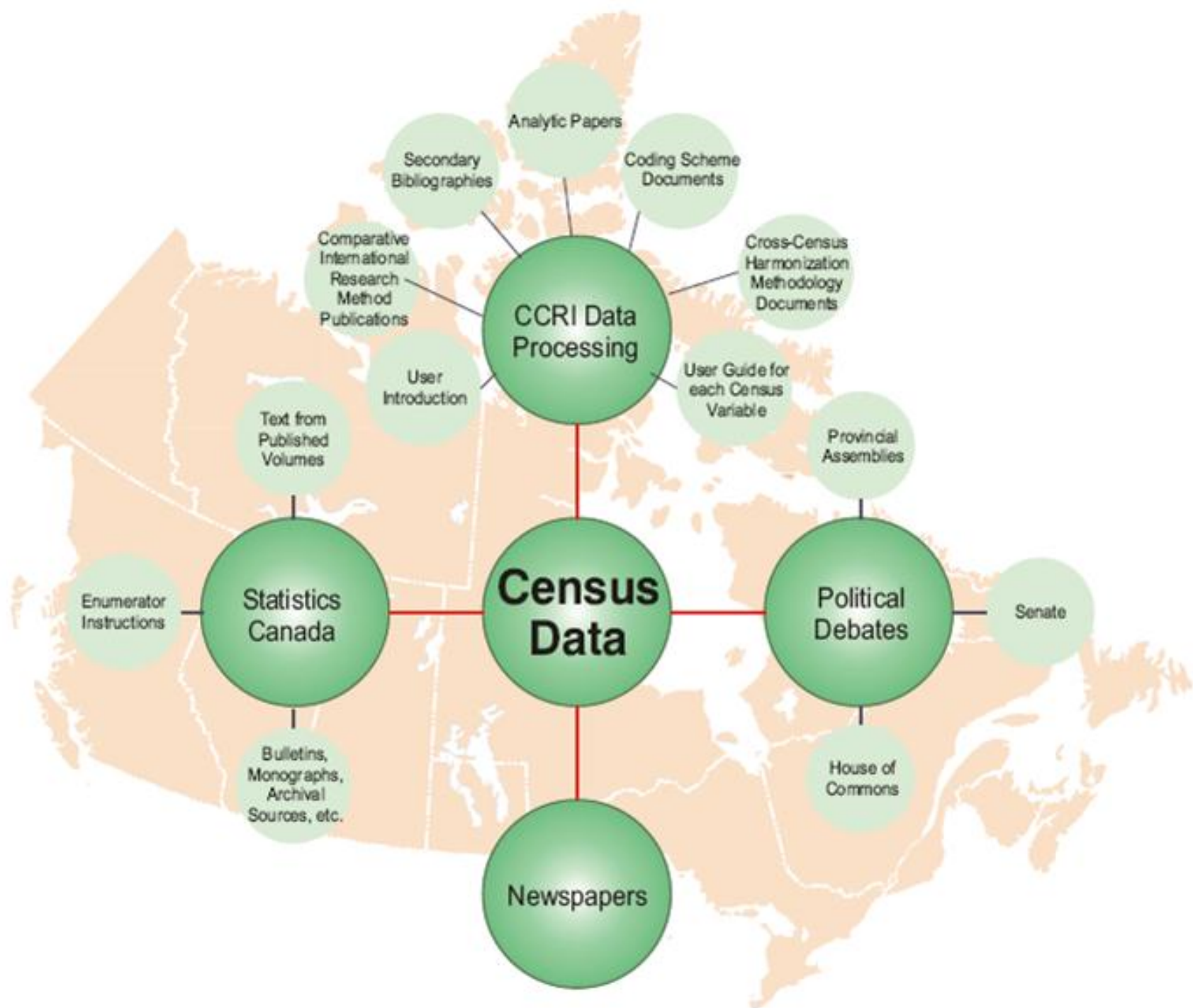
Significant barriers for obtaining support for SSH research infrastructure

- *The application forms* - language and structure focussed on classic STEM hardware and technology
- *Lack of harmonization in infrastructure definitions (provincial, federal, international)*
- *Difficulties in obtaining matching funds*
- *The "white elephant" problem*

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- Bulletins, Monographs, Archival Sources, etc.

Political Debates
- Provincial Assemblies
- Senate
- House of Commons

Newspapers

Pocketful of "low-hanging-fruit" proposals

1. *Effective management of data and digital tools*

2. *Incentives for effective management of data and digital resources*

3. *National access to a limited number of globally-connected centres of expertise*

4. *Clear visibility of resources*

5. *Institutional leadership* (champions)

6. *Funding agency leadership (IFFA, Bonn Group+, etc)*

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Mapping the Data Landscape:
Report of the 2011 Canadian Research Data Summit

- December 2011
- Produced by the Research Data Strategy Working Group
- http://rds-sdr.cisti-icist.nrc-cnrc.gc.ca

Why have data become a common challenge (and opportunity) across all ways of knowing?

1. Changing epistemologies in the study of human thought and behaviour

2. Changing views of human/non-human interconnectedness in "global challenges"

3. In this context, what are the challenges and opportunities of globally-connected digital research infrastructure?

All related to the need to connect, and give equal attention to, the technologies, data and literacies (the Digital Triangle)

Over to you!

Thank You

À vous la parole !

Merci