THE EVOLUTIONARY CASE FOR OPEN ACCESS

COUNCIL ON EAST ASIAN LIBRARIES
ASSOCIATION FOR ASIAN STUDIES
20 March 2013

Brian E. C. Schottlaender
The Audrey Geisel University Librarian
UC San Diego

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Issues in Scholarly Communication

- **Knowledge output is increasing**
- **Market is economically unsustainable**
  - **library budgets tapped out**
  - **sales are flattening**
- **Access is decreasing**

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Open Access …

"This kind of free and unrestricted online availability, which we will call open access … By open access, we mean its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search or link to the full text of these articles, crawl them for indexing, pass them as data to software or use them for any other lawful purpose …"

— The Budapest Open Access Initiative

- **Digital**
- **Online**
- **Free of charge**
- **Free of most copyright and licensing restrictions**

— Peter Suber

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TWO PRIMARY VEHICLES . . .

. . . for accomplishing Open Access to scholarship:

- **Open Access Journals**
- **Open Access Repositories**

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"EVOLUTION"

- **Growth**
- **Process of continuous change from a lower, simpler, or worse state to a higher, more complex, or better state**
- **Theory that the various types of animals and plants have their origin in other preexisting types and that distinguishable differences between the types are due to modifications in successive generations**
- **Process in which the whole universe is a progression of interrelated phenomena**

— Merriam Webster

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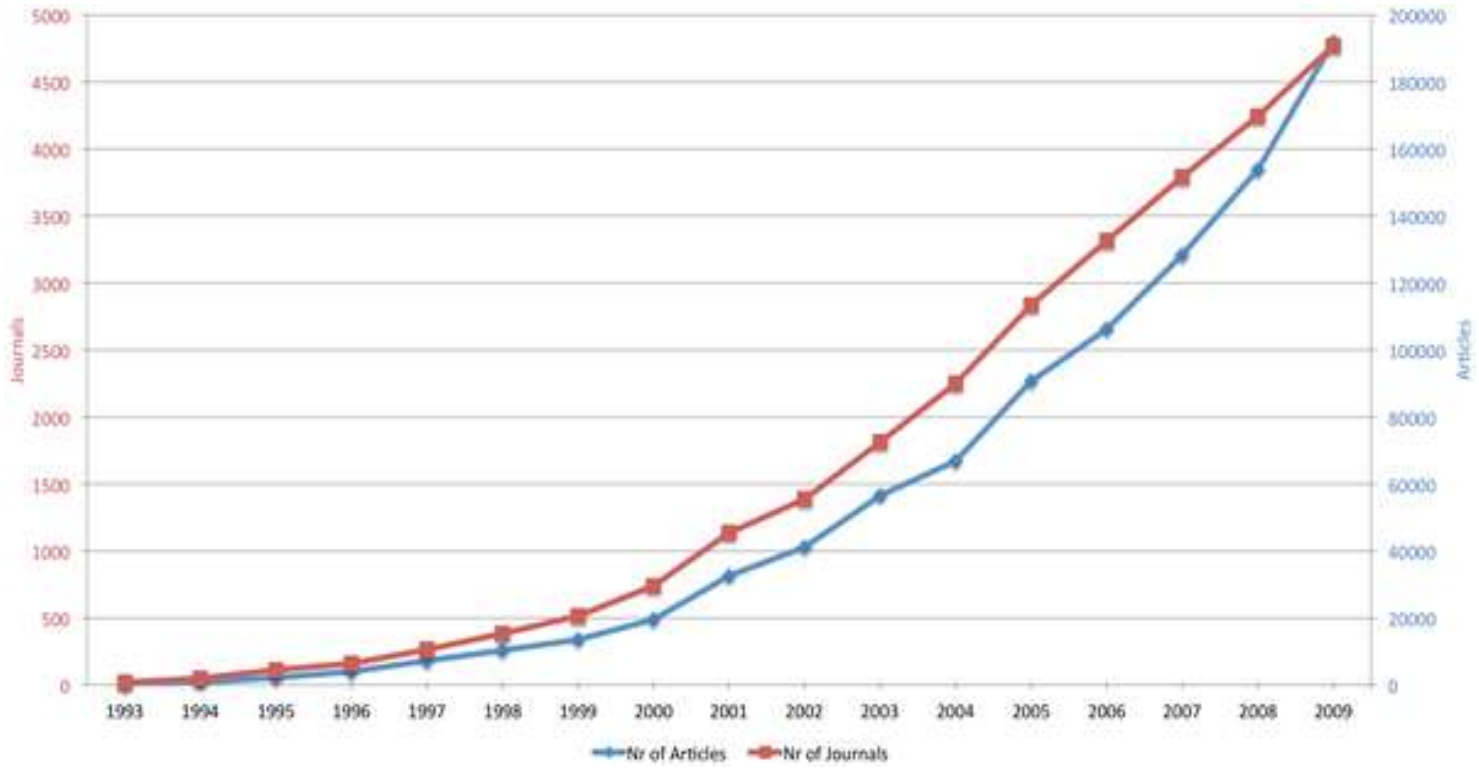
Development of OA Publishing: 1993–2009



Mikael Laakso, Welling P, Bukvova H, Nyman L, et al. (2011) The Development of Open Access Journal Publishing from 1993 to 2009. PLoS ONE 6(6): e20961. doi:10.1371/journal.pone.0020961 http://www.plosone.org/article/info:doi/10.1371/journal.pone.0020961

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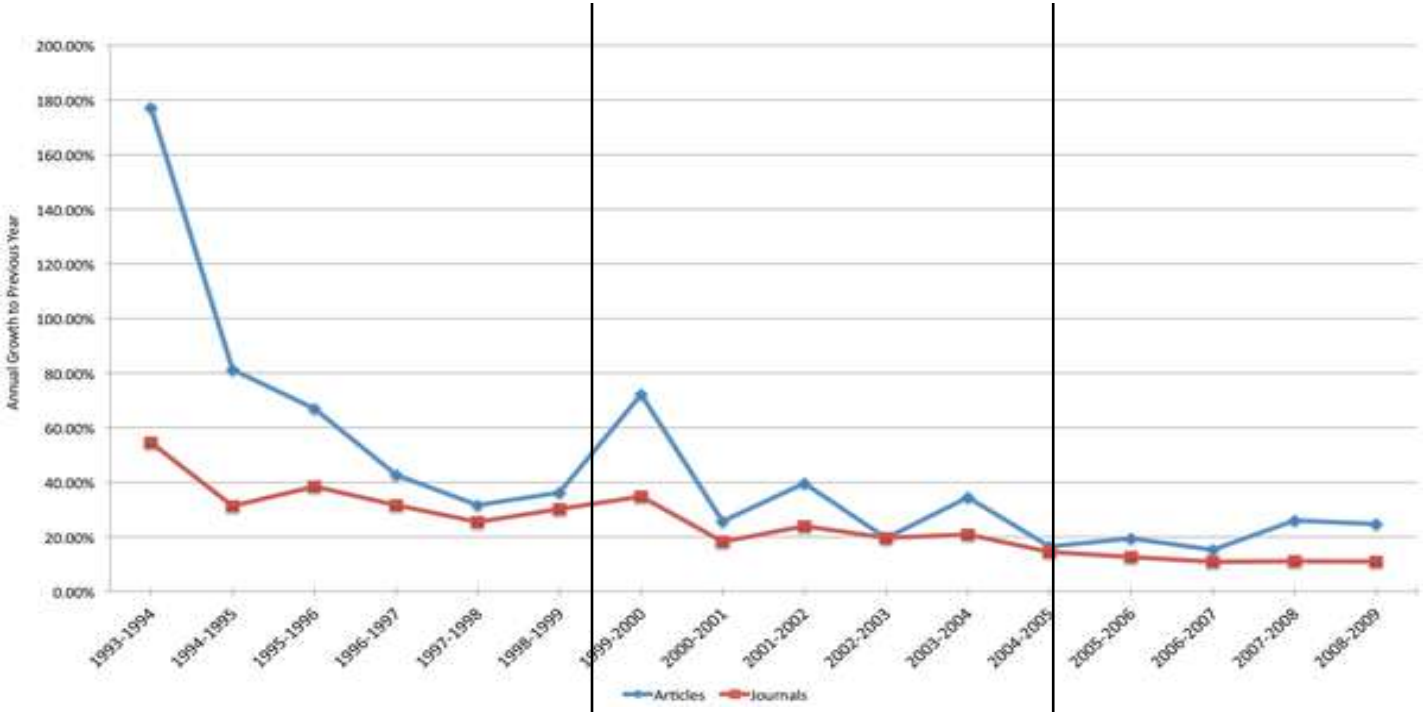
Three Major Phases of OA Publishing



The Pioneering Years | **The Innovation Years** | **The Consolidation Years**

—Mikael Laakso et al.

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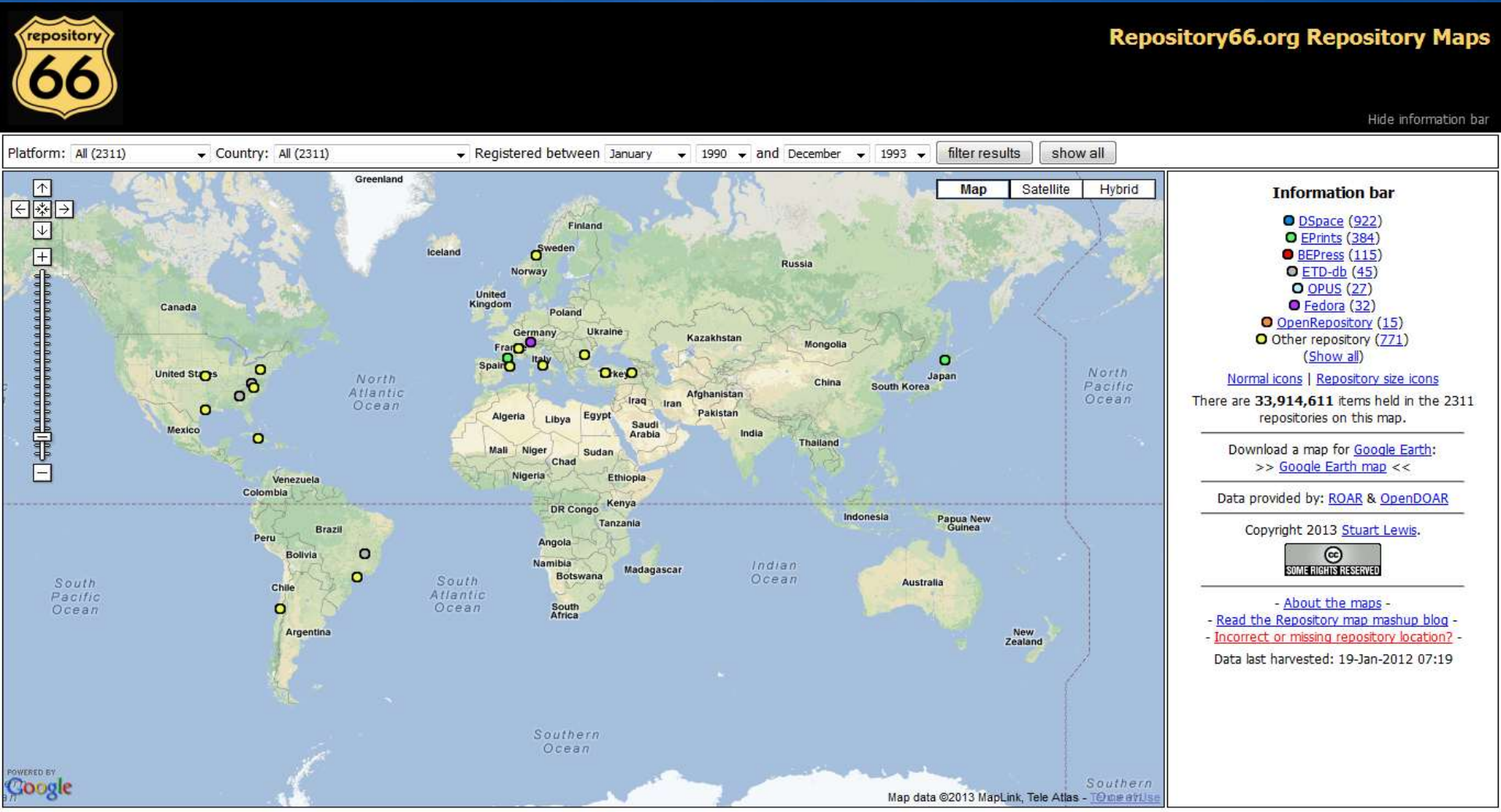
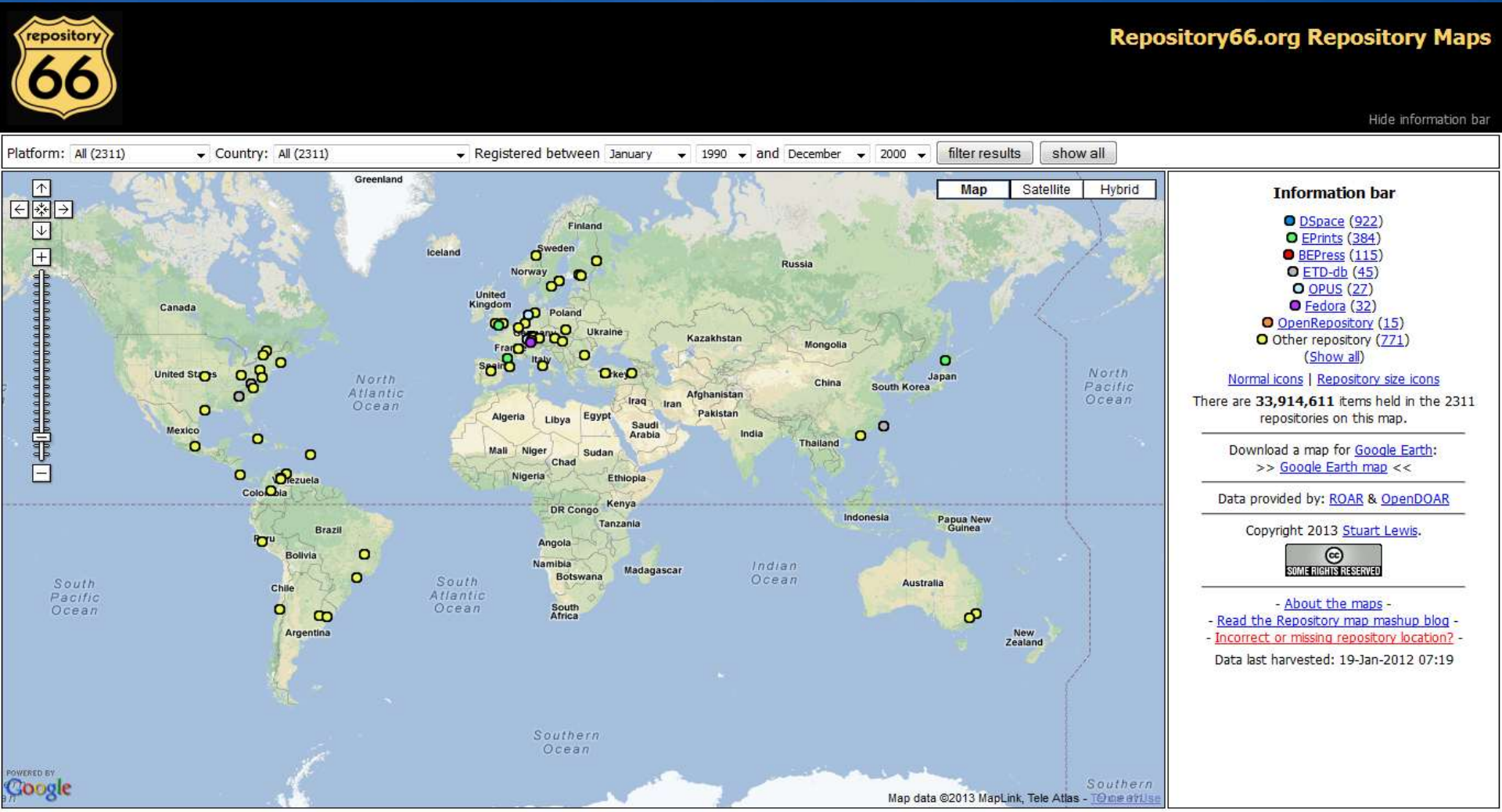
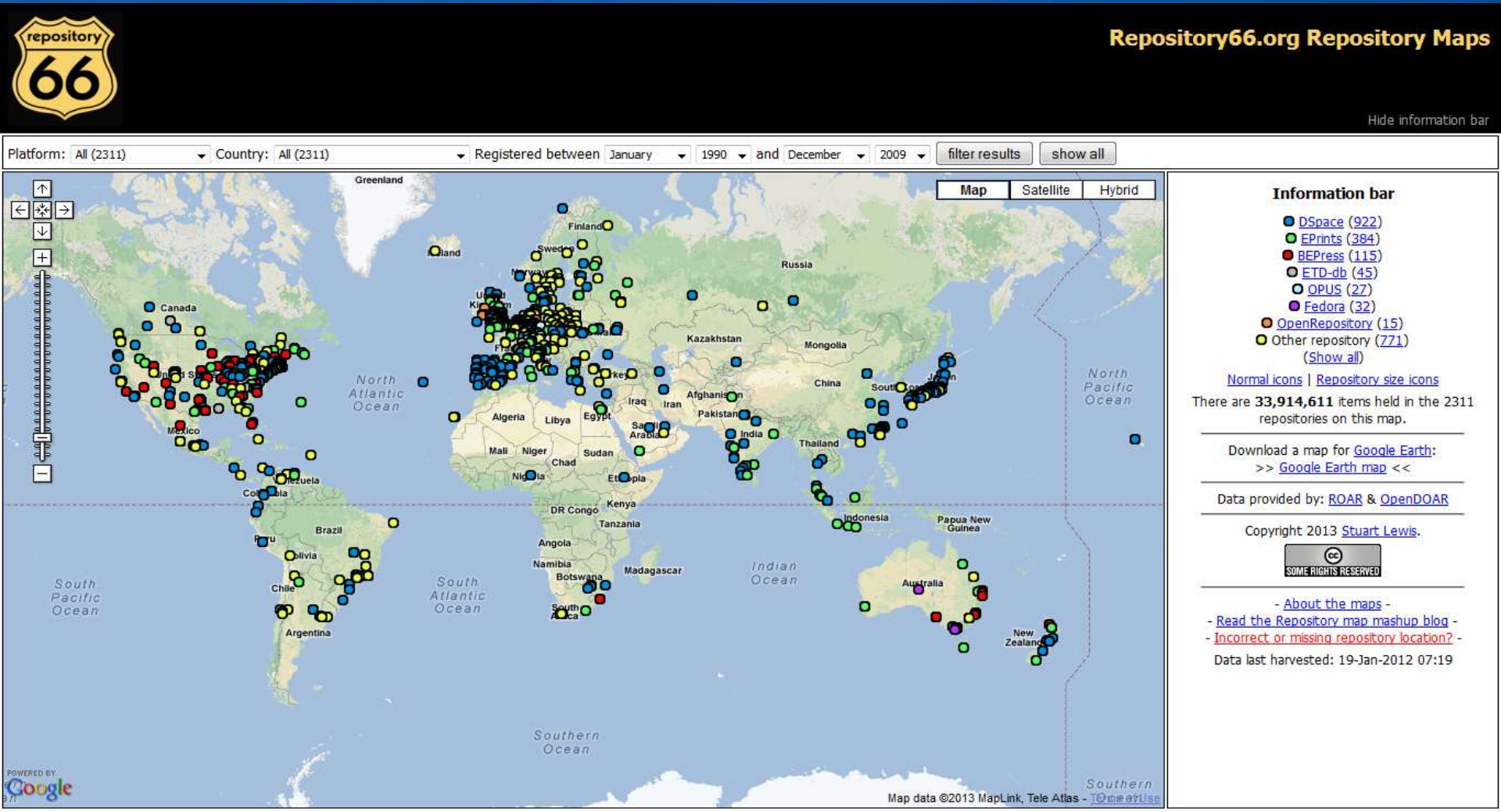
DEVELOPMENT OF OA REPOSITORIES: 1993



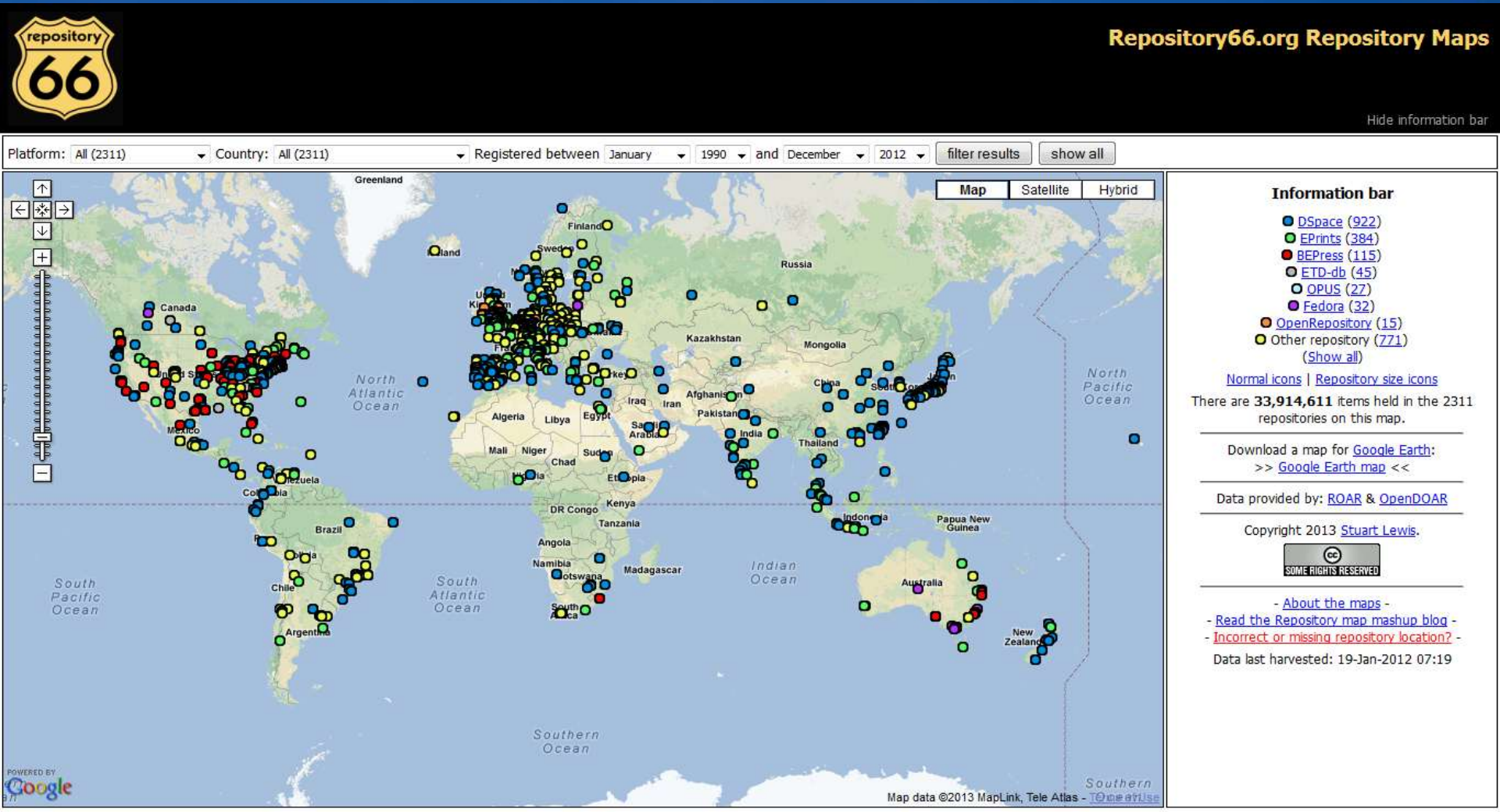
DEVELOPMENT OF OA REPOSITORIES: 2000



DEVELOPMENT OF OA REPOSITORIES: 2009



DEVELOPMENT OF OA REPOSITORIES: 2012



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Open Access

- **Journals:**
  - **1993: 20**
  - **2000: 740**
  - **2009: 4,800**
  - **2011: 6.700**
- **Articles:**
  - **1993: 240**
  - **2000: 35, 500**
  - **2009: 192,000**
  - **2011: 340,000**
- **Repositories**
  - **1993: 20**
  - **2013 2,311**

— *Mikael Laakso et al.*
— *Biomed Central*

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"Ecosystem" =

- **The complex of a community of organisms and its environment**

—Merriam Webster

- **Complex of living organisms, their physical environment, and all their interrelationships**

—Concise Encyclopedia

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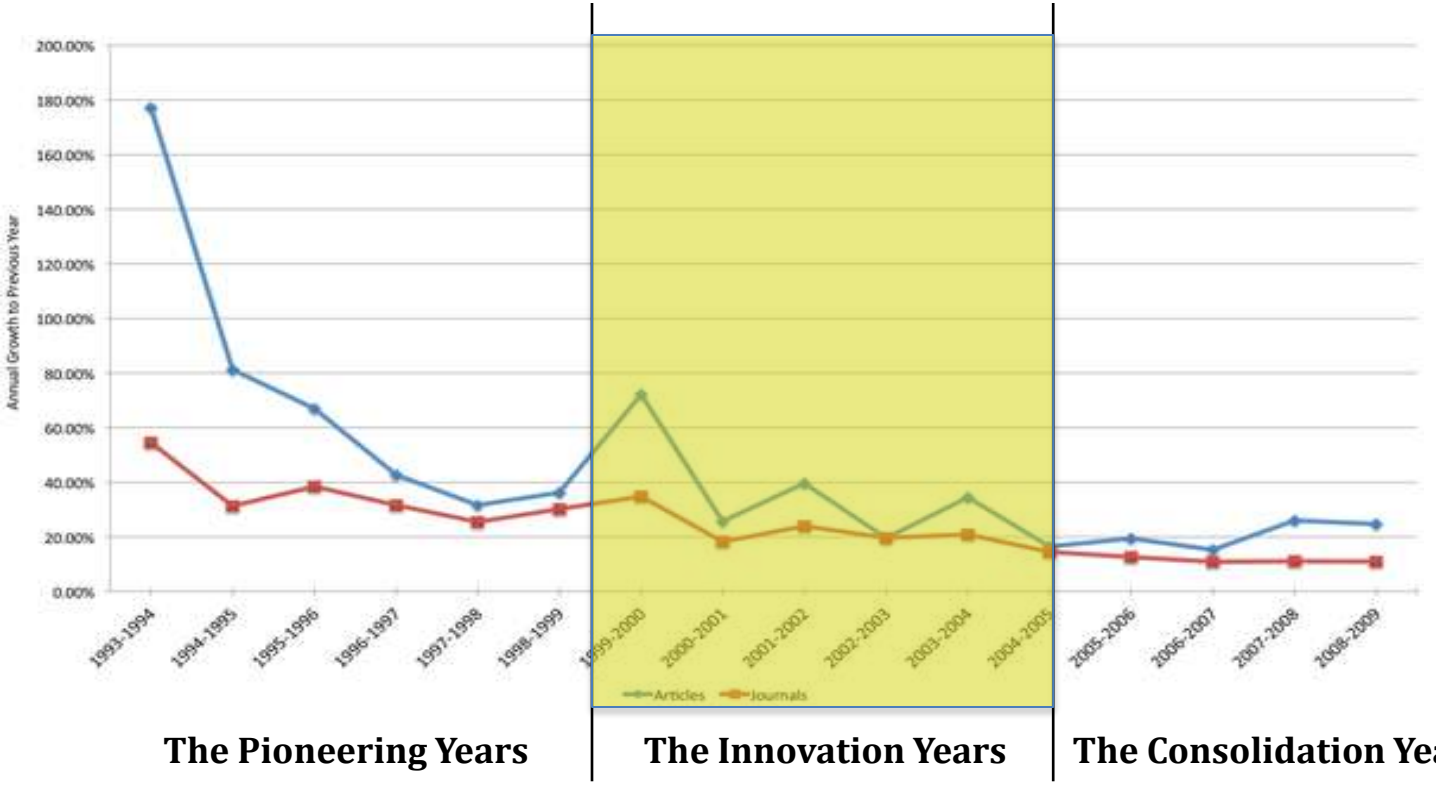
Three Major Phases of OA Publishing



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—Mikael Laakso et al.

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Intellectual and Policy Developments

2000: The Tempe Principles [... for Emerging Systems of Scholarly Publishing]
2002: The Budapest Open Access Initiative
2003: The Bethesda Statement [on Open Access Publishing]
2003: The Berlin Declaration [... on Open Access to Knowledge in the Sciences and Humanities]
2003: NIH Data Sharing Policy
2005: Wellcome Trust Open Access Mandate
2005: NIH Public Access Policy
2006: FRPAA (Federal Research Public Access Act)
2007: MIT Open Courseware Initiative
2008: Harvard Initiatives for Open Access to the Scholarly Literature
2011: NSF Data Management Mandate
2011: Rome Declaration [... on Current Research Information Systems and Open Access Repositories]
2012: The Denton Declaration [... An Open Data Manifesto]
2013: OSTP Directive

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INFRASTRUCTURE AND VENUE DEVELOPMENTS

1980s:	***Postmodern Culture*, *Psycholoquy*, etc.**
1991:	**arXiv**
1997:	**SPARC (Scholarly Publishing and Academic Resources Coalition)**
1998:	**PKP (Public Knowledge Project)**
1999:	**PubMed Central**
1999:	**OAI (Open Archives Initiative)**
2000:	**BioMed Central**
2001:	**PLoS (Public Library of Science)**
2008:	**FP7 (European Commission Open Access Pilot in the Seventh Framework Programme)**
2009:	**COAR (Confederation of Open Access Repositories)**
2010:	**OpenAIRE (Open Access Infrastructure for Research in Europe)**
2012:	***eLife***

I Spy an Ecosystem!

— *askabiologist.asu.edu*

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ECOSYSTEM

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And So ...

Rapid OA Growth

+

Complex OA Relationships

=

OA Evolutionary Inevitability

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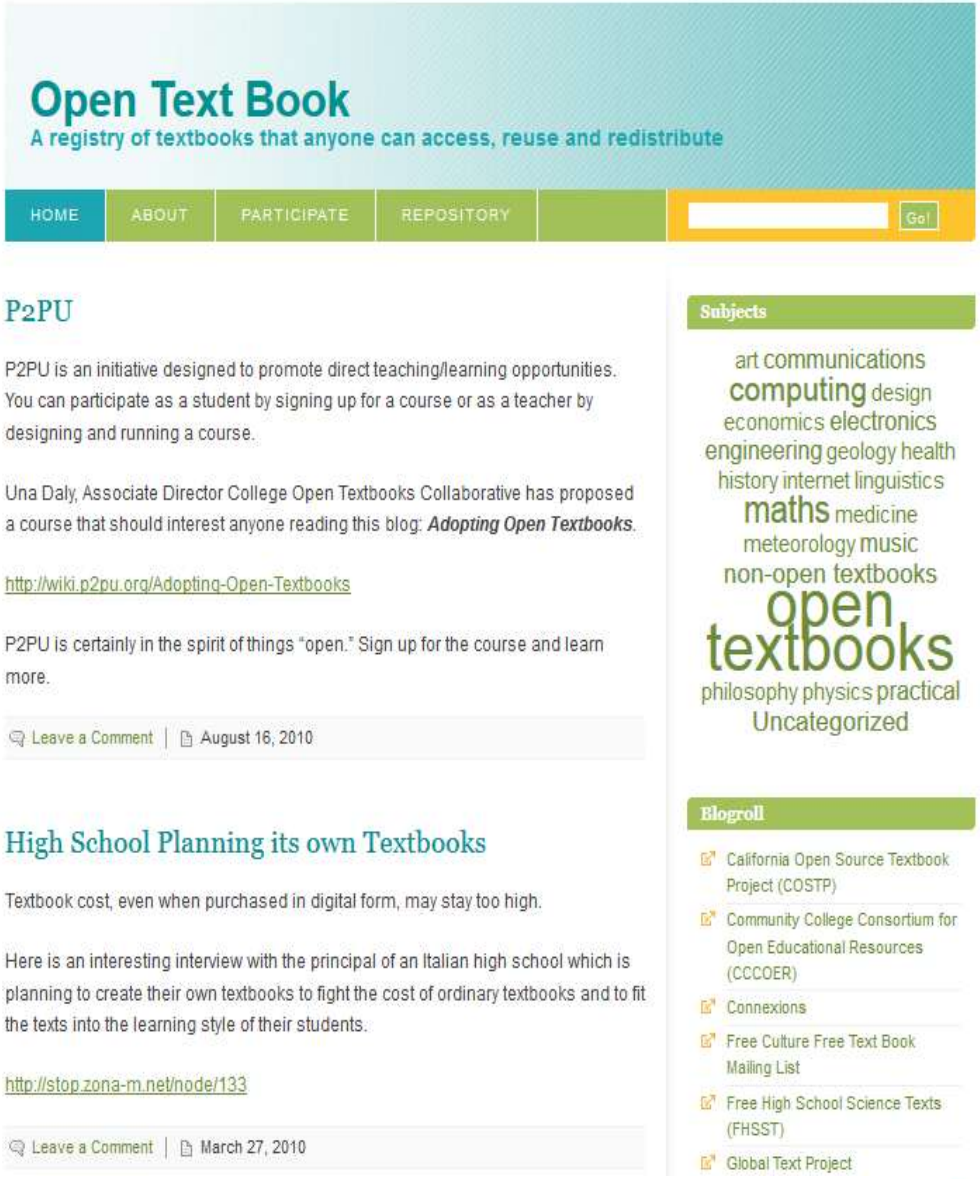
… Now What?

1. Other "O"s
   a. Educational resources
      i. Textbooks
      ii. Course[ware]
      iii. MOOCs
   b. Data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Una Daly, Associate Director College Open Textbooks Collaborative has proposed a course that should interest anyone reading this blog: Adopting Open Textbooks.
http://wiki.p2pu.org/Adopting-Open-Textbooks
P2PU is certainly in the spirit of things "open." Sign up for the course and learn more.
Leave a Comment | August 16, 2010
High School Planning its own Textbooks
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Here is an interesting interview with the principal of an Italian high school which is planning to create their own textbooks to fight the cost of ordinary textbooks and to fit the texts into the learning style of their students.
http://stop.zona-m.net/node/133
Leave a Comment | March 27, 2010
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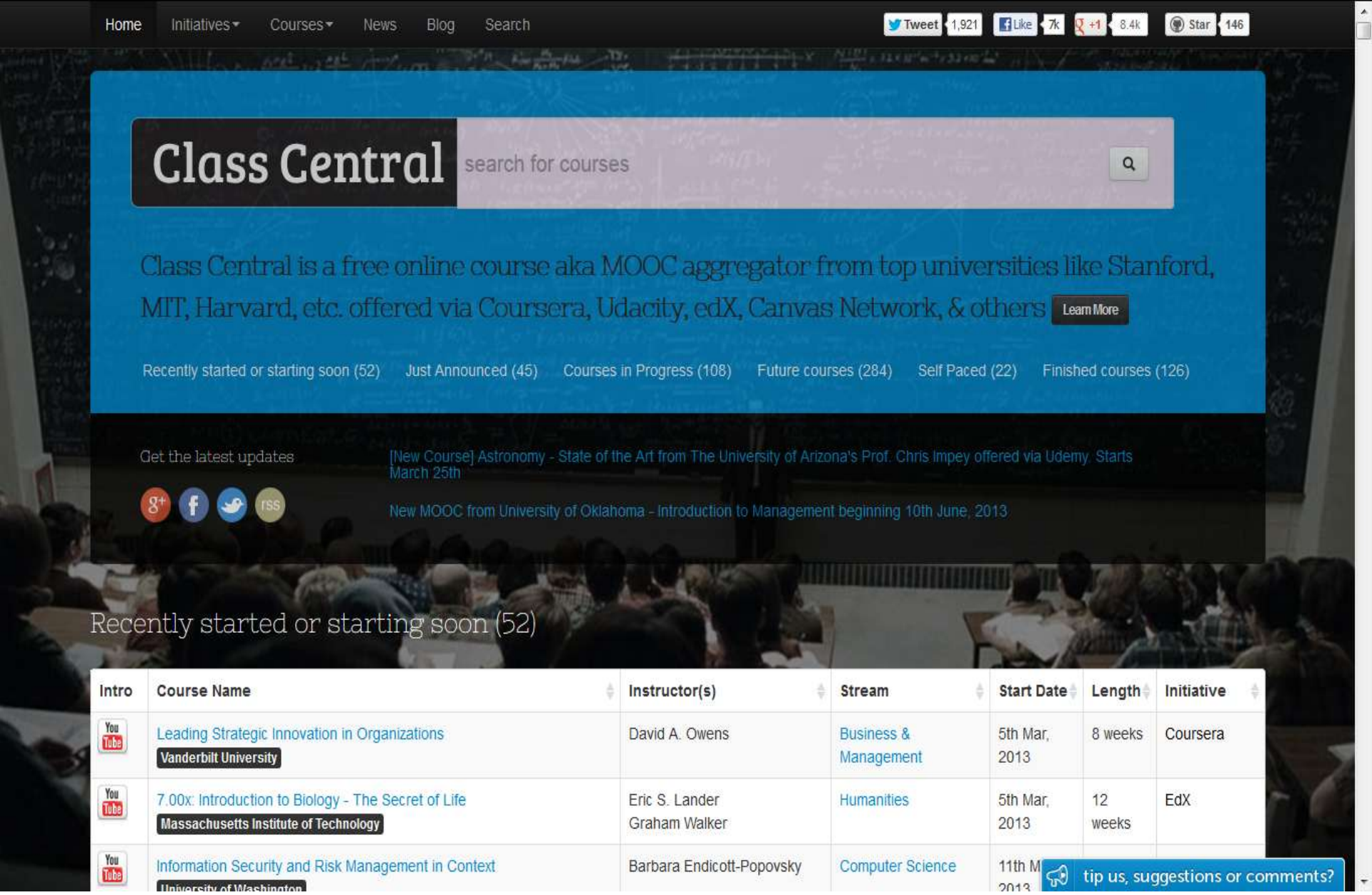

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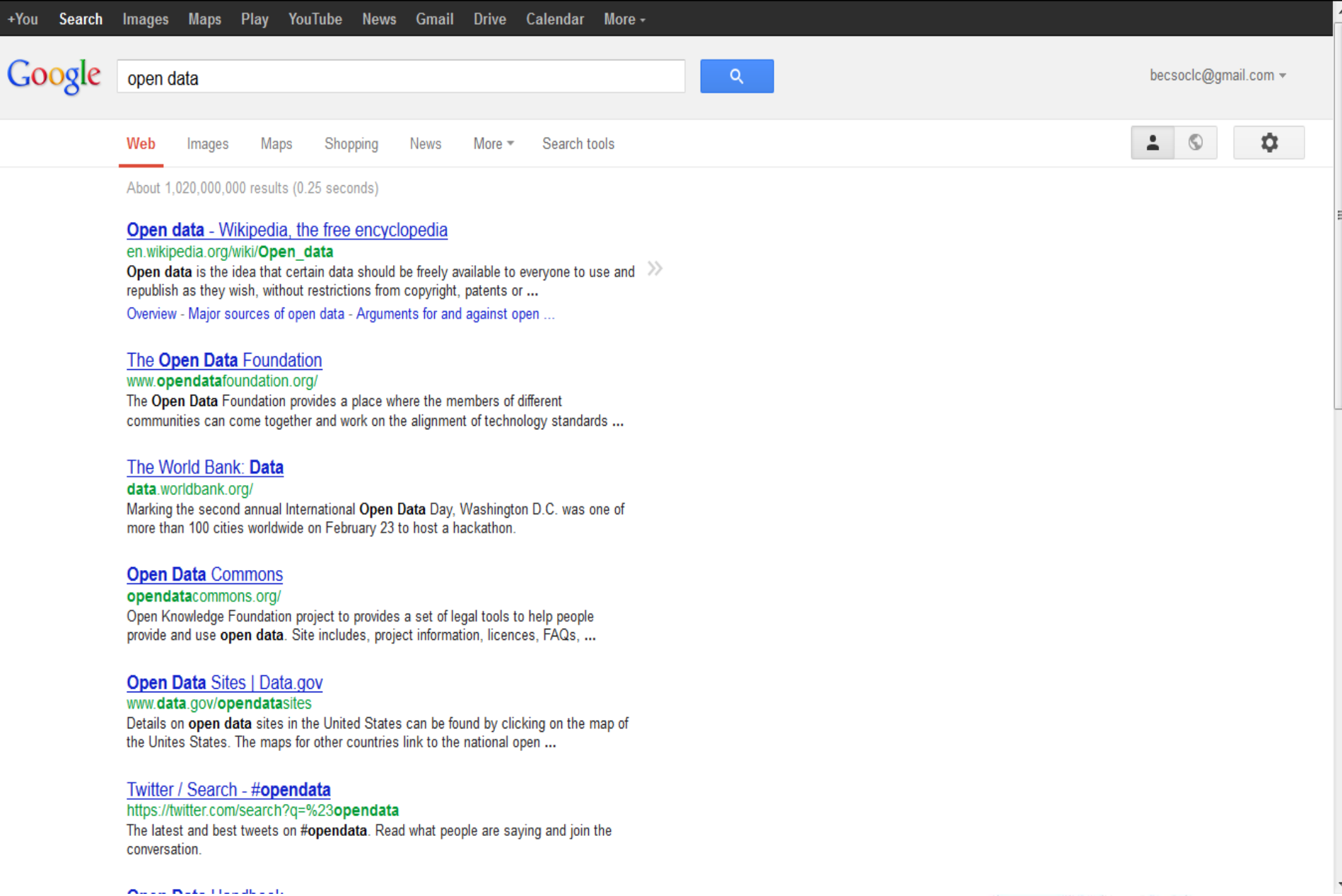

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      iii. MOOCs
   b. Data

2. Other Metrics
   a. Pageviews
   b. Downloads
   c. Citation counts
   d. Social media references (bookmarks, posts, favorites, tweets)
   e. Repository reports

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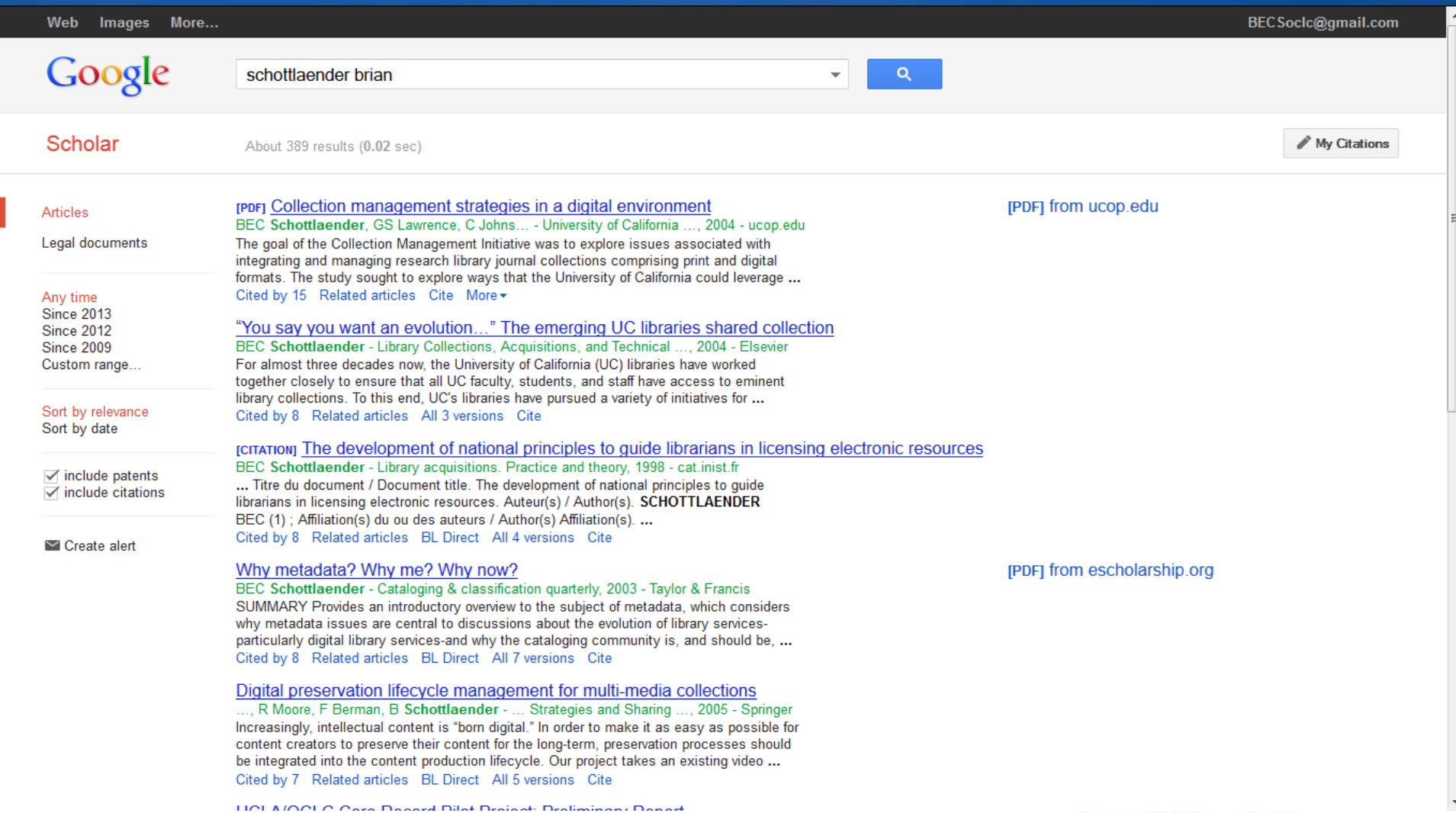
GOOGLE SCHOLAR



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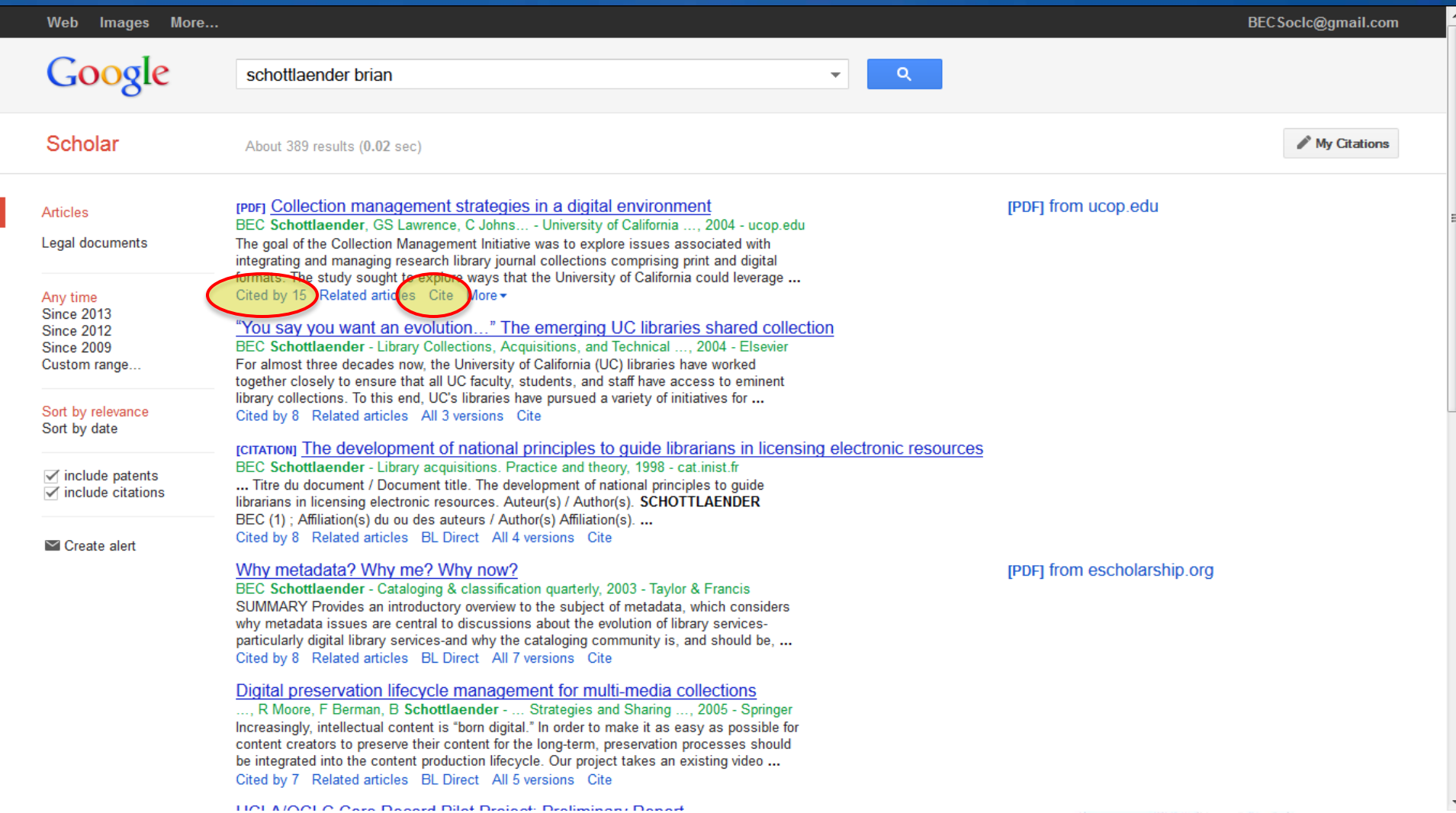
GOOGLE SCHOLAR



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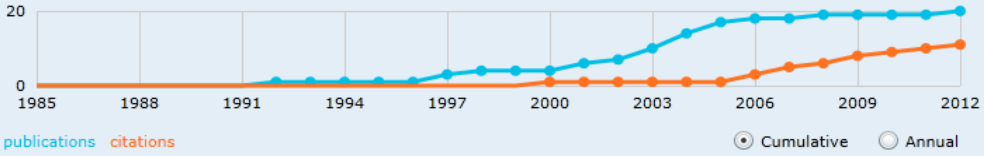
Publications: 21 | Citations: 19

Fields: Library Science, Information Retrieval, Engineering

Collaborated with 59 co-authors from 1992 to 2012 | Cited by 42 authors



Co-authors (59)

Francine D. Berman (Fran)
Reagan W. Moore
Arcot Rajasekar
Steven P. Miller
Sarah Pritchard

Co-author Graph

Conferences (4)

JCDL
ICADL
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Journals (7)

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Keywords (45)

3d visualization Bibliographic Database **Data Archive** Data Center **Data Collection** Data Grid

Publications (21)

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Full-Spectrum Stewardship of the Record of Scholarly and Scientific Research

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Conference: DG.O (Inter)National Conference on Digital Government Research - DGO, pp. 287-288, 2006

Digital Preservation Lifecycle Management for Multimedia Collections (Citations: 7) View...

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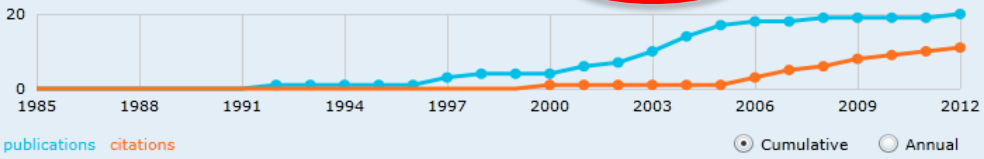

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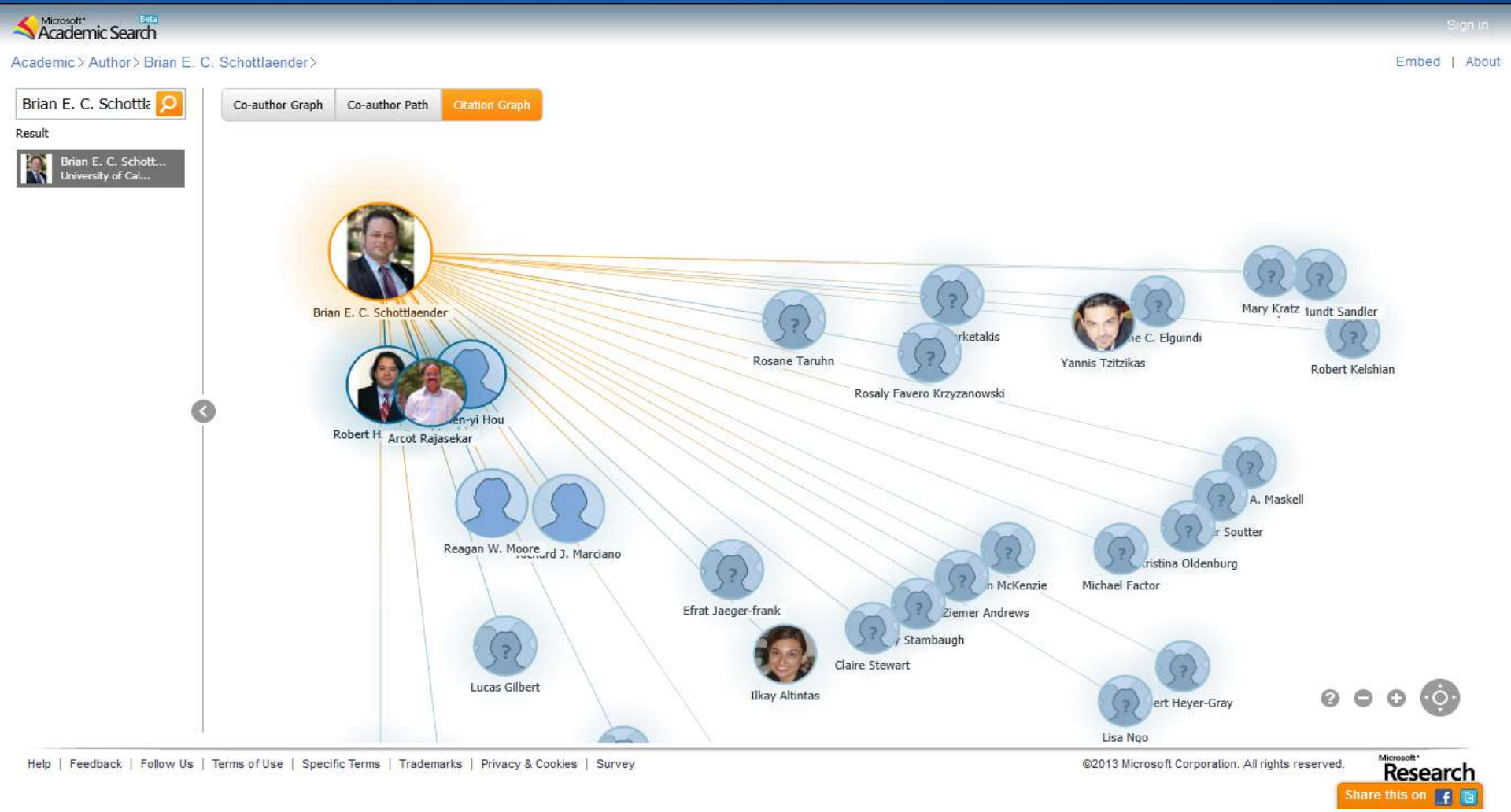

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