Interlinking Articles & Data in the Article of the Future

Bethan Keall, Publishing Director Earth & Energy, Elsevier

ELSEVIER

The Article of the Future

An innovative, new article format that aims to provide an optimal platform for the dissemination of scientific research in the digital age

- Presentation: Offering an optimal online browsing and reading experience
- Content: Support authors to share a wider range of research output – data, digital maps, computer code, multimedia files, etc.
- Context: Connecting the online article to trusted scientific resources, e.g. data repositories

The Article of the Future: 3-pane format

Explore innovation prototypes on
www.articleofthefuture.com

For an overview of live innovations on ScienceDirect:
http://www.elsevier.com/about/content-innovation

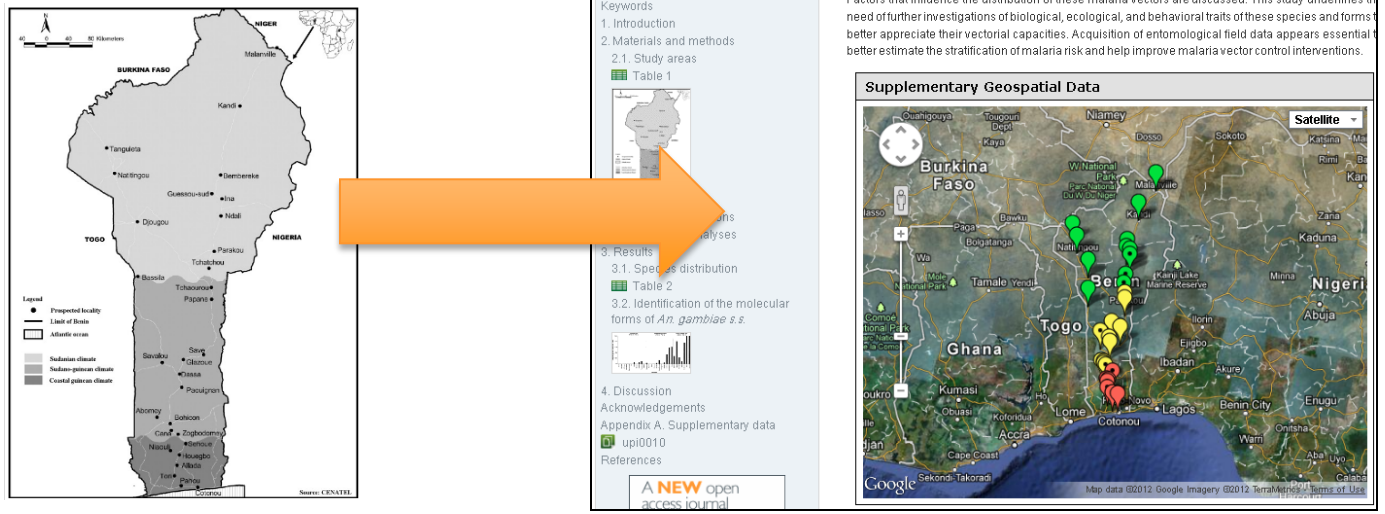
Left pane: efficient navigation & browsing

Center pane: "Traditional" full-text view, designed for optimal online reading experience

Right pane: Additional content & tools. Shown here: reference browser

Interactive (Google) Maps

Turning a static image into a rich, interactive source of information



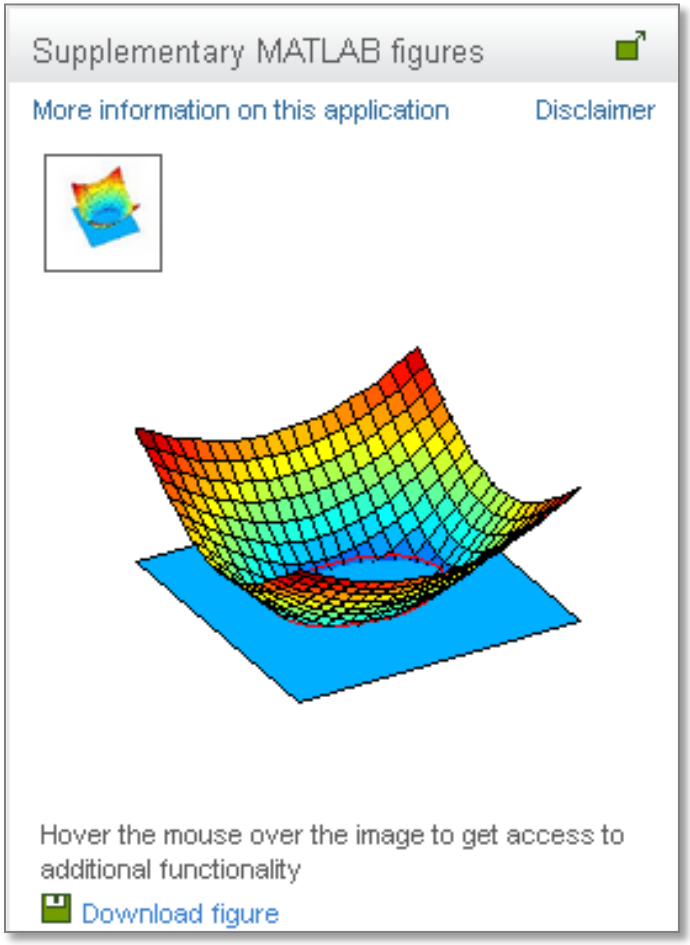
- Present research findings in an more valuable, interactive way
- Help readers find and understand data in the context of the article
- Download data for validation & re-use of data
- Available for 100+ journals

http://www.elsevier.com/googlemaps

Interactive MATLAB figure viewer

Making plots more valuable for research

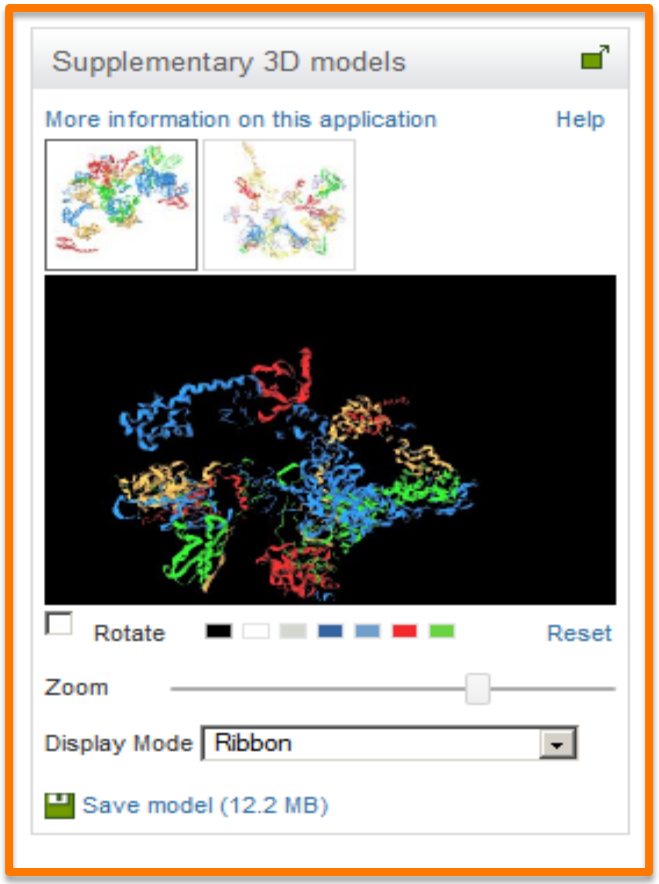
- Explore figures interactively – zoom, rotate, etc.
- Download underlying data to enable validation & re-use
- Works with author-provided .FIG files exported from MATLAB
- Currently available for 5 journals



See http://www.elsevier.com/matlab

Interactive Viewer for 3D Molecular Models

- Author-provided models (PDB, PSE, MOL/MOL2 format)
- Fully 3D – enlarge in canvas
- Real-time user interaction
- Supports all major browsers and mobile devices (without additional plug-ins)
- Huge files: 100s of MBs
- Completely new inflow process
- External developer: Kitware
- Display modes: “ribbon” and “balls & sticks”
- Anaglyph stereo vision
- 8 participating journals



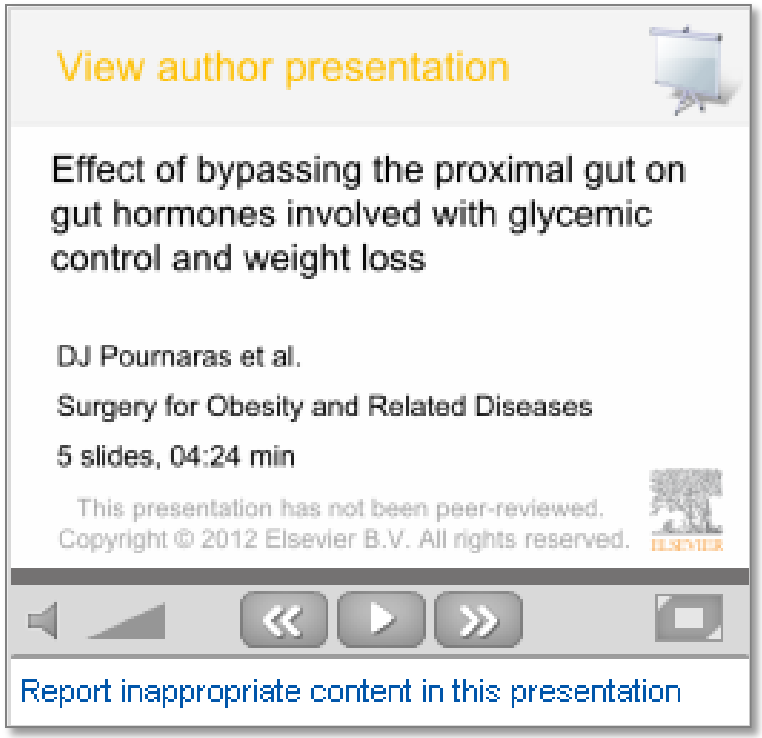
http://dx.doi.org/10.1016/j.jmb.2012.11.040
http://dx.doi.org/10.1016/j.str.2012.10.007

http://www.elsevier.com/3DMolecularModels

AudioSlides

Authors explain their paper in their own words

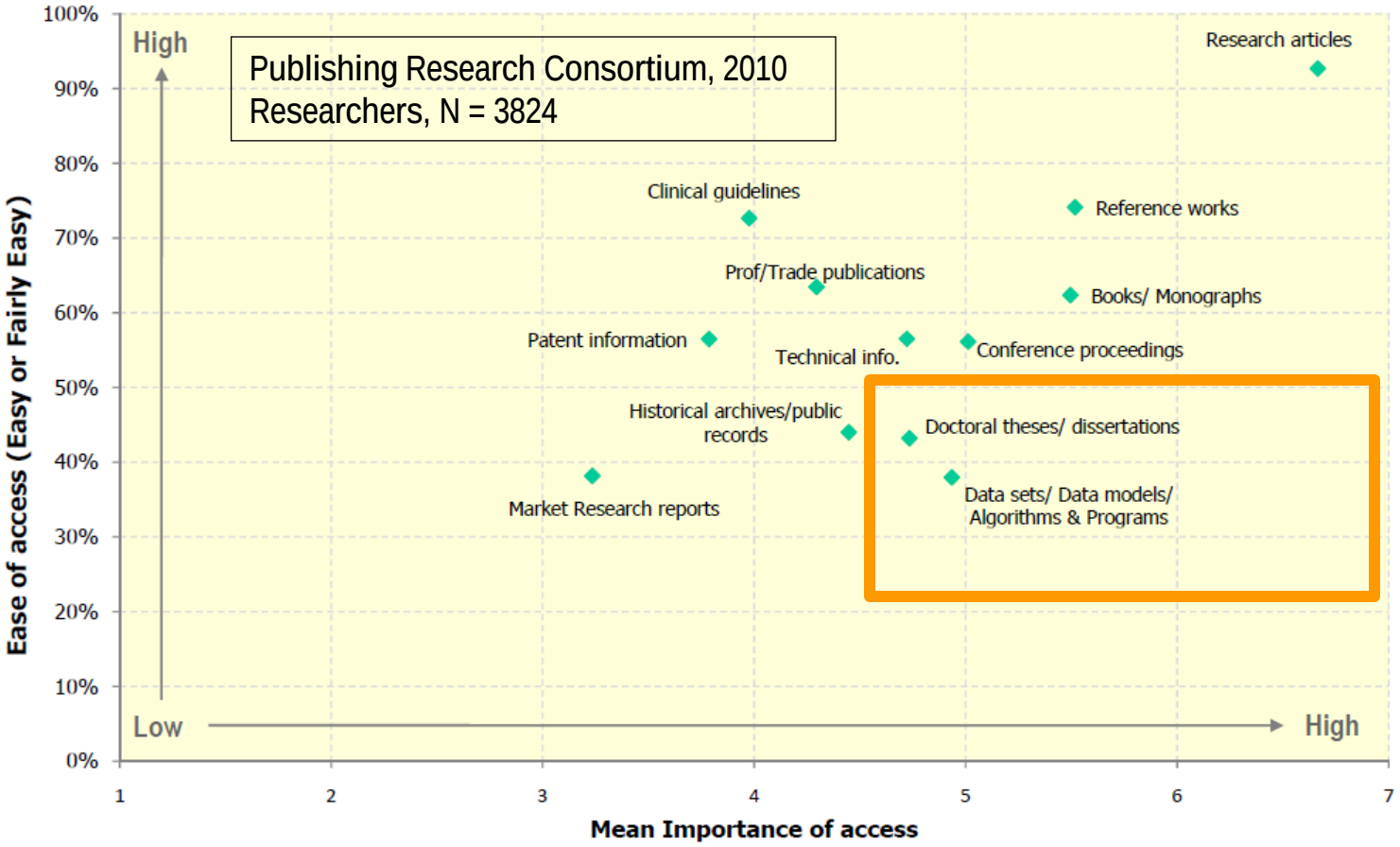
- 5-minute, webcast-style presentations by the author
- Slides + voice-over recordings
- Helps readers to get unique insights into research in an attractive format
- Shown next to the article on ScienceDirect
- Online authoring tool developed by Elsevier



See http://www.elsevier.com/audioslides

Interlinking Data and Articles

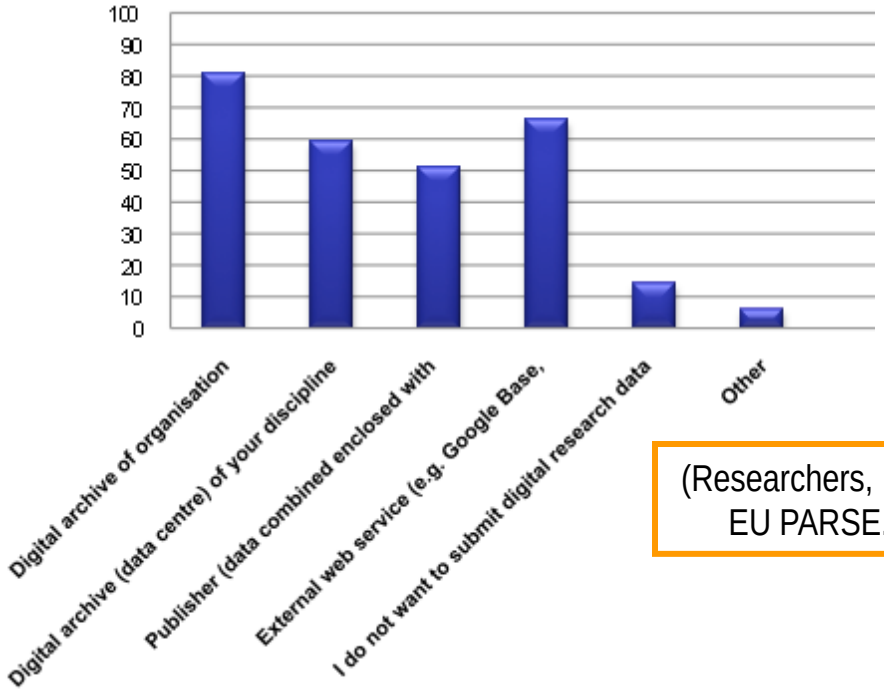
Data is important, but hard to access



http://www.elsevier.com/databaselinking

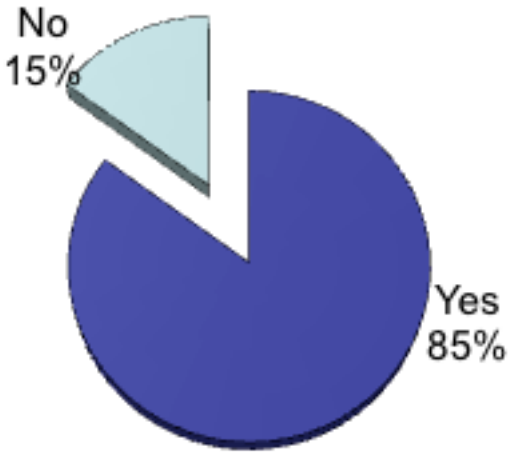
Interlinking Data and Articles

Question: Where would you be willing to submit your research data?



Researchers prefer digital archives

Question: Do you think it is useful to link underlying research data with formal literature?



Researchers believe it is useful to link articles and data

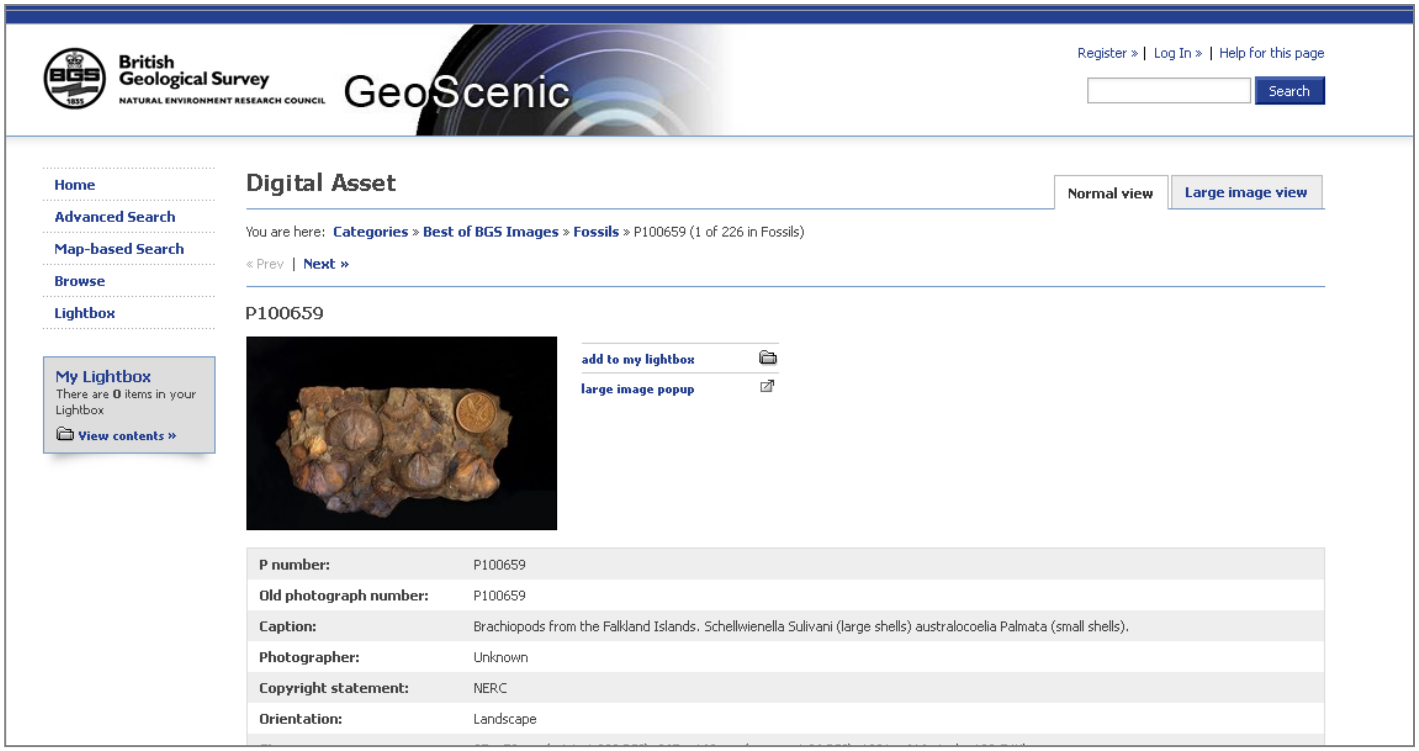
(Researchers, N=1202; study by EU PARSE.Insight, 2009)

http://www.elsevier.com/databaselinking

Interlinking Data and Articles

- There is value in connecting Data and Articles:
  - Increase visibility, discoverability, and usage
  - Provide context, avoid misinterpretation and incorrect usage
- Collaboration between Publishers and Data Repositories:
  - Ensure long-term availability of useful content and context
  - Coordinate submission process / deposit mechanism
  -

Linking through accession numbers



- Hyperlinked GeoScenic Accession Numbers in the article main text (e.g. “GeoScenic: P100659”) – tagged by authors
- Available for all Elsevier geology journals

http://www.elsevier.com/databaselinking

Linking through database banners

Journal of Volcanology and Geothermal Research

Volume 177, Issue 2, 25 October 2008, Pages 457–484

Growth of complex sheeted zones during recycling of older magmatic units into younger: Sawmill Canyon area, Tuolumne batholith, Sierra Nevada, California

Scott R. Paterson[a], Jiří Žák[b, c], Vojtěch Janoušek[c, d]

[a] Department of Earth Sciences, University of Southern California, Los Angeles, CA 90089-0740, USA

[b] Institute of Geology and Paleontology, Faculty of Science, Charles University, Albertov 6, Prague, 128 43, Czech Republic

[c] Czech Geological Survey, Klárov 3, Prague, 118 21, Czech Republic

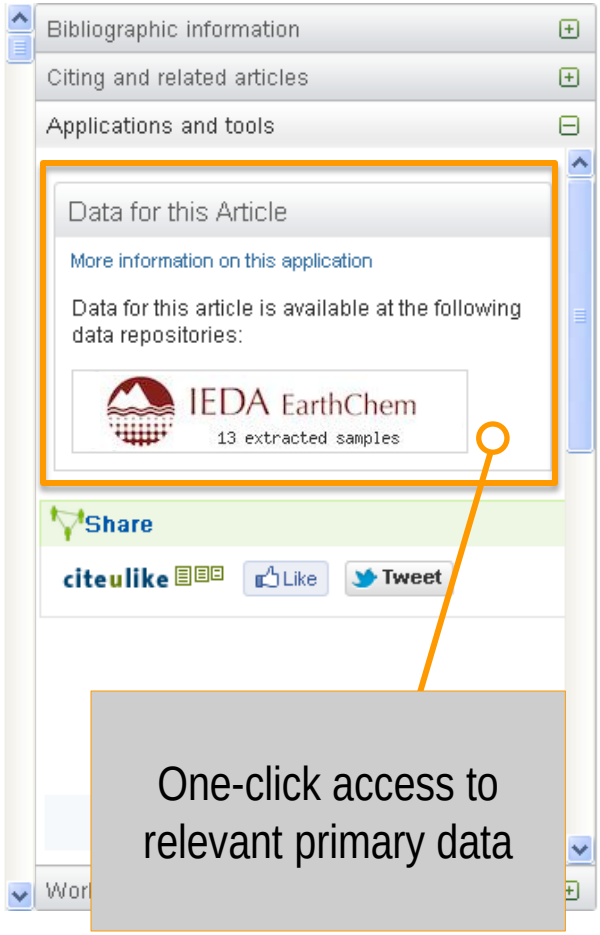
[d] Institute of Petrology and Structural Geology, Faculty of Science, Charles University, Albertov 6, Prague, 128 43, Czech Republic

http://dx.doi.org/10.1016/j.jvolgeores.2008.06.024, How to Cite or Link Using DOI

Permissions & Reprints

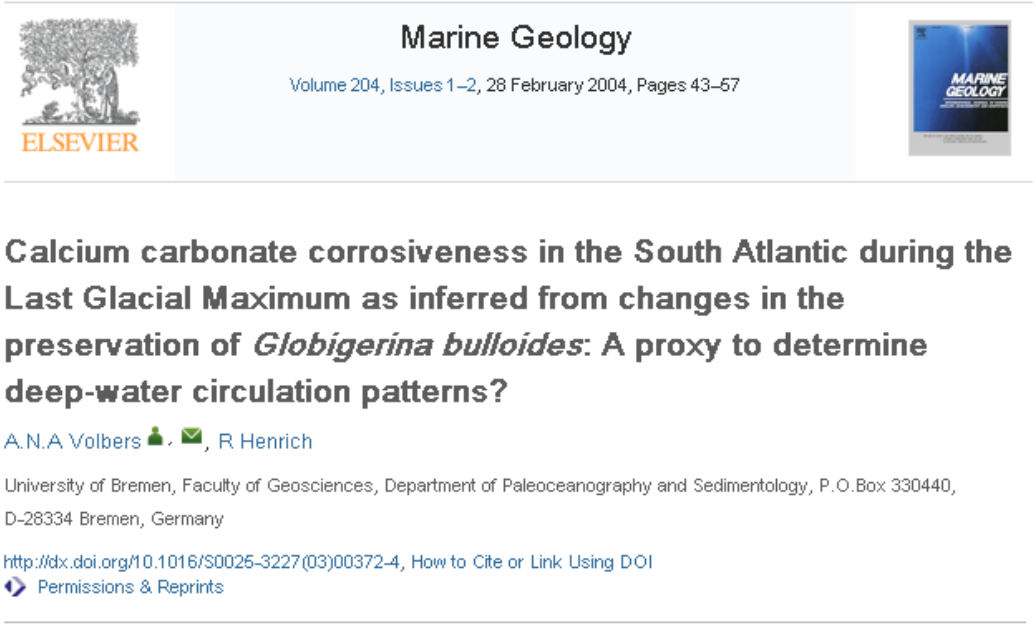
Abstract

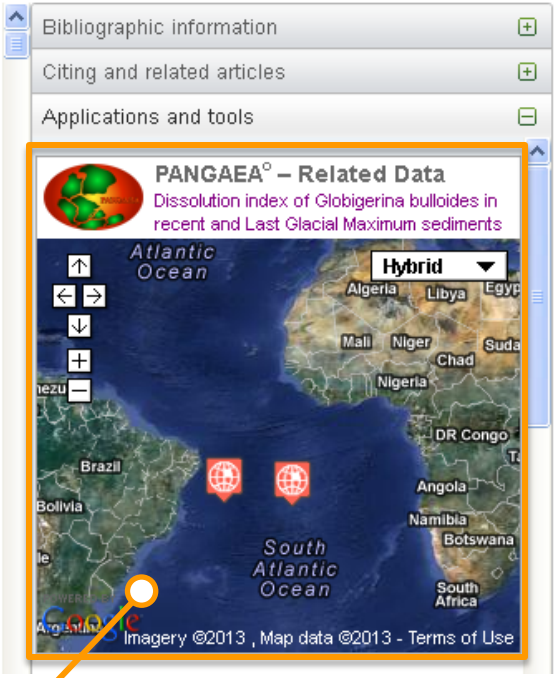
In Sawmill Canyon, located near the eastern margin of the Tuolumne batholith, central Sierra Nevada, California, a series of petrologically and structurally complex, magmatic sheeted zones intrude older



http://www.elsevier.com/databaselinking

Data integration & visualization apps

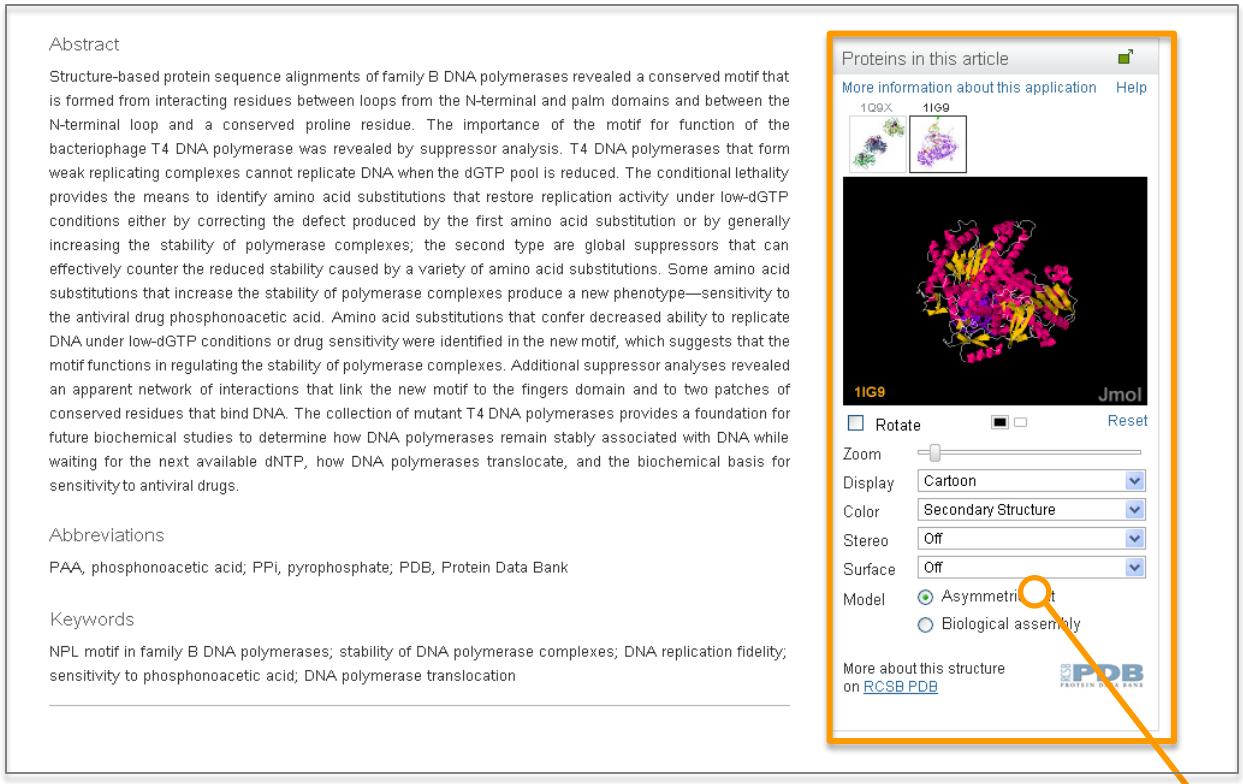




Interactive application that pulls in data from a data repository and visualizes it next to the article

http://www.elsevier.com/databaselinking

Data integration & visualization apps

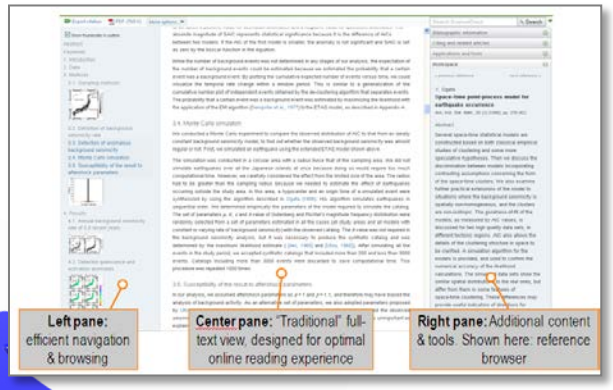


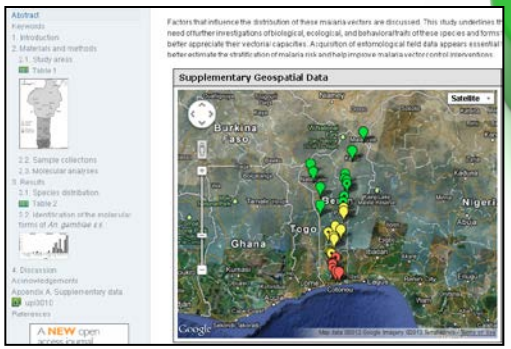
Interactive application that pulls in data from a data repository and visualizes it next to the article

Summary

The Article of the Future: An innovative, new article format that aims to provide an optimal platform for the dissemination of scientific research in the digital age

Three-pane format for optimal reading experience





Digital content
(e.g. Interactive Maps)

Data Repository linking