

**Databases + Wikis =**

**Curated Databases**

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University of Edinburgh

with Peter Buneman, Heiko Mueller, and Sam Lindley

# Databases + Wikis =

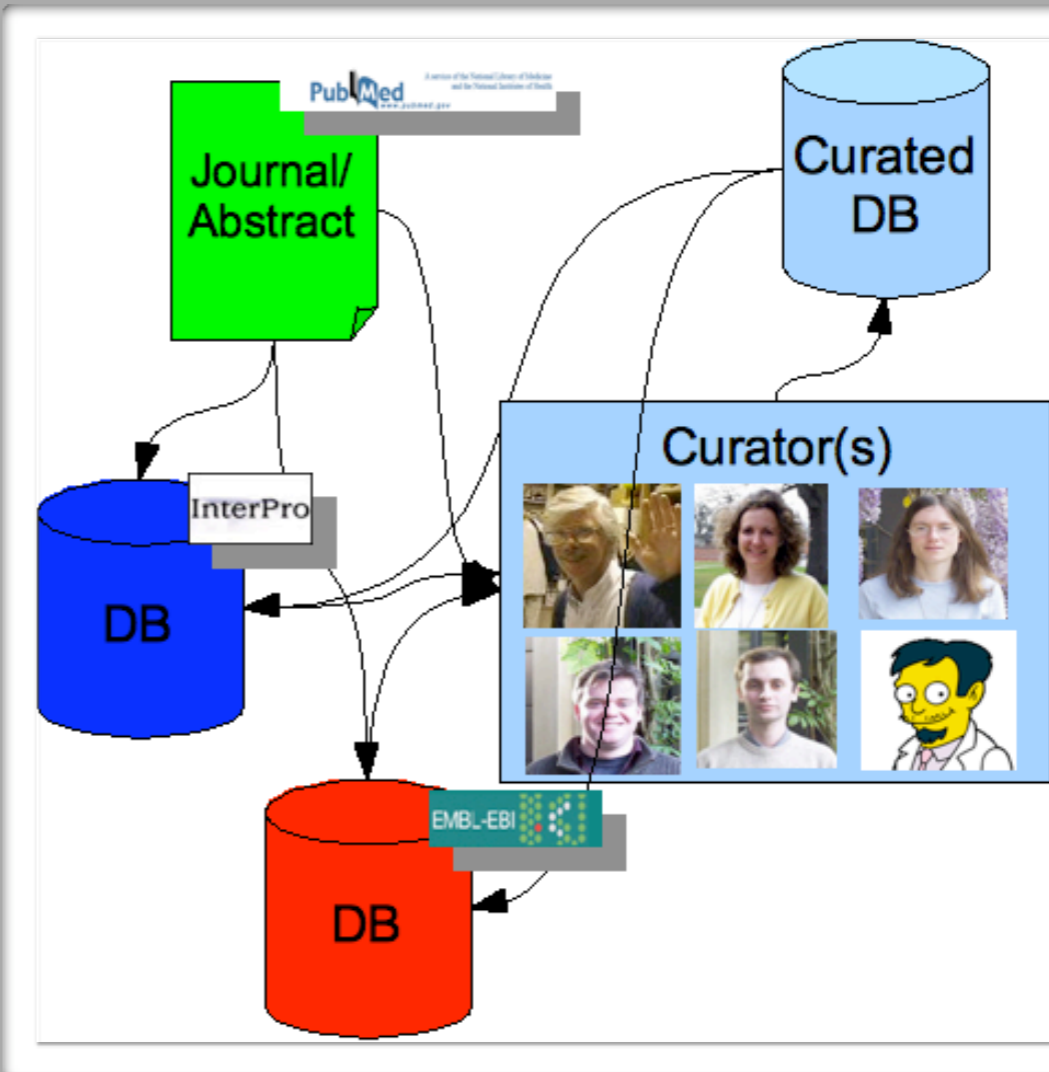


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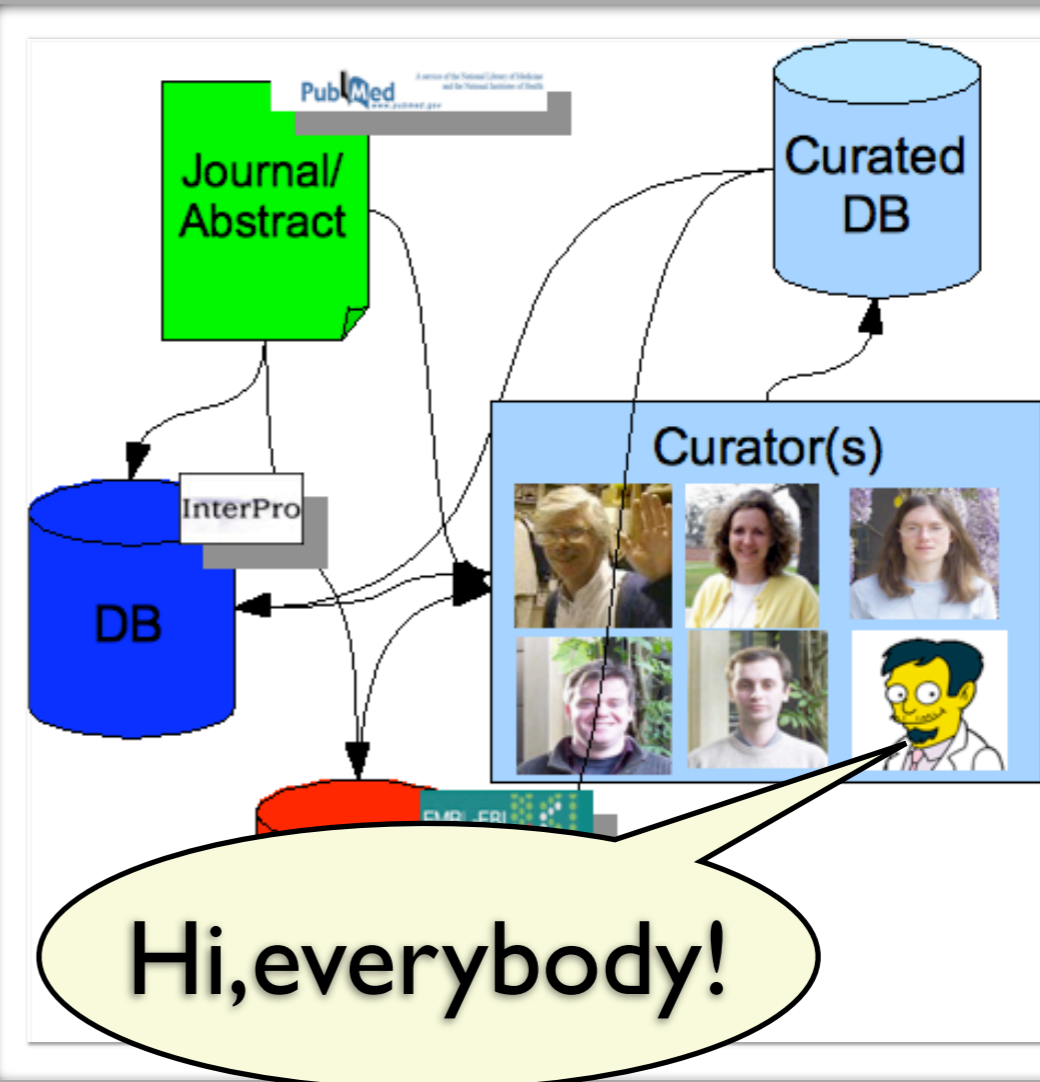
# Curated databases

- Many bio-medical databases are **curated**
- data entered, checked manually
- **high-quality**
- but **expensive**
- provenance, versioning important
- lots of (re)implementation effort



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# Wikis vs databases

- Much easier to get started using wikis
  - easy to edit, versioning for free
  - don't have to think hard about structure
- But many projects (eventually) need:
  - structured data, fast querying, access control
  - *databases!*

# Where we come in

- Our background:
  - Databases, programming languages
- Our research:
  - Archiving/versioning for structured data
  - Provenance for DB queries and updates
  - Advanced Web programming languages

# Database Wikis

- Goal: Make databases usable by everyone.
  - Secondary: A general database curation platform
- Add tree-structured *data resources* to wikis
  - editable via Web browser; can import data as XML
  - support annotation, provenance, versioning
- Provide for *embedding* data into Wiki pages
  - path queries, "stylesheets", updatable "views"

# Demo



# Current status

- XML Archiver prototype - "wiki for data"
  - Supports versioning for structured data, but not querying or "schema evolution"
- DBWiki prototype - "wiki with data"
  - simple querying-from-pages using paths
  - provenance, archiving, richer querying planned
- Plan to combine good points of both

# Next steps

- Scaling up to big data
  - to handle existing structured sources
  - efficient querying on unstructured sources
- Structure discovery/learning?
- Getting UI and functionality "right"
  - guinea pigs badly needed!

# Would this be useful to you? Want to help?

- Play with prototype, let us know what breaks

<http://forsberg.inf.ed.ac.uk/jcheney/dbwiki.links>

- Talk to us about your projects/needs

- weekly meeting: Wed, 3-4, IF5.02

- mailing list: [db-wiki@inf.ed.ac.uk](mailto:db-wiki@inf.ed.ac.uk)

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