The Evolving mSpace Platform: Leveraging the Semantic Web on the Trail of the Memex

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from HyperText 2005

presented by Chad Hogg, 2005-11-01

Review of Memex

- Proposed by Vannevar Bush in 1945
- Problem: Too much scientific knowledge to find what is relevant
- Solution: Electro-mechanical Memex device
  - Store arbitrary indexed documents
  - Allow user to create associative "trails" from document to document
  - Trails can include personal annotations and can be shared

Review of Semantic Web

- Add metadata to existing hypertext
  - Location of item in an ontology
  - Predicates described in RDF
- Metadata allows automated reasoning about web documents

mSpace

- Application to filter data by RDF predicates

- Represent documents as points in m-dimensional space, where each dimension is an RDF predicate

- People have difficulty visualizing more than 3-space

- Artificially project dimensions as if they were sub-categories of each other onto a 2-d slice

mSpace (2)

- User can re-order dimensions

  - Period -> Composer -> Arrangement -> Piece

  - Arrangement -> Composer -> Piece

- User can save a slice order

- User can view multiple slices simultaneously

- User can create associations between documents

Comparison to other SW apps

- Does not require ontologies!
  - Should be useful sooner
- Requires data store, not distributed web content
- Uses a many-predicate to query to associate things that are not directly related
  - SELECT ?y WHERE (?x, <has-era>, Baroque), (?x, <composed-by>, ?z), (?z, <born-in>, ?y)
  - Find countries where people who wrote Baroque pieces were born

Implementing the Memex?

- Ordered list of predicates is like a trail

- Memex designed for scientific researcher, mSpace for layman

- I am not so convinced ...

My Apologies

- Abstract looked interesting, paper was not so much