NEEDED: A SYSTEMATIC STRUCTURING PARADIGM FOR DISTRIBUTED DATA

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Links

Document A, at client

Net

Document B, at server
Uses for Links in a Library

1. Formal paper
   - Citations

2. My notes
   - Things I have found

3. Search Service
   - Index
     - aardvark
     - ...
     - zulu

4. Search Protocol
   - aardvark
Why it is Hard: Persistence

Over a long-enough time,

The storage service will upgrade, relocate, merge, and reorganize.

The document will be updated or superseded, be withdrawn, be lost and restored, become available from a competitive service, and be indexed in many places.
Why it is Hard: Deduplication

Client

Search Service A

Search Service B

aardvark
Why it is Hard: Forwarding

[Diagram showing the relationship between a client and two storage services (A and B)].
Who is Thinking about it:

Ted Nelson Xanadu
Brewster Kahle WAIS
Tim Berners-Lee World-Wide Web
Cliff Lynch CNI
Conclusion

• There is an opportunity here for a contribution from the systems community.