Prototyping Open Hypermedia Extention on LivingOM

lomScope and lomMirror

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LivingOM

A hypermedia system to support collaboration in a community

- to develop a common languages (Concepts)
- to share documents and links
  - automatically insert links to concept’s definition into artifacts in repository

Sounds great. What's problem?

- Collaborative works of a community
  - does not be completed just by the community,
  - but also involves activities and artifacts by other groups.
- How to make external artifacts easier to understand for US?
- How to make OUR artifacts easier to understand for outsiders?

How?

Two prototypes:

- lomScope
  - proxy server with hypermedia functionality for insiders
- lomMirror
  - proxy object on a community's server for both insiders and outsiders

What's difference?

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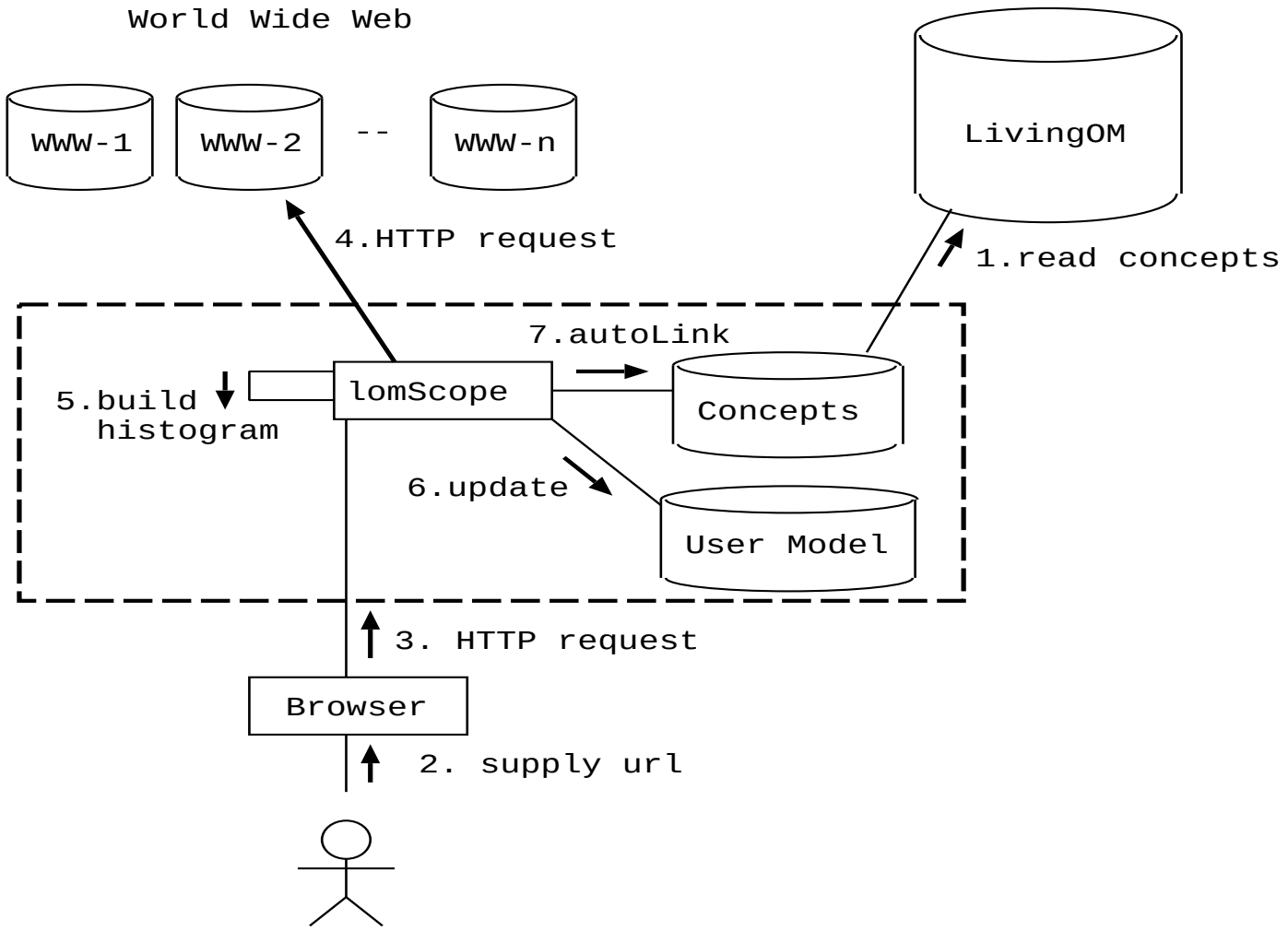
lomScope

- proxy server for single user
- adaptive to user
  - develops user model by watching words in HTML documents

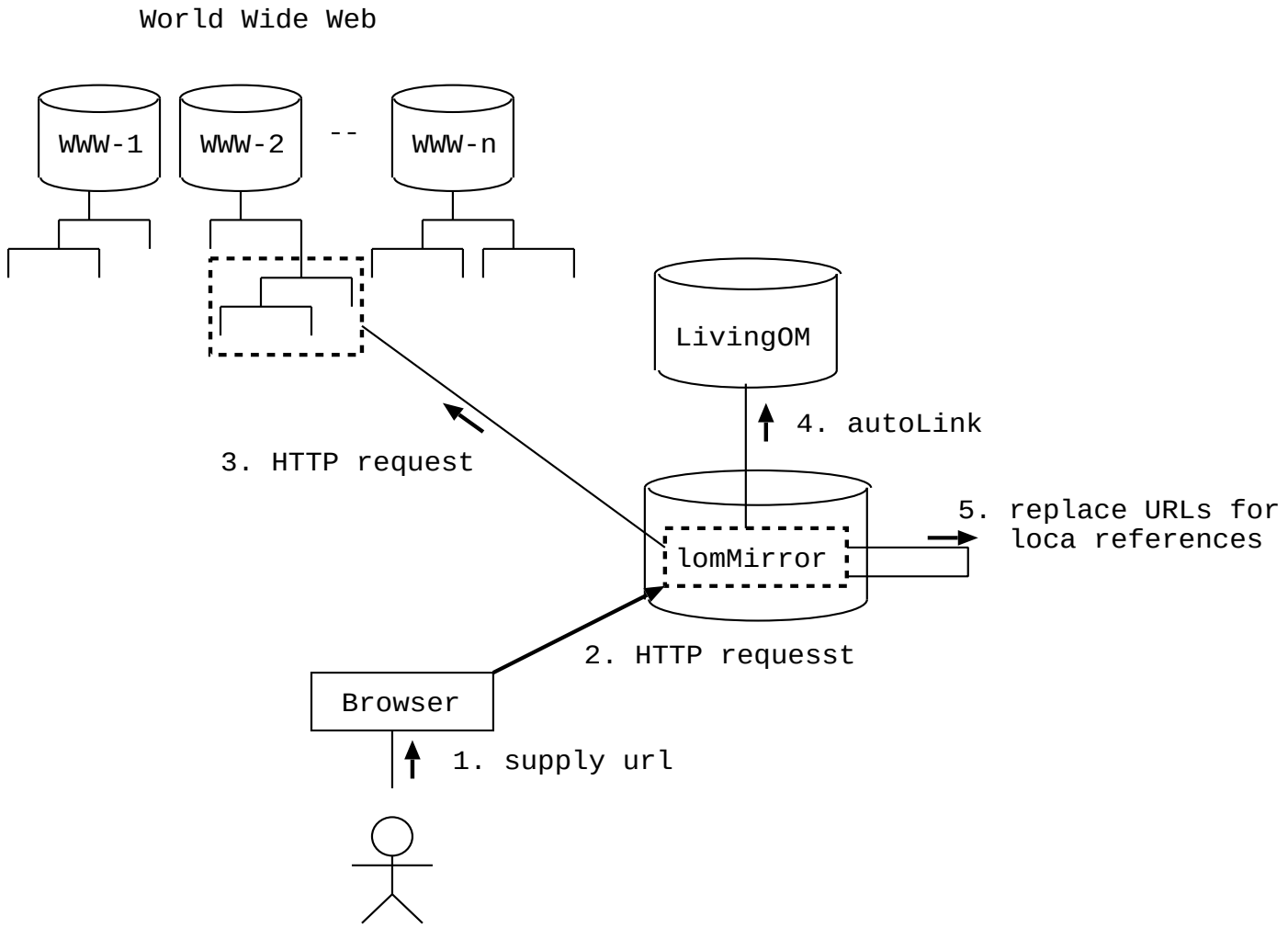
lomMirror

- proxies a subtree under remote webserver
- shared by a community
- proxies OUR website
  - to make our artifacts easier to understand for outsiders
- proxies THEIR website
  - to make relationship to our interests easier to find out

lomScope


World Wide Web
WWW-1
WWW-2
--
WWW-n
LivingOM
4.HTTP request
1.read concepts
7.autoLink
5.build
histogram
lomScope
Concepts
6.update
User Model
3. HTTP request
Browser
2. supply url

lomMirror


World Wide Web
WWW-1
WWW-2
--
WWW-n
LivingOM
4. autoLink
3. HTTP request
5. replace URLs for
loca references
lomMirror
2. HTTP requesst
Browser
1. supply url

Problems

Technical Difficulties

- Processing HTTP is complicated because...
  - different server can react differently to a same request.
  - different clients can make different request.

- Processing HTML is complicated because...
  - Many documents is not conformative to the strict standard.
  - Different versions of standards are used.
  - Each HTML standards is big, especially newer ones.

- Network connection is often unstable
  - sometimes stucks
  - servers and clients can disconnect connections

Future Words

- More use of user model
- Community model
- More collaboration with LivingOM