



**INLS 490-154: Information Retrieval Systems
Design & Implementation
Spring 2009**

User Interface for Search

Connecting systems to people

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Chirag Shah

School of Information & Library Science (SILS)

UNC Chapel Hill

Whose line is it anyway?

“People don’t know what they want until you show it to them.”

“I want to make a dent in the universe.”



Photo source: Wikipedia

“There's an old Wayne Gretzky quote that I love.
'I skate to where the puck is going to be, not where it has been.'
And we've always tried to do that at Apple.”

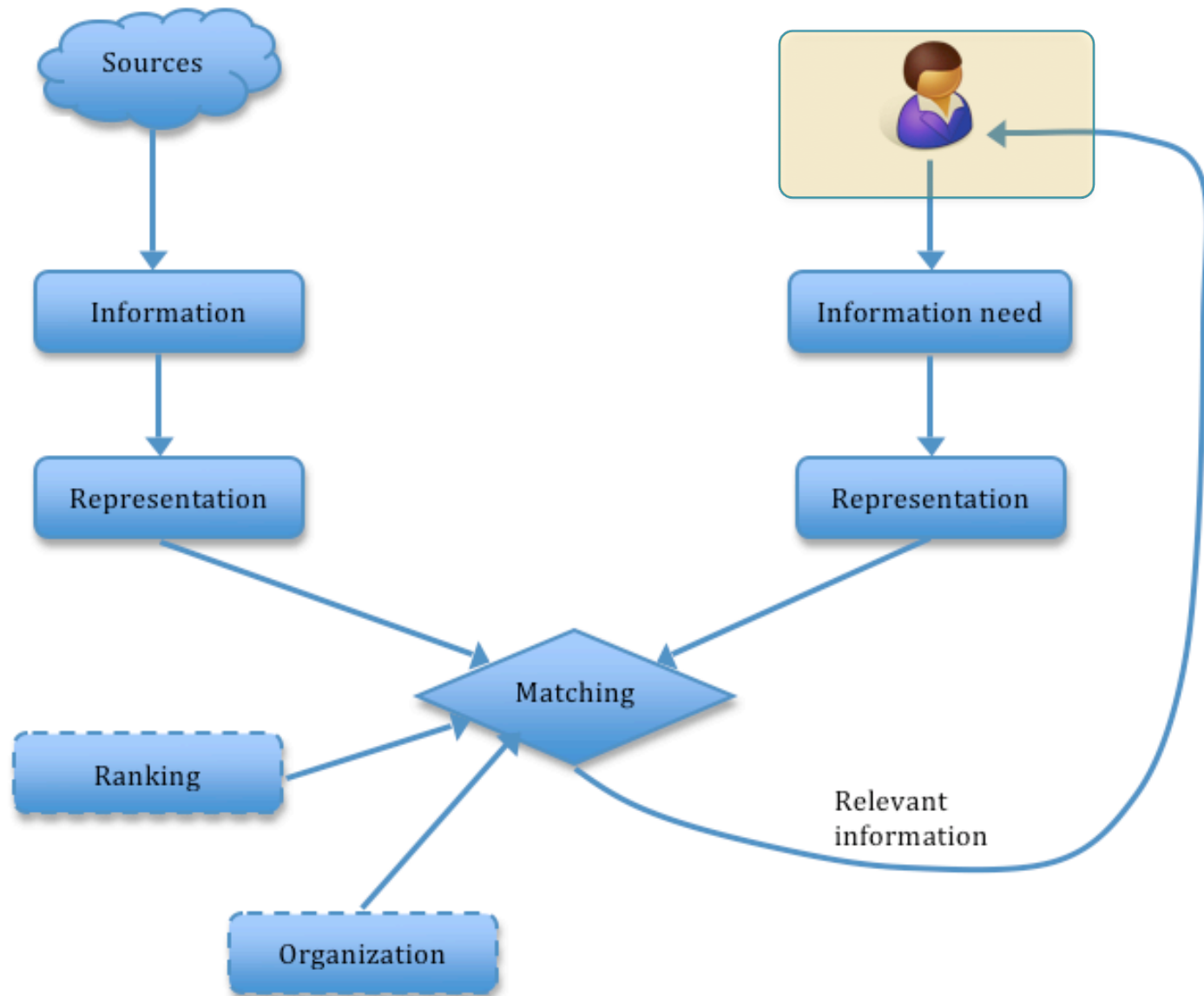
Whose line is it anyway?

“If I’d asked my customers what they wanted, they’d have said a faster horse.”

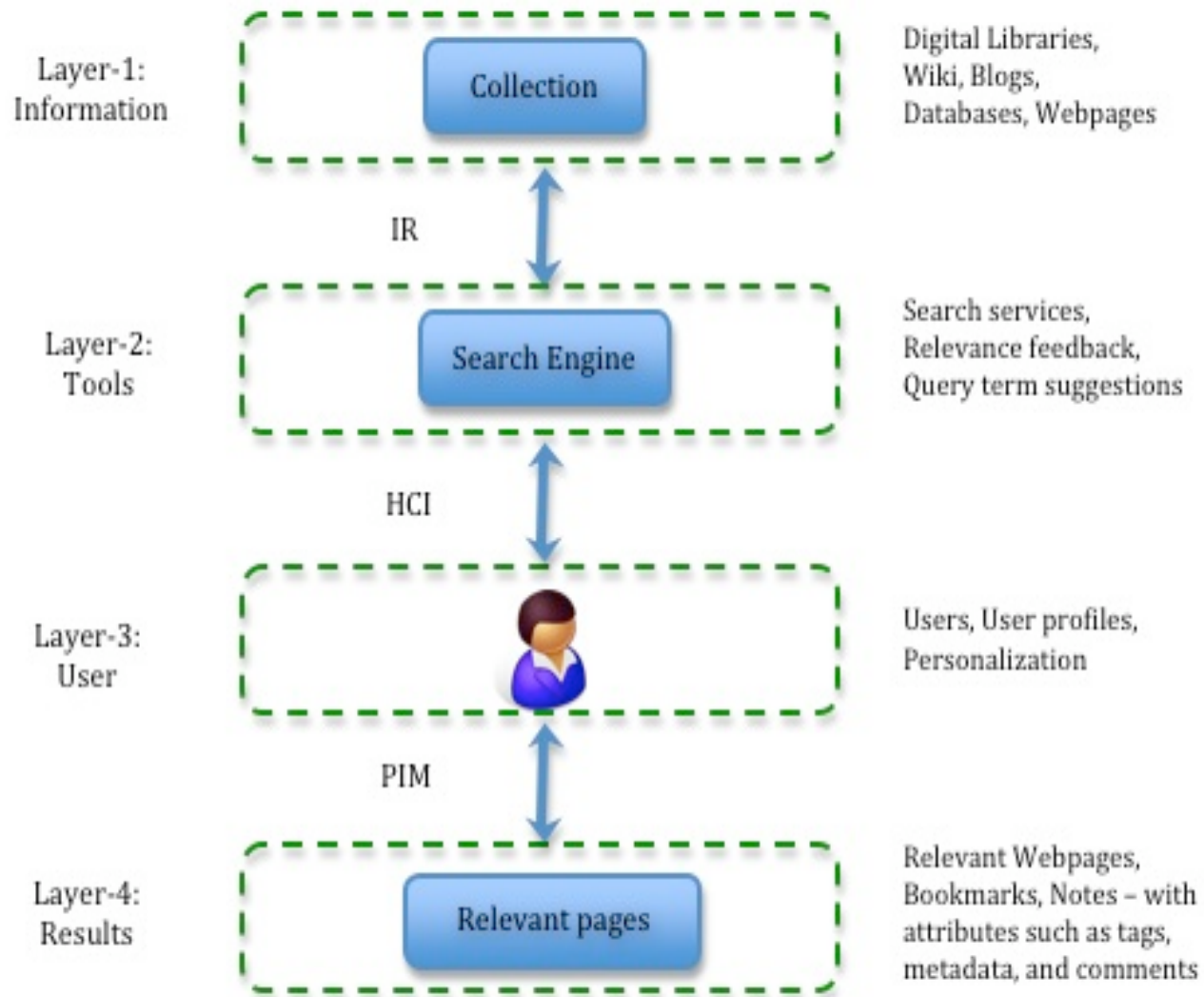


Photo source: Wikipedia

Today's lab



Today's lab



Back-end

- LA Times indexed using **BuildIndex**
- Search daemon using **indrid**

```
<parameters>  
  <index>myindex</index>  
  <port>12345</port>  
</parameters>
```

- Run a query using **runquery**

```
<parameters>  
  <index>myindex</index>  
  <server>localhost:12345</server>  
  <count>10</count>  
  <trecFormat>>false</trecFormat>  
  <printSnippets>>true</printSnippets>  
  <query>#combine (behavioral genetics)</query>  
</parameters>
```

Extracting the documents and snippets

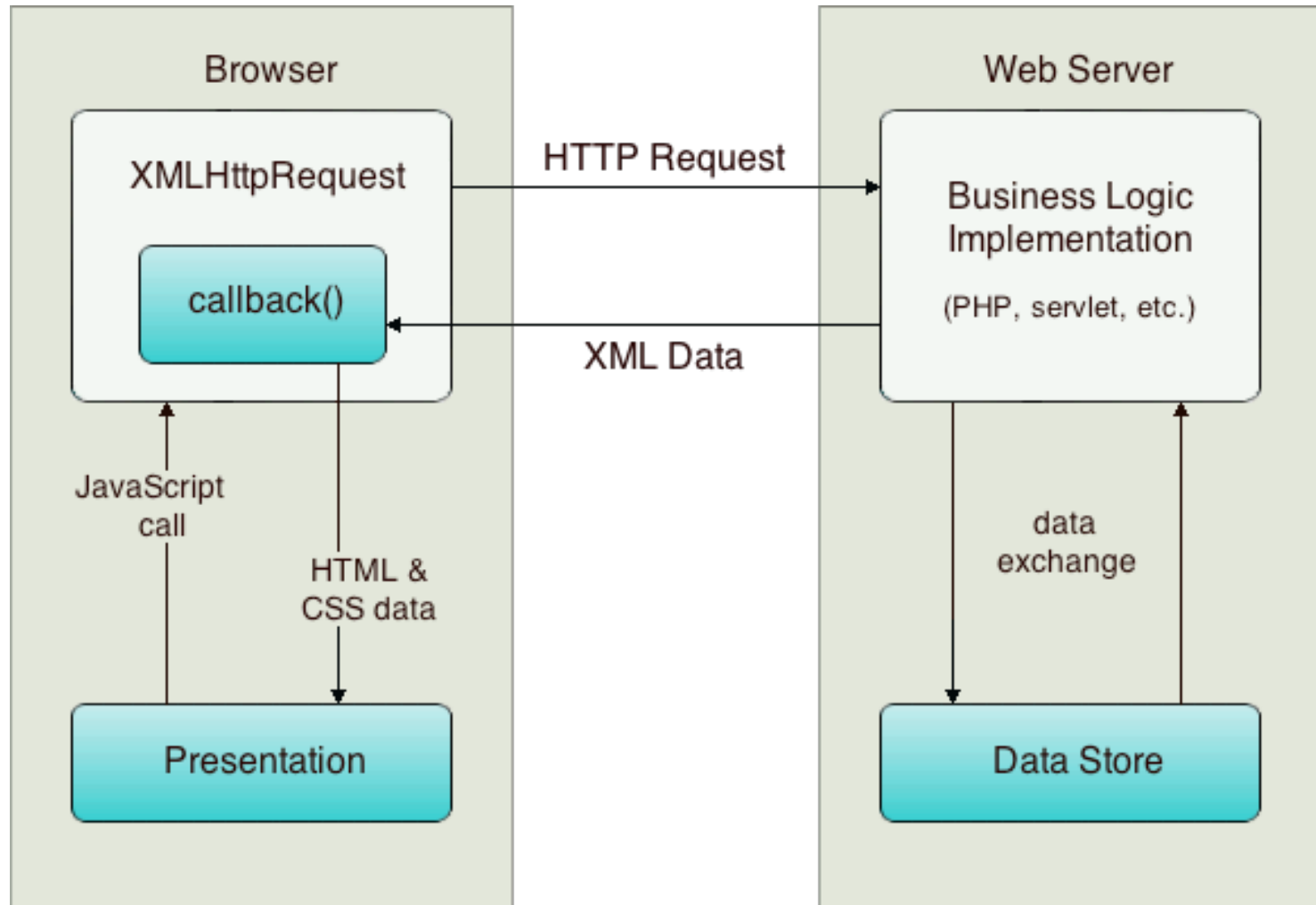
- Using **dumpindex**
 - `dumpindex <index_name> di docno <doc_name>`
 - `dumpindex <index_name> dt <doc_id>`
- Changing **runquery**
 - Function `_printResultRegion()`
 - Document text in `documents[]` array
 - `documents[i]->text`
 - Snippets in HTML format
 - `indri::api::SnippetBuilder builder(true);`

Front-end

1. Start the Indri daemon in the background (**indrid**).
2. Create an HTML form with a query box and a submit button.
3. Use the query to create a parameter file for **runquery** on the fly.
4. Execute **runquery**.
5. Parse the results generated by **runquery**.
6. Display results on the interface.

Adding dynamic user interactions

AJAX = Asynchronous JavaScript And XML



Summary

- Indri is a new search engine from the Lemur project.
- Back-end with Indri: **BuildIndex** or **IndriBuildIndex** and **indrid**
- Front-end with Indri: **runquery** through a web server



Next time

- Working with Web 2.0 services using REST protocol.
- Parsing XML documents.
- Import/export with open data access formats.