Information Architecture

Server-Side Web Languages

Uta Priss
School of Computing
Napier University, Edinburgh, UK
Outline

The future of SSWL jobs in Western Europe

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Very little commercial use for pure server-side development skills in Western Europe and USA
In the future:

- Small companies:
  buy cheap pre-packaged e-commerce solutions (eg. database, shopping carts, search engine) that require customisation - but not development

- Large companies:
  move their development activities (eg. web services) to cheaper countries
Skills that are still locally required:

- local system deployment and maintenance
- occasional small ad-hoc development tasks, ie. tasks that require $< 1$ day to implement
- security and integrity of local systems
- management and analytic skills
- soft skills relating to the customisation of systems: communication and information architecture
How these skills are covered in CO32037:

- local system deployment and maintenance: knowledge of a variety of SSWL applications and tools
- occasional small ad-hoc development tasks: Perl is good for this!
- security and integrity of local systems: security, environment variables, sessions, cookies, http protocol
- analytic skills: abstract programming skills: structuring, flow control, pattern matching
- soft skills relating to the customisation of systems: information architecture, writing documentation for the coursework
What is Information Architecture

Information architecture is the art and science of structuring and organising information environments to help people achieve their goals

(see the paper by S. Bidigare, Argus (2000) on the website)

Information architecture attempts to balance the technical requirements with user requirements and information system requirements.
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Example: Information Architecture of the Shopping Cart

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Design Guidelines

▶ Make the shopping cart easy to find.
▶ Provide clear ordering options.
▶ Provide rich functionality.
▶ Make related items available.
▶ Provide option to save items for later buying.
▶ Give advance notice of what the checkout process involves.
▶ Keep order forms simple.
▶ Ensure secure transactions.
Metaphors

- “shopping cart”, “add items to cart”, “check out”
- “home page”, “chat room”
- “guest book”
Labels, terminology

- use of common labels: “site search”, “about”, “contact us”, “home”, “main”, “help”
- consistent terminology across a website
- metadata, data dictionary
- use of icons?
Classification

How to classify: cat, dog, car?
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What determines a classification: internal structures or user requirements?
Navigation

- How many links per webpage?
- Is the navigational hierarchy deep or shallow?
- Are there many paths to a single page or is there only one path?
- Navigational elements on a single page: “home”, “back”, “up”
- Use of a sitemap
Tools

- project management tools
- logfiles, web statistics
- tools for verification of HTML, links, accessibility
- components: search engine, guestbook, wiki, e-commerce solutions
Testing and Quality Assurance

- software testing
- usability testing (eg. www.openusability.org)
- security testing