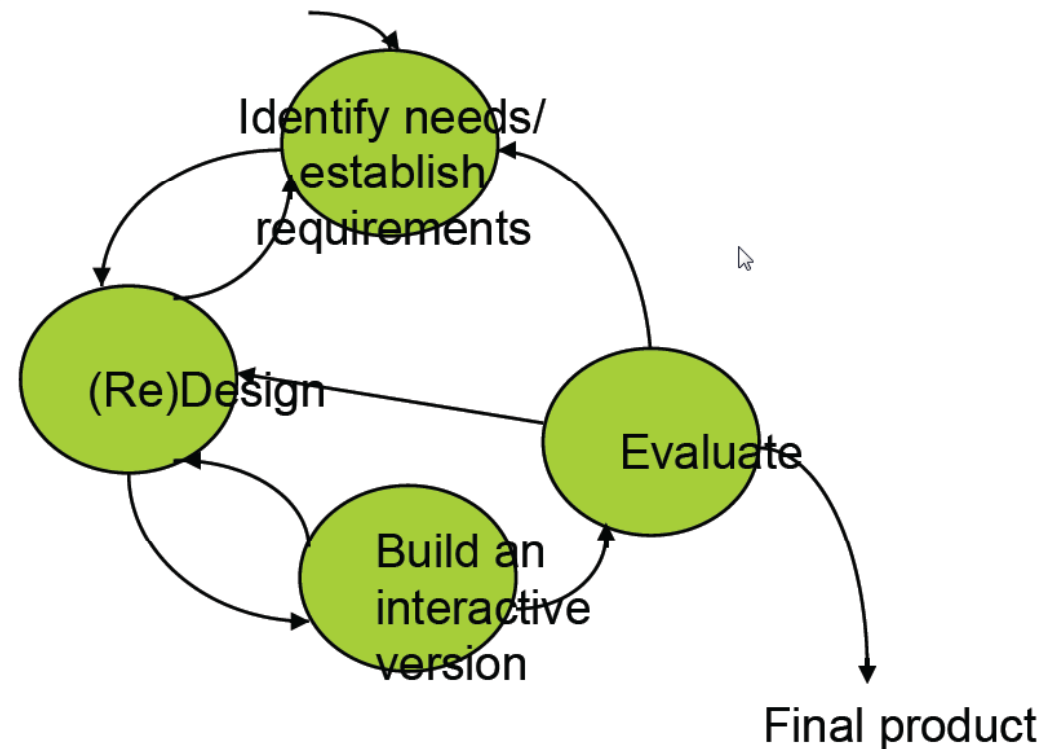# Information Architecture

Designing …..the Content

User-centred design process
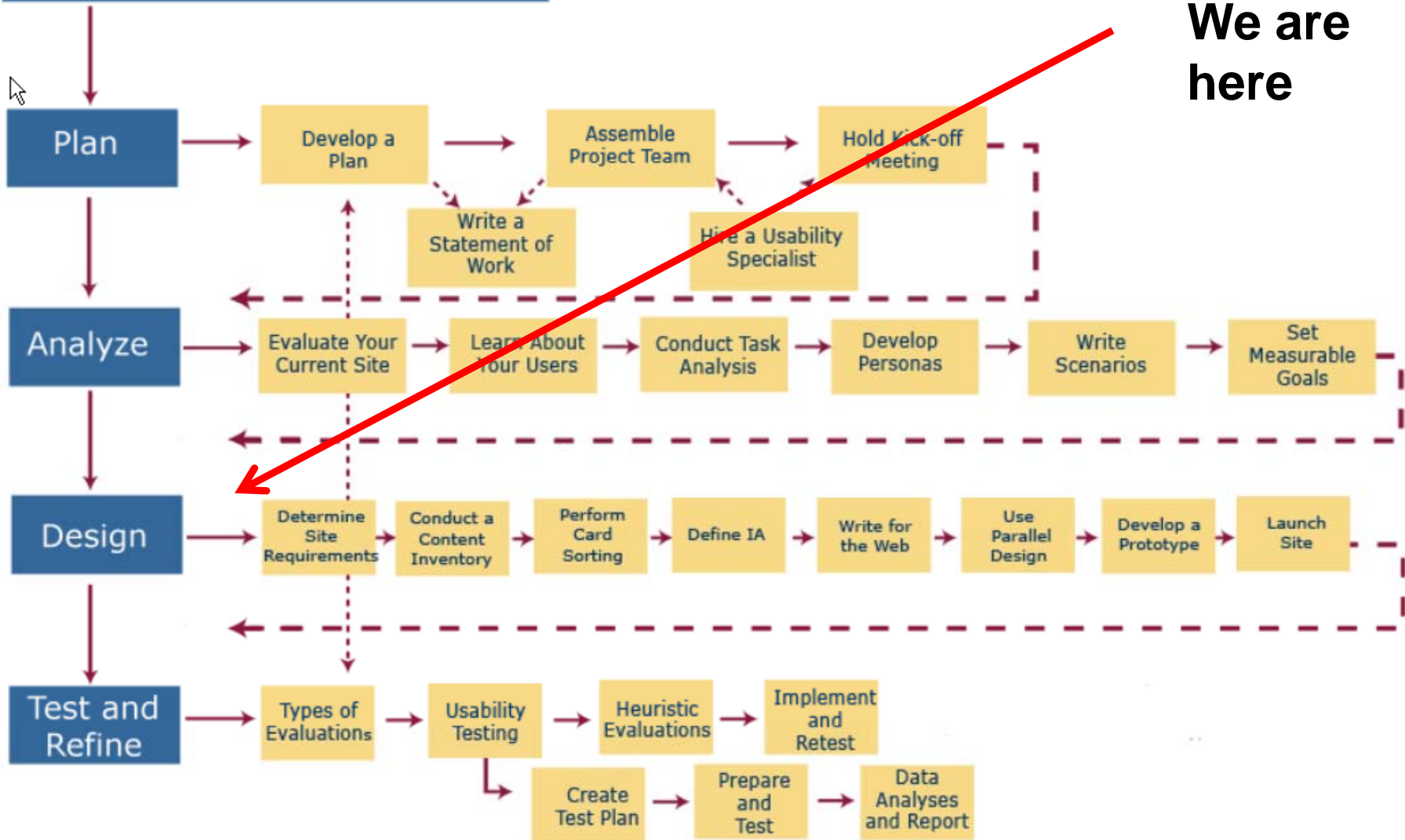
1. **Identify** needs and establish requirements
2. **Generate alternative solutions/designs**
3. Build interactive prototypes that can be communicated and assessed
4. Evaluating design

Identify needs/establish requirements

(Re)Design

Evaluate

Build an interactive version

Final product

User centred design

The UCD Methodology

Step-by-Step Usability Guide

We are here

Plan
- Develop a Plan → Assemble Project Team → Hold Kick-off Meeting
- Write a Statement of Work
- Hire a Usability Specialist

Analyze
- Evaluate Your Current Site → Learn About Your Users → Conduct Task Analysis → Develop Personas → Write Scenarios → Set Measurable Goals

Design
- Determine Site Requirements → Conduct a Content Inventory → Perform Card Sorting → Define IA → Write for the Web → Use Parallel Design → Develop a Prototype → Launch Site

Test and Refine
- Types of Evaluations → Usability Testing → Heuristic Evaluations → Implement and Retest
- Create Test Plan → Prepare and Test → Data Analyses and Report

Our Next Steps

- Analysis: User Requirements Analysis
  - Task Analysis ⟶ **Functionality**
  - Content requirements ⟶ **Content**

- Design: define Information Architecture (structure, navigation, labeling), visual design, prototypes, generate alternatives, evaluate

- Test and Refine

- Implementation

- Final Evaluation

4

Information Architecture

Overview

- What is information architecture
- Information can be arranged and accessed in many ways
- Design process for information architectures
- Information architecture for interactive systems
- Information architecture for ubiquitous systems

- Definition

1. The structural design of shared information environments.

2. The art and science of organizing and labeling web sites, intranets, online communities and software to support usability and findability.

3. An emerging community of practice focused on bringing principles of design and architecture to the digital landscape.
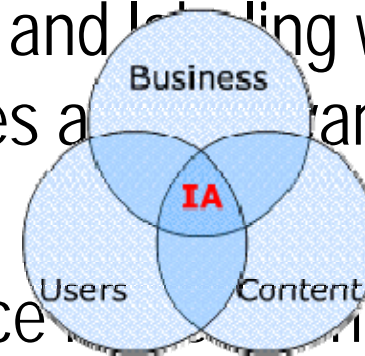
The Task of Information Architecture

Organizing, labeling, and providing access to information is a basic IA function

Challenges

  Classification is based on language which is ambiguous

  Heterogeneity

    A collection of unrelated elements with different levels of granularity

      Web content tends to be heterogeneous

      Mixed content should not be at the same level of a hierarchy

  Idiosyncrasy

    People and have unique ways to organize information

Organizational Schemes

Organizational schemes define shared characteristics of content

- Influence logical groupings of content

- We routinely use a range of schemes (phone book, supermarket…)

- Organizational structure is the explicit definitions of relationships among content groups

Types of schemes

- Exact schemes

- Well defined and mutually exclusive sections

- Good for known-item searching if you are looking for the item around which the scheme is organized
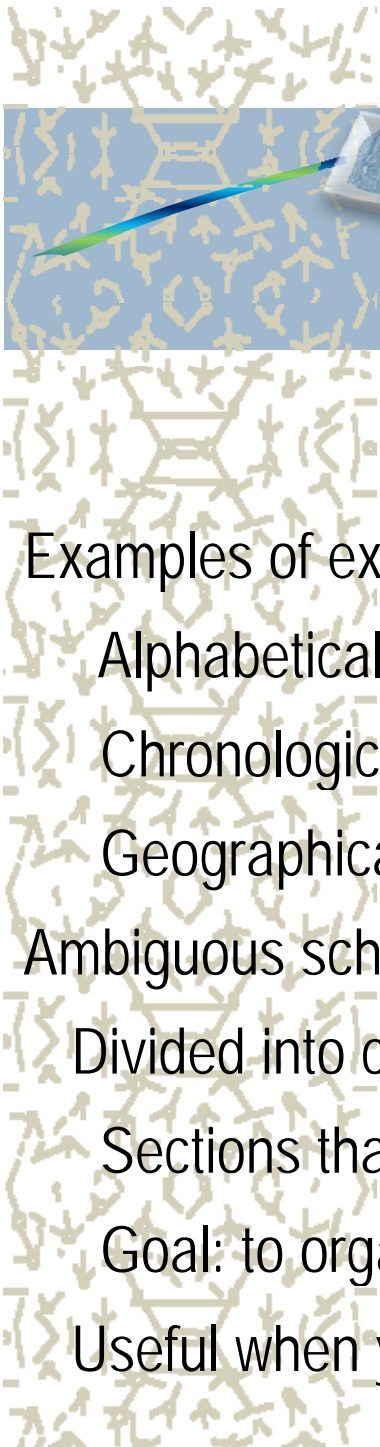
Examples of exact schemes

    Alphabetical

    Chronological

    Geographical

Ambiguous schemes

  Divided into categories that are not mutually exclusive

    Sections that may overlap

    Goal: to organize the information in intellectually meaningful ways

  Useful when you are not sure what you are looking for

Information is arranged in many ways

- Date
- Alphabetical
- Geography
- Topic
- Hierarchy
- Faceted
- Organic
- Combination

- Good IA allows access to information in many ways

news.com.au

Tell us what you think about NEWS.com.au for your chance to win!
Spector 'victim' may be suicide | *Friends* no longer there for us

May 7, 2004

search   ◉ The Web   ○ Australia   [   ]   **Go**   powered by Google

BREAKING NEWS

CommonwealthBank

ACTU welcomes baby bonus

13:17 (AEST) THE ACTU has welcomed a Budget leak revealing the federal government's baby bonus will be scrapped.

Hizbollah attacks Israeli positions

13:05 (AEST) HIZBOLLAH attacked Israeli army positions in the disputed Shebaa Farms area today, where the Israeli, Lebanese and Syrian borders meet.

Brain damaged teen sues driver

12:40 (AEST) A BRAIN-damaged teenager has successfully sued a woman who was driving a car that hit him when he was two years old.

Drug bust claims 100+ arrests

12:35 (AEST) MORE than 100 people, including members of a motorcycle gang, have been charged with drug offences following a widespread operation, Queensland police said today.

Bail refused for HIV infector

12:25 (AEST) A SYDNEY man accused of deliberately infecting two foreign tourists with the HIV virus has been refused bail "for the protection of the community".

LYRICS A★Z UNIVERSE

AZLyrics.com
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The latest lyrics and music
news in your mailbox:

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Visit
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or enter artist/album/song to search lyrics for: [   ] Search

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FABIAN, LARA

FABOLOUS

FAITH EVANS

FAITH HILL

FAITH NO MORE

FALCON, ROSE

FALLON, JIMMY

FALL OUT BOY

FANNY PACK

FATBOY SLIM

FAT JOE

FEAR FACTORY

By geography

By geography

Australian Government
Australian Taxation Office

Search   All ATO (except Legal database)   for   [GO]

Welcome to the Australian Taxation Office website

Beware of promoters offering early access to super.

Details on fake emails claiming to be from the Tax Office.

Administering tax
Commissioner speaks on transparency, accountability and compliance. Access the Practice Statement on family trust elections. Do your BAS online and more at our new Business Portal. More in our media release.

Super Co-contributions
How to give your super a helping hand.

Compliance
Issues we face and our program to address them. How we are making it easier to comply.

Aggressive Tax Planning
Investor advice.

Tax evasion referral
You can report suspected tax evasion.

Energy grants credits scheme
Replaces the on and off-road fuel schemes.

University of Canberra
STUDY IN THE NATIONAL CAPITAL OF AUSTRALIA

FOR

- Future Students
- Current Students
- Staff
- Alumni
- 中国教育合作项目

ABOUT

- The University
- UC Brisbane Campus
- Courses
- Research
- Learning & Teaching
- News & Events

HIGHLIGHTS

Callista - New Student Management System - Live on 27th April 2004.
Callista hotline: ext. 5888

Playing possum in the name of the environment.
UC's Landscape Architecture students conduct their annual Possum Art exhibition...More

UC student propelled into epicentre of US politics.
An international exchange program takes UC's Heather Rietdyk to Washington DC.

DIRECT LINKS

- Divisions, Schools & Centres
- Library
- UC College
- Staff Directory
- Expertise Directory
- Jobs at UC
- WebCT

SEARCH

[   ] **GO** How to search

All of UC ▼

SITE INDEX | CONTACT US | PRIVACY

PayPal®

| Welcome | Send Money | Request Money | Merchant Tools | Auction Tools |

Member Log In

Email Address

Password

Log In

Forget your password?

Protect your password

What's New

eCommerce Safety Guide

Protect yourself from fraudulent emails and websites

Send invoices with the NEW PayPal Outlook Wizard

Refer new merchants and earn up to $100.00 USD

The way to send and receive money online

Send Money
Pay anyone with an email address

Request Money
Send a personal or group bill

Buy with Confidence on eBay.com

PayPal Buyer Protection

...learn more

Over 40 million member accounts worldwide!

Sign up for your FREE PayPal account

Spotlight

Auction Tools
It's easy to buy and sell on eBay when you use PayPal to process your payments.

Merchant Tools
Accept online credit card payments immediately with PayPal's Merchant Tools.

PayPal Shops
Shop at one of over 42,000 websites that accept PayPal.

Browse Wikipedia by topic

Mathematical and natural sciences

Astronomy – Biology – Chemistry – Computer science – Earth science – Ecology – Mathematics – Physics – Statistics

Applied arts and sciences

Agriculture – Architecture – Business – Communication – Education – Engineering – Family and consumer science – Government – Health science – Law – Library and information science – Politics – Public affairs – Software engineering – Technology – Transport

Social sciences and philosophy

Anthropology – Archaeology – Economics – Geography – History – Linguistics – Mythology – Philosophy – Political science – Psychology – Sociology

Culture and fine arts

Classics – Cooking – Dance – Entertainment – Film – Games – Gardening – Handicraft – Hobbies – Holidays – Internet – Literature – Music – Opera – Painting – Poetry – Radio – Recreation – Religion – Sculpture – Sports – Television – Theater – Tourism – Visual arts and design

Other categorization schemes

By Dewey Decimal - By LOC Class - By acad. discipline - Lists by category - All articles by title - By historical year - By anniversary - Themed timelines - Reference tables - Biographies - Countries - How-tos

Shop in
Sports & Outdoors
(Beta-What is this?)

amazon.com.

VIEW CART | WISH LIST | YOUR ACCOUNT | HELP

SEE MORE STORES

| WELCOME | ANTONY'S STORE | BOOKS | APPAREL & ACCESSORIES | ELECTRONICS | TOYS & GAMES | MUSIC | CELL PHONES & SERVICE |

Search All Products: [   ] GO!

Browse: Books

Apparel & Accessories
- Apparel & Accessories
- Jewelry & Watches
- Shoes
- Sports & Outdoors Beta (What is this?)

Books, Music, DVD
- Books
- DVD
- In-Store Pickup
- Magazine Subscriptions
- Music
- Video

Electronics & Office
- Audio & Video
- Camera & Photo
- Cell Phones & Service

Health & Beauty
- Beauty Beta (What is this?)
- Health & Personal Care Beta (What is this?)

Home & Garden
- Home & Garden
- Bed & Bath
- Furniture & Décor
- Gourmet Food Beta (What is this?)
- Kitchen & Housewares
- Outdoor Living
- Tools & Hardware

Kids & Baby
- Baby
- Kids & Baby Clothing

BROWSE PARTNERS

BABIESRUS.COM
Marshall Field's
Office DEPOT
TARGET
TOYSRUS.COM

Make Money
- Marketplace
- Associates
- Advantage
- Web Services
- Paid Placements

See all services

Specialty Stores

eBaY™.COM.AU

Browse | **Search** | **Sell** | **My eBay** | **Community**

Home > Browse

Browse

Search

[ ]	All Categories ▼	Search

☑ Search for items in Australia only

Advanced Search | Seller Search | Shop Search

Categories

Antiques & Art	**Jewellery, Gems, Watches**
Books, Comics & Magazines	**Mobiles & Phones**
Cameras & Accessories	**Music**
Cars, Bikes & Boats	**Musical Instruments**
Clothing & Accessories	**PC & Video Games**
Coins	**Pottery & Glass**
Collectables	**Sporting Goods**
Computers, IT & Office	**Sports Memorabilia**
Dolls & Bears	**Stamps**
DVDs & Movies	**Toys, Hobbies, Crafts**

Featured Items — Learn more

Windows XP - Extras that don't come with XP -

Recruitment Website for Backpackers

BRAND NEW 59CM HAND CARVED ENTRY LEVEL VIOLIN

HUGE range of Sports Sunglasses Top Quality Low Prices!

Twin Under-Bench Water Filter System BRAND NEW!

Tiger Woods Golf club Rare!!!!!!!

See all Featured items...

SociallyConstructedNavigation

IAwiki   RecentChanges   Site Index   Backlinks   Preferences   Search: [   ]

Refactored from IAwikiIA...

Taking my cue from the YaywastakenReferrerTracking thingy, I'm developing a variation that lets any given page reveal which pages it refers to, based on referrers on the linked pages. The first step is already in place, but the interesting things happen when a given page can get to see where the pages it links to links to.

Example: say page "A" links to page "B" links to page "C", and say every visit to "C" that came from "A" via "B" is noted and available for "A" to reveal on it's own page, thus making a direct link to "C". Throw into the mix the capability for any page to also reveal the popular referrers to itself and things get more interesting.

Turns out the technical matters are pretty straightforward.

In StevenJohnson's EmergenceBook, one of the fundamental principles for emergent systems is "pay attention to your neighbors". The *really* interesting thing is that if a unit modifies it's behaviour based on input from a neighbor, *then* other neighbors can also be affected even though they are not immediate neighbors of the first unit. Imagine a game of neighborhood gossip: each neighbor listening for gossip and passing on the juicier items ... the juiciest tidbits will get passed from neighbor to neighbor, like a game of chinese whispers, rippling out through the community, and travelling far from it's origin.

The really interesting stuff happens when bits of information can travel beyond their immediate loci of happenstance. Messages travel.
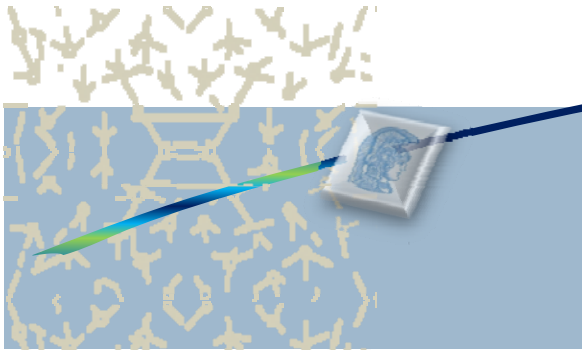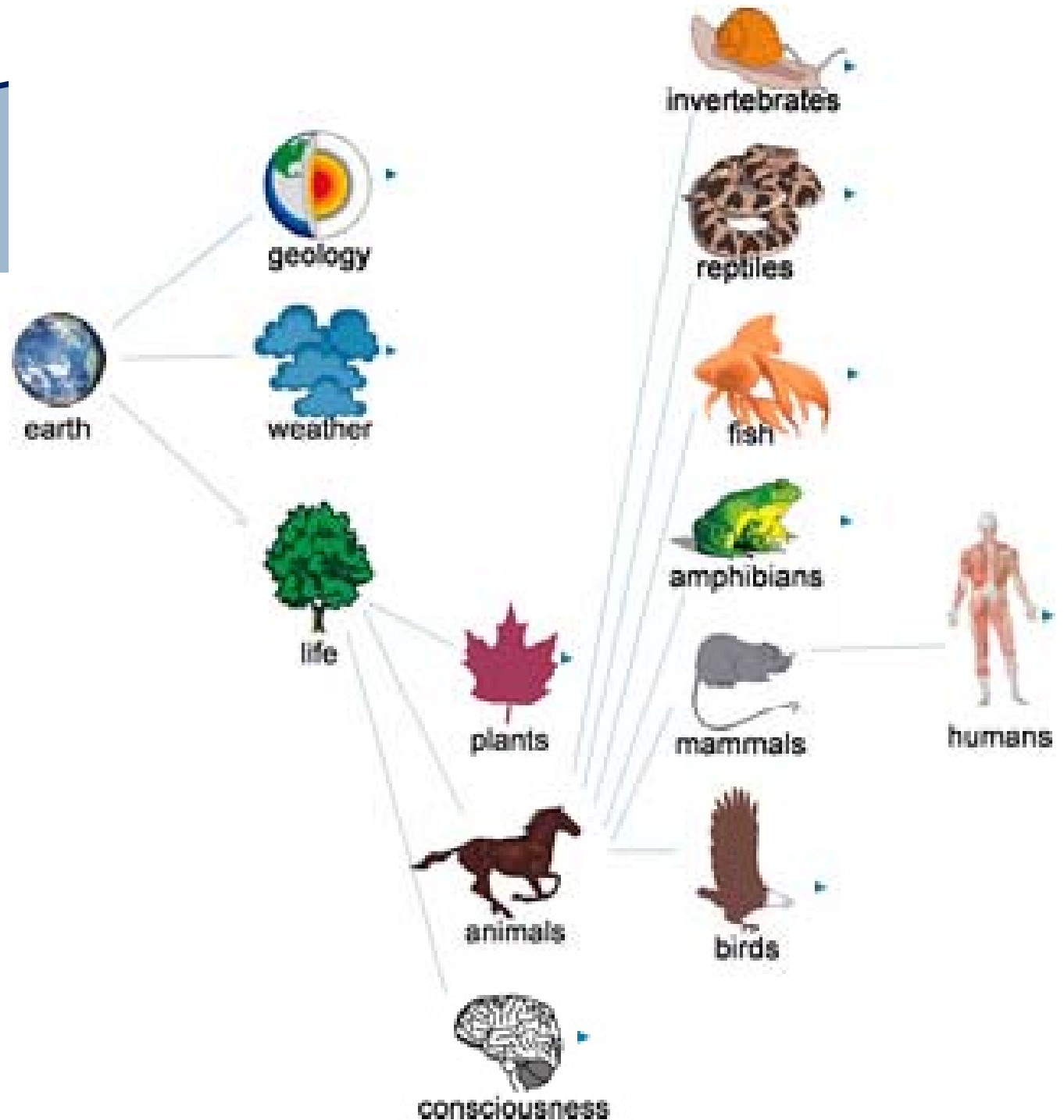
Organizational
schemes

Metaphor

This is risky

Hybrids

Risky because
it can be
confusing

Hierarchies

Balancing relationship between exclusivity and inclusiveness

Cross listing is possible in a "polyhierarchical taxonomy"
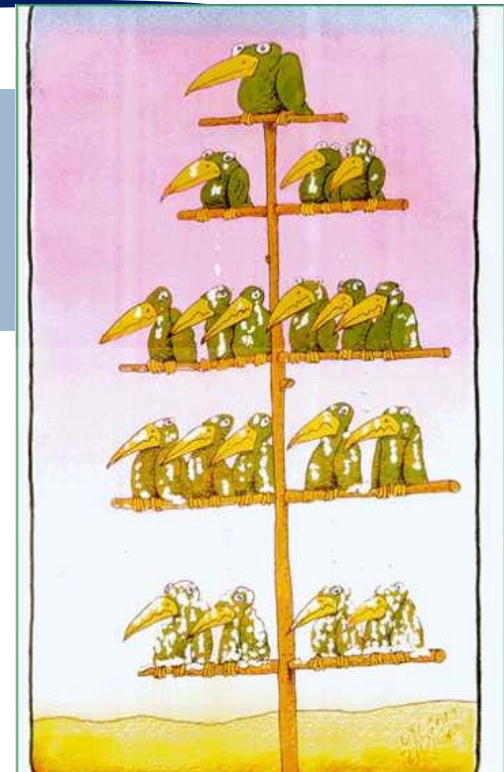
- Listing items in more than one category

Balancing breadth and depth

Three main options
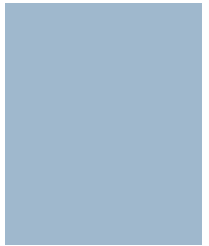
- Narrow and deep

- Broad and shallow

The choice should be determined by the needs of the major stakeholders

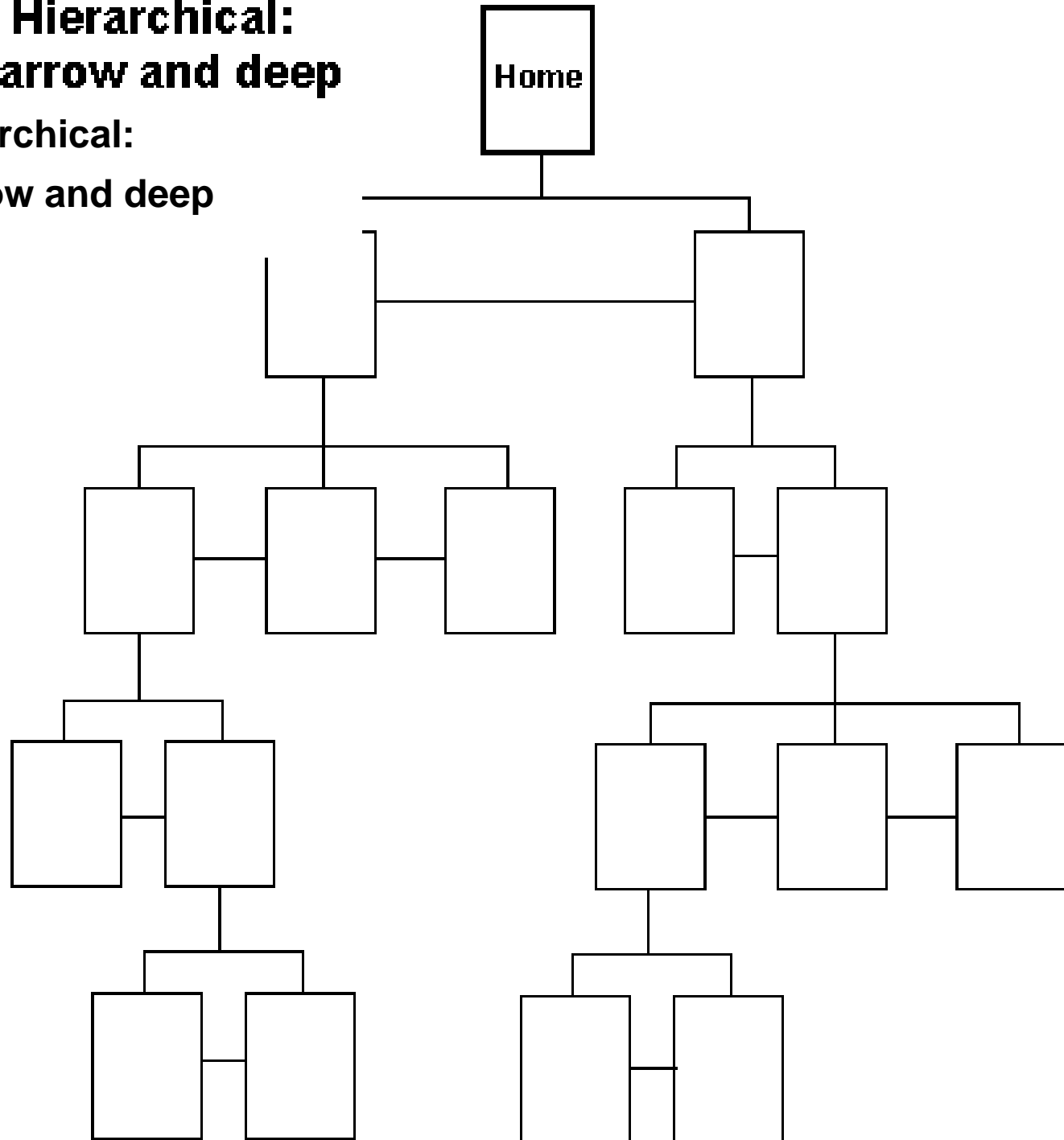# Hierarchical: Narrow and deep

Hierarchical:

Narrow and deep
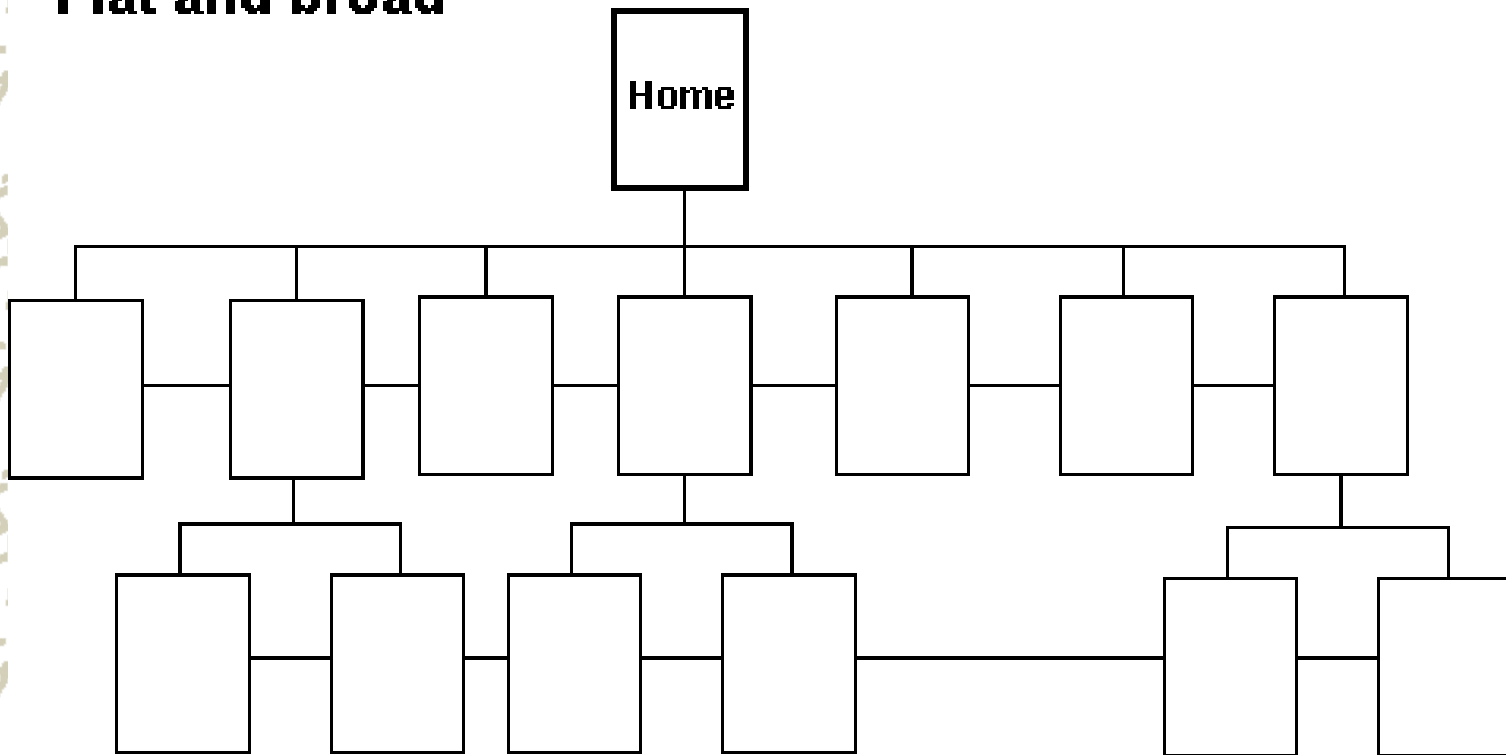
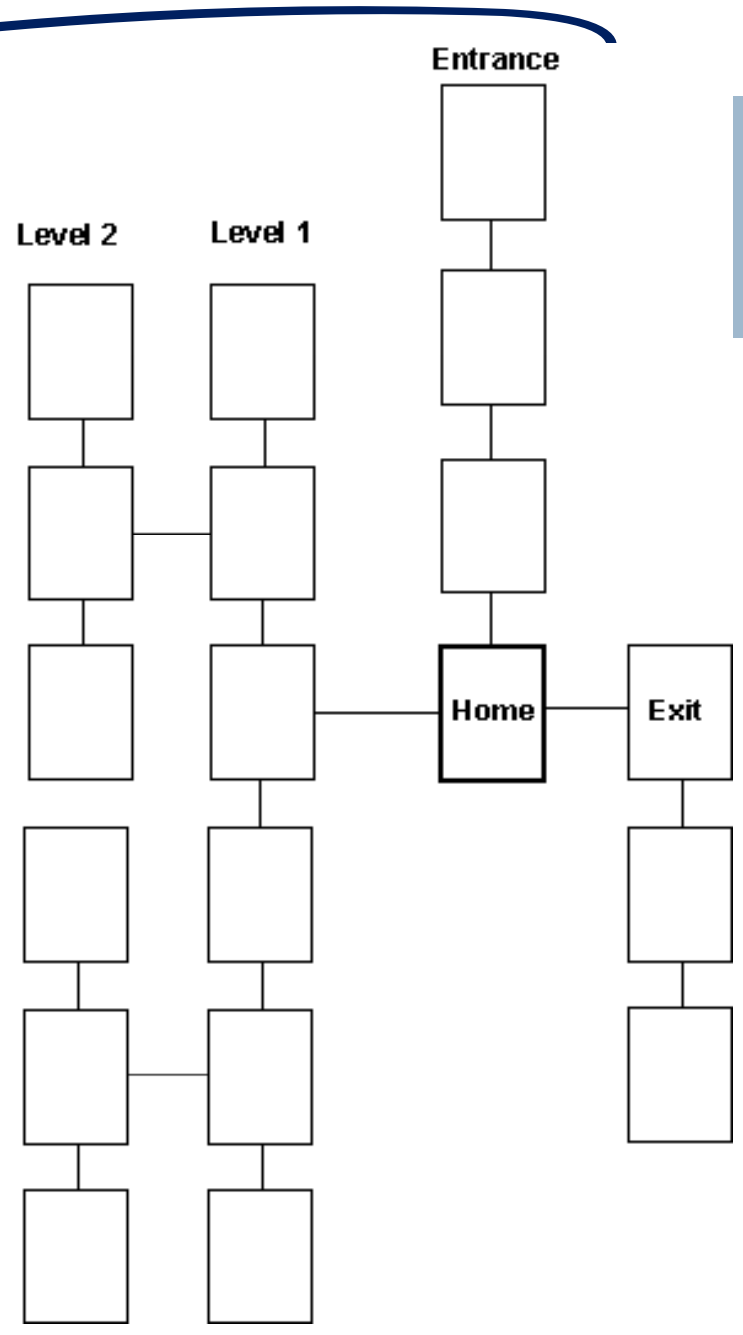Home

Level 1

Level 2

Level 3

Level 4

Hierarchical:

Broad and shallow

Hierarchical:
Flat and broad
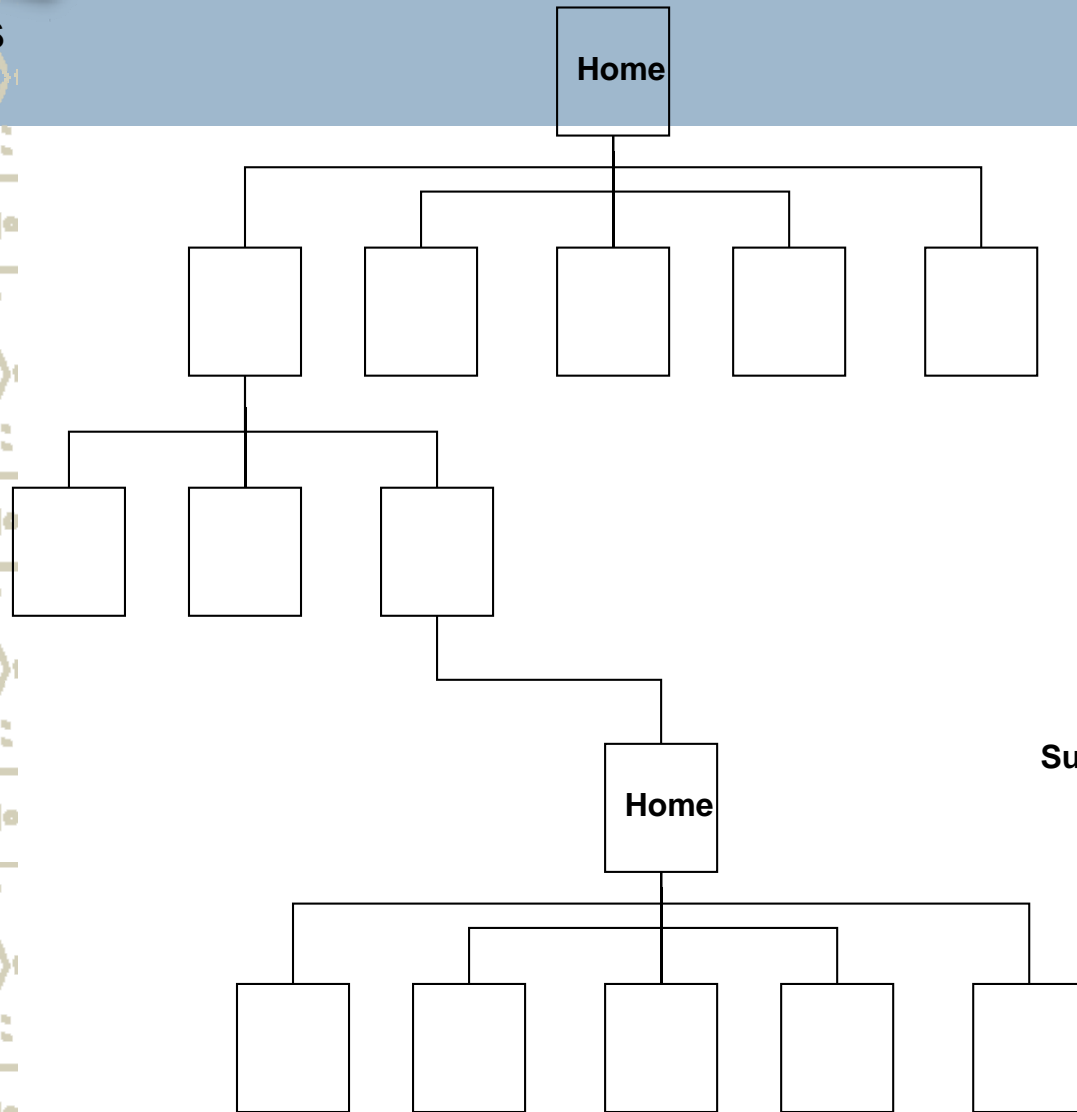
Home

Sequential:

Entry way, core, exit

Entrance

Level 2   Level 1

Content   Home   Exit

Hyperlinked structure

Home

Sub sites

Home

Sub site

Home

About hierarchies

```
                          UC Home
        ┌────────────────────┼────────────────────┐
  Future students      Current students          Staff
        │                    │                    │
   Entry into UC        Announcements         Announcements
        │                    │                    │
  About UC courses          OSIS                 OPUS
        │                    │                    │
    UC College        Academic dvisions       Directories
                        & schhols               & maps
        │                    │                    │
   Campus life         Studying at UC      Academic dvisions
                                              & schhols
```

From getting lost…

… to knowing where you are.

Working on Navigation

We develop and use navigation tools and "wayfinding systems"

Goal: where we came from, where we are are now and where we are going

It should support the site's organizational structure

Should support users' information seeking behaviors

Some are "embedded"

These provide context and flexibility in the site (links)

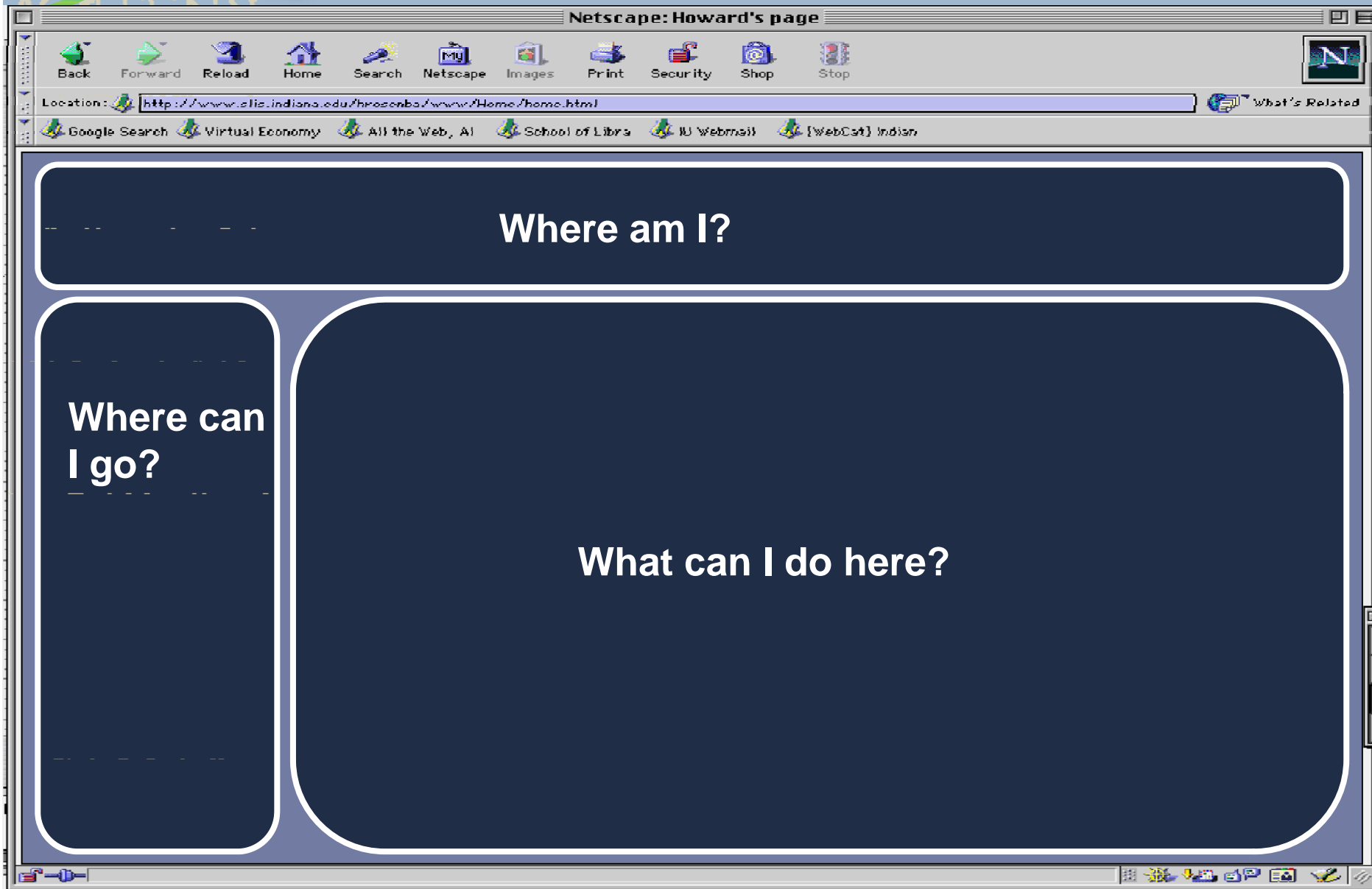Some are "supplemental"

These are external to the content of the site (site map)

Navigation

- Every page of a site should let you know:
  - Where am I
  - What's here
  - Where can I go now
  - Where have I been

- People don't always work from the home page – they get to a page from a link or from a search

Location of Navigation

Back　Forward　Reload　Home　Search　Netscape　Images　Print　Security　Shop　Stop

Location: http://www.slis.indiana.edu/hrosenba/www/Home/home.html　What's Related

Google Search　Virtual Economy　All the Web, Al　School of Libra　IU Webmail　{WebCst} Indian

Where am I?

Where can I go?

What can I do here?

Representation of Navigation

Representing navigation schemes

- Text-based links not in the body of the main text

- Embedded links in the text

- Graphical links

- Pull down menus

- Remote window menu

Navigation issues

- Location

- Where should the links be placed on the page?

- Representing current location

- Representing location in the site

Examples of navigation

Site map for the Rogue wild and scenic River web site

Rogue National Wild and Scenic River Home Page

- Web Site Map
- Photo Gallery
  - Photo Gallery II
  - Photo Gallery III
  - Photo Gallery IV
  - Photo Gallery V
  - Photo Gallery VI
- Wild Rogue Permits
  - Off-Season Float Permit
  - Open Dates
  - Permit Stipulations
  - Successful Applicants
  - Wild Rogue Use Data
- Recreation Opportunities
  - Fishing
  - Hellgate Recreation Area
  - Guides and Outfitters
    - Recreation Section Outfitters
    - Wild Section Outfitters
      - Outfitter Calendar
        - May
        - June
        - July
        - August
        - September
        - October
        - November
  - Lodges
  - Mining – Recreational
  - Rogue River Ranch
  - Rogue River Trail
    - Trail Log
  - Whisky Creek Cabin
  - Wild Rogue River
- Maps and Publications
- General Information
  - About the Rogue
  - Bears
    - Bear Observation Forms
  - Books
  - Fee Demonstration Project
  - Fire Precautions
  - Portable Toilets
    - RV Dump Stations
    - Kayaker's Portable Toilet
  - Links
  - Planning
    - Program Overview
    - Special Events
      - Boatnik Race - River Closures
      - River Cleanup Day
    - Shuttle Routes
      - Eden Valley Route
    - Shuttle Services and Equipment Rental

The design document

1. Goals, Mission

2. User Experience

 2.1 Audience Definition, Personas

 2.2 Scenarios, Use Cases, HTA

 2.3 Competitive Analysis Summary

 Appendix A: Competitive Analysis

3. Site Content

 3.1 Content Grouping and Labeling, Card Sorting

 3.2 Functional Requirements

 Appendix B: Content Inventory

4. Site Structure

 4.1 Site Structure Listing (or Summary)

 4.2 Architectural Blueprints

 4.3 Global and Local Navigation Systems

5. Visual Design

 5.1 Layout Grids

 5.2 Design Sketches

 5.3 Page Mock-ups

 5.4 Functional Prototypes

6. Test results, Evaluation, Redesign

7. Implementation, maintenance, change

Dr. Freud would like to know what's on your mind.
Satisfy your ego and take this quick survey!
Click here

Cryptozoology

(Lost Worlds Exhibition)

Express Yourself
with 8,000
FREE Smileys!

Click here to
get them all!
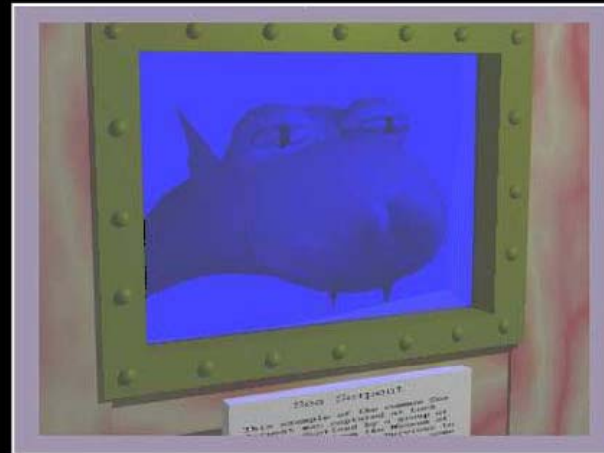
cryptozoology - the study or search for previously unknown or hidden animals.

Travelling Exhibitions

The Australian War Memorial's collection is being made more accesible to all Australian's through a nationwide outreach program of travelling exhibitions. Funding for the program is provided by the Minister for Veterans' Affairs commemorations program.

The travelling exhibition program is committed to:

- Delivering a wide range of exhibitions meeting high artistic and creative standards which are developed to the high standards associated with the AWM;
- Ensuring exhibitions will appeal to a cross-section of the community;
- Touring at least one exhibition in every State and Territory each year; and
- Ensuring venues are of an appropriate standard for each exhibition, with particular consideration of conservation, safety and security standards.

The Australian War Memorial welcomes the opportunity to reach new audiences. If you are interested in any of the travelling exhibitions, please contact the Manager, Travelling Exhibitions on (02) 6243 4574 or on email at travelling.exhibitions@awm.gov.au.

Current Tours

- Captured in Colour - Rare photographs from the First World War
- 1918 Australians in France (small modified version)
- Stolen Years: Australian prisoners of war
- In Enemy Hands: Australian prisoners of war
- Keeping the peace: stories of Australian peacekeepers (small modified version)

Types of navigation

- Global navigation
  - Persistent across a site
  - Allows access to major parts of the site
- Local navigation
  - Lets you move around the current 'section'
- Contextual navigation
  - Inline links, to anywhere
- Supplemental navigation
  - Helpers – site map, A-Z index

Recipes Lifestyle Food

Basque Squid Stew

by **Rick Stein**
from **Fruits of the Sea**

Serves 4

Preparation time	less than 30 mins
Cooking time	over 2 hours

- Email this recipe
- Print friendly version
- Add to recipe binder

Ingredients

750g/1½lb squid
3 tbsp olive oil
1 onion, chopped
3 garlic cloves, finely chopped
400g/14oz can of chopped tomatoes
150ml/5fl oz red wine
290ml/½ pint water
1 tsp chopped fresh thyme
1 tsp salt
20 turns of the black pepper mill

Method

1. Clean the squid. Cut the pouches into rings and separate the tentacles if large.
2. Heat the oil in a large, heavy-based pan. Add the squid and cook over a high heat, stirring from time to time, until lightly browned.

Information Architecture for the World Wide Web: Designing Large-Scale Web Sites

by Louis Rosenfeld (Author), Peter Morville (Author)
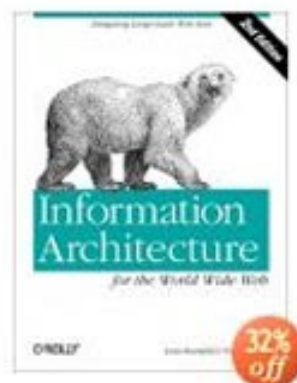
List Price: ~~$39.95~~

Price: **$27.17** & This item ships for **FREE with Super Saver Shipping**. See details.

You Save: $12.78 (32%)

Availability: Usually ships within 24 hours

see larger photo

12 used & new from $22.50

Edition: Paperback

▶ **See more product details**

Customers who bought this book also bought:

- Don't Make Me Think: A Common Sense Approach to Web Usability by Steve Krug (Author) (Rated)
- Information Architecture: Blueprints for the Web by Christina Wodtke (Author) (Rate it)
- The Elements of User Experience: User-Centered Design for the Web by Jesse James Garrett (Author) (Rate it)
- Designing Web Usability : The Practice of Simplicity by Jakob Nielsen (Author) (Rated)
- The Design of Sites: Patterns, Principles, and Processes for Crafting a
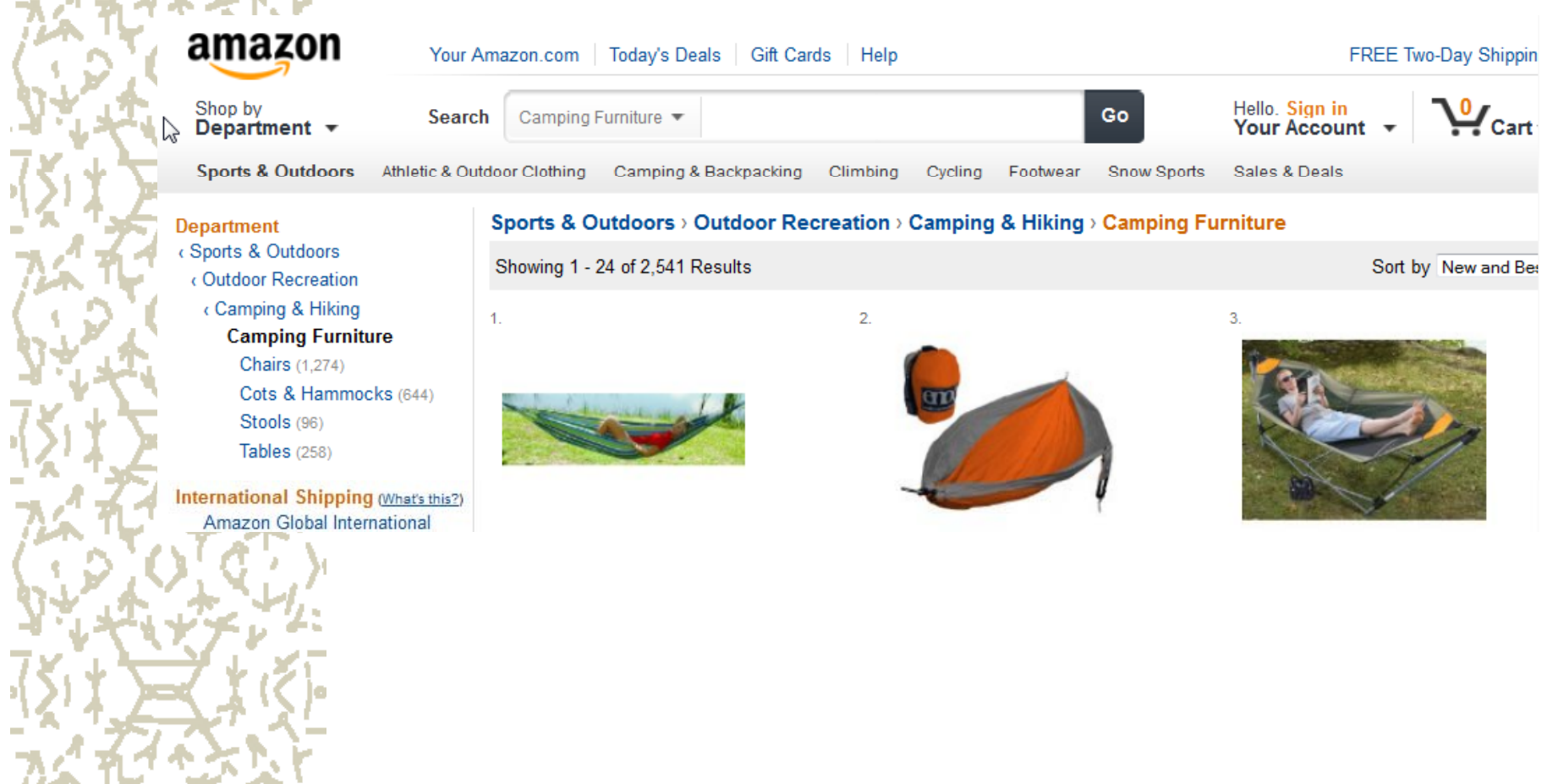
Breadcrubs Navigation

Where Am I?

- Show the user the path that was used to reach the current page being viewed.

  www.hm.edu->CampusLife->Student Activities->Leadership

  Program

Breadcrubs Navigation example

Labeling

- Good labels
  - Are understandable by the reader
  - Are consistent within the site
  - Clearly describe where you are going next
- Labeling is not easy – it is as complex as structure and navigation
- Where to get labeling ideas:
  - User research
  - Search terms
  - Referrer terms
  - Call centre/people in contact with users

Card sort

This is a low-tech approach to develop a taxonomy

It demonstrates how people group items

Allows you to develop structures that maximize the chances of users being able to find what they want and:

Is easy and cheap to conduct

Identifies items that can be difficult to categorize and find

Identifies terminology that is likely to be misunderstood

Card Sorting

You have to have predefined the major categories

Label each card with a description of a potential content piece for a site

  Have respondents create piles of cards that share similar relationships

  Have them create a name for the content piles

  Then cluster the groupings

  Pay attention to items that do not have a consensus

  Would re-naming the item improve the situation, or does it need to be included in more than one category?

The results indicate how users organize the content

  Use the findings to the develop the site architecture

Preparing the card sort

- Ensure that each term is clear and unambiguous

- Make sure you have included all the items you need to categorize

- Shuffle or randomize cards prior to each session

- Use the same instructions so all participants have the same understanding of the process

- Leave participants alone while they are sorting the cards, but make sure they can easily ask you questions

- Provide additional blank cards for people to write group names

- Provide rubber bands so that people can gather groups of cards together

IA Resources

- Books
  - Information Architecture for the World Wide Web – Louis Rosenfeld & Peter Morville
  - Elements of user experience – Jesse James Garrett
  - Information Architecture – Blueprints for the Web – Christina Wodtke
  - Don't Make Me Think – Steve Krug
- Online
  - Boxes and Arrows – http://www.boxesandarrows.org/
  - IAslash - http://www.iaslash.org/
  - IAwiki – http://www.iawiki.org/