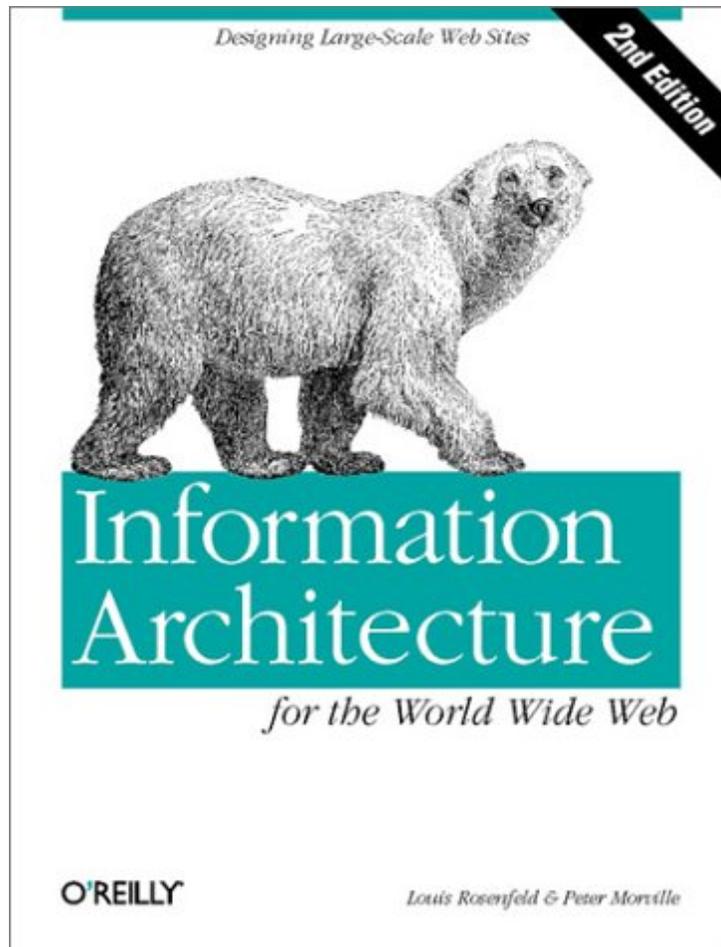


# Information Architecture

## Why It Matters



# Semantic Studios



1. The combination of organization, labeling, and navigation schemes within an information system.
2. The structural design of an information space to facilitate task completion and intuitive access to content.
3. The art and science of structuring and classifying web sites and intranets to help people find and manage information.
4. An emerging discipline and community of practice focused on bringing principles of design and architecture to the digital landscape.



Architecture  
Design  
Technology

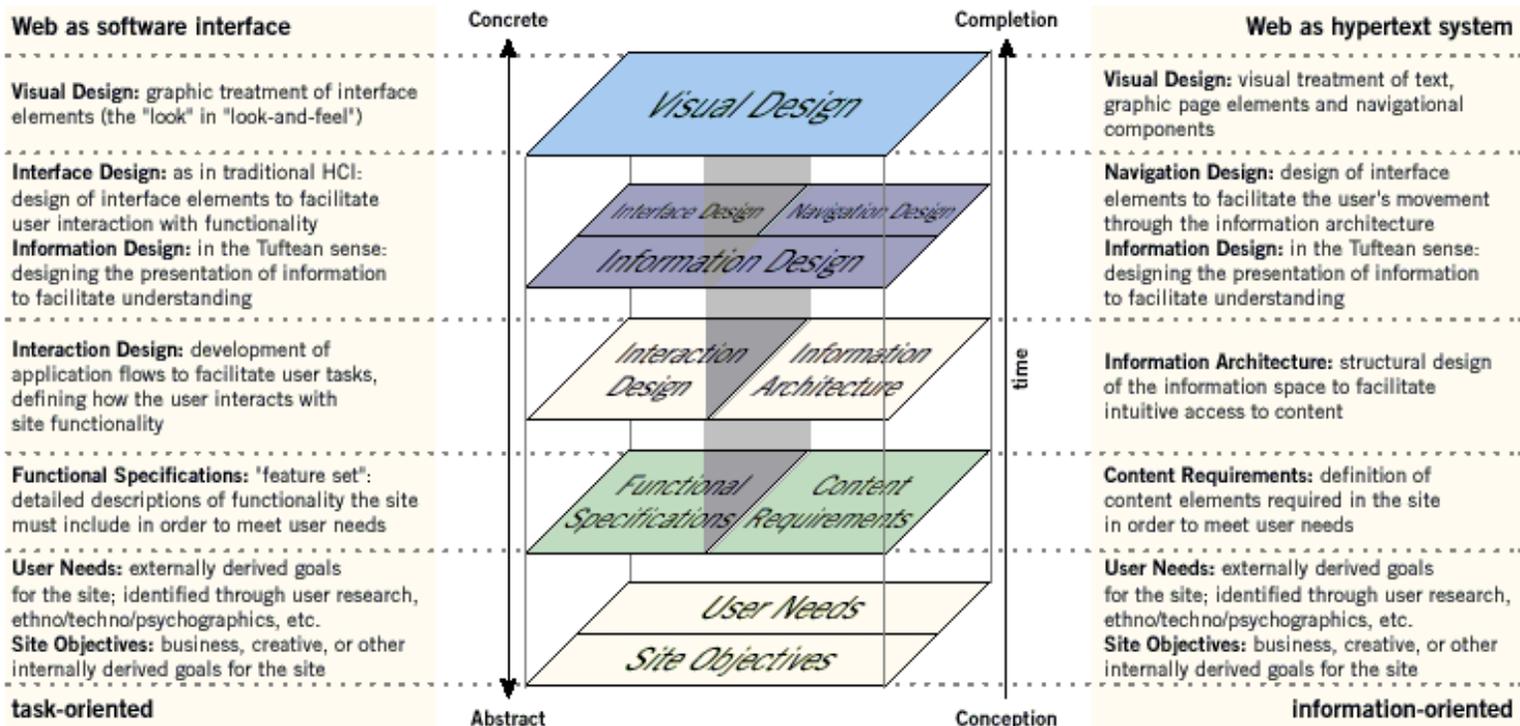
# The Elements of User Experience

Jesse James Garrett

jig@jig.net

30 March 2000

**A basic duality:** The Web was originally conceived as a hypertextual information space; but the development of increasingly sophisticated front- and back-end technologies has fostered its use as a remote software interface. This dual nature has led to much confusion, as user experience practitioners have attempted to adapt their terminology to cases beyond the scope of its original application. The goal of this document is to define some of these terms within their appropriate contexts, and to clarify the underlying relationships among these various elements.



**This picture is incomplete:** The model outlined here does not account for secondary considerations (such as those arising during technical or content development) that may influence decisions during user experience development. Also, this model does not describe a development process, nor does it define roles within a user experience development team. Rather, it seeks to define the key considerations that go into the development of user experience on the Web today.

# Why is IA Important?

Cost of **finding** (time, frustration)

Cost of **not finding** (bad decisions, alternate channels)

Cost of **construction** (staff, technology, planning, bugs)

Cost of **maintenance** (content management, redesigns)

Cost of **training** (employees, turnover)

Value of **education** (related products, projects, people)

Value of **brand** (identity, reputation, trust)

## Statistics

**Employees spend 35% of productive time searching for information online.**

Working Council for Chief Information Officers  
Basic Principles of Information Architecture

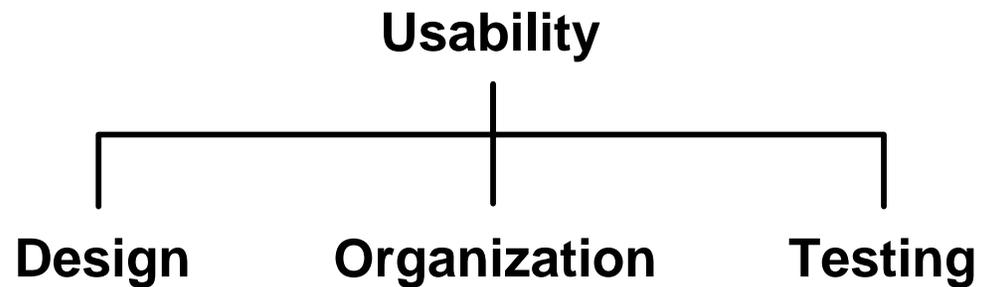
**The Fortune 1000 stands to waste at least \$2.5 billion per year due to an inability to locate and retrieve information.**

IDC, The High Cost of Not Finding Information

**Forfeited revenue: poorly architected retailing sites are underselling by as much as 50%.**

Forrester Research, Why Most Web Sites Fail

“Information Architecture, as a separate discipline, has always bothered me. I always wondered if it was a broad enough discipline to merit its own field, or was it just a case of librarians trying to muscle into the usability field with their own spin?”



# ORGANISATION

“Delphi Group’s research on user experiences with corporate Webs reveals that lack of organization of information is in fact the number one problem in the opinion of business professionals.”

Taxonomy & Content Classification

A Delphi Group White Paper, 2002

[http://www.delphigroup.com/research/whitepapers/WP\\_2002\\_TAXONOMY.PDF](http://www.delphigroup.com/research/whitepapers/WP_2002_TAXONOMY.PDF)

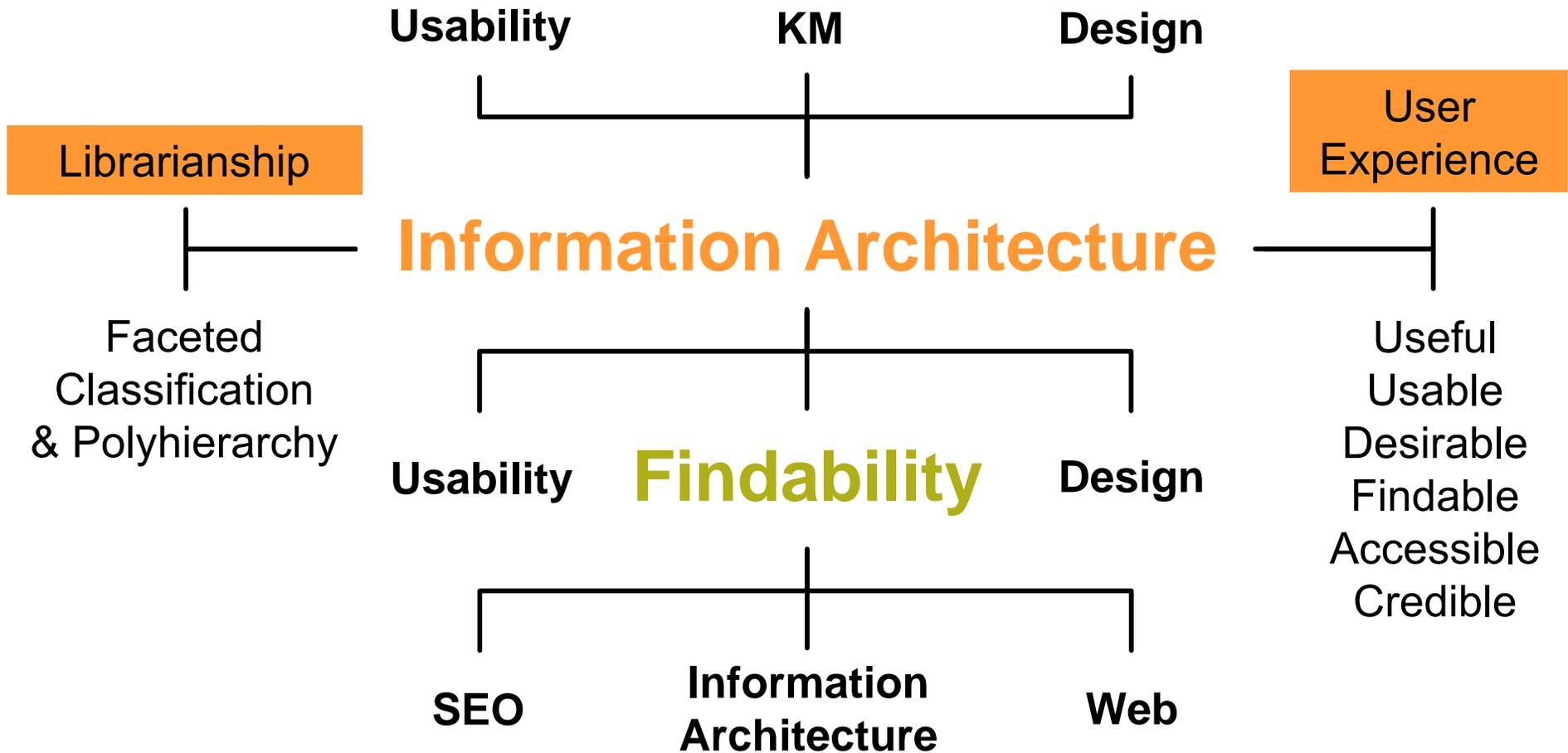
<b>Most Common Usability Problems</b>	
Poorly organized search results	53%
Poor information architecture	32%
Slow performance	32%
Cluttered home pages	27%
Confusing labels	25%
Invasive registration	15%
Inconsistent navigation	13%

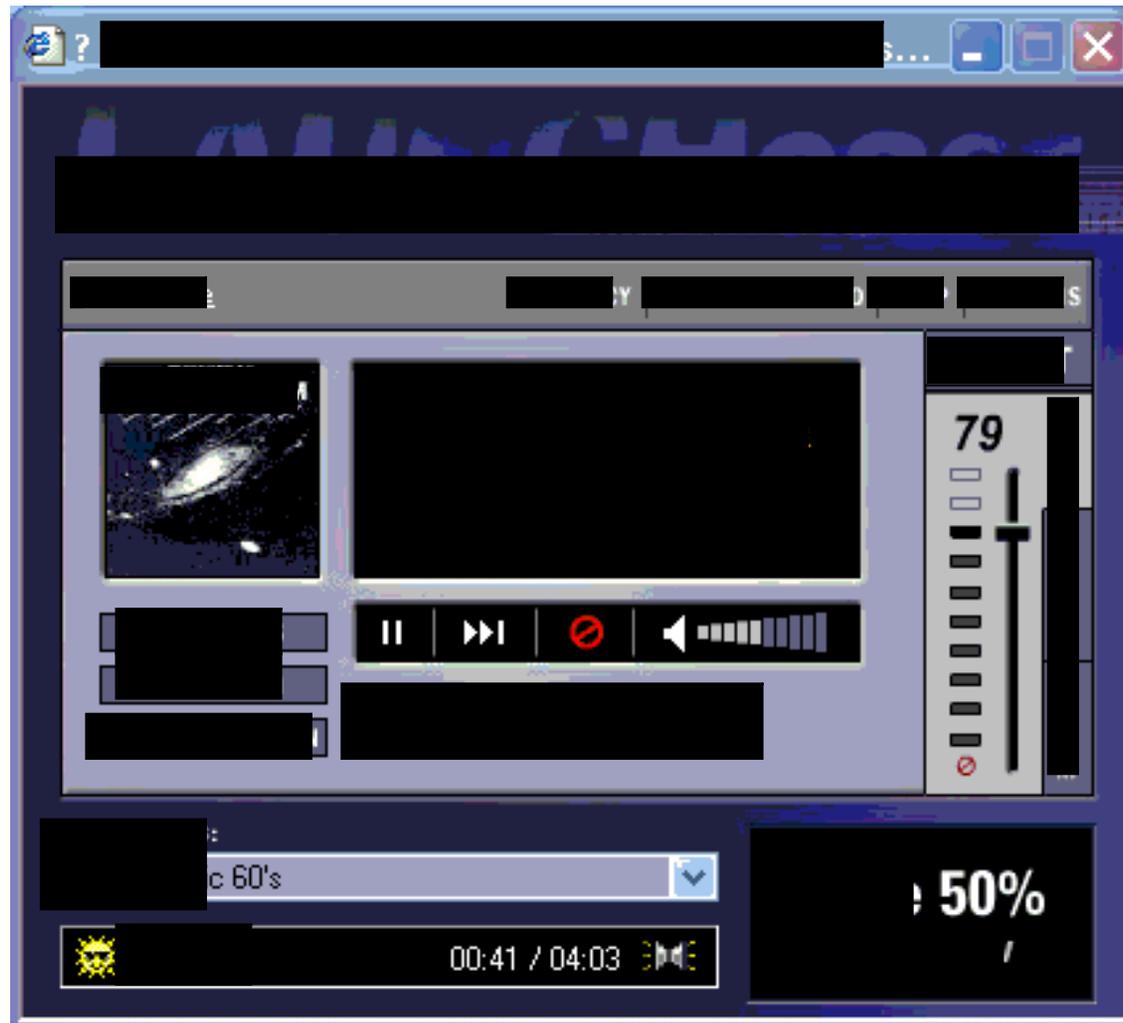
## **Vividence Research**

### The Tangled Web

Vividence found poorly organized search results and poor information architecture design to be the two most common and serious usability problems

# Semantic Studios





## Music Videos - The most videos on the web!

VIDEO SEARCH

ARTIST BROWSE [Q](#)[A](#)[B](#)[C](#)[D](#)[E](#)[F](#)[G](#)[H](#)[I](#)[J](#)[K](#)[L](#)[M](#)[N](#)[O](#)[P](#)[Q](#)[R](#)[S](#)[T](#)[U](#)[V](#)[W](#)[X](#)[Y](#)[Z](#)

### POP



Christina Aguilera  
[Beautiful](#)

[ALL POP VIDEOS...](#)

### ROCK



Good Charlotte  
[Lifestyles Of The Rich And Famous](#)

[ALL ROCK VIDEOS...](#)

### ELECTRONIC/ DANCE



Thievery Corporation  
[Richest Man In Babylon](#)

[ALL ELECTRONIC/  
DANCE VIDEOS...](#)

### RAP



Smilez & Southstar  
[Tell Me](#)

[ALL RAP VIDEOS...](#)

### R&B



Nivea  
[Don't Mess With My Man - featuring Jagged Edge](#)

[ALL R & B VIDEOS...](#)

OTHER GENRES: [BLUES](#) | [COUNTRY](#) | [FOLK](#) | [JAZZ](#) | [NEW AGE](#) | [REGGAE](#) | [RELIGIOUS](#) | [SHOWS & MOVIES](#) | [WORLD](#)

### MY VIDEOS

[WATCH MY VIDEO STATION](#)

[My Video List](#)

[Recently Watched Videos](#)

### TOP 100 VIDEOS



Watch this week's Top 100 featuring:

1. [Dirrty](#) - Christina Aguilera
2. [Miss You](#) - Aaliyah
3. [Cry Me A River](#) - Justin Timberlake

### ADVERTISEMENT

Get a **FREE** Quote from a Local Dealer.



## LAUNCHcast

[My Station >](#) [Edit >](#)

### Genres

[LAUNCHcast Home](#)

[Station Guide](#)

[My Station](#)

• [Listen](#)

• [Edit](#)

• [Artists](#)

• [Albums](#)

• [Songs](#)

• **Genres**

• [Moods](#)

• [Influencers](#)

• [Subscribers](#)

• [Recently Played](#)

• [Share My Station](#)

[LAUNCHcast Plus](#) NEW

[Help](#)

Take your radio experience to the next level.

Start your free trial of

### EDIT GENRES

Edit genres by rating below. To rate sub-genres for a particular genre, click "edit sub-genres."

GENRES	RATE	
Blues	<input type="range" value="87"/>	<a href="#">edit sub-genres &gt;</a>
Rock	<input type="range" value="81"/>	<a href="#">edit sub-genres &gt;</a>
Jazz	<input type="range" value="68"/>	<a href="#">edit sub-genres &gt;</a>
Country	<input type="range" value="X"/>	<a href="#">edit sub-genres &gt;</a>
Folk	<input type="range" value="X"/>	<a href="#">edit sub-genres &gt;</a>
Oldies	<input type="range" value="X"/>	
Classical	<input type="range" value="--"/>	<a href="#">edit sub-genres &gt;</a>
Electronica	<input type="range" value="--"/>	<a href="#">edit sub-genres &gt;</a>
Holiday	<input type="range" value="--"/>	<a href="#">edit sub-genres &gt;</a>
Latin	<input type="range" value="--"/>	<a href="#">edit sub-genres &gt;</a>
Miscellaneous	<input type="range" value="--"/>	<a href="#">edit sub-genres &gt;</a>

ADVERTISEMENT



### Upgrade your radio experience to include:

- + 50 Exclusive Stations
- + Commercial-Free Music
- + Genre Moods & More!

### 7-day FREE TRIAL!

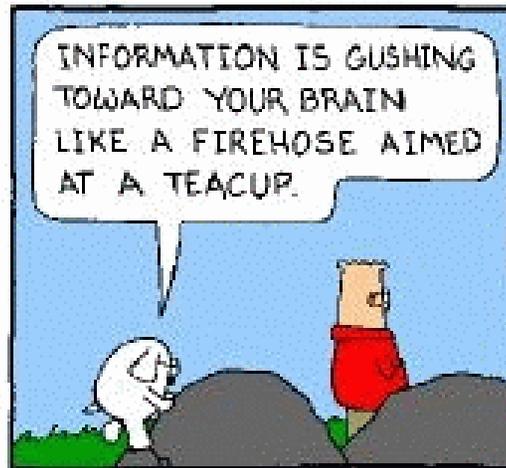


“While information structure is often associated with **usability**, the comments here show how information structure has implications for **credibility**. Sites that were easy to navigate were seen as being more credible.”

1. Design Look **46.1%**
2. Information Design/Structure **28.5%**
3. Information Focus **25.1%**
4. Company Motive **15.5%**
5. Information Usefulness **14.8%**
6. Information Accuracy **14.3%**
7. Name Recognition & Reputation **14.1%**
8. Advertising **13.8%**
9. Information Bias **11.6%**
10. Writing Tone **9.0%**
11. Identity of Site Operator **8.8%**
12. Site Functionality **8.6%**
13. Customer Service **6.4%**
14. Past Experience with Site **4.6%**
15. Information Clarity **3.7%**
16. Performance on Test by User **3.6%**
17. Readability **3.6%**
18. Affiliations **3.4%**

# A wealth of information creates a poverty of attention.

Herbert Simon, Nobel Laureate Economist



---

# How Much Information? 2003

Summary

Stored Information

Information Flows

Exec Summary

Paper | Film | Magnetic | Optical

Broadcast | Telephony | Internet

---

Print, film, magnetic, and optical storage media produced about **5 exabytes** of new information in 2002. Ninety-two percent of the new information was stored on magnetic media, mostly in hard disks.

**How big is five exabytes?** If digitized, the nineteen million books and other print collections in the Library of Congress would contain about ten terabytes of information; five exabytes of information is equivalent in size to the information contained in half a million new libraries the size of the Library of Congress print collections.

Although the Internet is the newest medium for information flows, it is the fastest growing new medium of all time, becoming the information medium of first resort for its users.

<http://www.sims.berkeley.edu/research/projects/how-much-info-2003/>

“Among very experienced users, the Internet now ranks higher than books, television, radio, newspapers, and magazines as an important source of information.”

UCLA Internet Report, January 2003.



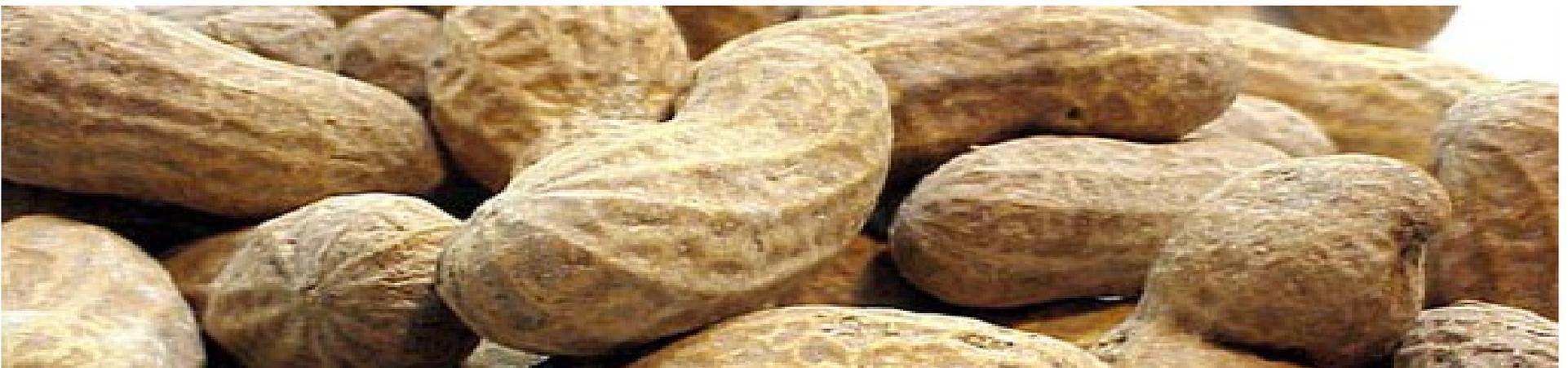
## **Peanut Allergy**

Urgent need for information.

No time. Credibility essential.

Google failed (popularity  $\neq$  authority).

Web delivered (search skills + domain knowledge).





**State Tobacco Control Programs  
Can Lower Smoking Rates** →→

**Research Programs** →

- [NCI Research Priorities](#)
- [Research Portfolio](#)
- [Research Sponsored by NCI](#)
- [Research Conducted at NCI](#)
- [NCI Research Resources](#)
- [Partners in Research](#)

**Research Funding** →

- [Funding Announcements](#)
- [Grant Application and Review](#)
- [Other Funding Organizations](#)
- [Scientific Programs and Contacts](#)
- [Training and Education Funding](#)
- [Research Policies](#)

**Cancer Information** →

- [Types of Cancer](#)
- [Treatment](#)
- [Prevention, Genetics, and Causes](#)
- [Screening and Testing](#)
- [Coping with Cancer](#)
- [Support and Resources](#)
- [Cancer Literature](#)
- [PDQ](#)

**Clinical Trials** →

- [Finding Clinical Trials](#)
- [Types of Cancer](#)
- [Conducting Clinical Trials](#)
- [Understanding Clinical Trials](#)
- [Recent Developments](#)
- [Clinical Trial Results](#)
- [Educational Resources](#)

**Statistics** →

- [Understanding Cancer Statistics](#)
- [Finding Cancer Statistics](#)
- [Statistical Tools & Data](#)

Advanced

[New NCI-FDA Strategic Initiatives Announced](#)

[CCOP Celebrates 20 Years of Research](#)

[Past Highlights](#)

[Press/NewsCenter](#)

**1-800-4-CANCER**  
*Cancer Information Service*

**DIRECTOR'S CORNER**

- [Welcome](#)
- [Director's Update](#)

help

- [Cancer.gov Help](#)
- [FAQs](#)
- [Index of NCI Sites](#)

resources

- [Publications Locator](#)



[Advanced Search](#) [Preferences](#) [Language Tools](#) [Search Tips](#)

breast cancer

Google Search

[Web](#) [Images](#) [Groups](#) [Directory](#) [News](#)

Searched the web for **breast cancer**.

Results **1 - 10** of about **4,870,000**. Search took **0.11** seconds.

### [Side Effects of Breast Cancer Treatment](#)

Chemotherapy can cause your hemoglobin count to drop. Learn more.

Sponsored Link

### [Breast Cancer Information](#)

[www.breastcancer.org](http://www.breastcancer.org) Reliable, timely, understandable information for you.

Sponsored Link

Category: [Health > Conditions and Diseases > Cancer > Breast](#)

News: [New breast cancer gene discovered](#) - BBC News - 12 hours ago

[Imaging Technique May Diagnose Breast Cancer Without Biopsy](#) - Science Daily (press release) - Nov 24, 2003

[Lothians failing on cancer test targets](#) - The Scotsman - Nov 24, 2003

Try Google News: [Search news for breast cancer](#) or [browse the latest headlines](#)

Sponsored Links

#### [Fighting Breast Cancer](#)

Learn More & Do Your Part. Help the Komen Foundation Make a Difference.

[www.Komen.org](http://www.Komen.org)

Interest:

#### [Breast Cancer Research](#)

Search our portfolio & abstracts. Up-to-date & easy to use.

[www.CABreastCancerResearch.org](http://www.CABreastCancerResearch.org)

Interest:

#### [Breast cancer questions?](#)

Call us for information & support. 24/7 peer support from survivors.

[www.Y-ME.org](http://www.Y-ME.org)

Interest:

#### [Breast Cancer News](#)

Daily treatment option available. Find out more.

[www.know-your-nations.com](http://www.know-your-nations.com)

### [The Breast Cancer Site](#)

Description: Founded to help offer free mammograms to underprivileged women nationwide. With a simple, daily "click"...

Category: [Society > Philanthropy > Free Donations > Cancer](#)

[www.thebreastcancersite.com/](http://www.thebreastcancersite.com/) - [Similar pages](#)

### [National Alliance of Breast Cancer Organizations](#)

NABCO, the leading non-profit information and education resource on **breast cancer**, can be reached toll-free at (888) 80-NABCO. ...

Description: A monthly on-line health column from the National Alliance of **Breast Cancer** Organizations (NABCO)...

Category: [Health > Support Groups > ... > Cancer > Breast](#)

[www.nabco.org/](http://www.nabco.org/) - [25k](#) - [Cached](#) - [Similar pages](#)

### [Y-ME National Breast Cancer Organization](#)

I've just been diagnosed with **breast cancer**. Understand your treatment options and their potential side effects. ... I'm looking for **breast cancer** information. ...

Description: Support and information about the condition from this non-profit entity. Headquartered in Chicago, Illinois.

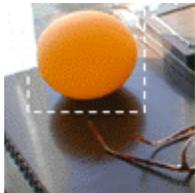
Category: [Health > Conditions and Diseases > ... > Breast > Organizations](#)

[www.y-me.org/](http://www.y-me.org/) - [26k](#) - [Cached](#) - [Similar pages](#)

surrounding, encircling, enveloping

## Ambient Findability

**the ability to find anyone or anything  
from anywhere at anytime**



### The Ambient Orb™

subtly shifts colors according to user-defined thresholds of portfolio changes, and blinks when additional thresholds are reached.

David Rose

[ambientdevices.com](http://ambientdevices.com)

**the problem:** Ira, 54, an investor, typically spends a few minutes every hour checking the status of his portfolio, either going online or watching a stock ticker on TV.

**The Ambient Pinwheel™** spins to show when users have received emails from people on their buddy list, and spins faster for each additional email.



**the problem:** Maureen, 26, a new mother, has very little free time. Taking time to boot up her computer and check her email is a luxury, especially if there are no important messages for her to reply to.

**the solution:** With the Ambient Pinwheel™ Maureen is confident that important emails await her prior to logging on and checking her email.

Learn more about financial services applications >

Learn more about office environments applications >

**the problem:** Ruth, 73, a retiree, has had her medication needs increase as she has gotten older. She often has to refer to a schedule or get a daily reminder from her doctor in order to take the correct pill at the correct time. This dependence makes her feel senile without cause.

**The Ambient Healthwatch™** slowly lights prescription-related icons in accordance with doctor recommended medication times.



**the solution:** With the Healthwatch™ Ruth is reminded when to take her medications without having to check anything or be nagged by anyone, reinforcing her sense of independence.

Learn more about health and wellness applications >

**the problem:** Mike, 35, a manager, often entertains business development candidates out of the office while waiting for important communications from current clients.

**the solution:** With the Ambient Pen™ Mike can focus entirely on engaging his prospective clients, knowing exactly when the urgent information he anticipates has arrived.



**The Ambient Pen™** changes color when user-defined associates voicemail the user.

Learn more about business accessory applications >



**CNET News. Nov 25, 2003.**  
 Radio frequency identification tags aren't just for pallets of goods in supermarkets anymore.

### **Automatic Locates**

Schedule an "automatic locate" to see where your child is at a given time.

### **Breadcrumbing Feature**

This feature is great for identifying a specific route or series of destinations.

Applied Digital Solutions is hoping that Americans can be persuaded to implant RFID chips under their skin to identify themselves when going to a cash machine or in place of using a credit card.

# IA Therefore I Am

**Peter Morville**

[Morville \(at\) semanticstudios.com](mailto:Morville@semanticstudios.com)

**Semantic Studios**

<http://semanticstudios.com/>

**Asilomar Institute for Information Architecture**

<http://aifia.org/>

**Presentation**

<http://semanticstudios.com/events/whyiamatters.ppt>

