Understanding the Personal Info Cloud: Using the Model of Attraction

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Overview

- Why Model of Attraction
- Overview of InfoClouds
- Understanding the Model of Attraction
- Using Model of Attraction to aid the user’s Personal InfoCloud
Why the Model of Attraction (MoA)

- MoA is a framework describing:
  - Interaction of users & digital information
  - The physical properties of digital information
  - Users finding, storing, and reusing information
  - Outline of a user’s needs and desires in information life cycle
In the Beginning

Internet
Now More Cloudy

- Personal Info Cloud
- Local Info Cloud
- Global Info Cloud
- External Info Cloud
Global InfoCloud

- Internet
- Attributes:
  - Access to info from anywhere
  - Not user organized
  - Not user controlled
Local InfoCloud

- LAN/Intranet
- Location and/or membership based network
- Attributes:
  - Access to info by location or membership
  - Not user controlled
  - Not user organized, but often user is familiar with structure
External InfoCloud

- Information Repository the user does not have access to
- Behind a firewall
- Location-based
- Membership access
- Information and knowledge sharing is difficult
Personal Info Cloud

- User’s information repository

Attributes:
- User organizes & controls information
- Portability (information follows user)
- Easy access to information
- Information aggregation
Developer’s View of Information World

Personal Info Cloud

Local Info Cloud

Global Info Cloud

External Info Cloud

User

Closer to the User

Developer & Client Focus (80%)

Least Accessible to the User
User’s View of the Information World

- **Personal Info Cloud**
- **Local Info Cloud**
- **Global Info Cloud**
- **External Info Cloud**

Least Accessible for the User

User’s Common Resources

Least Accessible for the User
Navigation – Living in a Box

- Navigation is used to define the path between the user and information.
- Navigation as a metaphor, breaks quickly once one leaves browsing within the site.
- Counter to spacial navigation:
  - On the Web we do not go places.
  - Information and digital elements come to us.
Why Attraction?

- Literal description of user interaction with information in an information application and beyond
- Literal understanding of getting information and people together
- Two-way attraction: User drawing info closer, as well as user attracted to terms and presentation layer
- MoA is easy to understand for non-initiated
- Encompasses browsing, searching, interface design, portals, personalization, content management, information access, mobile information use, knowledge management, etc.
Phases of Attraction – Information Use Cycle

- Seeking
- Recognizing
- Retaining / Storing
- Following

User

Info Need

Personal Info Cloud

Info Reuse
Seeking

- User tries to get specific or general information
- Uses hyperlinks, search, browsing, stored resources
- User has a mental model of the properties of what they are seeking
Recognizing

- As new information arrives on the screen, the user interprets and assesses the attraction of the elements to the user’s mental model.
- Attraction based on vocabulary and relation of terms to what is being sought.
- Visual presentation can add or detract from the attraction.
- User must be able to find the related terms and believe the information is drawing closer.
Retaining/Storing

- How does the user consume the information?
  - User prints, e-mails, copies, bookmarks, blogs, stores in data repository (database, etc.), enters in PIM (calendar, address book, etc), uses personalization system on a site/portal, adds to wishlist, enters in project tracking
  - User chooses if and how to store the info
  - The Web downloads information into the browser’s cache, often by default
  - User may want add their own attractors to the information (metadata or annotations to ease reuse of the information)
Following

- Users manage their Personal InfoCloud, which stores information the user wants to stay attracted to them and follows them.
- Users prefer to have the information follow when it is needed, so it can easily be reused.
- Methods of Following: Synch PIM to a mobile device, mobile access, weblog, personalized portal, mobile internet, wishlist, automated e-mail/voicemail reminders, talking house/furniture/car, GPS or other location-based service.
Receptor: Intellectual (Cognitive)

- The user seeks based on their terminology/lingo and current understanding
- User will continue to draw information to them if they believe they are getting closer to an exact match
- Users have preconceived ideas of the results and filter information based on these models
- Classification systems are built are based on the cognitive attraction terms based on the user’s definition of those terms
• Visual, auditory, and writing style cues may have an effect on the user interaction

• The user has preconceived ideas of the of visual and auditory presentation form & style

• What are the norms the user expects and norms for that type of information
• The algorithms that drive search engines in one example of digital attractors

• There are a multitude of aggregators that seek out information to bring the information closer to the user or only draw information that matches certain criteria

  • RSS (pull)

  • Personalized news (push)
• A user’s personal physical capabilities (sight or motion limitations) can inhibit access to information
• Devices are conduits to and repositories for information
  • Devices can aid or inhibit access to information
• Users are continually trying to attract and keep desired information closer to themselves
  • Synching devices permits and mobile access provide pervasive access to information
• Location can have an impact on access to information
• Users set parameters of attraction for the information in their devices determining which information should have a strong attraction to the user

• Mobile devices provide a conduit for the Personal InfoCloud information to stay attracted to the user

• Users prefer to have information in formats that work easily with their receptors
Understanding Attraction

- Attraction brings common elements together by grouping and defining through similarity
- Defining users
- Defining information
- Defining information usage
- Attraction needs a catalyst
- Words are common attractors for Web site users
Understanding Attraction

- Attraction also involves repulsion
- Users not finding information (good and bad)
- Repulsion of unwanted information also helps users find what they are seeking in a smaller collection of information
- Repulsion helps define an element as much as attraction
- Repulsion is a discriminator
Optimizing Attraction

- Attraction need the ability to have some draw between the two elements
- Clear sight: A user cannot be attracted to an element if the element is obscured
- Proximity: A magnet only has a certain range that will pull the elements toward it
- Cognitively attraction can be optimized with crosswalks between sets of information -- Attraction and Personalization
- Focus on optimizing for receptors
InfoCloud Discriminators

- Accessibility of information
  - Portable information
  - Location-based
  - Ubiquitous access
  - Information format
- User control of the information
- User categorization
Attraction & Personal InfoCloud

• The user is interested in more than just getting the info in front of them
• What applications do the users use
• What standard formats should the information conform
• What location is the information used
• How will the user be able to add their own categories and/or metadata
Attraction &
Personal InfoCloud

- Information following the user
- Setting what you want to follow you
- Easing the ability to have like information to be drawn to proximity
- Proximity to information sources can change preferences or strength of the attraction
- Stronger attraction with more narrow focus is needed for portability of information
Summary

• Focus on the user and their information use cycle
• Focus on making information reusable
• Keep up with conventions and standards
• Let the user control their information
• Attraction works to draw closer and repel, for clarity of the information that is wanted and needed
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