Model of Attraction

by Thomas Vander Wal

Presented at ASIS IA Summit

Portland, Oregon

March 22, 2003

What is the Model of Attraction (MoA)

- MoA is a framework that literally describes the relation of:
  - The user and information
  - Various sets of information
  - Users finding, storing, and reusing information and keeping information close

Why Attraction?

- Literal description of user interaction with information in an information application and beyond
- Literal understanding of getting information and people together
- Easy to understand for non-initiated
- Encompasses browsing, searching, interface design, portals, personalization, content management, information access, mobile information use, knowledge management

Why Attraction?

- Provides an open framework to build and structure applications for users focussing on how users want to get and use information
- Takes advantage of research on information scent and information foraging
- Helps explain what Information Architects, User-centered designers, and experience designers do and how they do it

What are Metaphors?

- Metaphors are often non-literal explanations and frameworks used to explain processes and interactions
- A metaphor can ease the understanding of complex systems and ideas
- Metaphors can limit understanding and limit possibilities

Navigation is Broken

- Navigation is often used to define and research browsing actions on the Web
- Counter to spacial navigation
  - On the Web we do not go places
  - Information and digital elements come to us
- Navigation is a metaphor, which breaks rather quickly once one leaves browsing

Information Foraging (Scent of Information)

- Defines a sensory attraction metaphor describing users finding information
- Created at Xerox Parc
- Does not help understand information use and reuse based on the user's desires

Phases of Attraction

- Seeking
- Recognizing
- Retaining/Storing
- Following

Phases of Attraction: Seeking

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

Phases of Attraction: Recognizing

- As new information arrives on a screen interprets and assesses the attraction of the elements to the user's mental model
- Attraction based on vocabulary and nearness of terms to what is being sought
- Visual presentation can add or detract from the attraction

Phases of Attraction: Retaining/Storing

- User prints, e-mails, copies, bookmarks, write and link to (blogs), stores in data repository (database, etc)., enters info in PIM (calendar, address book, todo, etc), uses personalization system on a site/portal, adds to wishlist, enters in project tracking
- User chooses how to store
- User may want add their own metadata or annotations to ease reuse of the information through their own attractors

Phases of Attraction: Following

- User sets a rough cloud of information that is attracted to the user and follows the user
- Synch PIM onto a mobile device, mobile e-mail access, weblog, personalized portal, mobile internet, wishlist, automated e-mail/ voicemail reminders, talking house/car, GPS enabled PDA or other location based service

Phases and Metaphors

	Navigation	Info Foraging	Attraction
Seeking	Partial	Yes	Yes
Recognizing	Partial	Yes	Yes
Retaining/ Storing			Yes
Following			Yes

Attraction Receptors

- Intellectual (Cognitive)
- Perceptual (Sensory - Visual)
- Mechanical (Digital)
- Physical

Attraction Receptors: Intellectual (Cognitive)

- Users have preconceived results and seek information based on these models until a match is found or they are drawn elsewhere
- 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
- Classification systems are built are based on the cognitive attraction terms based on the user's definition of those terms

Attraction Receptors: Perceptual (Sensory)

- The user has preconceived ideas of the quality of visual and auditory presentation
- Visual and auditory cues may have an effect on the user
- Understanding the users and their sensory connotations will help design information that is attractive to the user

Attraction Receptors: Mechanical (Digital)

- The algorythms 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
  - Personalized news

Attraction Receptors: Physical

- Devices are conduits to and repositories for information
- Synching of devices permits an attraction based on physical proximity to the user's desired information
- Users are continually trying to attract information closer to themselves

Attraction Receptors: Physical

- Users set parameters of attraction for the information in their devices determining which information should have a strong attraction to the user
- Mobile devices offer the ability to have a rough cloud of information stay attracted to the user
- Clicking a link brings the information to the user's screen, because the information is downloaded to that user's device

Attraction Receptors: Physical

Watch a person who has misplaced their PDA or cellphone that contains their "needed" information, there is a panic when they believe the attaction of that information has been broken

Search as a Magnet

- Search uses terms (possibly with other discriminators) to attract information with strong draw closer to the user and repels non-related information, which limits the congestion and eases the users ability to find the information they seek

Understanding Attraction

- Attraction brings common elements together by grouping and defining through similarity
  - Defining users
  - Defining information
  - Defining information usage
  - Attraction needs a catalyst
    - A flower's bright color is a catalyst for humming birds
    - 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

Model of Attraction for Design

- Helps us think through information lifecycle (where and how will the information be used)
- Used to help work through information overload problems
- Used to define and build content management systems, and personalization

Optimizing Attraction

- Attraction needs to have the ability to have some draw between the two elements
  - Clear sight: A user can not 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

IA and Attraction

- IA skills are helped by understanding attraction
  - Card sorting is the categorizing of terms that have common attractions to each other, as the user perceives these attractions
  - Taxonomies are groupings of terms that the user groups have an understanding of and an attraction to the words
  - Wireframes are visual representations of top-level information attractions

Attraction and Personalization

- Setting permanent attractions within devices will keep the information flowing that the user desires
- Using attraction to reduce the information being presented
  - Done through repulsion of items that do not have an attraction
  - Use terms to repulse information to narrow the field of information being returned
- Using aggregators to draw information closer

Attraction for Portability

- Information following user
  - Setting what you want to have 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 magnet
- Stronger attraction with more narrow focus is needed for portability of information

Contact

E-mail: thomas@vanderwal.net
AIM: vanderwal

Personal site: www.vanderwal.net
Work site: www.induscorp.com

Presentation Home:

www.vanderwal.net/essays/moa/030322/