

GeoNotes

Fredrik Espinoza et al.

Social and Navigational Aspects of Location-Based Information Systems

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MAS.961

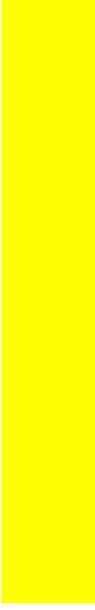
Main Ideas

1. Location-based information system: information in relation to the user's position in geographical space
2. Social: users as content providers, mass-annotations
3. Navigational: filtering techniques to prevent information overload and user disturbance
4. Design implications and requirements

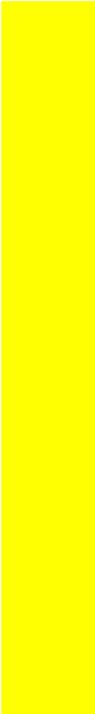
Inspirations

1. Post-Its: mostly used between peers and colleagues who know each other (directed)
2. Graffiti: mostly anonymous and intended for a mass-audience. It has strong expressive function.
3. Signs and Posters: informative in nature. May be private or act as information hub.

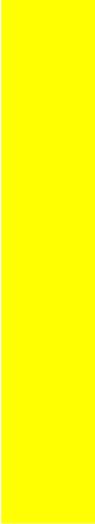
Why Social?

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1. Social aspects have been overlooked in digital location-based systems
 2. Lack of social awareness
 3. Professional content often tends to be 'serious' and 'utility oriented'
 4. Information space easily becomes static with few information providers

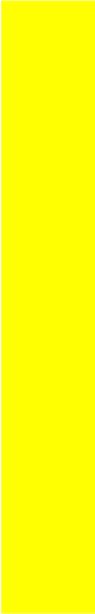
Why Navigational?

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1. Let information space free. All people become content providers.
 2. But information space will become cluttered with unstructured information
 3. Disturbance and spamming
 4. How to provide useful information
 5. Collaborative filtering and social navigation

Proposed System

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1. Social: allow all users to participate in creating information space.
 2. Navigational: Support navigation by collecting and aggregating users' usage of the system, and distribute this data to other users in some refined form.

Design Requirements

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1. Posting: allow users to annotate geographical places by posting virtual notes via their mobile devices.
 2. Accessing: different modes of accessing annotations.
 3. Filtering: find relevant location-based annotations in large information space

Posting

1. Four extra components: title, recipient, signature and place label
2. Label sharing: create an awareness about the social connotations of a place.

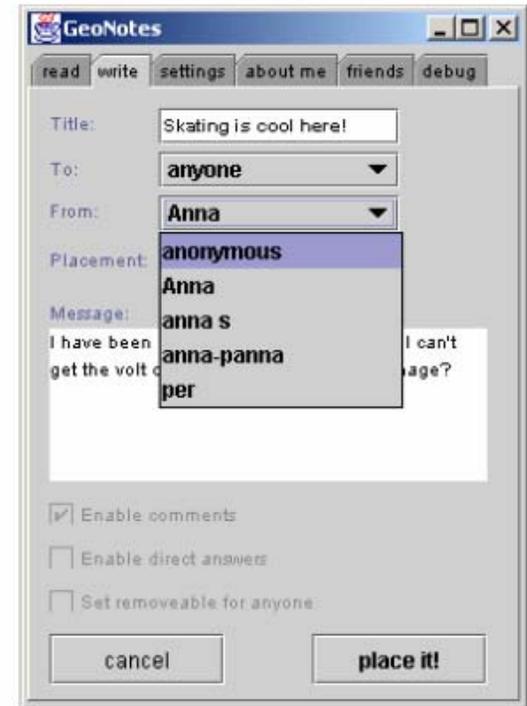


Fig. 1. Choosing a signature while posting a GeoNote

Accessing

1. Pull: search-based
2. Push/pull: explorative, 'checking out' information that might be of interest (sorting)
3. Push: access notes through notification. Filtering is required.

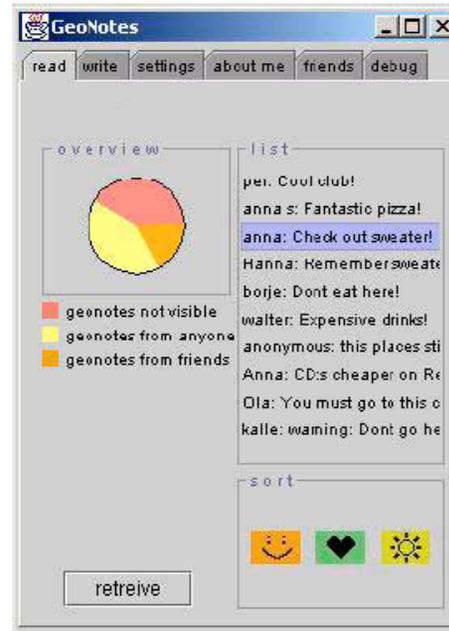


Fig. 2. The pie-chart circle provides an 'at-a-glance' overview of the immediate GeoNote information space. On the right hand side of the screen is the list of the titles of individual GeoNotes

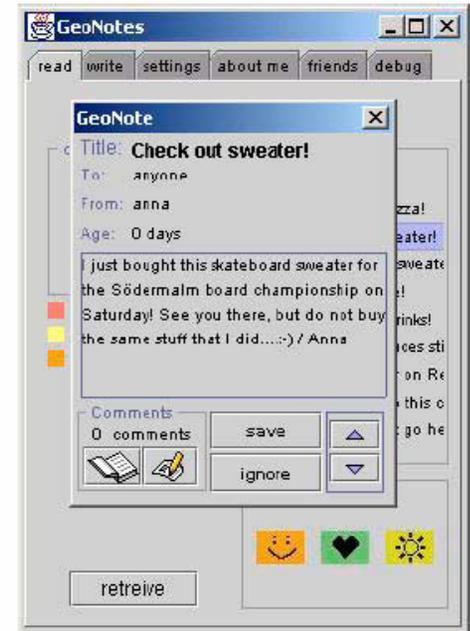


Fig. 3. Clicking in the list brings up the individual GeoNote

Filtering

1. Content-based: keywords of user's interest and content of notes
2. Usage-based: data about how users read, click, save, choose, comment etc. notes.
3. Social filter: aggregated usage data
4. Collaborative filter: cluster unknown users in 'interest groups' and then base the ranking on this

Conclusions

1. Create social awareness to encourages play, expressiveness and personal identity formation
2. Blur the boundary between physical and digital space and enhance digital space socially.
3. The societal and sociological implications of such information space are yet to be determined.