

Transient Life: Collecting and sharing personal information

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ABSTRACT

Millions of people post personal information on the internet, yet the actual information varies greatly. Some pieces are extremely brief, others are highly detailed. Some focus on the moment to moment changes of one's state and thoughts, others describe stable and long-lasting traits. To handle this diversity, we created *Transient Life*: a system that lets a person gather personal 'transient' information tidbits on the fly and share this collected information with others. Transient Life is designed as a modular sidebar located on the display's periphery. A person uses its modules to: update momentary personal state (feelings, location, happenings, and thoughts), record activity milestones done over the day as well as a 'to do' list of things left to do, collect interesting URLs and photos seen, and compose text essays of whatever has captured their interest. A person can selectively post this information as a 'today message' to one's community, and the essay to one's personal blog. Information is kept in a History Calendar, which allows one to view the information recorded on a past date.

Author Keywords

Personal information sharing, blogs, IM.

ACM Classification Keywords

H5.2. Information interfaces and presentation (e.g., HCI): User Interfaces.

INTRODUCTION

The study and development of systems that focus on the collection and storage of personal information is currently a popular endeavour. As digital technologies become ubiquitous, our abilities and desires to record and exchange personal experiences and information have increased over time. E-mail newsletters, on-line photo sharing, personal web pages, blogs, group meeting planners are just some of the things that contain digital information about people's daily lives.

The idea of personal information recording first appeared in 1945, where Vannevar Bush proposed the idea of mechanized personal information memory storage called

a "memex" (Bush, 1945). However, his vision primarily concerned constructing personal trails through organizational information "exactly as though the physical items had been gathered together from widely separated sources and bound together to form a new book" (Bush, 1945). This vision was based on storage and did not yet incorporate sharing or publication to others. Now, several researchers are looking at the mechanics of saving *everything* we encounter in a digital memory store, its organization, and links to sharing (Bell, 2001; Czerwinski et al., 2006; Gemmell, Bell, & Lueder, 2006).

Our particular interests are in collecting the small pieces of digitized information that people tend to share with others on a daily basis and to facilitate the publication of such information. The points of interest to us are items of spontaneous capture due to personal interest and information pertaining to self. These are everyday events and contextual information shared with others who have an interest in our lives.

MOTIVATION: POSTING PERSONAL INFORMATION

Our interest in the area of how people communicate and share information with others stemmed from study findings on how people exploited instant messenger (IM) display names. In that study (Smale & Greenberg, 2005) we found that many people appropriated their display name space – an IM feature originally included to let people reveal their real names rather than the default IM account ID – to broadcast information about self. Essentially, we found that people posted information that reflected their momentary happenings.

We realized that this appropriation of IM names was another manifestation of people's desire to tell their community about themselves, but at quite a different level of time and information granularity than the now-popular blog. Reflecting more generally on this phenomenon, the information people post and the mechanisms they use is diverse. For example, we know that people:

- create home pages describing themselves,
- fill in public profiles to create online personas,
- share pictures of themselves and their activities through online galleries,
- email yearly newsletters / daily happenings to others,
- publish information in their IM display name field,
- post detailed daily diaries to blogs, and
- update others directly through instant messengers, chat, and other real time internet tools.

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Figure 1. Four mechanisms that present personal information.
A. Profiles B. Today Messages C. Blogs D. IM Names

In this research, we want to know what qualities these information pieces share and if we can somehow integrate and consolidate their collection and publication.

PROPERTIES OF PERSONAL INFORMATION

From considering even this short list of information and mechanisms, several properties emerge.

To help articulate these properties, we consider four different mechanisms in detail: IM Names, Today Messages, Blogs, and Profiles (Figure 1). All vary in how much a person reveals to others, how often the information is changed, and its time sensitivity. Each system provides clues to forming a picture of five key properties underlying the personal information people publish about themselves: *content, update frequency and lifetime, archival value, and intended audience*. These are summarized in Table 1 and discussed below.

IM Display Names are the fields in Instant Messenger (IM) clients, designed so that a person can display an easily identifiable name to their contacts instead of the default and possibly cryptic IM address (Figure 1d). As mentioned previously, people appropriated this field by adding extra information, thus using it to communicate more than their name (Grinter & Palen, 2002; Piepmeyer, 2003; Smale & Greenberg, 2005). Given the space limitations of this name field, the information is typically very brief – usually a word or short phrase. In Smale and Greenberg (2005) we studied and categorized display name contents. For content, we found that the top four communication elements posted to that field, other than one’s name, were that person’s mood, a personal commentary, one’s current location, and current activities. Its time relevance was also found to be highly

volatile, where people updated it frequently, even several times a day, to relate to their momentary state of being (Smale & Greenberg, 2005). That is, it typically holds moment-to-moment information that can rapidly go out of date. Perhaps because of this high volatility, changes are not archived nor does there appear to be a need to want such an archive. Finally, the information is broadcast to a limited audience, i.e., that person’s contact list (Table 1, second column for a summary).

Today Messages are brief but regular emails one person sends to co-workers to help them stay aware of what one is doing and to facilitate coordination (Brush & Borning, 2005). Its contents typically detail one’s organizationally relevant activities throughout the day, and often include a “To-do” list of tasks yet to be completed. The challenge of Today Messages is not in posting and delivering (as email is lightweight and ubiquitous), but in developing a culture around its regular use. For content, message length is usually modest, i.e., it is usually in the form of one or two bulleted lists of short but descriptive information fragments that can be displayed without scrolling. In a work oriented culture, the contents of daily postings typically describe the sender’s daily and intended activities but are often empty of other information (Brush & Borning, 2005). Information lifetime is modestly volatile, as it covers daily and/or cumulative activity since the last posting. Its archival value varies. Archiving is sometimes automatic, sometimes manual, e.g., automatic if sent to an archived mailing list, and manual if receivers choose to manually save (perhaps selectively) a today message into their own archives, or if the sender keeps them as a personal diary. Most of the time however, today messages are not kept; they are discarded immediately after reading. Today messages work because a person can target them to a selective audience, e.g., the specific set of people or a mailing list as designated in the ‘To’ field (Table 1, third column).

Blogs are web pages with chronological entries that invite commentary. Blogs tend to be in two forms: topical blogs and personal blogs; it is the later content that is of interest to us. People maintain personal blogs for various reasons: to document their life, to provide commentary, to articulate ideas, or to express deeply felt emotions (Nardi, Schiano, & Gumbrecht, 2004; Nardi, Schiano, Gumbrecht, & Swartz, 2004). Those who do it to document their life use blogs as a personal journal, a chronicle or newsletter, a photo album or scrapbook, a travelogue, or a status update (Schiano, Nardi, Gumbrecht, & Swartz, 2004). Blog entries can be very brief, but are usually of substantial length and very detailed. While some people update their blog several times a day, most typically update it every several days. Its contents have a modest lifetime, as entries typically include more significant events or personal happenings judged worthy of posting. Blog entries are chronologically sequenced as an archive; the addition of new entries pushes older entries off the main page and into the archive (the owner can remove/edit entries, but this is rare). Thus while old information can be retrieved, the typical blog web page looks different from day to day

	<i>IM Names</i>	<i>Today Messages</i>	<i>Blogs</i>	<i>Profiles</i>
Content	Brief surface information	Detailed daily activity information	Detailed life events, activities and commentary	Basic personality and person characteristics
Update frequency	Up to several times a day	Daily / every few days	Daily to weekly to monthly	Once; rarely changed
Lifetime	Volatile ←————→ Stable			
Archival Value	Not logged	Can be saved as archived messages, but often deleted	Archive available for blog or site lifetime	Available for duration of account or site lifetime
Audience	IM contact list only	Specific email recipients, mail list	General internet public, unless specifically restricted	General internet public, or limited to site members

Table 1. Overview of four areas and their relation to the five attributes

depending on the number of entries. Finally, blog entries are directed to a broader community. Unless specifically marked as private, most blogs are open to the general internet public for viewing (Table 1, fourth column).

Profiles are generally attached to a particular user account on various web site locations on the internet, are part of a person's home page, or are part of a chat or gaming group. Profile contents typically collect person and personality characteristics, e.g., age, gender, marital status, occupation, addresses and contact information, and lists of favourite things. Profile contents for different sites can be carefully constructed by its owner with selective, embellished or even imaginary information to match the situation and appeal to others of similar interests (boyd, 2004). What others see is what the person wants to reveal. Profiles are usually edited only once, and their content is generally very stable. Information changes only when an otherwise long-lasting personal characteristic changes, e.g., a job change alters contact and employment information. The personal information contained in profiles is rarely influenced by daily activities or momentary state. By definition, profiles are archival, as they are kept for the entire on-line lifetime of the person. They are also intended for general consumption. Depending on the site, profiles are either publicly available for viewing, or are available strictly to other members of the site (e.g., an organizational intranet) (Table 1, last column)

In summary, while all posted information is about self, it can differ according to the following properties (Table 1):

- *Content* ranges from what is going on at the moment to long term life events, and records fleeting to stable personal characteristics.
- *Update frequency* can range from several times a day to very periodically to rarely.
- *Lifetime*: information may change rapidly and have little value once it goes stale, or it may be very stable.
- *Audience* ranges from very personal to the general public, i.e., from personal contacts and small work-focus groups, to organizational communities, and even to the general internet population.
- *Archival value*: some postings are immediately discarded after they have been read; some are

selectively archived; some are maintained as a long term chronology, others form a static record.

DESIGN PREMISES

Perhaps the many different types of posting and viewing mechanisms in each of the above technologies arose because of these differences. Yet this comes at a cost. Consider for a moment the many different tools and multiple steps required for the poster to gather, update and maintain that information. Also consider the many different things that an audience member has to do to view that information.

We believed that we could integrate personal information posting into a single system. Our goal was to design a single tool that acts as a portal to multiple different publishing applications, where it would complement and/or simplify what is now done. It would provide people with a single interface to collect, consolidate and publish personal information and daily tidbits.

We decided to concentrate our initial efforts at what seems the most challenging area: the information space ranging over IM Names, Today Messages, and Blogs. Unlike profiles, changes in these other areas are a result of regular updates to people's personal information. We based our design premises on the following requirements.

1. **Support spontaneous editing of personal status information.** From the IM display name study (Smale & Greenberg, 2005) we know that the top four communication elements that people posted were moment by moment changes in mood, location, activity and a personal thoughts. Location is also a traditional element in online profiles, and mood indicators are common in blog software systems.
2. **Publish personal status information to the display name field in IM clients.** Recognizing that people now use one or more IM clients, the above information, the tool should automatically publish this status information into existing IM display name spaces
3. **Support dynamic maintenance of activity logs and to-do lists.** We saw that today messages often contain activity logs and to-do lists, yet these have to be created retroactively when the today message is composed. Instead, we argue that people should dynamically maintain them on the fly. Adding items should be with

minimal effort, and should carry over the day and (if desired) across multiple days (see also Bellotti et al., 2004). Recording activities and to-do items are all activities that are easiest to accomplish in context, i.e. recording an activity as it is completed, or adding to-do items as one thinks about it.

4. **Support gathering of information tidbits.** Many information postings collect little pieces of information that people come across, e.g., an interesting link or a curious photo. These ‘information tidbits’ are generated sporadically throughout the day. We and others believe that people should be able to spontaneously capture and gather these items as they are encountered (e.g., Markopoulous et al., 2004). When a moment passes, the information may no longer seem worthy of sharing, or may be difficult to recall later.

5. **Publish activity logs, to-do lists, and collected tidbits as desired.** We know that people want to share their activities and discovered items of interest with others, be it for research, work, conversation or entertainment. Activity and to-do lists give the readers a sense of one’s short term goals and whether they were accomplished, while tidbits are things meant to invoke interest in others. While there are some mechanisms that allow one to post this information to a close community in real time (McEwan and Greenberg, 2005), we suggest that a Today Message automatically built from these information elements would work just as well.

6. **Provide mechanisms for collecting and publishing personal commentaries, detailed diaries, and reflections to blogs.** Millions of people now maintain blogs on the internet to publish information to others about their lives (Schiano et al., 2004). As mentioned, the rate at which entries are composed and posted is highly variable. We believe that blog entry creation should be extremely lightweight, where a person can continually edit and add to it as desired over the course of a day, week or even month. Posting would occur only when the person feels ready to share it with others.

7. **Provide access to a personal history of gathered information.** Archival value of information is highly variable and difficult to predict. Consequently, we recommend that the tool automatically maintains a record of each posting, and that these postings are easily retrievable. Because information in these postings has a limited lifetime, history should be visible only if the user explicitly wants to see it.

All these requirements share common criteria: information should be composed and recorded as it happens, and it should be publicly disseminated in a timely way and through a medium that reflects its contents. This further requires that the tool be easily accessible and extremely lightweight to use.

TRANSIENT LIFE: DESCRIPTION

Following the above requirements, we designed Transient Life (Figure 2). It is a tool that allows people to easily collect information as it occurs. It also distributes the collected information in various ways corresponding to the different outlets of personal information, i.e., it is selectively displayed in the IM display name field,

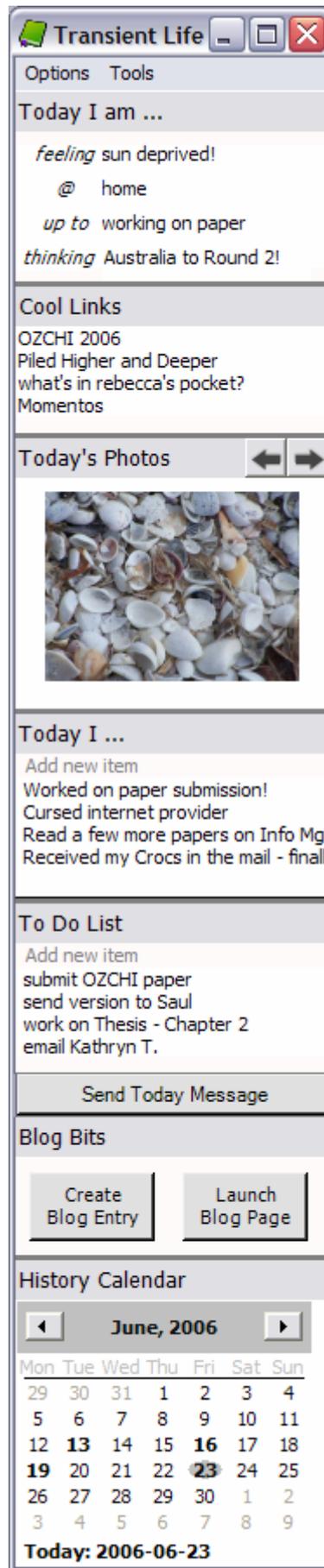


Figure 2. Transient Life System

emailed as a multimedia Today Message (Figure 3), added to a blog, and recorded as a history. As illustrated in Figure 2, Transient Life is designed as a narrow sidebar located at the side of the screen; the trade off is constant visibility and access against screen space.

Transient Life contains resizable tiles, each collecting and displaying different information content. For easy information collection, a person can add and edit most tiles by direct typing, and by dragging and dropping found objects. Its interface style is minimalist; it concentrates on collecting and displaying information rather than complex controls. Through a menu, people can also edit long-lasting profile properties and system options. Currently the Transient Life system contains seven information tiles, individually described below.

TODAY I AM... (Figure 2, top tile) lets people record and immediately distribute one or more of the four personal status information elements: mood (*feeling*), location (@), activities (*up to*) or comments (*thinking*) throughout the day. Because this information is highly volatile, it is immediately published to the display name space of external instant messaging systems so that others can see it. Although we envision that this information would be published to all IM clients used by its owner, our current version works only with MSN Messenger. Information is also recorded as a time-based history in the Today Message so that others can review a person's momentary activities (Figure 3, right side).

COOL LINKS (Figure 2, second tile) allows a person to collect interesting internet pages found during the day. While its primary purpose is to share interesting links with others, the tile can also be used by its owner as place to quickly store personally relevant finds for later review. Web pages are added as they are seen: a person simply drags and drops the 'link' icon on the web browser's address bar into the tile. The owner can easily revisit a page by clicking the link in the tile. Links are added to the outgoing Today Message email (the 'Links I thought were interesting...' section in Figure 3). Because people commonly collect and post links to their blogs, the Transient Life owner can optionally have their collected links automatically posted to their blog as an entry at the end of every day, or when an outgoing Today Message email is sent.

TODAY'S PHOTOS (Figure 2, third tile) lets one collect photos in a similar manner to the Cool Links tile. It too operates with drag and drop functionality. It is also added to outgoing today messages (the 'Pictures I ran across today' section in Figure 3). Images can come from various sources. They can be personal photos located on one's computer, or they can be grabbed from web pages via dragging and dropping. Images are automatically reduced in size so they don't overwhelm the recipient. While the Transient Life owner can navigate these images (the arrow controls in the tile), they appear as a collection in the Today Message (Figure 3).

TODAY I... (Figure 2, fourth tile) allows one to enter completed tasks, activities and events onto a list. This list is published later in the Today Message (the Today I...

section in Figure 3). With this tile, a person can immediately add items as they are accomplished, instead of trying to remember all that was done at the end of the day.

TO DO LIST (Figure 2, fifth tile) lets people add items and tasks that they expect to do in the next few days. As with most such lists, items can be rearranged according to their priority, and thus it has immediate personal value. This 'To-do' tile obviously complements the 'Today I...' tile with one being things to do and the other recording things that have been done. Consequently, Transient Life lets a person easily move a completed task from their 'To-do' list to the 'Today I...' tile. To-do items are published in the Today Message (the 'On my To-Do list...' section in Figure 3).

BLOG BITS (Figure 2, sixth tile) permits a person to compose, add to, and edit a text essay over time. The person can then post it to their blog at an opportune time. Because this essay can be large, the blog entry editor is raised as a separate window (not shown) by clicking the 'Create blog entry' button. This window contains the last unpublished entry, or a new entry if the prior one was published. The person can discard the current entry, edit and add to its text, save it for later editing, or publish it to their blog. Typically, a person creates a new entry, and returns to it several times before posting it to their blog. Existing blog types are supported, such as Blogger, TypePad, Moveable Type and Live Journal. Blogs are linked to Today Messages: when the blog entry is posted, it is also appended to the end of a Today Message (not shown in Figure 3). Finally, a person can go to their blog at any time by selecting 'Launch Blog Page'.

HISTORY CALENDAR (Figure 2, bottom tile) lets one easily review past archived information. Days containing content are bolded in the calendar. Clicking on a date in the calendar provides a consolidated format, in a single view similar to the Today Message that displays all the elements gathered on that particular day. In practice, we expect this calendar to be used only occasionally, e.g., if a person wants to retrieve something collected on a particular day. While this is a discretionary use, we believe the cost of automatically creating a personal archive which is more often stored than retrieved is slight.

We have already mentioned Today Messages (Brush & Borning, 2005) as one of the main information dissemination mechanisms in Transient Life. People compose these messages simply by clicking the 'Send Today Message' button (Figure 2, bottom third). A multimedia message very similar in appearance to that shown in Figure 3 is created in an email window. The person can then specify who the message should be sent to (e.g., we use a mailing list called 'ilab-today' for lab members to send to one another), and can edit the message to remove, add or alter its information. Multiple Today Messages can be created and selectively edited to be appropriate for different communities.

Finally, people can specify how information is archived. They can tell Transient Life to automatically do this once a day (e.g., at midnight), or they can archive it manually.

Tiles are cleared after archiving, with the exception of the 'To-Do List' (as this information is about the future, rather than about the past). People can also decide to send archived information as a today message.

USER FEEDBACK

Transient Life system was initially given to a community of eight people to try, where they would provide us with both interface feedback and their reflections of how they used it. This community already had the practice of sending vanilla Today Messages, (Brush & Borning, 2005).

Our first surprise was that use of Transient Life spread beyond our initial set of people, even though our first version was somewhat buggy and contained only a subset of features described here. As soon as the Today messages started appearing, 'lurkers' or people who normally read today messages but never posted, also installed the system to try it out. Its appeal initially arose because these messages were far more visually attractive than the plain text email and had more content. The total number of users grew to twelve. Several weeks later, the same people were still using Transient Life to post today messages regularly. Over time, while some people stopped using it, they were replaced by other new users interested in it.

At an interface design level, people generated bug reports, new ideas, and suggestions on how to go forward in Transient Life's development. Overall reaction to the Transient Life design concept is positive, with critical comments mostly directed towards improving low-level interaction or additional features (which are being assimilated in design iterations).

As an example, we list a few high-level comments provided by different test users.

On Transient Life the System:

- "I think it is great that I am now able to bring together a variety of types of information into one repository that I can later use to send a Today message. One of the challenges I faced with Today messages was keeping it around throughout the day

so I could add to it as things happened. Transient Life helps to solve this problem by keeping the repository for me."

- "I was really impressed that content was remembered when I closed and re-opened Transient Life. Well done!"

On Today Messages:

- "I liked seeing other people's nicely formatted today messages; it seems that there is more detail."
- "One of the things I find most beneficial about today messages is the ability to plan out what I am going to do in the short term"

About me today...

June 23, 2006

Today I ...

- Worked on paper submission!
- Cursed internet provider
- Read a few more papers on Info Mgmt
- Received my Crocs in the mail - finally!

On my ToDo list ...

- submit OZCHI paper
- send version to Saul
- work on Thesis - Chapter 2
- email Kathryn T.

Links I thought were interesting:

- [OZCHI 2006](#)
- [Piled Higher and Deeper](#)
- [what's in rebecca's pocket?](#)
- [Momentos](#)

Pictures I ran across today:





Mood(s)

sun deprived! (3:21 PM)
frustrated (9:07 PM)

Location(s)

home (9:16 AM)

Activity(s)

working on paper (3:08 PM)

Comment(s)

Australia to Round 2!
(9:17 AM)

Today messages are emails outlining a person's activities throughout the day. This rich today message not only provides details on what has been done throughout the day, but also personal status information and tidbits about interesting things that are worth sharing.

Figure 3. A typical multimedia Today Message generated with Transient Life

- *"I love that one of the core means for distributing information to others is email. I wouldn't want it any other way. Blogs are nice, but I need to actively check them. I realize I can set up an RSS feed, etc. but to me email is still a nice and simple way for information distribution without the hassle of setting up an RSS feed correctly."*

On receiving Cool Links:

- *"I really enjoy navigating to the cool links provided by other people. Some of them are to links I would not have received elsewhere."*

On keeping a history:

- *"I really love that I can go back and easily look at what I posted on previous days. This is excellent! At the end of the week I send a weekly Today message to the group manager I work for at [company name] and I usually have to go back to see what I posted during my daily today messages. In email this is a bit cumbersome. I like that I can now quickly do this with the [History] calendar."*

We also found that different users wanted or needed different things. For example, people differed somewhat in how they want to share, view, and archive personal information, i.e., as a blog vs. as a today message. This is illustrated by the following conflicting suggestions that continue from the earlier comment above from the person who liked email dissemination instead of a blog or RSS feed:

"Instead of e-mailing today message, just add to a separate blog -- can tell people the RSS feed if they want to be updated".

Another contradicts this sentiment with,

"I would not want my today messages to be public. If on a blog then only read-protected, I would also want to know who is reading."

A fourth would like the ability to access others' history calendars, which again contradicts a fifth's desire to limit things 'that I don't need/want to share with others'.

This conflict between the desire for awareness and the need for privacy is unsurprising given that they are opposite sides of the same coin. In Transient Life, we mitigate privacy concerns somewhat in that the owner of the information (the poster) has complete control over what information to add and who it should be sent to.

In the future, we anticipate several design challenge as different expectations of Transient Life usage emerges. The issues will be how to accommodate these differences in light of the contradictory demands of both publishers and consumers.

DISCUSSION

We are pleased with the initial response that the Transient Life system has received so far, especially because it has become a system in daily use rather than just an experimental curiosity. We are currently exploring additional ways to incorporate personal information

sharing. Our challenge is to let people collect, publish, view and archive idiosyncratic personal information, while still maintain the original goals of a simple, uncomplicated interface.

Design Influences

Several designs were considered before the decision was made to develop Transient Life as a sidebar application. Other designs considered included a full screen desktop system similar to the Notification Collage (Greenberg & Rounding, 2001), and a web based tool to allow people to access the tool anywhere. Our initial choice of a sidebar influenced by other sidebar systems, e.g., Sideshow (Cadiz, Venolia, Jancke, & Gupta, 2002), CommunityBar (McEwan & Greenberg, 2005) and Google Desktop Sidebar (Google, 2005). The main advantage of a sidebar is that by reserving space on the side of the screen, it is always visible and easily accessed with minimal effort. Yet as a 'slimline' design, it sits on the periphery of view. Another benefit to sidebars is that sections can be modular in design (e.g., as plugins) and a new section can be added by altering only one dimension – the size of each section

While superficially resembling other sidebar systems, Transient Life has an entirely different purpose. CommunityBar is a groupware tool intended for small ad hoc groups (McEwan & Greenberg, 2006). The information contained within the bar is either about the group or intended for the group, and the intention is that it provides group awareness that leads to casual interaction. Sideshow and Google Desktop Sidebar (Cadiz, Venolia, Jancke, & Gupta, 2002; Google 2005) are single user tools that typically collect and display broadcast information feeds, or that let one record personalized information. The differentiating element in Transient Life is that personal information is collected and shared with others.

Future Work

Transient Life is still under active development. While our focus is currently on making all its features robust, we also plan several feature modifications. First, Transient Life is currently a stand alone system that lives on a person's personal computer. Several users have expressed the desire to have the ability to access the current state and information of Transient Life from multiple locations or computers; this requires maintaining a database accessible from other sites. Second, we see Transient Life at its best if it interoperates smoothly with other personal information dissemination applications, such as email, instant messengers, and blogs. We do not expect people to give up their current practices. Instead, we see Transient Life linking into them. Yet there are development issues in getting our system to work with others, mostly because there are many different versions of these systems, and most have different (and often undocumented) APIs. We definitely need stable industry standards that will allow third party systems to easily hook into IM, blog and personal display spaces. Until then, implementing Transient Life, and other systems like it will be challenged. The ideal – as seen in collective IM

systems such as Miranda - will be to link Transient Life into many systems of the user's choice, perhaps through a plug-in architecture.

The largest challenge is to deploy Transient Life to a much wider group and to different communities. While some of the issues will be technical, others will arise from the cultural practices that occur around it. As we continue to refine Transient Life, we need to monitor its use and add safeguards and features as required. Of course, this monitoring must include both the producers and consumers of the shared information if we are to better understand how Transient Life enhances interpersonal awareness.

CONCLUSION

Much research on collecting people's information and communication has been focused on large scale storage of all digital information, and less so on helping people share relevant personal information. Currently, people use many different systems to do this sharing. Transient Life is about providing a single place for people to gather the simple bits of personal information as they happen; to ease how this information is published to various outlets and to provide interpersonal awareness to others that comprise a distributed community.

We saw that every day people gather bits of information that they choose to share with others via blogs, e-mail, IM, and today messages. Some of this information is detailed and presented in a manner that allows repeated viewings (e.g. blog). Some of this information is brief and temporary and depends on mood, activity or location (e.g. IM display names). Transient Life explores the space spanning these detailed life events and brief transient state information.

Finally, we saw that current information is now captured by diverse systems, and spread to various outlets over the internet. Instead, Transient Life consolidates and facilitates the sharing of this information. It acts as a single information gathering point, and sending it to the multiple outlets of interest.

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REFERENCES

boyd, d. (2004). Friendster and publicly articulated social networks. In *Proc. CHI 2004*, ACM Press,

Brush, A. J. B. and Borning, A. (2005). 'Today' Messages: Lightweight support for small group awareness via email. *Proc. IEEE HICSS 2005*, 16.1.

Bell, G. (2001). A personal digital store. *Commun. ACM*, 44 (1), 86-91.

Bellotti, V., Dalal, B., Good, N., Flynn, P., Bobrow, D. G., and Ducheneaut, N. (2004). What a to-do: studies of task management towards the design of a personal task list manager. *Proc.ACM CHI 2004*. 735-742.

Bush, V. (1945). As we may think. *The Atlantic Monthly* 176 (1), 101-108.

Cadiz, J. J., Venolia, G. D., Jancke, G. and Gupta, A. (2002). Designing and deploying an information awareness interface. *Proc. ACM CSCW 2002*, 314-323.

Czerwinski, M., Gage, D. W., Gemmell, J., Marshall, C. C., Pérez-Quñones, M. A., Skeels, M. M., and Catarci, T. (2006). Digital memories in an era of ubiquitous computing and abundant storage. *Comm. ACM*, 49 (1), 44-50.

Gemmell, J., Bell, G., and Lueder, R. (2006). MyLifeBits: a personal database for everything. *Comm. ACM*, 49 (1), 88-95.

Google Desktop Sidebar. © 2005 Google. Available from <http://desktop.google.com/index.html>

Greenberg, S. and Rounding, M. (2001). The Notification Collage: Posting information to public and personal displays. *Proc.ACM CHI 2001*, 3 (1), 514-521.

Grinter, R. E. and Palen, L. (2002). Instant messaging in teen life. In *Proc. CSCW 2002*, ACM Press, 21-30.

Markopoulos, P., Romero, N., van Baren, J., IJsselsteijn, W., de Ruyter, B., and Farshchian, B. (2004). Keeping in touch with the family: Home and away with the ASTRA awareness system. *Proc. ACM CHI 2004*, 1351-1354.

McEwan, G. and Greenberg, S. (2005). Supporting social worlds with the Community Bar. *Proc. ACM GROUP 2005*, 21-30.

Nardi, B.A., Schiano, D.J., and Gumbrecht, M. (2004). Blogging as social activity, or, Would you let 900 million people read your diary? *Proc. ACM CSCW 2004*. 222-231.

Nardi, B.A., Schiano, D.J., Gumbrecht, M., and Swartz, L. (2004). Why we blog. *Comm. ACM*, 47(12), 41 – 46.

Piepmeyer, A. (2003). I've been replaced by a screen name. *The Daily Utah Chronicle*, October 31, 2003. Retrieved September 22, 2004 from [//www.dailyutahchronicle.com/news/2003/10/31/Opinion/Ive-Been.Replaced.By.A.Screen.Name-545565.shtml](http://www.dailyutahchronicle.com/news/2003/10/31/Opinion/Ive-Been.Replaced.By.A.Screen.Name-545565.shtml)

Schiano, D.J., Nardi, B.A., Gumbrecht, M., and Swartz, L. (2004). Blogging by the rest of us. *Proc. ACM CHI 2004*, 1143-1146.

Smale, S. and Greenberg, S. (2005). Broadcasting information via display names in instant messaging. In *Proc. ACM GROUP 2005*, 89-98.