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# Community Bar Places for Collaboration

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**Abstract.** Community Bar is groupware supporting informal awareness and casual interaction for small social worlds: groups of people with common purposes. Its conceptual design is primarily based on a sociological theory called the Locales Framework, with extra details supplied by the Focus/Nimbus model of awareness. Community Bar supports how communities of ad-hoc and long-standing groups are built and sustained within multiple locales: electronic spaces that offer groups the site and means for maintaining awareness of one another and for rapidly moving into interaction. This includes a person's lightweight management of his or her membership in multiple locales, as well as ones varying engagement with the people and artefacts within them.

Various studies of work sites report that a large portion of peoples' time is spent in unplanned, casual interactions between small groups that arise from informal awareness, where these interactions prove important for collaboration (Kraut et al, 1990; Whittaker et al, 1994). However, the same studies also found that casual interactions are severely affected by physical separation.

In response, groupware developers have designed a myriad of online virtual spaces to encourage casual interaction between these physically separated people. Of these, the three most well known technologies are: text-based Instant Messengers (IM) (Nardi, 2000), chat rooms / MUDDS (Curtis and Nichols, 1994), and video-based media spaces (VMS) (Bly et al, 1993). Yet these tools are shallow caricatures in terms of how they support the social practices of the individuals and groups that use them. IM offers informal awareness and easy transition to casual interactions, but awareness is limited and the interactions are between individuals *vs.* small groups. Chat rooms provide group interaction but lack support for informal awareness information; they also tend to make formation of new group spaces a heavyweight operation. VMS provide very rich

awareness through the video image, and easy means to move into casual interaction over that same channel. Like IM, most favour two person communications, although a few are able to support small groups (see Notification Collage by Greenberg and Rounding, 2001). To our knowledge, no VMS provides facilities for multiple group spaces.

Our design perspective is to ground development of an informal awareness and casual interaction tool in social science theory. In particular we are motivated by the Locales Framework (Fitzpatrick, 2003) and the Focus and Nimbus model of awareness (Rodden, 1996). We have applied these models to the design of Community Bar (CB) (figure 1), a groupware tool that supplies ad hoc groups with rich awareness information leading to casual interaction. For more detail on Community Bar, see McEwan and Greenberg (2005).

## Informal Awareness and Casual Interaction Places

By combining principles from these theories, we arrived at four novel principles for constructing virtual spaces that evolve over use into places for informal awareness and casual interaction.

**Multiple social worlds through public locales.** Whittaker et al (1994) and Fitzpatrick (2003) indicate that each person inhabits multiple social worlds. Thus systems should somehow let a person inhabit multiple worlds at the same time. These authors also talk about the richness of the information shared by these groups, which we believe implies that the people, artefacts, and conversations that define a locale should be publicly visible to all who are part of that group.

CB supports multiple locales, as clearly shown in Figure 1: this particular individual's client displays four "Places" concurrently (group spaces in CB are called Places – to avoid confusion we will use "Place" to denote CB spaces and "place" for the Harrison and Dourish (1996) place vs space sense). Each Place comprises different sets of media items, and thus offers each social world with its own distinctive means. Through these items, people can present themselves to others, engage in conversation, and interact with group artefacts as desired. Each person can act in distinct ways in each of the Places they inhabit. Within a Place, all information and interactions are public to every person in the Place, supporting true group mutuality and interaction. In this sense we provide an interaction style similar to that of chat rooms. Place members are able to share awareness information, to send broadcast queries (e.g. "Is there anyone who knows about X?"), and to overhear conversations and join those of interest to them.

**Ad hoc groups.** The research on casual interaction and the Locales Framework tells us that social worlds are plentiful, that their membership (and member involvement) fluctuates, that they may interrelate to one another, and that they have different lifetimes (some are long standing, some form and dissolve rapidly).

Community Bar supports ad hoc groups by letting people rapidly set up both short and long-term group spaces, join and populate them, and add information and activities to them. New Places are easily created by form-filling within the ‘Places’ tooltip grande (shown in figure 2). Once created, anyone can join or leave a Place by selecting or deselecting it from the list. People can invite others to Places by selecting the ‘Invite to Place’ button in the Presence item’s tooltip grande (shown in figure 1). An invitation shows up as items on the invitee’s bar, and its tooltip grande provides an option to accept, in which case they automatically join the Place. Items are added from the Place tooltip grande (not shown).

**Lightweight transitions from awareness to interaction.** Various principles collectively suggest a tension between a person’s desire for a minimal amount of unobtrusive yet dynamic awareness information of their intimate collaborators, the need to acquire and explore richer forms of that information or to open rich communication channels as desired, and the need to act upon that information and/or engage in communication.

Community Bar relieves this tension by offering people a progressive view of information, using the Microsoft Sideshow (Cadiz et al, 2002) sidebar interaction metaphor. Rich yet not overwhelming awareness information is located at the periphery of the screen in a space conservative sidebar (shown in Figure 1). Moving the mouse pointer over items causes a “tooltip grande” to appear (example shown in Figure 1) that displays more information and provides interaction opportunities. Clicking on the tooltip grande title raises a “full view”

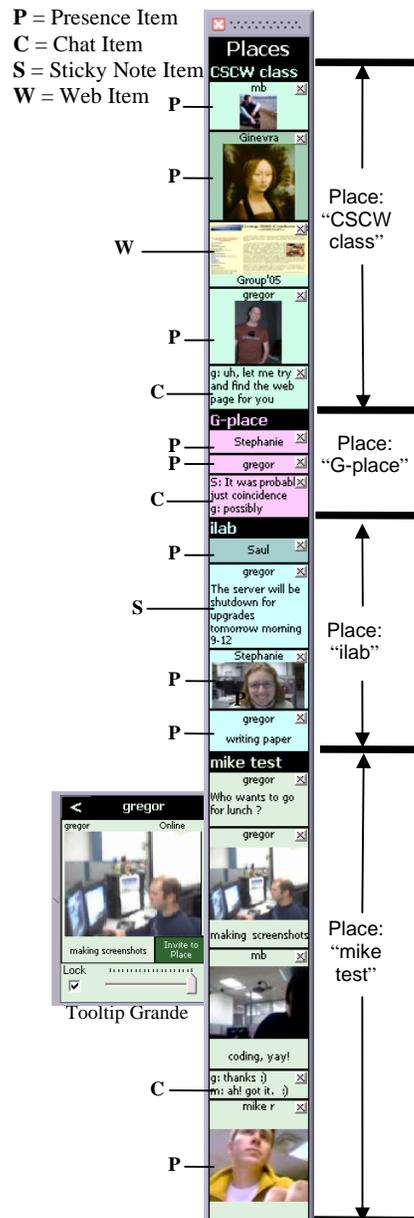


Figure 2: Community Bar showing 4 labeled places, 4 types of media items, and the presence tooltip grande.

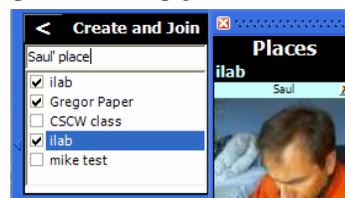


Figure 1: Places tooltip grande for creating and joining.

permanent window providing full information and interaction opportunities. Collectively, this progression of views allows the user to quickly stay aware of peripheral information, and to easily move into foreground interaction with information and people.

**Focus/nimbus control of centre/periphery relationships and mutuality.** Finally, most IM, chat room, and media space systems give people a binary choice for their involvement. They are either in or out as a member, and they either see or don't see awareness information. This kind of design is directly contradicted by the centre and periphery relationship of the Locales Framework.

Community Bar represents the centre and periphery relationship via the focus/nimbus model (Rodden, 1996). People express their involvement within a Place by using sliders to adjust both their nimbus and focus. The focus slider on each item's tooltip grande allows people to adjust their personal view of that item (how much they want to see). The nimbus slider on their presence item full view allows them to adjust how others can see them in that Place. In this way, views and membership become more fluid.

## Conclusion

Our concept of place draws upon: (1) informal awareness and casual interaction research such as Whittaker et al (1994), (2) the Locales Framework (Fitzpatrick, 2003), and (3) the focus/nimbus model of awareness (Rodden, 1996). Community Bar implements this concept of place in relationship to distributed informal awareness and casual interaction. It incorporates support for multiple group spaces, ad hoc group spaces, lightweight transitions from awareness to interaction, and focus/nimbus controls for membership and awareness.

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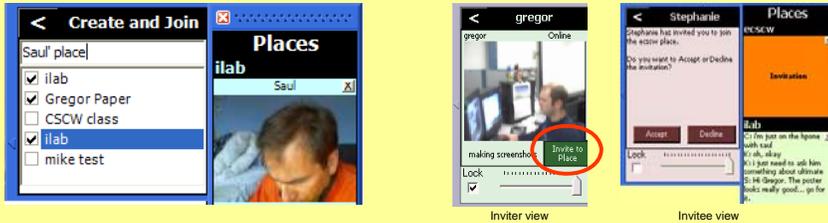
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# Community Bar

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Peripheral display of **awareness** information with quick and easy transition to **interaction**.

## Ad hoc Groups



Create new groups using a single text entry. Join and Leave groups using the checkboxes. Invite other people to your new group.

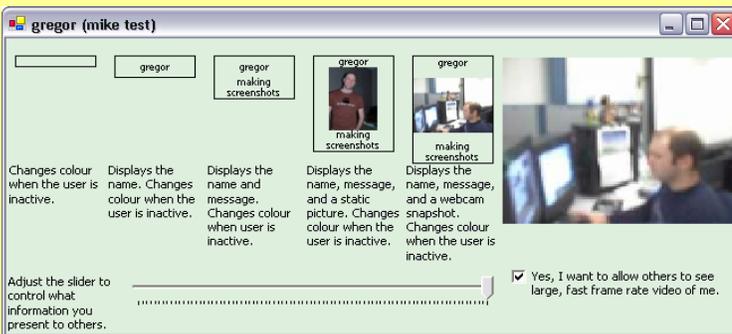
## Focus control

Each person can control how they view items within the Community Bar



## Presence control

Each person can control how others can view them within each Place



## Lightweight transition from awareness to interaction

