UBU: A pop-up app to facilitate face-to-face introductions among Hubud members

A design brief

SUMMARY

In order to increase friendly interactions, serendipitous cross-fertilization of ideas, and to overcome inherent shyness, we will design, build, release, train and maintain a small browser-based app, which Hubud 'in-house' members could launch on their laptops. The app indicates who is logged on to the network, along with basic (authorized) information about them, and permits any user seeking a face-to-face interaction (coffee-break, discussion, question asking) to indicate their availability. Thus another user, who is interested to meet the available person may decide to initiate a meeting. Additionally and optionally, users may allow unsolicited contact (initiation of conversation) by anyone. The simple intranet chat functionality (primarily for arranging a face-to-face meeting) may also be useful if adopted by Hubud members.

USER EXPERIENCE

"I'm sitting down at Hubud. I have work to do, but I'm also looking for some social interaction today. I open up the Hubud webpage and click 'launch Ubu.' The attractive, colorful, visually engaging browser pop-up opens. I get down to work. After an hour, I'm ready to procrastinate, and return my attention to Ubu. There are 22 people on the intranet today, indicated by their 'avatars:' simple, but nicely 3D-shaded globes floating (and gently drifting) in Hubud-space. Most are downstairs, but some are in the cafe, and some are upstairs. Today most of the avatars are primarily blue (tech interests), but a few are green-and-blue ('enviro-techies!'). I mouse-over several avatars to get a sense of who's in the house today, reading their usernames and 140-character introductions. I click through to a few of their websites.

"As I'm watching, a blinking light appears on a green-and-blue globe, indicating that that person is seeking interaction. I mouse-over and see that 'BaliBandit' designs software for the environmental sector, that he/she has some Sumatra experience (I'm planning a holiday there next week), and that he/she fancies a coffee partner. My interest

piqued, I click on the 'Start Chat' button, and introduce myself. About 20 seconds later, 'BaliBandit' types back, and we arrange to meet in five minutes. At the same time, a face and real name appears; I recognize Jane as having been around Hubud for a few weeks, but we've never met. I shut down what I was doing online, send one last email, and head up to meet Jane and find out about forest crimes in Sumatra. Cool!"
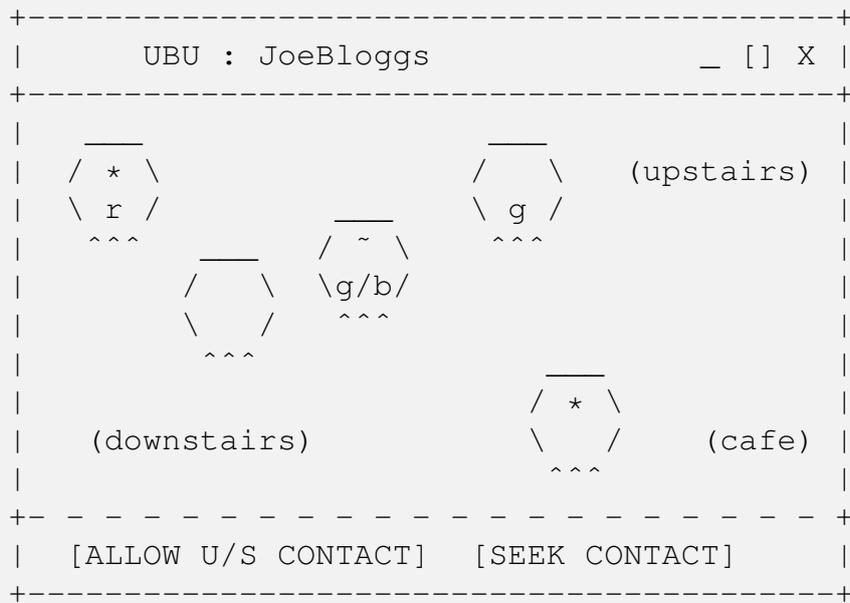
APP DETAILS

Creating an Ubu profile

Creating an Ubu profile would be part of the new general online registration, already planned.

1. Optionally opt out of Ubu. If registered on Ubu, users will not be allowed to 'lurk' (see who is around without also revealing that they are there).
2. Fill in public information ("This information will be available to all users of the app")
   - Username ("Use your first (and/or last) name, if not concerned about revealing gender")
   - Basic interests "Tick one or two: tech, environment, business, social/political, etc.")
   - Blurb ("Introduce yourself, in 140 characters")
   - Personal website link and/or Twitter username (optional)

Initial opening

- Open the Hubud members page. Click on 'Launch Ubu.' Code in main page determines if your IP is intra-network. If so, a new window is triggered and resized (square, 10×10 cm; Fig. 1). This browser window always stays on top (?), and is linked to the original tab in the original browser window, which indicates 'activity' by a symbol or number in the tab title (à la Twitter new message count).
- Avatar icons are color-coded (by pie-sections?) to indicate interests: blue = tech, green = environment, red = social/political, etc.
- Arrangement of avatars: attractive, clever positioning of avatars in 2-D space (at minimum, at random; i.e., not just a list). Possibly separate avatars by physical location, if data about which wifi router each user is logged into is available from API.
- 'Contactable status' of each user is indicated by:
   - A small blinking yellow (?) light to indicate that the user is actively seeking face-to-face contact,
   - A shimmering of the avatar boundaries (or more simply, a small blinking green light) to indicate that the user is not actively seeking face-to-face contact, but allows unsolicited contact,

Figure 1: Schematic of `ubu` browser window (ca. 10 × 10 cm), showing: i) interesting positioning of avatar icons, ii) color scheme of avatar indicating interests (red, blue, green: see text), iii) two avatars with 'flashing lights' (*) indicating that they are seeking contact, and iv) one avatar with different (pulsating?) border (˜) indicating that he/she welcomes unsolicited contact. Clicking on 'Allow U/S (unsolicited) contact' will change the button title to 'Unsolicited contact allowed' and it's color will change. Clicking on 'Seek contact' will change the button title to 'Now seeking contact' and it's color will change.

```
+---------------------------------------+
|     UBU : JoeBloggs          _ [] X   |
+---------------------------------------+
|    ___                 ___            |
|   / * \               /   \  (upstairs)|
|   \ r /        ___     \ g /           |
|    ^^^   ___   / ~ \    ^^^            |
|         /   \  \g/b/                   |
|         \   /   ^^^                    |
|          ^^^              ___          |
|                         / * \         |
|    (downstairs)         \   /  (cafe)  |
|                          ^^^           |
+- - - - - - - - - - - - - - - - - - - +
|  [ALLOW U/S CONTACT]  [SEEK CONTACT]   |
+---------------------------------------+
```

- Neither of the above, indicating that the user is not currently *explicitly* interested in face-to-face contact.

- Two buttons at bottom:
  1. "I can now be contacted by anyone" (except a secret list of people on my blocklist?)
  2. "I am now actively seeking a contact." A sub-pop-up allows you to select an intended activity:
     - coffee break
     - general conversation
     - "I would like to ask a question" (additional text box to allow question to be asked, which will appear on mouse-over of person's avatar)

User information pop-up

On 'mousing-over' an avatar, a sub-popup appears (Fig. 2), giving information about the user:

Figure 2: Schematic of `ubu` browser window with interior pop-up after clicking on (or mousing-over) an avatar. The avatar icon had been flashing, to indicate that that user ('BaliBandit') is actively seeking contact. A button can be clicked to initiate a chat session. On the other user's app, the outline of the window will flash when they have been asked to join a chat session.

```
+-------------------------------------------+
|      UBU : JoeBloggs              _ [] X   |
+-------------------------------------------+
| +---------------------------------------+ |
| | User: BaliBandit (Tech/Enviro)    X | |
| |       "I develop software used in   | |
| |         monitoring forest crimes.   | |
| |          Yoga. Fractal batik.       | |
| |          Lived in Sumatra."         | |
| |    <balibandit.info>   @balibandit  | |
| |                                     | |
| | Status: Seeking coffee partner      | |
| |                                     | |
+ |                      [ START CHAT ] | +
| +---------------------------------------+ |
+-------------------------------------------+
```

- Username
- General interest class
- 140-character introduction
- Optionally, links to personal website and to Twitter page (Recent tweets could also easily be integrated into this info mini-page)

At the bottom of the pop-up, a button allows the user to initiate a chat session. This button will only appear when the status of the user is 'contactable' (either unsolicited or solicited).

Chat window

Once a chat session has been initiated, a chat pop-up appears in both the 'calling' user's app and in the 'called' user's app (Fig. 3). The design of the chat app is a standard, simple (IRC-style) text-based conversation, with a writing area at the bottom. A button allows the user to share an image of their face (previously not available) with the other user, to make the text chat more personal, and to facilitate finding the person in 'meatspace.'

Figure 3: Schematic of `ubu` browser window with interior chat window. Very simple (IRC-style) chat interface. An button offers option to show photo of self, to allow the two users to find each other in 'meat-space;' the face icon (bottom-right) in the figure is the face of the other user ('BaliBandit'), who has already allowed their image to be shown. The contacted user ('BaliBandit') will be able to click on the others name ('JoeBloggs') which will open a pop-up info window as in Fig. 2 (but without the 'Start Chat' button).

```
      +---------------------------------------+
      |      UBU : JoeBloggs          _ [] X |
      +---------------------------------------+
      | +-------------------------------------+ |
      | | JoeBloggs: "Hi! Want to grab a    X | |
      | |    coffee? I have Q about Sumatra"  | |
      | |                                     | |
      | | BaliBandit: "Great, I'm upstairs,   | |
      | |    table on R, ready in 5 mins.     | |
      | |    Green shirt. See ya!"            | |
      | |                               ___   | |
      | | [ type here...           ]   /o o\ | |
      | |                              \ U / | |
      + | [SHOW MY PHOTO]               ===   | |
      | +-------------------------------------+ |
      +---------------------------------------+
```

ARCHITECTURE RECOMMENDATIONS

The obvious software platform for the pop-out browser window is HTML5 + Javascript + CSS, with appropriate JS libraries. The app will need to:

- Poll the API at regular intervals to determine who is online, and what their 'contact status' is, then (re-)draw and (re-)position appropriate avatars.
- Display a sub-window showing other users' info and status when an avatar is clicked.
- Alert server to intended changes in user's status.
- Transmit and receive chat requests, and display chat text in an appropriate sub-window.

A server-side API program will also be needed, which could be coded in any language (PHP, Ruby, Perl, Python, etc.). The API will need to perform these functions:

- Query a network API to find out who is logged in,
- Query the Hubud user DB to get profile information and face photos,
- Offer a very simple chat function, passing text messages between users.

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The API data wrapper could be either JSON or XML; its transmission protocol should be HTTP.

While most Hubud members work on laptops, and thus we can primarily design the app as a browser pop-up, we should also consider how we might make the functionality available on a tablet. If there were interest and funds, an iPad and/or Android app could also be developed.

Similar, existing apps

Clearly an intranet messaging app is not itself a new idea. There exist several mature, free/open source products that might be used if no new development were possible:

- LAN messager
- Intramessenger
- Squiggle
- OneTeam
- Tonic

However, none of these contains Ubu's core functionality described here (apart from its chat facility): interfacing with our members DB, displaying basic data about the logged-in users via the avatar icon, indicating willingness to chat. I have not assessed how easy it would be to modify these existing products for our needs, but almost certainly it will be easier to start building from scratch.

POINTS FOR FURTHER DISCUSSION

Social concerns

- *Hitting on people*, without any real interest in engaging them in discussion. A little light flirting, and facilitation for shyer Hubud members to engage in safe, supportive, fun interactions with members of another gender is probably a good function of this tool. But risks exist, and a few inappropriate uses of the tool could distastefully flavor the whole project. One way to reduce this risk is to enforce sex-neutral usernames, although if users allow a link to their personal websites, their gender may be obvious.
- *Sense of rejection*: "I've been available all day, and no one wanted to talk to me." Definitely a risk, and hard to avoid. Hopefully, most Hubud members are mature enough to avoid taking lack of contact too personally.

Possible names

Project name: `ubu`. Other possible release names:

- 'hubu'
- 'budu' ("voodoo!")
- 'budi'

- 'u-app' ('uap' is Indonesian for 'steam')

- 'budbud'
- 'mubu'

Other...

- Is it actually helpful to 'class' users (tech, social, etc)? Is this too constraining, or will it actually make it more fun to use?
- Allow daily 'mood' indication in by the avatar (lonely, sad, hungry, angry!).
- Hubud leaders might decide to not allow members to opt-out of Ubu, participation in the Ubu scheme being a requirement of using the intra-net. No one can be actually contacted by another if they do not want to be.
- How to extend goals, functionality for Hubud members who are online but outside of the building (i.e., on the internet, but not the intranet)?

Acknowledgment

This design brief was sparked during a conversation with Steve Monroe (Hubud, Bali, Indonesia) on ca. 2014-08-13.