

OLPC Communications Outlook

Dafydd Harries, Collabora Ltd.

April 4th, 2008

status quo

overview

working collaboration primitives
not many collaborative activities

reliability

wireless firmware problems
ejabberd problems

scalability

multicast hurts

broadcast on Jabber hurts

improving scalability for Jabber

goal: lower number of messages broadcast

Gadget: an XMPP server component
shared activity registry service

Cerebro

how to integrate?

raising the level of abstraction

Telepathy is low-level

distributed applications are hard!

making it easier to write collaborative
activities

use Ben's stuff

offline operation

security

exploring the problem/solution space

reusing real-world conversation concepts

introductions

[http://wiki.laptop.org/go/
Communications_security](http://wiki.laptop.org/go/Communications_security)

tubes

datagram tubes

send more stuff peer-to-peer

overlay chat

mainly a UI problem

presence messages

“what I'm doing”
where to put them?

groups

invites to groups

won't scroll to bottom unless already at the bottom of the conversation.

Marco:



Eben: When multiple messages are sent sequentially, they will merge with a linebreak. This will eliminate the padding between them and keep the conversation compact. (?)

Marco: Long lines of text will wrap onto multiple lines. This will also happen when an image is drawn into the region, clipping the drawing region to fit the graphic (1 subcell padding).



Lisa joined the chat

Eben: Relatively short lines of text consume very little vertical space.

Eben: This area accepts both keyboard and stylus input, allowing image and text to coexist. You can even have hand-drawn images overlap the typed text. Both text and image remain independently editable, even after "pulling" a previous message into the edit area via the button to the right of each.







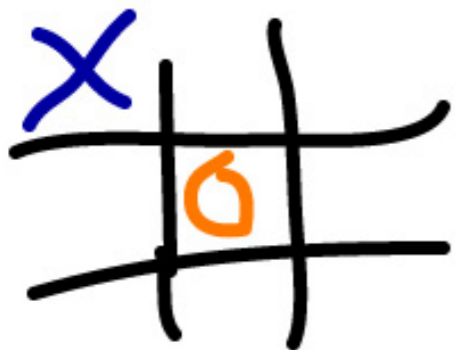
Take Photo

Clear

Activity

Edit

Draw



pervasive video

the camera is underused

snapshot of what my friends are doing

low resolution/low framerate

avatars

conferencing

audio/video group chat

Farsight2

audio is easier than video

push-to-talk



We should make some birds. [dropdown] [close]

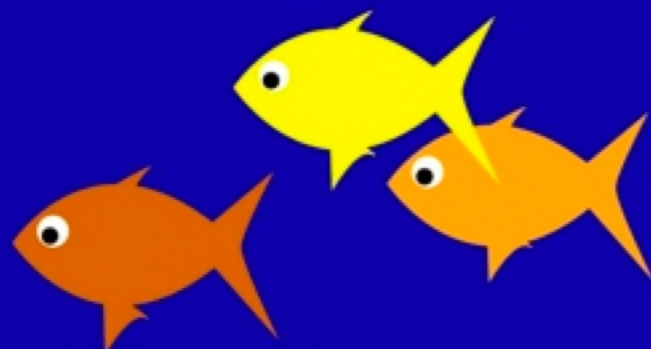
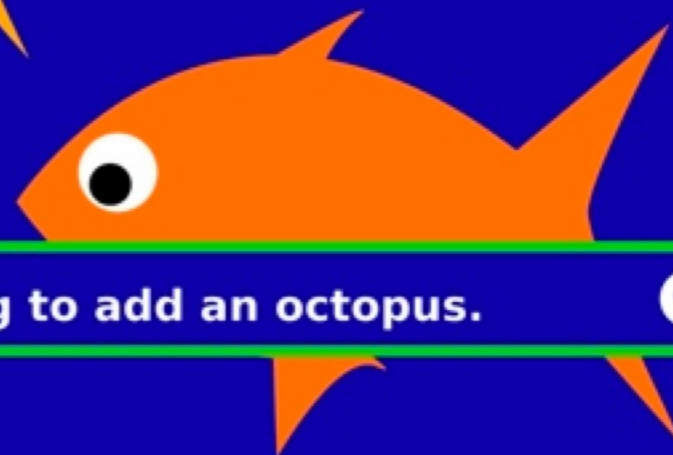
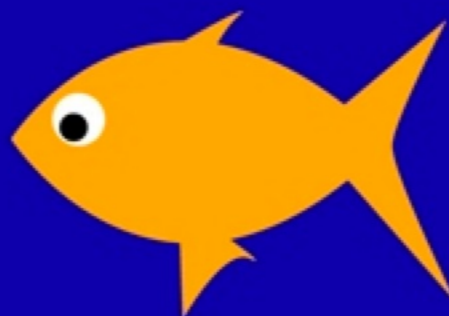


Shark [close]



Let's draw a shark here! [dropdown] [close]

Yeah, I'll help! [dropdown] [close]



Great fish! I'm going to add an octopus. [dropdown] [close]



the outside world

communications between schools

communications outside schools

access control

discussion