

Exploration of open development principles for telehealth service platforms

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Free Beer?



Raison d'être

- Open development has largely been conducted between 'professionals'
- There is a potential synergy between open development and User Centred Design
 - UCD means people who are going to use what is being developed should be at the centre of the design process
- Are there any issues?
 - The language and terms of reference
 - Impact of inclusion of software under MDD(MHRA)???

Open development Community for Maavis

- Managed Access to Audio, Visual and Information Services
 - “use of IT without understanding it”

Maavis Video calling

Touch the activity you want to do

Bye Maavis

Inform

Touch the picture of the person you want to call

Touch the picture of the person you want to call

Call Centre (SB)

Call Centre (SB)

Check its working

Daughter Annette

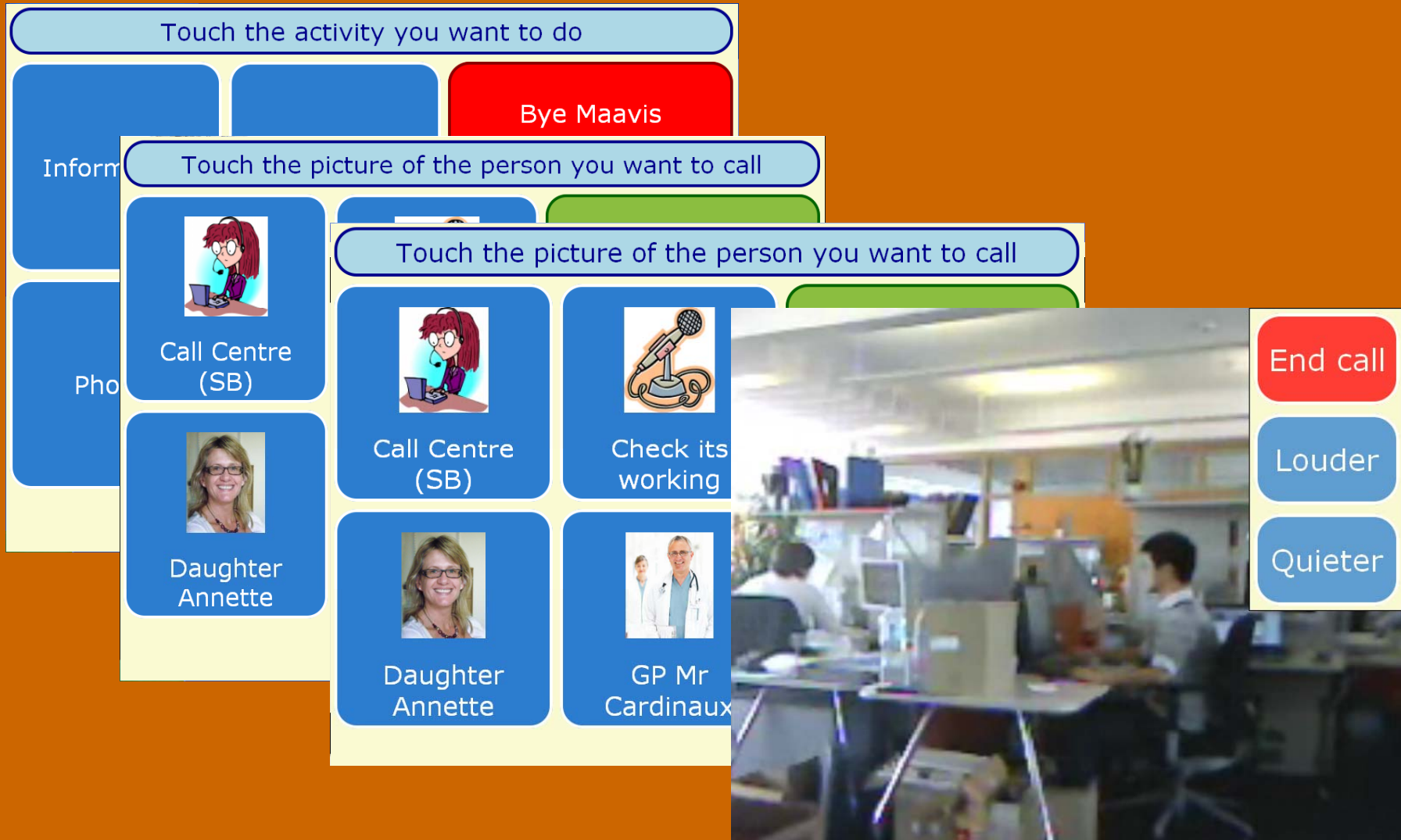
Daughter Annette

GP Mr Cardinaux

End call

Louder

Quieter

The image shows a screenshot of the Maavis video calling interface. At the top, there is a blue bar with the text "Touch the activity you want to do". Below this, there are several blue buttons. One button is labeled "Bye Maavis" and is highlighted in red. To the left, there are vertical labels "Inform" and "Photo". A second blue bar says "Touch the picture of the person you want to call". Below this, there are three columns of buttons. The first column has a button with a cartoon character icon labeled "Call Centre (SB)" and a button with a photo of a woman labeled "Daughter Annette". The second column has a button with the same cartoon character icon labeled "Call Centre (SB)" and a button with the same photo labeled "Daughter Annette". The third column has a button with a microphone icon labeled "Check its working" and a button with a photo of a doctor labeled "GP Mr Cardinaux". On the right side, there is a video feed of a call center with several people working at computers. To the right of the video feed are three buttons: a red "End call" button, a blue "Louder" button, and a blue "Quieter" button.

Open development Community for Maavis

- Managed Access to Audio, Visual and Information Services
 - “use of IT without understanding it”
 - Developed from intensive simultaneous experiential user requirements gathering & user evaluation
 - Open source (copyleft – <http://maavis.fullmeasure.co.uk>)
- R&D lead and research group new to Open development
- Obtained help from OSS Watch to develop the open community

Platform technology for teleservices?

■ Promoting Concordance

- Nutrition related to medication/condition
- Reminders e.g. meds, appt's
- Obesity, Stroke, ...
- Prevention of falls, ...

■ Intervention

- Home/out-patient review and intervention with/without additional networked technology
- Therapy

■ 'Self'-support

- Accessible information sites
- Videoconference to carers
- Networking (cf People with LD)
..... Form a local community of people with similar needs driven by videoconferencing

■ Professional Consultation

- Pro-active monitoring by technology and professionals
- Intelligently managed Pro-active 'informed patient' requests for intervention

Open Development Community

- Changes for researchers not used to Open development
 - Have been much more open
 - Have received immediate and early feedback
 - Have actively encouraged potential users and developers (including companies) to join the community
 - Closed 'competition' has not stopped the project
- UCD requires us to bring the end users into the design process

AT Innovations Broker

- A D4D project to bring innovators, manufacturers and users together to innovate new/better products
- Online resource with stakeholder community involvement – but not yet Open Development
- It has the same issue of “how to get professionals and lay people talking and sharing effectively”

Broker outputs

Innovators

- Market estimates
- New ideas/products
- Product commercialisation

Sharing & Discussing

Manufacturers

AT users

The design of the AT Innovations Broker

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ATIB

Assistive Technology Innovations Broker



You are here : Home

Welcome to the Assistive Technology Innovations Broker

Welcome to the Assistive Technology Innovations Broker (ATIB). Our ambition is for the Broker to help to add more and better suited technology for the people who need it. We hope you decide to find out more and get involved by registering as a site user, but first you may like to change the way the Broker presents itself on your screen.

Our aim is for this website to be usable by as many people as possible. That is why this page starts with a large text size, which is to help some people with impaired vision. You are free to choose how each webpage is displayed by using the controls at the top of every page.

The ATIB is designed to allow for two types of User, these are explained in more detail on the [User Selection Page](#)

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Diversity of stakeholders

- Diverse
- range of knowledge and experience
- interests and motivations
- range of interaction requirements
 - Intellectual
 - Physical
 - Sensory
 - Behavioural
- Emphasis given to Accessibility rather than Aesthetics in ATIB but many compromises made

Stakeholder engagement

- Success requires that stakeholders engage with the process
- Stakeholder types :
 - Technology innovators
 - Manufacturers (possibly resellers?)
 - Commissioners (funders)
 - Service managers
 - Prescribers of technology/interventions
 - Personal assistants and carers
 - People receiving care via the technology
- All need to get something out of joining in!

Different Language and perspectives

- To interpret a need professionals are used to and may need 'scientific' description accuracy, but
- An end user says in expressing their need "I need something to help me pick things up from the floor"
- Does their inability to pick things up come from
 - A lack of functional ability in their hands
 - A lack of functional ability to reach the floor
 - Blindness/poor vision

Clash in Philosophy?

- UCD expects 'users' to
 - say what they need
 - to feedback on what works and/or they do or do not like
 - to communicate using their language & understanding
- UCD translates above into usable design information
- Innovators (coders) typically contribute because they expect to get fun from helping and from following their own ideas

Inferences so far

- A unifying strategy and/or platform that delivers easy communication and shared goals between stakeholder groups is needed for successful open development
- Stakeholders need guidance as and when required, e.g.
 - Open development systems need to manage 'translation'
 - Pursuing 'pet' ideas that doesn't meet expressed/confirmed users needs has to be excluded or channelled
- Users primarily see benefits while 'producers' have an unclear picture

Free Beer?

Users+developers+professionals

The free bit: added value...

The rest of the pint – the
normal RAW HARD WORK of
making something (and getting
it to market)

FLOSS is about
more than 'Free'!



Inferences so far

- Open development still has massive potential for AT and Telehealth
- We have developed a platform that can support open development of (tele) healthcare applications
- We have developed a tool for 'brokering' innovations

Links

- MAAVIS: <http://maavis.fullmeasure.co.uk/>
- Barnsley: www.barnsleyrd.nhs.uk (Assistive Technology Team)
- Sheffield: www.shef.ac.uk/scharr/ (RAT group)