Effect of MobileASL on Communication Among Deaf Users

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MobileASL
A real-time mobile video conferencing application designed for sign language.

Why?
- ASL is a language distinct from English; text-based communication is not appropriate
- Current video phones lack mobility

Field Study
11 Deaf students were given MobileASL phones for 3 weeks to:
- Observe behaviors of Deaf users of MobileASL
- Receive user feedback on MobileASL
- Prepare for a longer-term field study

methods

On-device Logging
We logged 4 categories of data:
- Battery: change in status, level, etc.
- Calls: call type, duration, date/time of call, etc.
- IP: change in IP, date/time of change
- Program: start and ending times of MobileASL

Experience Sampling
There were 18 possible questions. An example:
- Which best describes where you are right now?

We did not receive many responses for most of the questions.
We also conducted questionnaires and interviews throughout the field study.

user behavior

Spontaneous Info Seeking
A pattern of short and occasional calls
Call duration tended to be short, but varied widely (M = 105.16 s, SD = 158.66 s).

user feedback

Positive
- Visual aspect: able to see other person
- Mobility
- Quick communication
- Ability to connect anywhere (3G and Wi-Fi)

Negative
- Battery life was too short
- Occasional bad video quality
- Device: too large, camera did not tilt far enough
- Interface needed a stylus (was not finger-friendly)

future work

Create PC Version of MobileASL for home use or use with Video Relay Service (VRS)
Implement power savings algorithms to save battery life
Port MobileASL to Android so it can run on sleeker devices with finger-friendly touch interfaces

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Mobility
Through interviews and experience sampling, participants reported using MobileASL in public places like buses, restaurants, and shopping areas.