H566 EXPERIENCE DESIGN FOR UBIQUITOUS COMPUTING

GLASSCOMPANION

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CONTEXT

Increased number of
smart and wearable devices

Limitations with devices
that use touch/voice input

Extend the functionality of
both smart devices and wearables

USAGE

Google Glass
+
MYO Gesture Armband
+
Smartphone

Touch-less Gestures

Message Templates

USABILITY GOALS

- Effectiveness
- Utility and Efficiency
- Memorability and Learnability

USERS

Performing activities that limits phone usage

Difficulty speaking out loud or being heard

Hearing Impaired

TECHNOLOGY

Google Glass

Features

Input

Benefits

TECHNOLOGY

MYO Gesture Armband

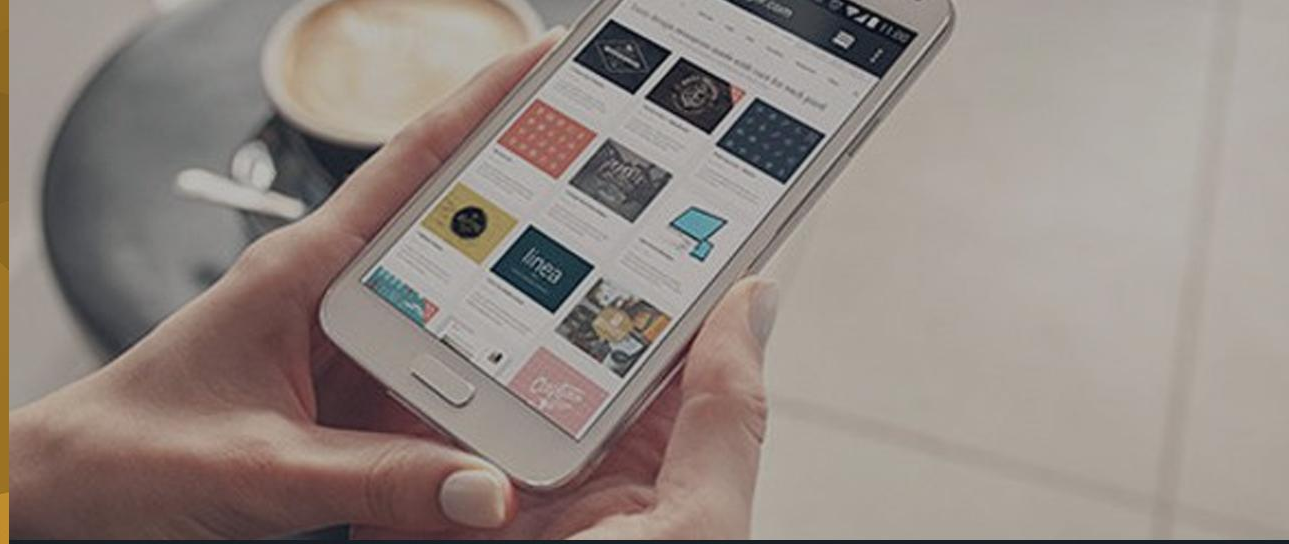
ThalmicLabs

EMG Sensors

Benefits

TECHNOLOGY

Android Smartphone



Platform

Google Voice

Benefits

TECHNOLOGY
MYO Limitation

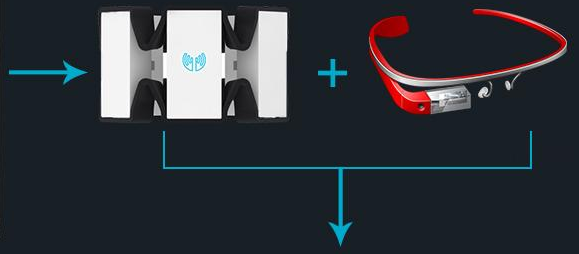
5
Gestures

Learning Curve

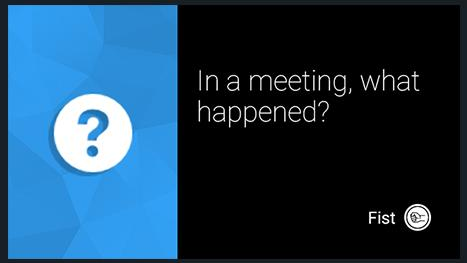
Sync

Tap to Activate

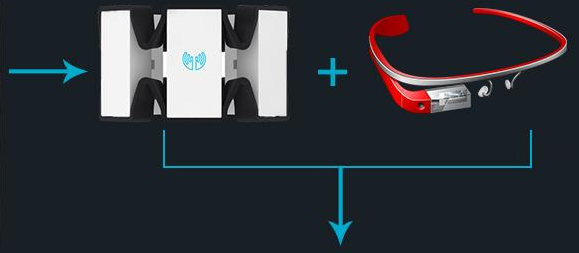
SCENARIO
Office



Fist



SCENARIO
Home



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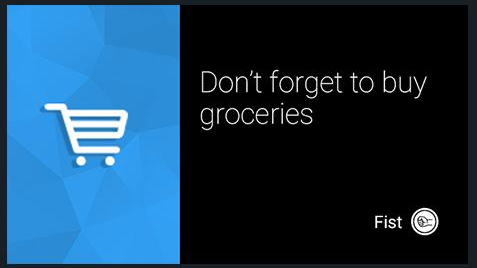
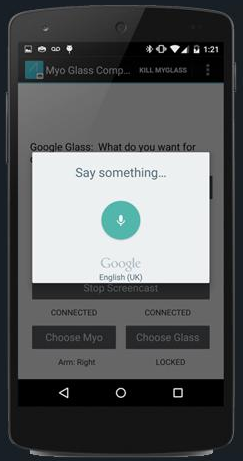


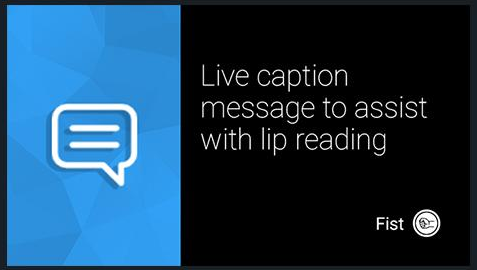
SCENARIO

Deaf or
Hard of hearing

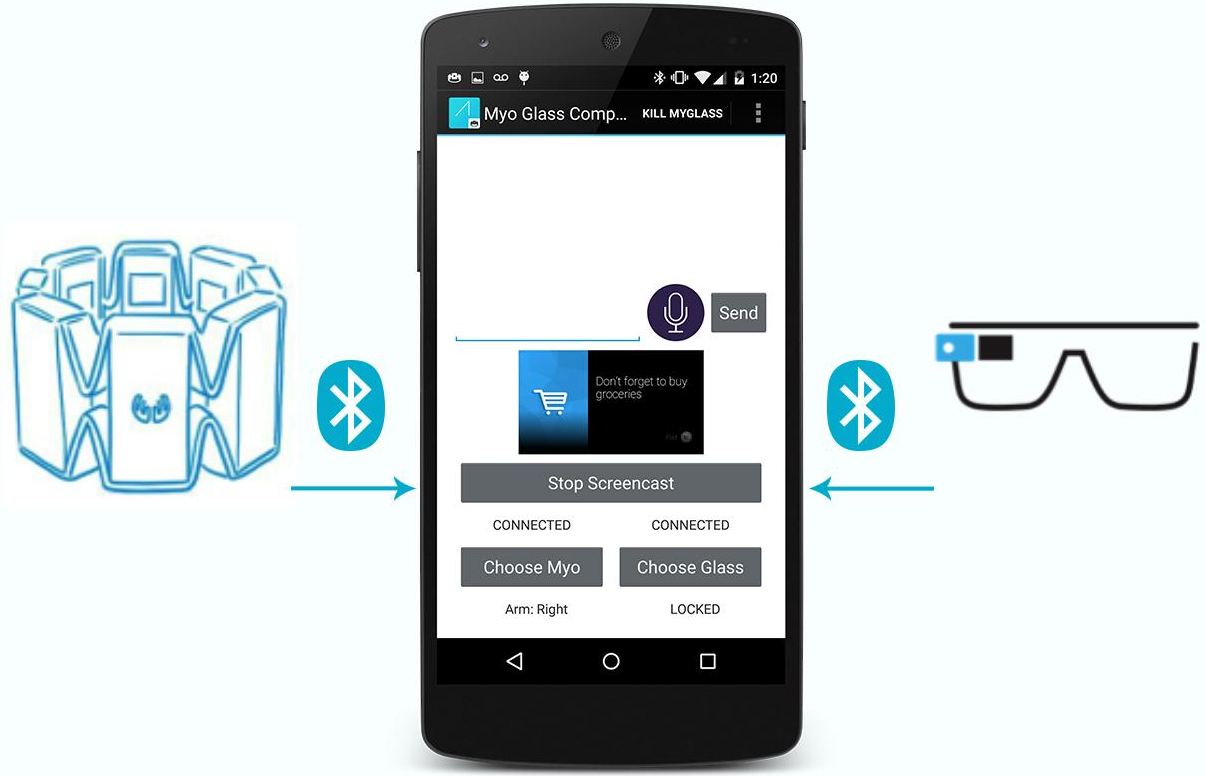
Lady trying to start a conversation

deaf/HoH person trying to lip read

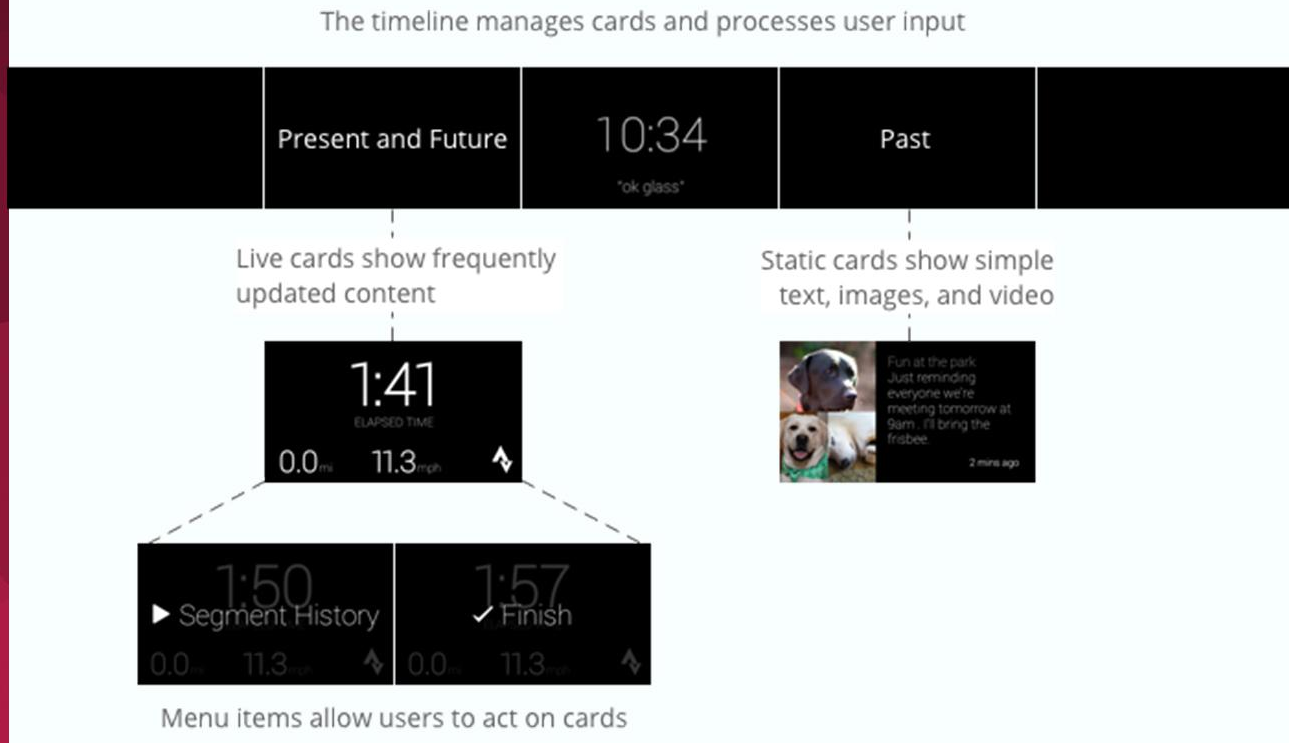




CONNECTIVITY



GLASS TIMELINE



MYO GESTURES TO GLASS ACTIONS

MYO UNLOCK

DOUBLE TAP

SWIPE FORWARD

WAVE RIGHT

SWIPE BACKWARD

WAVE LEFT

SINGLE TAP

SELECT

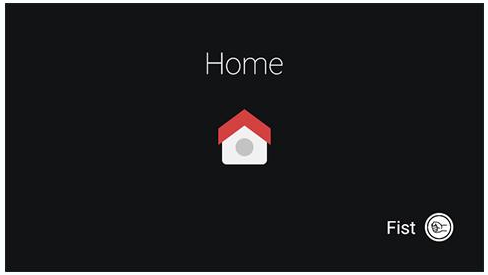
FIST

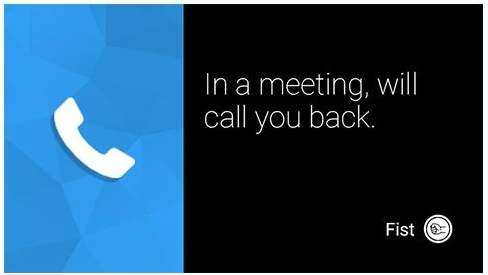
SWIPE DOWN

DISMISS

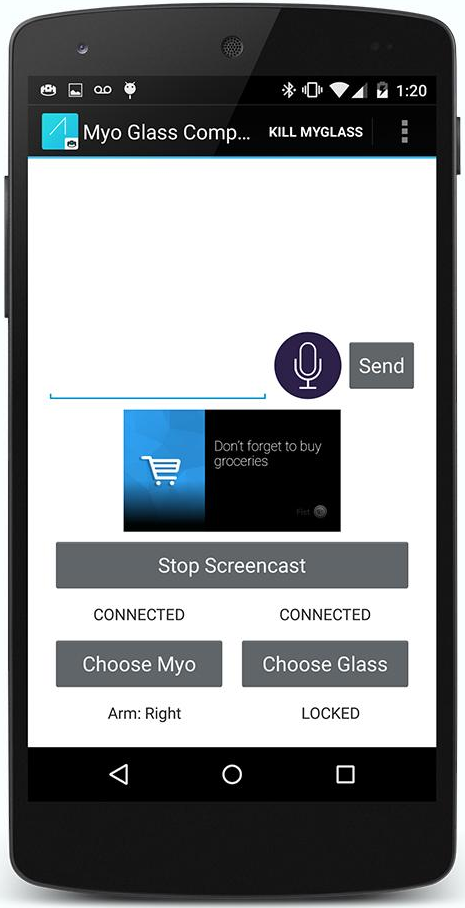
FINGER SPREAD

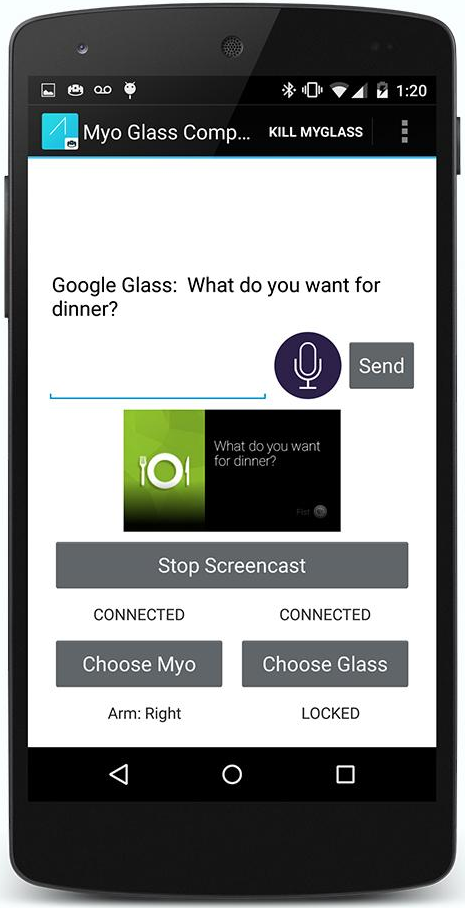
GLASS MESSAGE TEMPLATES



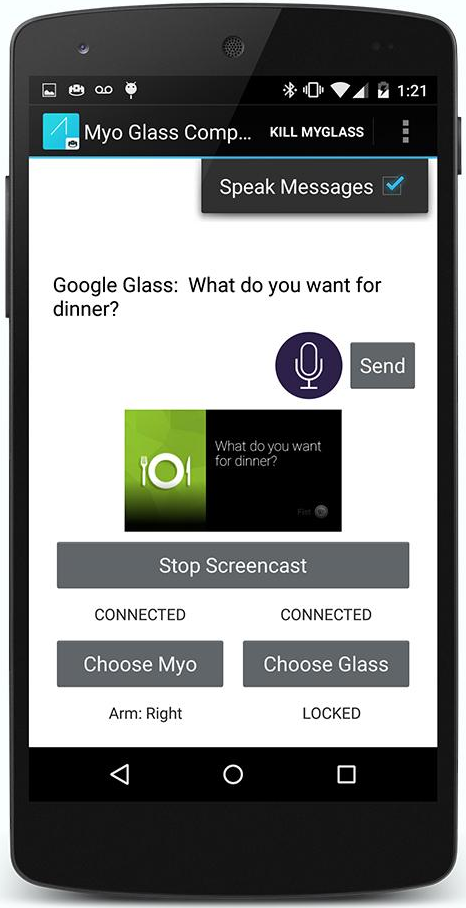


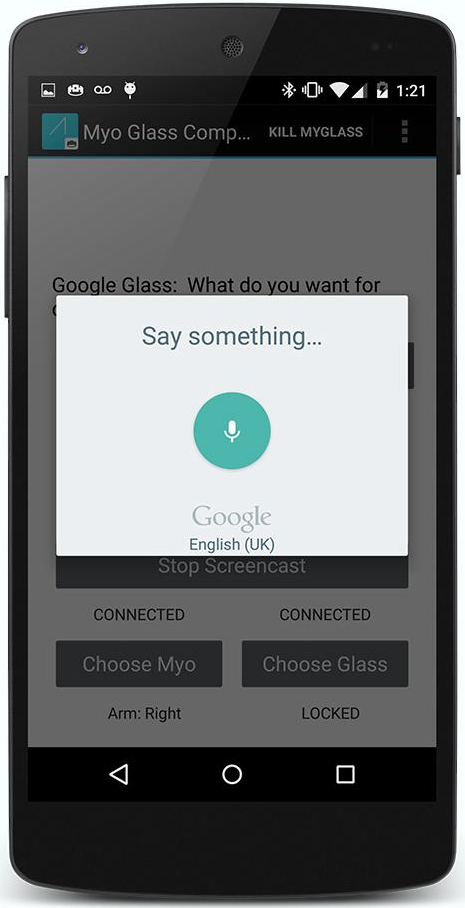
PHONE APP


1:20
Myo Glass Comp...
KILL MYGLASS
Send
Don't forget to buy groceries
Stop Screencast
CONNECTED
CONNECTED
Choose Myo
Choose Glass
Arm: Right
LOCKED

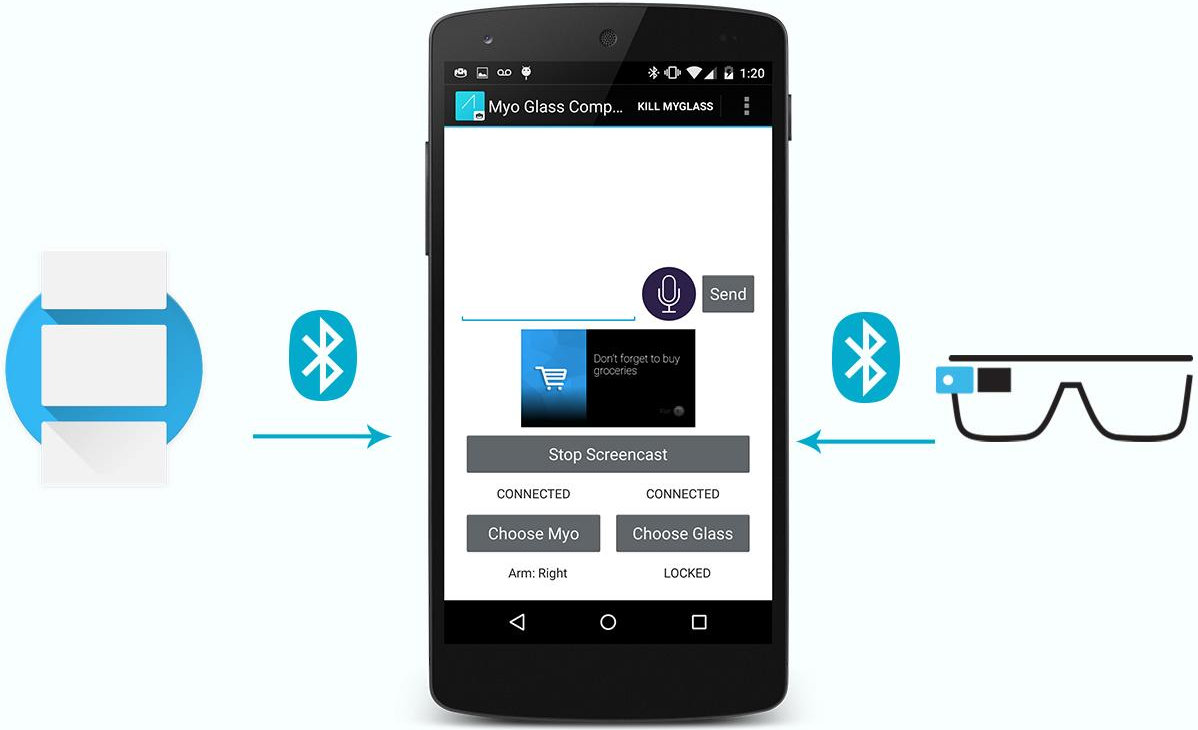

1:20
Myo Glass Comp...
KILL MYGLASS
Google Glass: What do you want for dinner?
Send
What do you want for dinner?
Stop Screencast
CONNECTED
CONNECTED
Choose Myo
Choose Glass
Arm: Right
LOCKED

FEATURES


1:21
Myo Glass Comp...
KILL MYGLASS
Speak Messages
Google Glass: What do you want for dinner?
Send
What do you want for dinner?
Stop Screencast
CONNECTED
CONNECTED
Choose Myo
Choose Glass
Arm: Right
LOCKED


1:21
Myo Glass Comp...
KILL MYGLASS
Google Glass: What do you want for
Say something...
Google
English (UK)
Stop Screencast
CONNECTED
CONNECTED
Choose Myo
Choose Glass
Arm: Right
LOCKED

WEAR-GLASS CONTROL



WEAR GESTURE TO GLASS ACTIONS

TAP

SELECT

SWIPE RIGHT

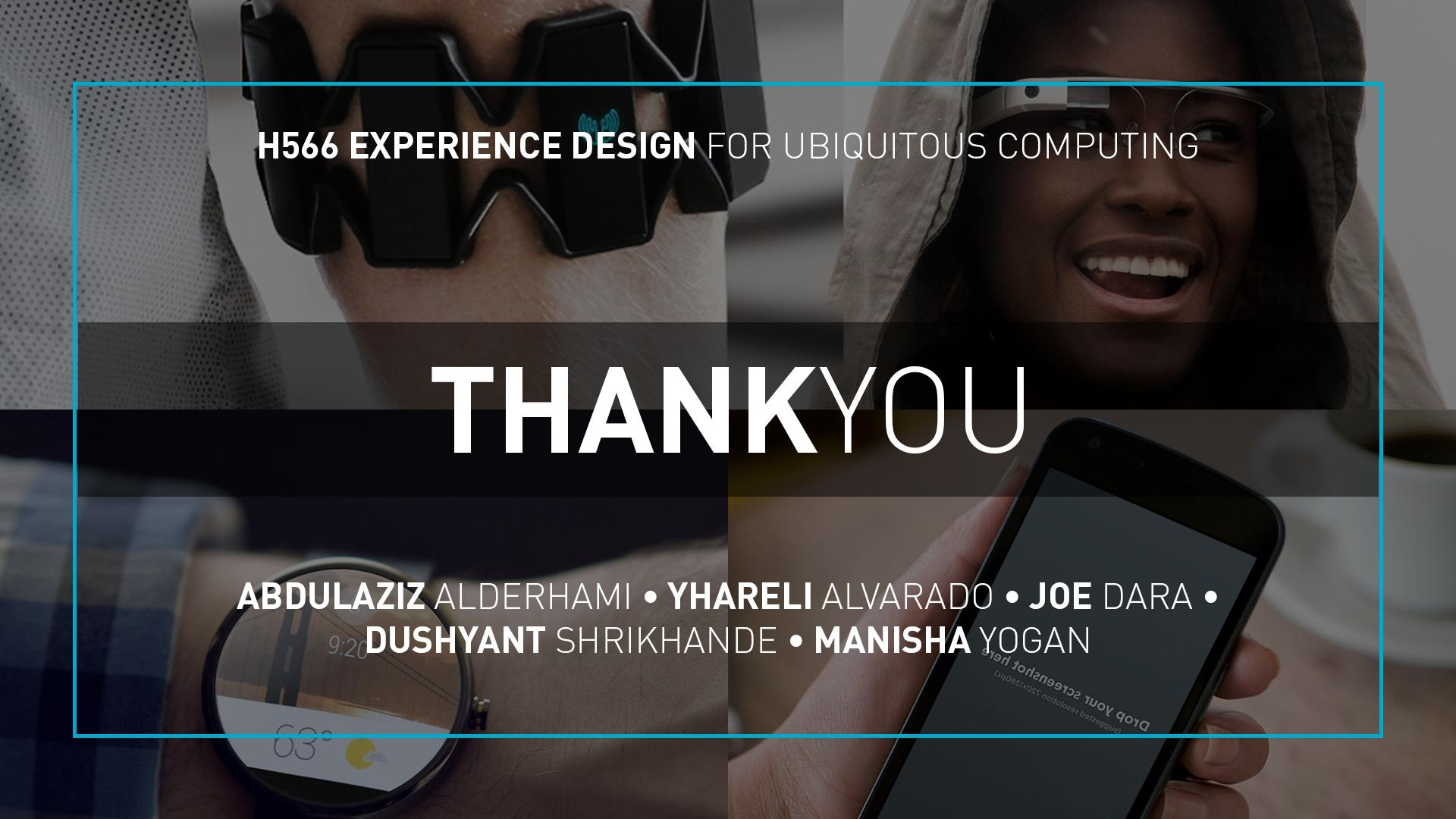
SWIPE FORWARD

SWIPE LEFT

SWIPE BACKWARD

FUTURE WORK

- Message templates for daily activities
- Language translation feature
- Explore more gestures on watch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