Wearables: Empowering, transforming, inclusive
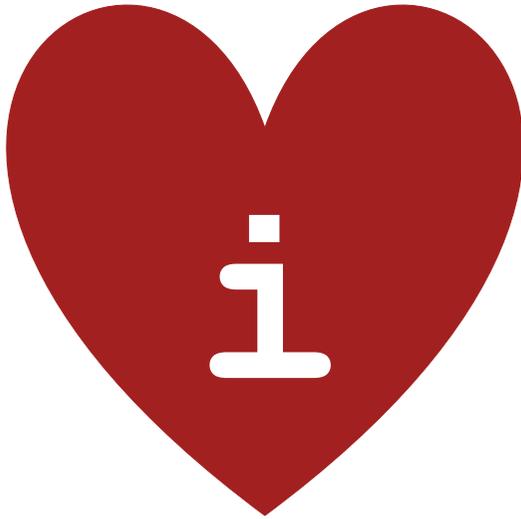
i

technology

*"Google Glass has given me a whole new world," she said. "For 18 years, I wasn't able to take pictures whenever I wanted. I can't even describe how amazing that is. I can answer the phone and actually hear the person on the other end and they can hear me. When I get a text, I can read what the text says on the little prism and answer it."~ **Tammie Van Sant***

http://mashable.com/2013/08/07/google-glass-disabled/

"My friends are always looking up things on their cellphones, I can do that now too really quickly," she said. With Glass you can search Google by simply saying "O.K. Glass, what is the weather going to be like tomorrow?"

~ Alex Blaszczuk

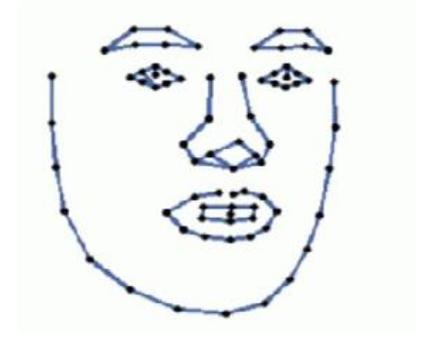http://abcnews.go.com/Technology/google-glass-changing-quadriplegics-life/story?id=19918986

Mobile Lorm Glove
Design Research Lab

Enable Talk
Team of Ukrainian students

takes way that
impairment. But it is not
the delay is

**Real-time captioning –
Google Glass**

Face-tracking software
Sension

Communication

Tacit sonar for the blind
Grathio Labs

Navigate Jacket
Wearable Experiments

Haptic footwear
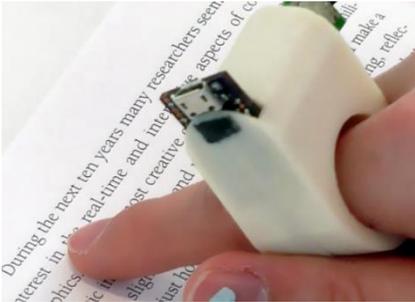*Lechal*

Navigation

Surrosense
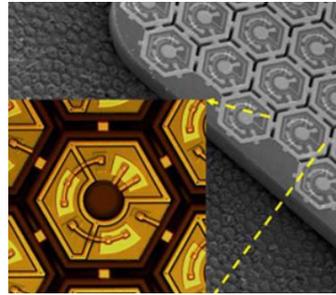*Orpyx*

ReWalk Personal System
ReWalk Robotics

Tempo
Care predict

Health and Therapy

FingerReader
Fluid Interfaces

Photovoltaic Prosthesis
Stanford University

Object identification

Q Sensor
Affectiva

Other cool stuff

"The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect".
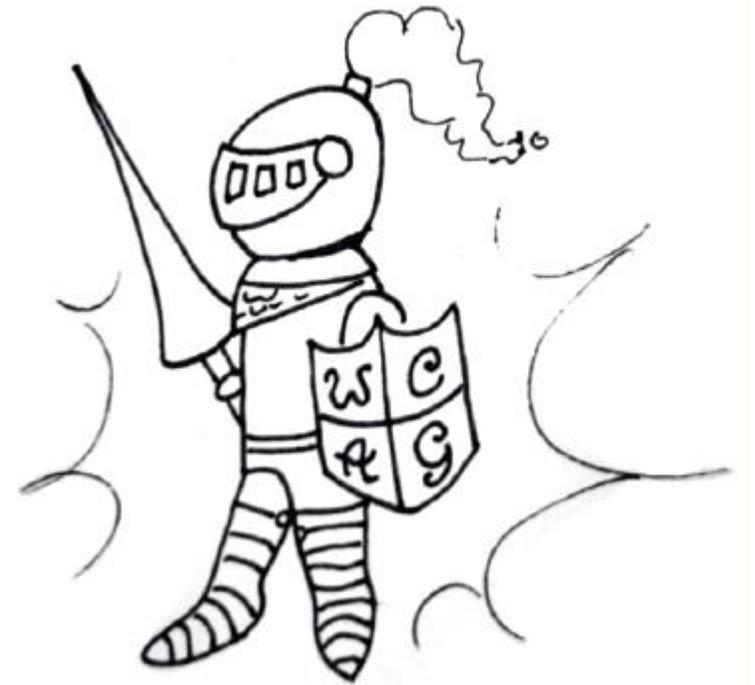
Tim Berners-Lee, 1997

Thank you

Sarah Pulis

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@sarahtp

a11y champion

Download the attitude adjuster cards from bit.ly/attitude-adjuster

Resources

Communication

[Mobile Lorm Glove](#) | Design Research Lab

Gloves that translate hand-touch alphabet Lorm into text , and vice versa

[Enable talk](#) | Team of Ukrainian Students

Gloves that translate sign language into speech. Won first prize in Microsoft Imagine Cup 2012.

[Sign Language Ring](#) | Asia University

Set of rings and a bracelet that detects motion when a person signs and translates to voice/text.

[Sign Language Recognition and Translation with Kinect](#) | Chinese Academy of Sciences

[Sony Entertainment Access Glasses](#)| Sony

Song Entertainment Access Glasses present closed captions on the lens for movie goers. Used in [Regal Cinemas](#).

[Real-time captions via Google Class](#) | 1CapApp

Delivers real-time captions via Google Glass

[Face-tracking software](#) | Sension

Face-tracking engine that can help people to better recognize and understand the expressions and emotions of others. Application: autism.

Resources

Navigation

[Tacit sonar for the blind](#) | Grathio Labs

Wristed mounted device that measure the distance to objects and uses pressure on the wrist to convey distance.

[Navigate Jacket](#) | Wearable Experiments

Helps users find their destination via LED lighting and haptic feedback. Works with mobile app for GPS feature. LED lights indicate how far to the next turn. Vibrations alert user to turn in which direction.

[Haptic footwear](#) | Lechal

Can control app using foot gestures or voice comment for input to use as navigation tool or fitness tracking. Available as either insoles or shoes.

Health

[SurroSense Rx System](#) | Orpyx

Helps to prevent foot ulcers with real-time feedback by collecting pressure data from the foot through sensors in the shoe.

[ReWalk Personal System](#) | ReWalk Robotics

Wearable robotic exoskeleton with FDA clearance.

Tempo Care predict

Tracks daily patterns and learns what your normal activity and routine is. Can alert someone if there is a change that could be an issue.

Resources

Health (con't)

Care predict | Tempo

Tracks daily patterns and learns what your normal activity and routine is. Can alert someone if there is a change that could be an issue.

Other cool stuff

FingerReader | Fluid Interfaces

Scans a line of text and reads out the text and uses haptic feedback for layout.

Photovoltaic Prosthesis | Stanford University

"The photovoltaic (PV) chips, surgically placed under the retina, convert light into electric currents triggering signals in the retina, which then flow to the brain, enabling a patient to regain their vision. Operates like a tiny solar cell."

Q Sensor | Affectiva

Detects and records physiological signs of stress and excitement by measuring slight electrical changes in the skin.