Google Glass for Education:
A Remote Mobile Usability Study of a Responsive Instructional Website
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M-Learning Modules

1: GOOGLE GLASS BASICS
Operating the Google Glass Explorer Edition

2: RECORD & STREAM VIDEO
Recording video and streaming video with Livestream.

3: AUGMENTED REALITY
Google Glass + Augmented Reality in Education

4: EDUCATION
Applications in the field & classroom.

Back: Home
Next: Glass Basics

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Module 1: Google Glass Basics

1: How it Feels through Google Glass
Want to see how Google Glass actually feels?

2: Introduction to Google Glass
Learn how to get started with Glass and get the perfect fit.

3: Google Glass How-to: Getting Started
Learn about the touchpad, the timeline and how to share through Glass.

4: How to pair your Android phone
Learn how to connect to the Internet by pairing your Android phone.

5: Setting up Wi-Fi on Computers
Demonstrates how to connect Glass to your Wi-Fi network from your computer.

6: Setting up Wi-Fi for iPhone
Demonstrates how to connect Glass to your Wi-Fi network for iPhone.

7: How to use voice actions
Learn how to use voice actions to send messages, search, and take pictures.

8: How to use Glass hands-free
Learn how to use voice actions to send messages, search, and take pictures.
Module 2: Record & Stream Video

Record & Stream Video
Hands-Free

Video lessons can transform learning. Flipped classrooms, Field trips, Demonstrations, All can motivate and inspire learning. Glass captures what you see from your point of view with hands-free recording by using voice, gestures, and tap commands. Record for later viewing or stream live.

Recording Video

Google Glass: How to take pictures and videos (35)
Capturing still images and recording video with Glass is easy.

Suggested Activity

Further Exploration

Streaming Video with Livestream

Livestream's video covers downloading and installing Livestream, setting up your video and audio sources, and starting your Livestream.

Video Tutorial - Using Livestream for Producers (2014)
Livestream's video covers downloading and installing Livestream, setting up your video and audio sources, and starting your Livestream.

Democratizing LIVE Video with Livestream (5:02)
Learn about Livestream's entry-level up to premium level hardware and software tools for streaming on mobile devices.

Further Reading

Tutorials
Pricing
Back: Google Glass Basics  Next: Augmented Reality
Module 3: Augmented Reality

Augmented Reality
Create Interactive Print Projects with the Layar for Glass App

NOTE: Apps related to Google Glass have been temporarily discontinued until the new consumer version of Glass is released. The Layar app is available for other wearable devices.

Augmented reality (AR) will play an increasingly important role in teaching and learning in the years to come. Google Glass' augmented reality Head Mounted Display (HMD) technology with its camera and wireless Wi-Fi Web access allows the user to combine the real world with virtual images. Layering digital images over what we see produces a new experience of the world that is visual and highly interactive. Adding AR to your teaching practice or training programs can be highly engaging and effective for learners.

Definition: “Augmented reality (AR) refers to the addition of a computer-assisted contextual layer of information over the real world, creating a reality that is enhanced or augmented.” (Source: 2011 NMC Higher Education Guide)

Layar for Google Glass

Layar was one of the first mobile augmented reality (AR) browsers that can scan interactive printed pages. With the camera and sensors in a smartphone, tablet, and new Glass, Layar’s AR technology adds layers of digital information – videos, photos, sounds – directly on top of items seen in the world around us. Layar’s Augmented Print publications feature digital content that readers can engage with using Glass and other mobile devices. This company fosters the growth of AR as a powerful way to change the way we discover and interact with educational information. Download the AR in Education Overview. Explore case studies.

Inspiration: Augmented Reality at Avenues (4:04)
Layar partners with Avenues: The World School in NYC to create a stunning example of AR in education.

Layar Augmented Reality for Google Glass (1:37)
Layar, one of the most known augmented reality apps, now can be used with Google Glass.

Layar Webinar: Get Started With The Layar Creator (52:51)
A detailed overview of how to use the Layar Creator and their 3-step process: Upload, Create, and Publish.

More videos on the Layar YouTube video channel.

For Developers: Create augmented reality apps with Wikitude SDK

Wikitude SDK, which is fully optimized to take advantage of the unique user interface of Google Glass, enables developers to create AR apps for Google Glass and add videos to augmented reality projects. It features image recognition and tracking, location-based services with geo data, and 3D models and rendering with huge potential for educational applications.

Wikitude on Google Glass (1:31)
A demonstration of what can be done with Wikitude on Glass.
Module 3: Augmented Reality (cont.)
Module 4: Education

Glass in Education
Exploring Wearable Technologies in the Learning Environment

It’s not just the technology that is significant. It is what it allows us to do. Wearable mobile computing and head-mounted displays like Google Glass are emerging technologies that can impact the way education is conceived and delivered. By leveraging it with the information and communication technologies (ICT) possible on the Internet, we have the opportunity to create innovative and effective learning at a distance. The virtually distributed learning environment has never before been so conducive to the kinds of experiences where learners engage and interact with others and co-construct knowledge for deep, meaningful learning.

Explore these resources for inspiration or to start thinking about what your wearable technology strategy might be now or in the future.

Further Exploration
- STEMinite: An Experiment in Teaching with Google Glass
- 14 Google Glass Innovative Use Cases in Education (2014)
- The Teacher’s Guide to Google Glass
- Wearable Technology: will education look very different in the future? (2014)
- The Google Glass Experiment – Classroom Tips
- Wearable learning: How Google Glass is changing education (2014+)
- 5 Ways Google Glass Can Be Used in Education (2013)
- Google Glass Pilot: Lessons Learned So Far (2013)
- UCI School of Medicine first to integrate Google Glass into curriculum
- Will Google Glass Revolutionize the Medical Industry?
- Researchers use Google Glass to help Parkinson’s sufferers (2014)
- Bringing Google Glass into the IT Environment
- Reviewing Google Glass for the Classroom – 5 Big Takeaways (2013)

Slide Presentations
- Wearable learning: How Google Glass is changing education (2014)
- Wearable Technology in Education

Back: Augmented Reality
Next: Inspiration
Inspiration

Explore!

- Foreign Languages: Captions (6:10): Tells the story of a photographer who encounters an emergency situation & uses an app. Captions to overcome a language barrier and save a life.
- Possibilities: Glass: A glimpse into the future of wearable augmented reality technology.
- Smart Homes: Google Glass + Home Automation (2:18): Kevin Forrester has automated his home, now seamlessly integrated with Google Glass voice commands.
- Medical: Glass Delivers New Insight During Surgery (2:12): UCSD Cardiologist-surgeon Pierre Theodore, MD is the first surgeon to use the tech device as an auxiliary surgical tool in the operating room.
- Streaming Live Video: Glass Demonstration Project Glass Team (4:42): Google CEO Sergey Brin and team demonstrate live streaming with Glass. NOTE: Streaming via Google Hangouts on Air now replaced with UStream. See the module to learn more.
- Virtual Field Trips: Children's Hospital Patients Visit Zoo (3:12): Children's Memorial Hermann Hospital patients visit the zoo.
- Google Glass Animation (1:38): A simple animation that was released the first year Glass was offered to Google Glass Explorers introduces the wearable augmented reality device.
- Project Glass: Skylight Demo at Google I/O 2012 (2:02): First-person point of view video of skylighting using Glass.
- Explore Story: Yang Chen (1:56): Acclaimed DJ, producer, and audio engineer uses Glass to explore the Los Angeles soundscape for inspiration to create a new track.
- Himalayan Trails Through Google Glass: Mila Vasiliauskaite (1:16): A man and a woman from the Glass team spent 10 days on a solo Himalayan trail and captured some pretty amazing moments.
- Travel Vlog: Himalayan Trails (1:16): A man and a woman from the Glass team spent 10 days in the Himalayas, capturing some pretty amazing moments.
- Watch Live: Pilot 360° (2:57): An artist demonstrates a technique for adding watercolor to a pencil drawing.
- Field Trip on Glass (2:07): Field Trip is a Glass app that displays augmented reality digital images as you explore the world.
- Aviation: Google Glass in Flight | Productivity | Honeywell (2:5): Wearable technology, like Google Glass, makes it easier and more efficient for flight crews to do their jobs.