How To Capture and Publish Videos with Google Glass

Scott Lawrence Lawson
Director of IT Architecture, QAD Inc.
What We’ll Cover

- Consumer tech in the enterprise
- Wearable technology
- Video growth
- Mobile timeline
- Capabilities of Google Glass
- Tools used and video workflow
- Technical setup of tools
- Best practices for capturing content
- Glass video use cases
- Questions & answers
Consumer Tech in the Enterprise

- Personal computers (PCs)
- Thumb drives
- Personal printers
- Macintosh
- Games
- Mobile phones
- Smartphones
- Web applications
- Google Glass!
Wearable Technology
Work Trends in the Enterprise

- Up to 80% of companies now have mobile workers
  - InfoTech.com, 2012
- Regular telecommuting grew by 79.7% between 2005 and 2012 not including the self-employed
  - globalworkplaceanalytics.com, 2013
- In the U.S. alone 183 million users watched more than 37 billion online videos
  - comScore.com - Video Metrix, 2013
Video Growth @ Salesforce.com

Viewing & Authoring Growth at QAD

Viewing Growth

- Dec 2012: 0
- Jan 2013: 0
- Feb 2013: 0
- Mar 2013: 0
- Apr 2013: 0
- May 2013: 0
- Jun 2013: 0
- Jul 2013: 0
- Aug 2013: 0
- Sep 2013: 0
- Oct 2013: 0
- Nov 2013: +60,000

Authoring Growth

- Dec 2012: 0
- Jan 2013: 0
- Feb 2013: 0
- Mar 2013: 0
- Apr 2013: 0
- May 2013: 0
- Jun 2013: 0
- Jul 2013: 0
- Aug 2013: 0
- Sep 2013: 0
- Oct 2013: 0
- Nov 2013: +620
"[Enterprise video] is increasingly being seen as the ideal form of communication in many situations. The ease of production, distribution and access means that enterprise video is becoming a preferred option for training, internal communications, and sales enablement."

- The State of Enterprise Video 2013, James Careless
Kinect hits mainstream as fastest selling consumer electronic device.

Google demos Project Glass; Facebook buys Instagram – goes public shortly after.

Google glasses available for pre-order at $1500.

2012

Early enterprise adopters integrate Kinect and other gesture-based form factors for employee health initiatives.

Point and click era gives way to touch era.

Curved and flexible touch sensors enter smartphone and tablet markets extending uses and ease-of-use for the consumer and business.

Pebble watch launch.

2014

Tablets go mainstream in the enterprise.

Smartphones become ubiquitous as price drops below critical threshold.

Internet reach exceeds that of television and satellite.

Image Source: Investorplace.com and Digitaltrends.com
Mobile Timeline - InfoTech Research Group

- Wearable tech moves beyond hobby status.
  - Major improvement in voice recognition boosts user adoption in the consumer sphere.
- Video conferencing almost matches in-person meetings.
- Ubiquitous computing instigates new security concerns paralleling the BYOD worries of today.
- Print and 2D printing see their final moments as new screen types eliminate any need for paper.

**2015**
- Adoption of smart walls increases.
- Location-based advertising gains acceptance and harnesses user GPS data to transfer targeted ads.
- Increase in the size of flexible, touch displays shifts the technology from the personal sphere to a collaborative enterprise sphere.

**2017**
- Most screens are 4K resolution or higher, increasing both sharpness and bandwidth needs.
- Major improvement to battery technology further increase reach and utility of mobile technology.

Image Source: store.nike.com
High-degree of automation in mobile consumer tech improves everything from employee productivity to employee health.

Follow-me storage is standardized and secure.

Wearable technology that recognizes changes in vision – depth of field – goes to market.

Internet of Things connects mobile and stationary devices and begins to automate maintenance of enterprise infrastructure.

Operating systems are abstracted from devices and move to the cloud.

Technological convergence with social, mobile, analytics, and cloud technologies accelerates growth for early adopters.

Average people don’t think about technology, their identity is simply available whenever and wherever they need it.

Thought-based interfaces.

Internet use reaches 5 billion.
What is Google Glass?

A wearable computer that:

○ connects to the internet via mobile device
○ delivers information via screen and sound
○ captures images and voice input
○ is always ready and frees hands for other uses
Google Glass Technical Specs

- Android 4.0.4 and higher
- 640×360 display (equivalent of a 25 in. screen from 8 ft. away)
- 5-megapixel camera, capable of 720p video recording
- Wi-Fi 802.11b/g & Bluetooth
- 16GB storage (12 GB available)
- Texas Instruments OMAP 4430 SoC 1.2Ghz Dual (ARMv7) processor
- 682MB RAM
- 3 axis gyroscope, accelerometer, and magnetometer (compass)
- Ambient light sensing and proximity sensor
- Bone conduction transducer
- Optional earbuds (coming soon in next version)
- Modular design (coming soon in next version)
What Can Glass Do?

- Personal
  - Voice call, text messages, Gmail, Google Now, Evernote, Glass ToDo

- Social
  - G+, FB, Twitter, Path, Tumblr, GlassWedgies, Reddit

- News & Information
  - CNN, NYT, Elle, Mashable, Sports, Field Trip, KitchMe

- Publishing
  - FullScreen Beam, SimpleWing, Glass to Phone, Blogger

- Commerce
  - Fancy Shopping, Fidelity Market Monitor
What Else Can Glass Do?

● **Medical**
  ○ In June, Dr. Pedro Guillen the chief of trauma at the Clínica CEMTRO de Madrid performed a highly complex chondrocyte implantation, to form a membrane in the damaged knee of a 49-year-old. The surgery was streamed in real time to 150 doctors around the world, all sharing the same view as him.

● **Mobility**
  ○ Alex Blaszczuk who’s been paralyzed from the chest down since a car accident two years ago, discovered a new mobility with Google Glass. She wrote: “With Glass, paralysis doesn’t have to be paralyzing.”

● **Business**
  ○ Push videos to employees and manage them in a corporate video management system. This is the proof of concept you will learn about today.
Capture Video & Audio

BEAM Sends to YouTube

Processes & Publishes

Downloads file

Stores for Import

Publishes to Employees
Other Tools Used

- FullScreen Beam - Glassware
- YouTube - Consumer or Google Apps
- Miro - RSS Reader / Video Processor
- Mediasite - Publishing & Management
- Other Considerations
  - IFTTT - IF This, Then That
  - Camtasia Relay
  - Write your own glassware
Capture Workflow

1. Take video on Glass
2. Press button to record longer than 10 seconds
3. Shoot video and record audio
4. Tap twice to stop
5. Say “ok glass” - “share with” menu appears
6. Say FullScreenBeam to post to your YouTube channel
7. Miro RSS polls YouTube & downloads MP4 to FTP
8. Mediasite polls FTP & converts video for distribution
9. Human - edit metadata in Mediasite
Workflow Timing

1. Capture video on Glass ~10 sec. or more
2. Send to YouTube ~15 minutes
3. Download to local server ~30 minutes
4. Import into Mediasite ~15 minutes
Technical Setup - Glass

1. Install Fullscreen Beam on Glass from their website
2. Authorize access
3. Choose settings
4. Turn “On” in the MyGlass app
Technical Setup - YouTube

- Public Account
- Same account as Glass
- FullScreen Beam - post as public
- API
  - https://gdata.youtube.com/feeds/api/ - API feed
  - users/hl3XJ-Jg2v3vSTT2KoVefw/ - what/who
  - uploads?alt=rss - feed type
Technical Setup - Miro

1. Source
2. Folder
3. Auto DL
4. Timing
Mediasite Setup

- FTP Server
- Import Job
- Template & player
- Folder-based catalog
**Video Best Practices**

- Explain Glass to others
- See things from your POV
- Keep it short < 3 minutes
- Carefully press button to extend
- All one take - be ready!
- Full battery for video lasts ~45 minutes
- Be ready to speak your title/intro
- Can upload later but reduces immediacy
Glass Video Use Cases

- Employee interviews
- Office tours
- Issue capture for analysis
- Hands-on equipment training
- Process documentation
- Events and fun to build morale
Questions & Answers