Google IO 2014 Agile Retrospective

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Google IO - Android One

- ➔ Affordable (< $100)
- ➔ Dual sim capabilities
- ➔ 1GB memory
- ➔ Quad core processor
- ➔ At least 4” screen
- ➔ Available in September
- ➔ Updated to Android L

Google IO - Material Design

- ➔ Z Layer indexing
- ➔ User touch splash response
- ➔ Rich animated touch feedback
- ➔ Updated system font Roboto
- ➔ Optimised for all form factors
- ➔ Seamless cross activity animation
- ➔ Polymer for web based apps

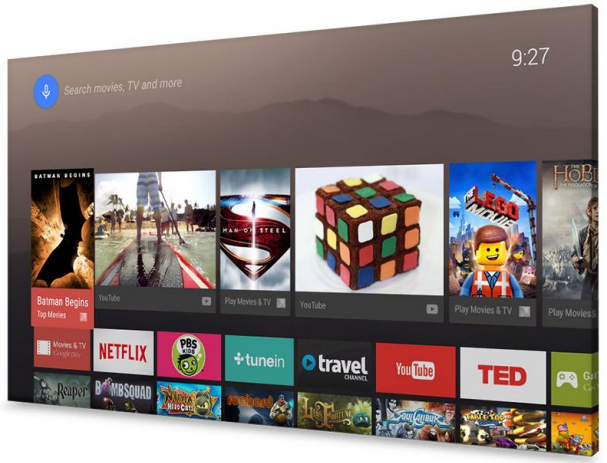
Google IO - Android L

- ➔ Material design baked in
- ➔ Lock screen and heads up notifications
- ➔ Personalised unlocking via Bluetooth
- ➔ Android Runtime replaced Dalvik entirely
- ➔ Project Volta for battery efficiency
- ➔ Google Fit integration
- ➔ Recent applications updated for Chrome

Google IO - Android Platform

android auto

android wear



Google IO - Google Glass

- ➔ No new announcements during keynote
- ➔ Emphasis on Wear

- ➔ Released in the UK
- ➔ Battery and memory improvements
- ➔ Recent updates to ToS indicate imminent release
- ➔ Contacts display improved all contacts from only 10

Google Glass - Social Acceptance

- ➔ Banned in some bars, restaurants
- ➔ Issues with driving, prescription lenses
- ➔ Makes many people feel uncomfortable
- ➔ Many people don’t understand them
- ➔ Privacy concerns
- ➔ Not fashionable … yet?

Google Glass - Interaction

- Glass runs with no UI
  - Eliminate interfaces to embrace process
- Contextually aware
  - Applications must be aware of surroundings
- Content is secondary to user actions
  - Cannot distract the user

Great talk from Dave Scolombe at London Droidcon 2013 on #NoUI

http://skillsmatter.com/skillscasts/4831-google-glass-and-noui

Google Glass - Where to start?

- Google Glass GDK (Glass Development Kit)
  - Android SDK Manager
  - Glass Development Kit Preview
- Google Mirror API
  - RESTful API (Java | PHP | Python | .NET | Ruby)
  - Authenticate > Create Card > Insert to timeline
- No Emulator!
  - Third party options via handsets

Google Glass - GDK Design Patterns

- ➔ Ongoing Task
  - ◆ Live Cards
    - Low Frequency Rendering
    - High Frequency Rendering

- ➔ Immersion Mode
  - ◆ Outside timeline
  - ◆ Standard Android activity

Glass & Wear - Project Structure

- ➔ Android 4.4W API v19
- ➔ Few native UI elements available
- ➔ Activities used for immersion views
- ➔ Themes not used or used sparingly
- ➔ Most of the work done by services
- ➔ Presentation logic with live cards

Glass & Wear - Comparison

- Google Glass
  - Priority to native applications
  - Alternative project deployment with Mirror API
  - No integration with NotificationCompat yet

- Android Wear
  - Full NotificationCompat integration
  - Optional native development

Google Glass - Case Study: Speech

- ➔ Speech Recognition Service
- ➔ Live card with remotely inflated layout
- ➔ Frequency of updating layout
- ➔ Accuracy of recognition
- ➔ Work provided by service
- ➔ Menu as an activity instead of UI component

github.com/ashdavies/com.chaos.speech

Glass & Wear - What have I learned?

- ➔ Importance of contextual awareness
- ➔ NoUI and voice interaction
- ➔ Empowerment from my phone
- ➔ Hardware limitations of wearables
- ➔ Social acceptable of Glass vs Wear
- ➔ Limitations of Glass vs Wear