



Google
Developers



The Next Generation of Social Is in a Hangout

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Developer Advocate

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#io12 Google™ 

The IO12 logo features the number '12' inside a blue square, followed by a vertical bar and a blue circle with a white center.



Jonathan Beri

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Today's Agenda

- The Hangouts Story
- Demos
- Code-Slingin'





Amit Fulay

Product Manager, Google+

<http://goo.gl/H10a0>



The Hangouts Story

The Hangouts Story



Social

+



Real Time



YouTube



Give Feedback [G+ Share](#)

Add videos to playlist

Save playlist

Your Interview with the President - 2012 by whitehouse



Now Playing
Your Interview with the President - 2012
 by whitehouse | 673,477 views



Push to talk

1:07 / 50:46



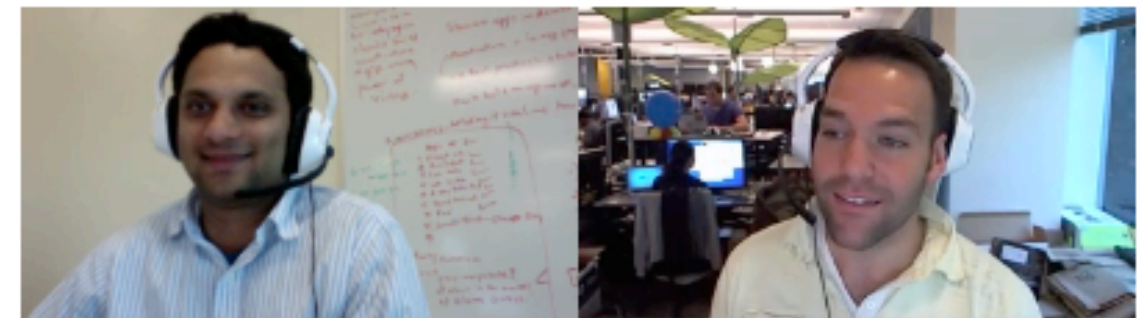
Your mic is muted during video playback.

Google Docs

Talk Shop During Google+ Platform Office Hours

Engaging and learning with developers is a key piece of the Google+ platform. We enjoy interacting with you in [Google+](#), in the [Discussion Board](#), and getting your feedback in the [issue tracker](#). We are always looking for more ways to gather feedback and to help you with any coding questions you might have, so we're beginning regular [Office Hours](#). Office Hours give you the opportunity to ask in-depth questions and get help debugging your code with our

People
Apps



Launched Google+ Hangouts Platform





Activities

Aces Poker

Dennis Hattema wins \$1660 with Flush

6♠ 8♠

Giju Eldhose \$990

Daniel Willis Busted!!

10♥ 6♦

You \$1860

7♥ 3♦ 8♦ 5♦ 9♦

merritt decloux \$800

Ross Malpass \$600

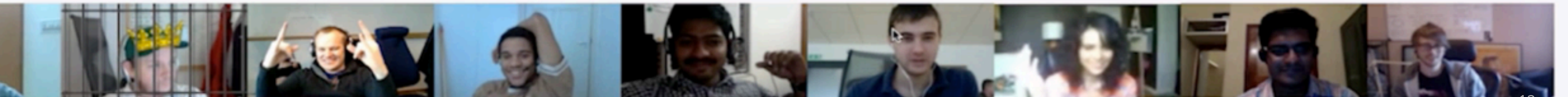
Oyel Kassa ... \$590

Murukesh Sa... \$1530

Alias Eldhose \$2630



Support



John Noren

Chat Invite Apps Screenshare

Scoot & Doodle

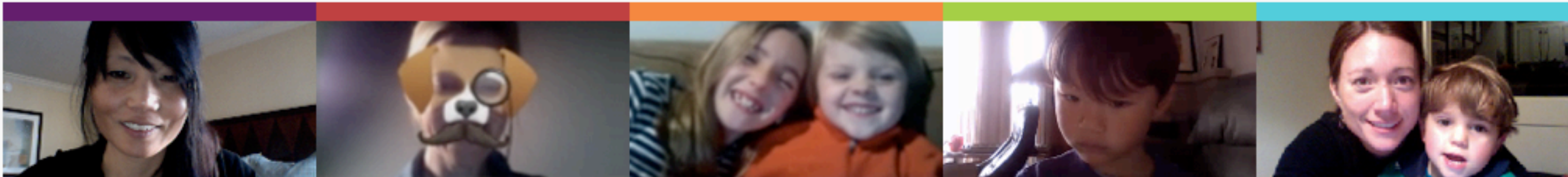


COLOR PALETTE

BRUSH SIZES

eraser clear save

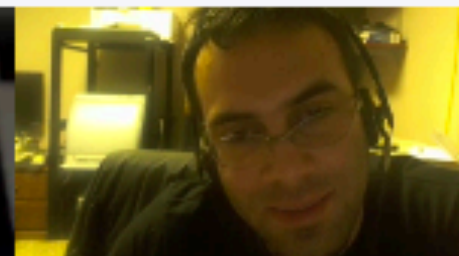
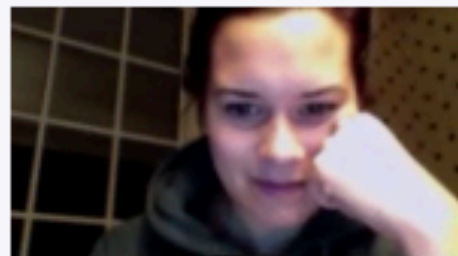
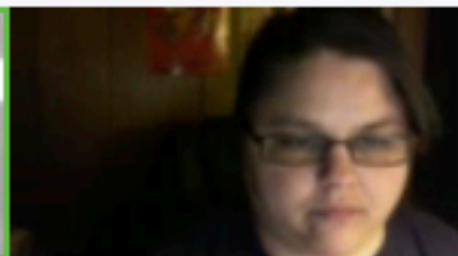
People
Apps





Enhance Live Conversations

Mustache



Effects

Chat | Invite | Apps | Screenshare

Effects

Headwear

Eyewear

Facial Hair

Remove all



People

Apps

A horizontal row of four video thumbnails. From left to right: a man wearing a striped hat, a woman wearing glasses, the woman with the snorkel and mustache, and a woman with blonde hair.

Enter name
Daniel 'Wolff' Dobson

Enter tagline
Go Team USA!

Select sport
Gymnastics Artistic

Select country
United States 

[Reset](#)

Cheer On

 Tennis



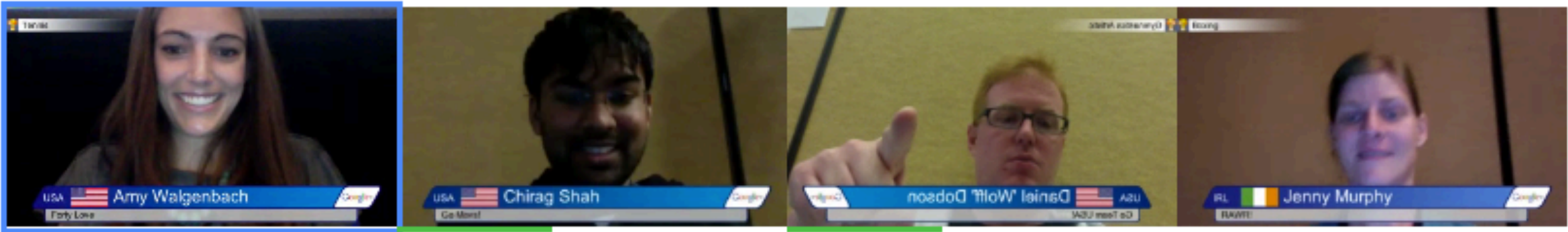
USA  Amy Walgenbach 

Forty Love

© 2012 Moritz v 1.0.0

People

A



A grid of four video feeds showing participants in a virtual event. Each feed includes a name tag with a country flag and a Google+ logo.

- Amy Walgenbach** (USA) - Forty Love
- Chirag Shah** (USA) - Go More!
- Daniel 'Wolff' Dobson** (USA) - AZU
- Jenny Murphy** (IRL) - BAW!



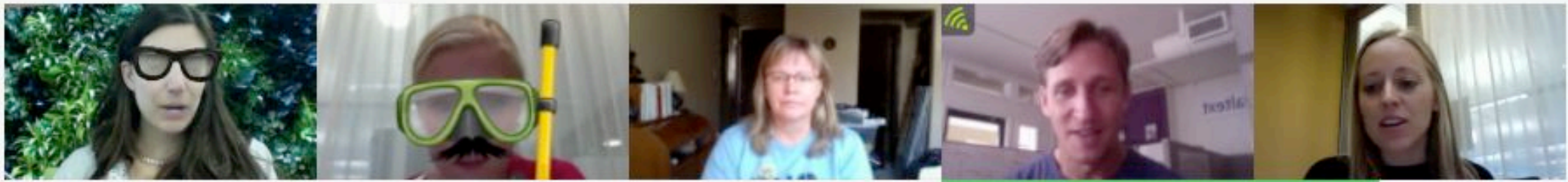
Bring Hangouts to Your Apps

SlideShare

 Search

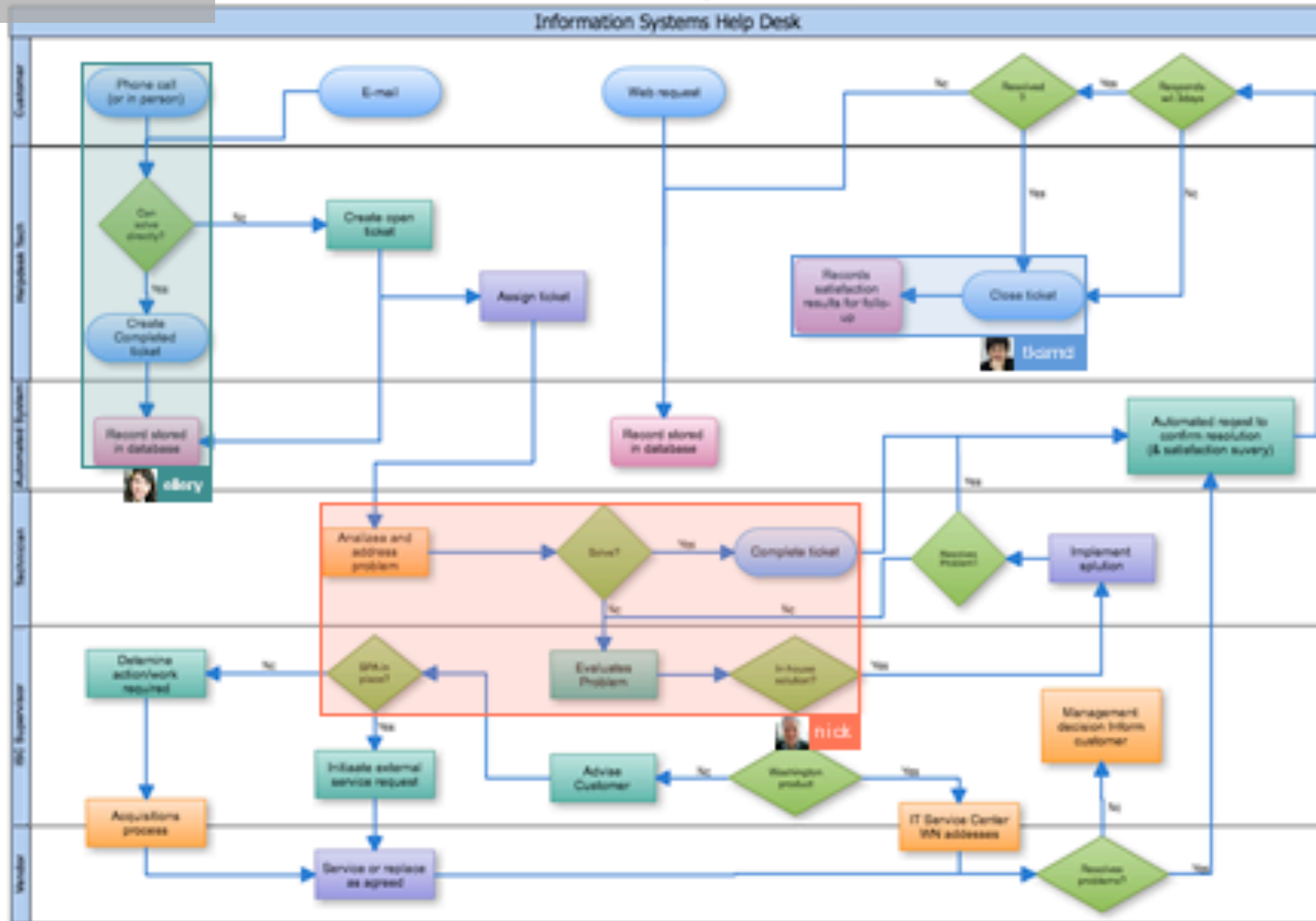
People

Apps



Cacoo

Examples - Information Systems Help Desk



Original: <http://en.wikipedia.org/wiki/ITIL> by (U), 2008-04-07, Information Management - Help Desk.jpg

Inspector

Font: Sans-Serif
Size: 12
Color: [Color Picker]

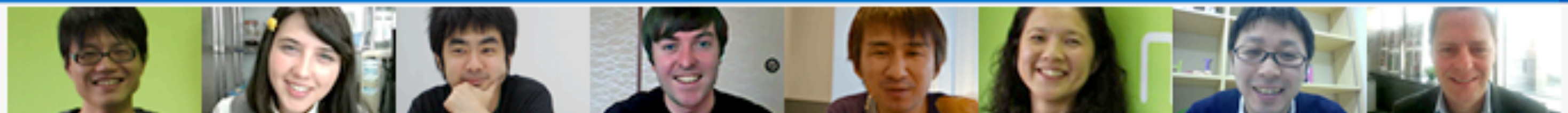
Stencil

Open.Cacoo.com

- Basic
- Office
- Web
- Software
- Flowchart
- UML
- ER Diagrams
- File




Flowchart

Space+Drag scrolls the page.



Symphonical

Not started

 High priority  Medium priority  Low priority

In progress

Completed

Lisa

E-mail John about the agenda

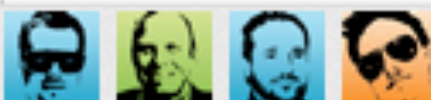
Improve the design on our website

Text

Bart

Take new photo's for our website

Write texts for the webpage



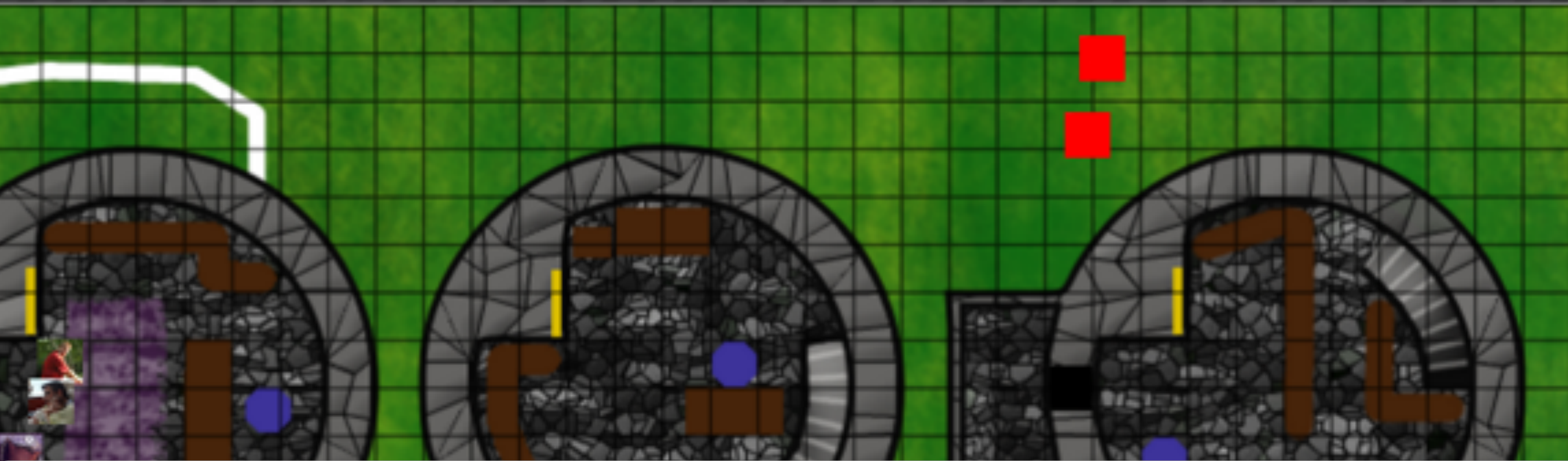
Google+ Hangouts Platform

1. Build Activities inside hangouts
2. Build enhancements for live conversations
3. Bring Google+ Hangouts to your app





Demos



Tabletop Forge 2.0 - Beta

Chat Macros Table

Jordan Whiteley rolled (Spot)
5 = 5

Joshuha Owen rolled : 2
12 = 4 1

[sword] [sword] [b
Brad Price rolled (Spot)
13 = 9 +4

Jason Barker rolled : 10
3 = 3

Christopher Waisanen
4 = 2 +2

Jordan Whiteley rolled (Spot)
11 = 7 +4

Brian Takle rolled (Spot)
19 = 12 +7

Hangouts are a New Opportunity

Hangout Apps are Something You Should be Building Today





What Can You Do?

Scenarios You Can Build into a Hangout App

Show Who is Playing

The screenshot displays a poker game interface with the following elements:

- Top Row:** "You" (\$500) with a profile picture and a "D" icon; "Chirag Shah" (\$500) with a profile picture.
- Left Side:** "Gregory Class" (\$480) with a profile picture and a red up arrow icon labeled "\$20"; "Silvano Luci..." (\$490) with a profile picture and a blue question mark icon labeled "\$10".
- Right Side:** "Julia Ferraioli" (\$480) with a profile picture and a green checkmark icon labeled "\$20"; "Brett Johnson" (\$500) with a profile picture.
- Bottom Row:** "Wolff Dobson" (\$500) with a green alien profile picture; "Timothy Jor..." (\$490) with a profile picture and a blue question mark icon labeled "\$10".
- Center:** A green table with "Pot \$60" in the middle and five empty card slots.

Watch While Someone Draws



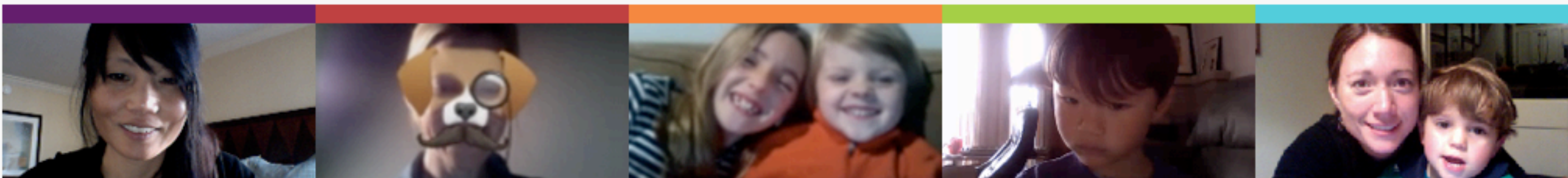
COLOR PALETTE

BRUSH SIZES

eraser clear save

People

Apps



Use Your Face as a Controller





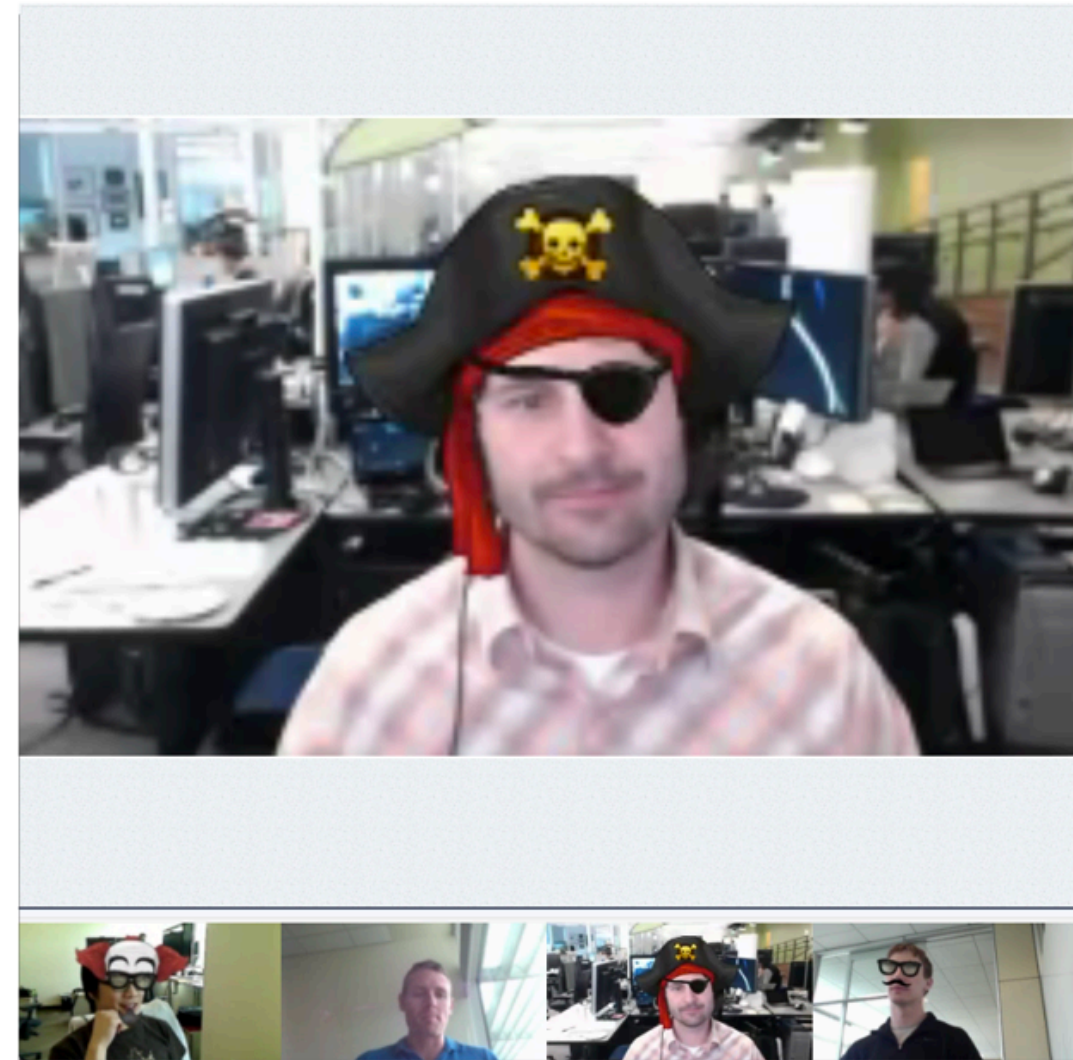
Building Blocks of a Hangout App

How You Can Integrate the Power of Hangouts

JavaScript + Hangout Features

```
286 function startHeadTracking() {
287     // Create hat overlay.
288     var topHat = gapi.hangout.av.effects.createImageResource
289         'http://hangoutmediastarter.appspot.com/static/topH
290     var overlay = topHat.createFaceTrackingOverlay(
291         {'trackingFeature':
292         gapi.hangout.av.effects.FaceTrackingFeature.NOSE_R
293         'scaleWithFace': true,
294         'rotateWithFace': true,
295         'scale': 1.0});
296     overlay.setVisible(true);
297
298     // Add event handler.
299     gapi.hangout.av.effects.onFaceTrackingDataChanged.
300         add(onFaceTrackingChanged);
301
302     console.log('Started head tracking');
303 }
304
305 function onMirrorClicked() {
306     var checkbox = document.getElementById('mirror');
307     mirrored = checkbox.checked;
308 }
309
310 function init() {
311     // When API is ready...
312     gapi.hangout.onApiReady.add(
313         function(eventObj) {
```

Your HTML/JavaScript



hangout.js



App.xml: Pure Web with a Sprinkle of XML

XML

```
<?xml version="1.0" encoding="UTF-8" ?>
<Module>
  <ModulePrefs title="Your App Name">
    <Require feature="rpc" />
    <Require feature="views" />
  </ModulePrefs>
  <Content type="html">
    <![CDATA[
      <script src="//talkgadget.google.com/hangouts/_/api/hangout.js?v=1.1"></script>
      <!-- Your application code -->
    ]]>
  </Content>
</Module>
```



App.xml: Pure Web with a Sprinkle of XML

XML

```
<?xml version="1.0" encoding="UTF-8" ?>
<Module>
  <ModulePrefs title="Your App Name">
    <Require feature="rpc" />
    <Require feature="views" />
  </ModulePrefs>
  <Content type="html">
    <![CDATA[
      <script src="//talkgadget.google.com/hangouts/_/api/hangout.js?v=1.1"></script>
      <!-- Your application code -->
    ]]>
  </Content>
</Module>
```



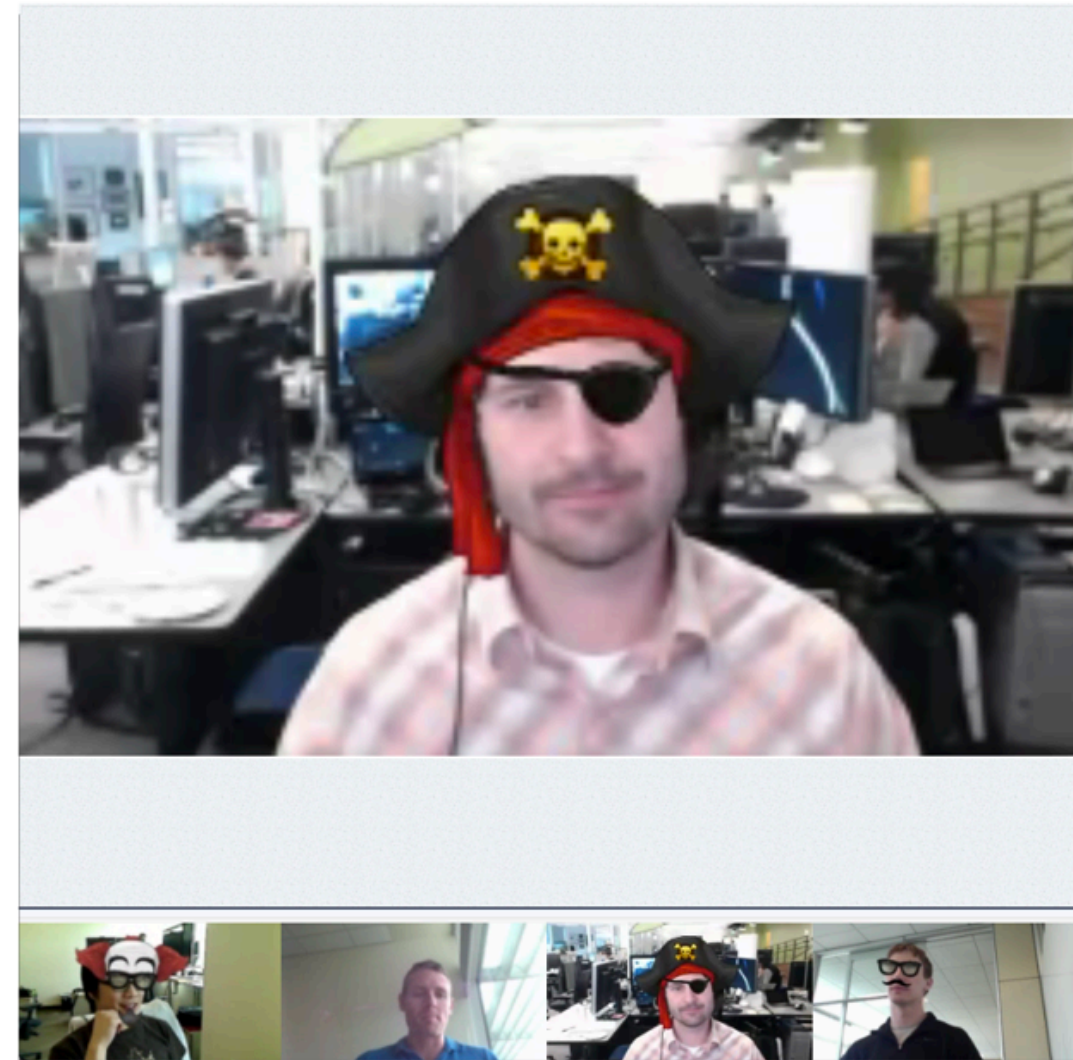
*Anything you can do in an iFrame, you
can do in a Hangout*

but you can do so much more...



JavaScript + Hangout Features

```
286 function startHeadTracking() {
287     // Create hat overlay.
288     var topHat = gapi.hangout.av.effects.createImageResource
289         'http://hangoutmediastarter.appspot.com/static/topH
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291         {'trackingFeature':
292         gapi.hangout.av.effects.FaceTrackingFeature.NOSE_R
293         'scaleWithFace': true,
294         'rotateWithFace': true,
295         'scale': 1.0});
296     overlay.setVisible(true);
297
298     // Add event handler.
299     gapi.hangout.av.effects.onFaceTrackingDataChanged.
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304
305 function onMirrorClicked() {
306     var checkbox = document.getElementById('mirror');
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308 }
309
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311     // When API is ready...
312     gapi.hangout.onApiReady.add(
313         function(eventObj) {
```



Your HTML/JavaScript

hangout.js



hangout.js

- Including hangout.js gives you access to many hangout features, including:
 - Participants
 - Data Channels
 - A/V
 - Effects
 - Metadata

JavaScript

```
<script src="//talkgadget.google.com/hangouts/_/api/hangout.js?v=1.1"></script>
```





Code-Slingin' Time

Let's Build a Hangout App

Guess the pastry



What We'd Like

- Show who's playing
 - List current participants
- Track whose voted
 - Record votes "somewhere"
- Congratulate the winners
 - Web badge of honor



There's a Lot More Possible

Manage Developed Apps:

Load app

Reload app

Reset app state

Captain



Ready?

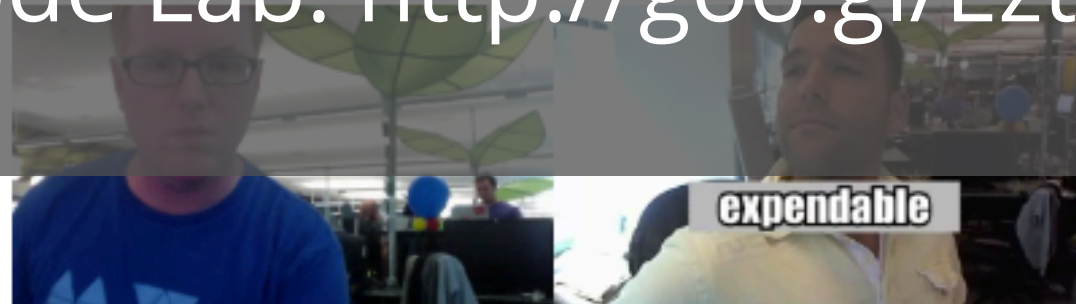


I need a doctor

People

Apps

Code Lab: <http://goo.gl/Ezt0v>





Insights to be Successful

Design & UX Best Practices for Building Hangout Apps

Put People First

Identify Who is Playing with Profile Pictures and Overlays

A group of people, including men, women, and children, are gathered in a room with wooden floors and blue mats. They are holding a large, colorful parachute with segments of red, yellow, green, and blue. A large red ball is suspended in the center of the parachute. The scene is captured from an overhead perspective.

Social is About Being Together

Make everything collaborative and synchronous

Users Will Join When You Least Expect Them

There are tons Participant callbacks - use them liberally!

Playing Alongside Friends Can be Fun Too



Think about different ways you can group users

React Immediately, Respond in Real-Time

Use the Data Channels to keep your App in sync

We are at the Cusp



Next Steps

- Get Started with Hangout Apps
 - <http://developers.google.com/+hangouts>
- Promote Your App
 - <https://developers.google.com/+hangouts/button>
- Attend the Hangouts Fireside Chat
 - <https://developers.google.com/events/io/sessions/gooio2012/809/>



Credits

- Slides

- 12: <http://aceshangout.com/>
- 13: <http://scootdoodle.com/>
- 19: <http://www.slideshare.net/>
- 20: <https://cacao.com/>
- 21: <https://www.symphonical.com/>
- 24: <http://tabletopforge.com/>
- 28: <http://www.experimentsplus.com/details/donut-horns>
- 29: <http://flic.kr/p/8syc8C>
- 37: <http://flic.kr/p/9QwfyD>



Credits

- Live coding
 - Pastry: <http://flic.kr/p/9QwfyD>
 - Nyan Cat: <http://nyan.cat>
- Slides
 - 40: <http://flic.kr/p/9m9Nty>
 - 41: <http://goo.gl/qFQRP>
 - 42: <http://flic.kr/p/bAoSsK>
 - 43: <http://flic.kr/p/7qHfdt>
 - 44: <http://flic.kr/p/5jrwbw>
 - 45: <http://flic.kr/p/52D411>



<Questions?>

<https://developers.google.com/+hangouts/>

Jonathan Beri
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Amit Fulay
<http://goo.gl/HlOaO>

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