# **Android Extreme Wearables!**

Grant Allen, Technology Program Manager @ Google



linkedin.com/in/gxallen



+GrantAllenGX



@grantxallen

# ABOUT ME

In no particular order: Technology Program Manager @ Google, Startups, VC Advisor, Trouble Maker, and...

# ABOUT ME

# In no particular order: Technology Program Manager @ Google, Startups, VC Advisor, Trouble Maker, and...



# BUT TODAY...

# **Extreme Wearables!**

Android, People and the things they wear.

# The pace of wearable adoption is ACCELERATING

# THE NEXT 5BN



2.8 BN 8 BN 8 BN\*

[39% of Global Population]

2014

[100% of Global Population]

Source: (1) eMarketer, Nov 2013

# WEARABLE GROWTH Even Faster Again!

TECHNOLOGY

is chang



# ANDROID "M" & WEARABLES

• Stuff to do now

• Plan for the future





Source: Credit Suisse / Google Images

# How can we make for a better experience?

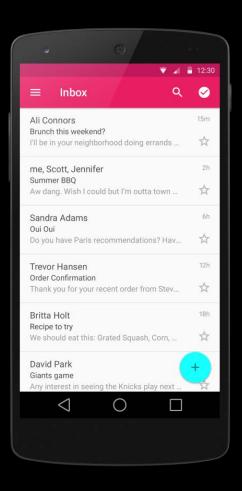
# Material Design

		× 4	12:30
≡ Inbox		٩	$\mathbf{i}$
Ali Connors Brunch this week	kend?		15m
I'll be in your neig	ghborhood doing	g errands	\$
me, Scott, Jeni Summer BBO	nifer		2h
Aw dang. Wish I	could but I'm ou	itta town	☆
Sandra Adams	3		6h
Oui Oui Do you have Pari	is recommendat	ions? Hav	$\frac{1}{24}$
Trevor Hansen			12h
Order Confirmati Thank you for yo		from Stev	$\vec{\Sigma}$
Britta Holt			18h
Recipe to try We should eat th	is: Grated Squa	sh, Corn,	샀
David Park		(	+
Giants game Any interest in se	eeing the Knicks	play next	÷
$\bigtriangledown$	$\bigcirc$		



# Material Design

- RecyclerView
- CardView





# Material Design: View Shadows

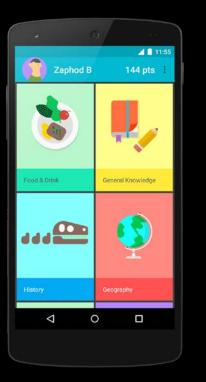
Using a z-axis property to visually raise or the appearance of UI elements

# Material Design: Custom animation

Such as circular reveal and curved motion

Usable for activity transition, state change, etc.

# Material Design ... & Android M !





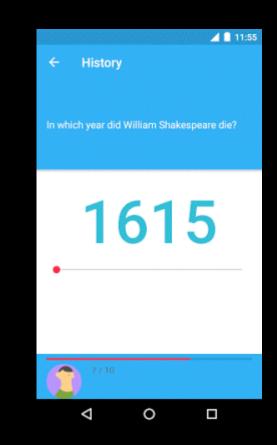
Material Design ... & Android M:

New transitions



# Material Design ... & Android M:

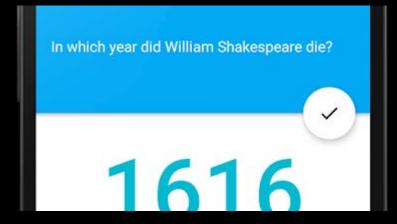
New animation



Material Design ... & Android M:

Introducing FAB!

Floating Action Buttons



### Android M and Wearables

Doze – motion detection for exponential backoff in in background services =>> Battery!

ViewOutlineProvider class – create custom shapes for your View objects =>> circles, etc.



#### Select the form factors your app will run on

Different platforms require separate SDKs

🗹 Phone and Table	$\checkmark$	Phone	and	Table
-------------------	--------------	-------	-----	-------

Minimum SDK	API 21: Android 5.0 (Lollipop)		
	Lower API levels target more devices, but have fewer features available. By targeting API 21 and later, your app will run on approximately <b>0.0%</b> of the devices that are active on the Google Play Store. Help me choose.		
✓ T∨			
Minimum SDK	API 21: Android 5.0 (Lollipop)		
🗹 Wear			
Minimum SDK	API 20: Android 4.4 (KitKat Wear)		
🗹 Glass			
Minimum SDK	Glass Development Kit Preview (Google Inc.) (API 19)		

### **LEARN MORE**

# developers.google.com/wear

# developers.google.com/glass

# EXTREME WEARABLES

• Extremely Accessible

• Extremely Big Data

# WHAT COULD YOU DO?

2.8 BN 8 BN 8 BN

[39% of Global Population]

2014

[100% of Global Population]

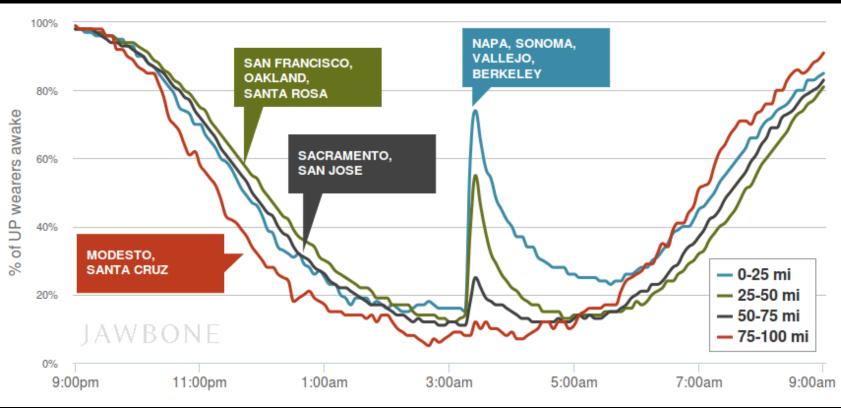
2020

Source: (1) eMarketer, Nov 2013

#### THE STATES POST OFFICE



Source: Getty/AFP



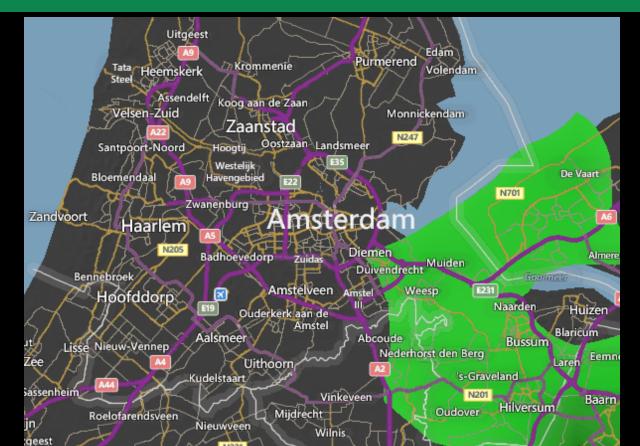
Source: Jawbone



Source: Accuweather







Source: Accuweather







Source: Thalmic Labs







Source: Simon Wheatcroft

# LIBERATE!



Source: Simon Wheatcroft

## **LIBERATE!**

### Simon Wheatcroft

### Ultramarathons

Source: Simon Wheatcroft

### Simon Wheatcroft

Ultramarathons

Android

Source: Simon Wheatcroft

### Simon Wheatcroft

Ultramarathons

Android

Blind since 17!

Source: Simon Wheatcroft



Source: Lechal



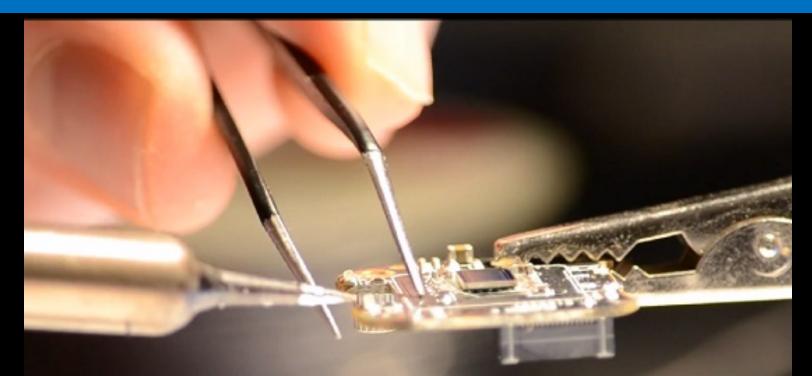
# **\$100** (€94)



Source: Guardian Media / David Levene







WearScript: JS with Batteries Included for Glass Workshop @ MIT Media Lab 3/24-3/25 2014





# ONE LAST STATISTIC...

2014

7.2 BN .....Global Population

1.1 BN Living with disability

**1** in 7

Source: WHO

### IF YOU MAKE IT, THEY WILL WEAR IT!

• Making the wearable revolution

• Right here, right now

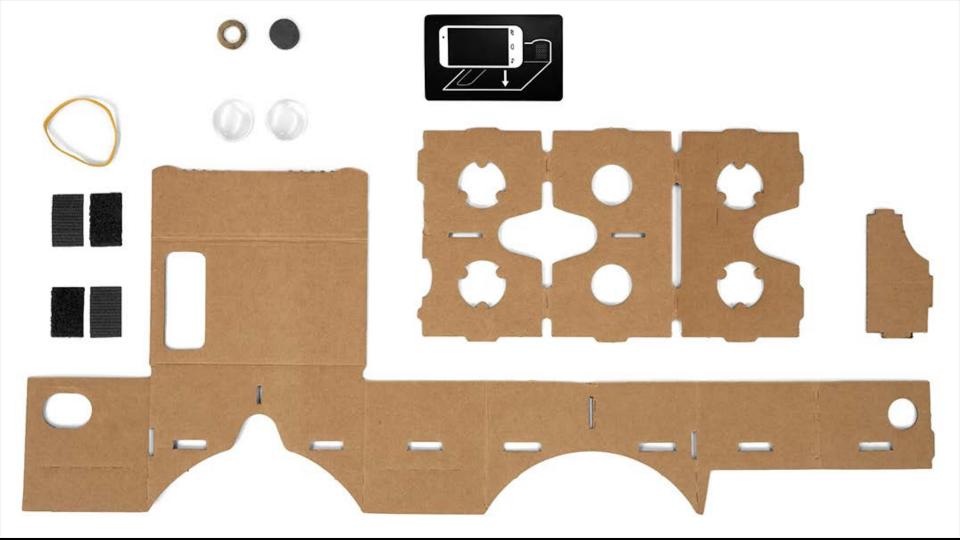
### DON'T JUST DEVELOP... BUILD!

€4?



### DON'T JUST DEVELOP... BUILD!

## developers.google.com/cardboard



### **EMBRACE EXTREME WEARABLES!**

#### PLAN FOR ANDROID M

THINK BIG

BUILD FUN STUFF THAT MATTERS

### **Thank you** Q&A any time on social media



linkedin.com/in/gxallen

8<sup>+</sup> +GrantAllenGX

