

TURNING SENSORS INTO SIGNALS.

**Humanizing IoT with
Old Smartphones and the Web.**

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Women Who Code

Portland, May 24, 2016



THERE'S A LOT GOING ON IN IOT..

SO MANY DEVELOPER BOARDS

SO MANY CLOUD SERVICES

SO MANY LIBRARIES

SO MANY APIS

SO MANY...

THE THINGS EXPERIENCE TODAY.

*PAYING LOTS OF MONEY
TO HAND YOUR WHOLE LIFE
OVER TO A FOR-PROFIT
CORPORATE CLOUD.*

COMPLEXITY

EASE OF USE

USER CONTROL

CLOUD

PRIVACY

FEATURES

**LOOKS LIKE DEAD
ROBOTS**

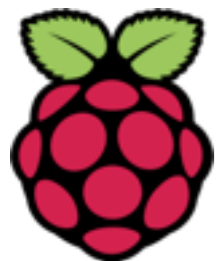
**BEAUTIFULLY
DESIGNED**



MAKER / DIY

**KICKSTARTER /
STARTUPS**

**MASS MARKET
CONSUMER**



HomeKit



WHO ARE YOUR PEOPLE?

WHAT IS THEIR PROBLEM?

AUTOMATED SHOPPING DOESN'T MAKE MY LIST OF PROBLEMS.

REAL TALK.

I DON'T HAVE ENOUGH MONEY.

I DON'T HAVE ENOUGH TIME.

I'M HUNGRY. I'M LONELY.

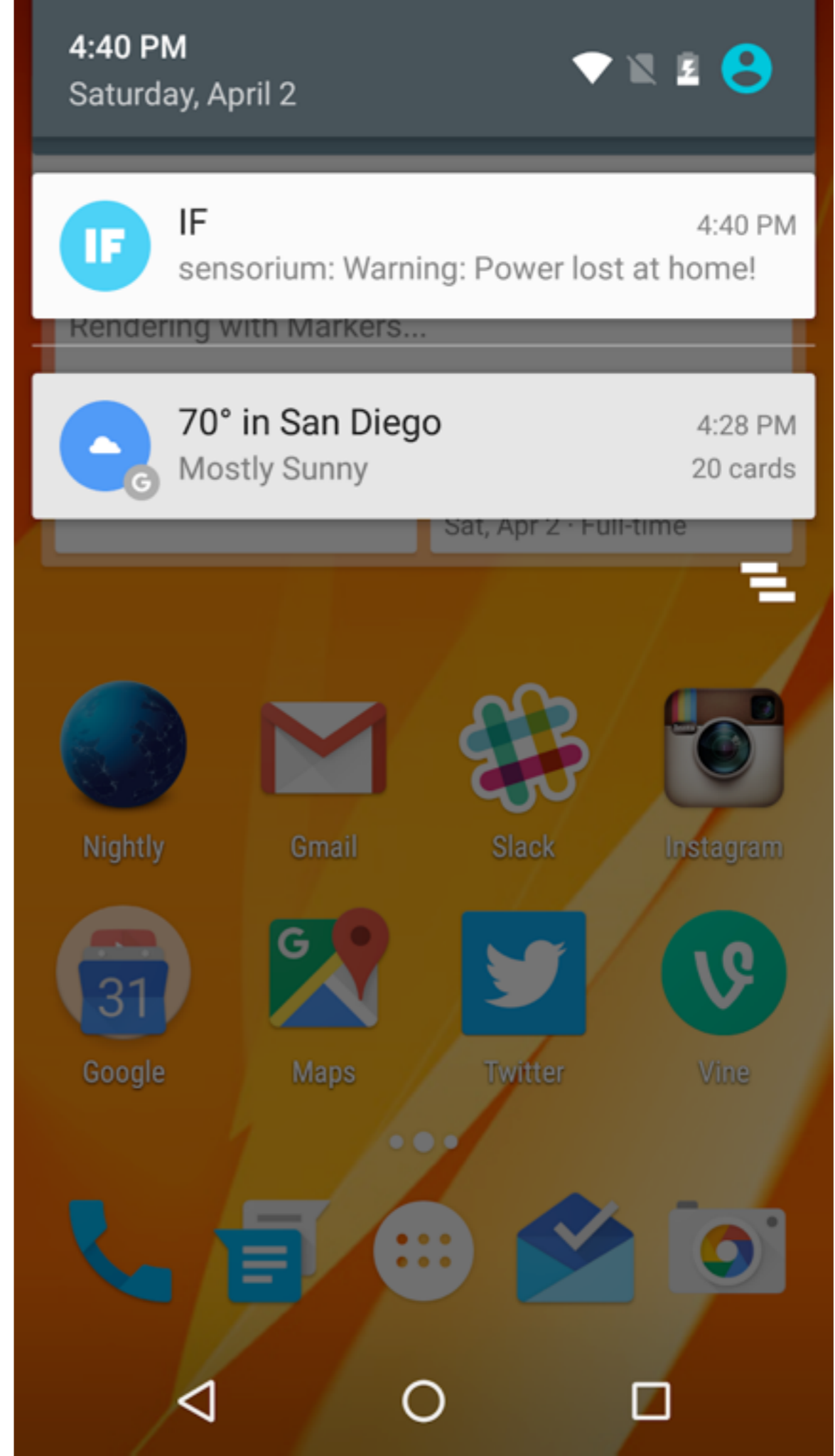
ME OR MY PEOPLES ARE SICK.

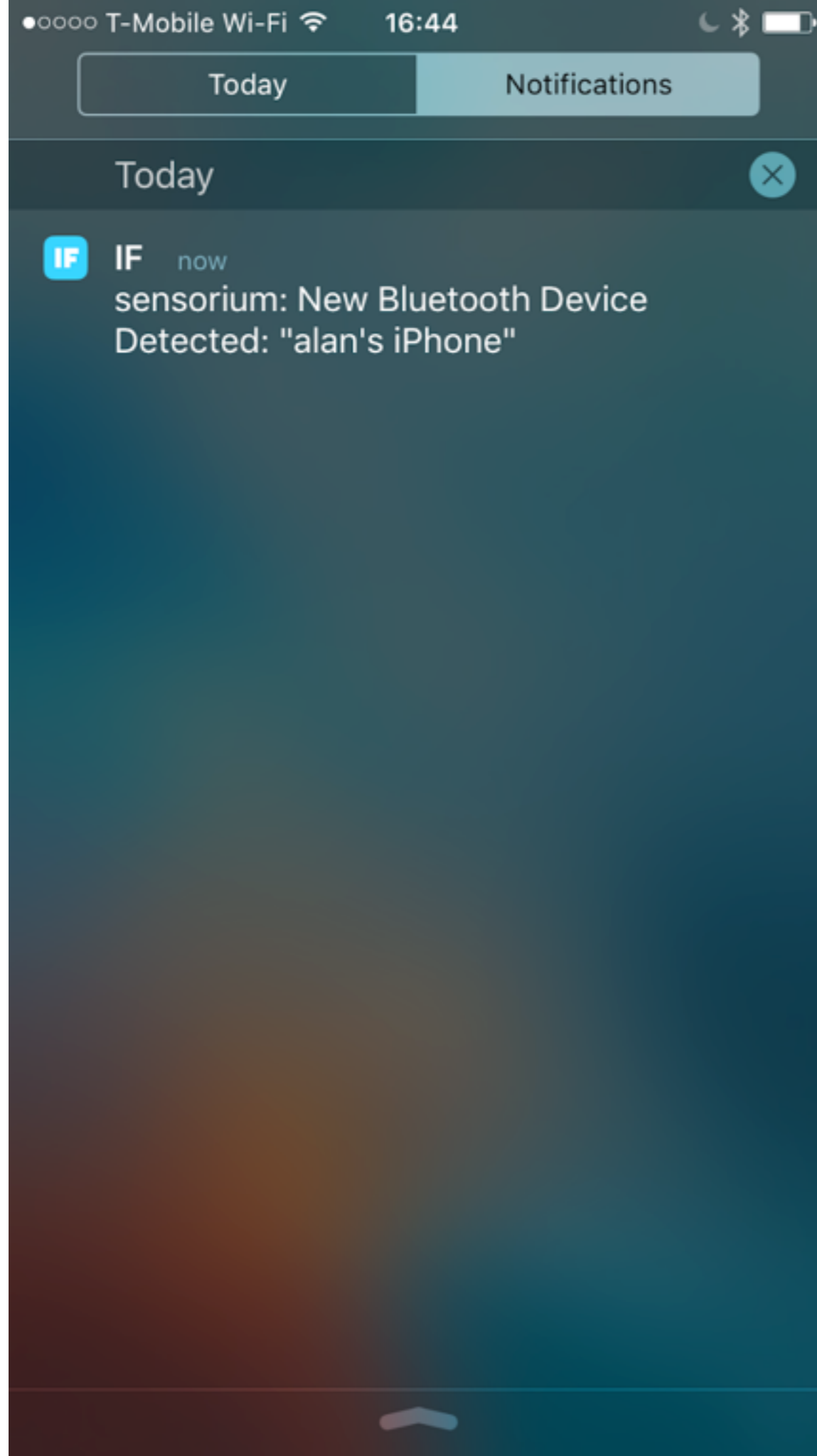
I'M AWAY FROM HOME.

MY GOVERNMENT IS HUNTING ME.

I'M AT WORK.

*I WANT TO KNOW
IF THE POWER
WENT OUT AT
HOME.*





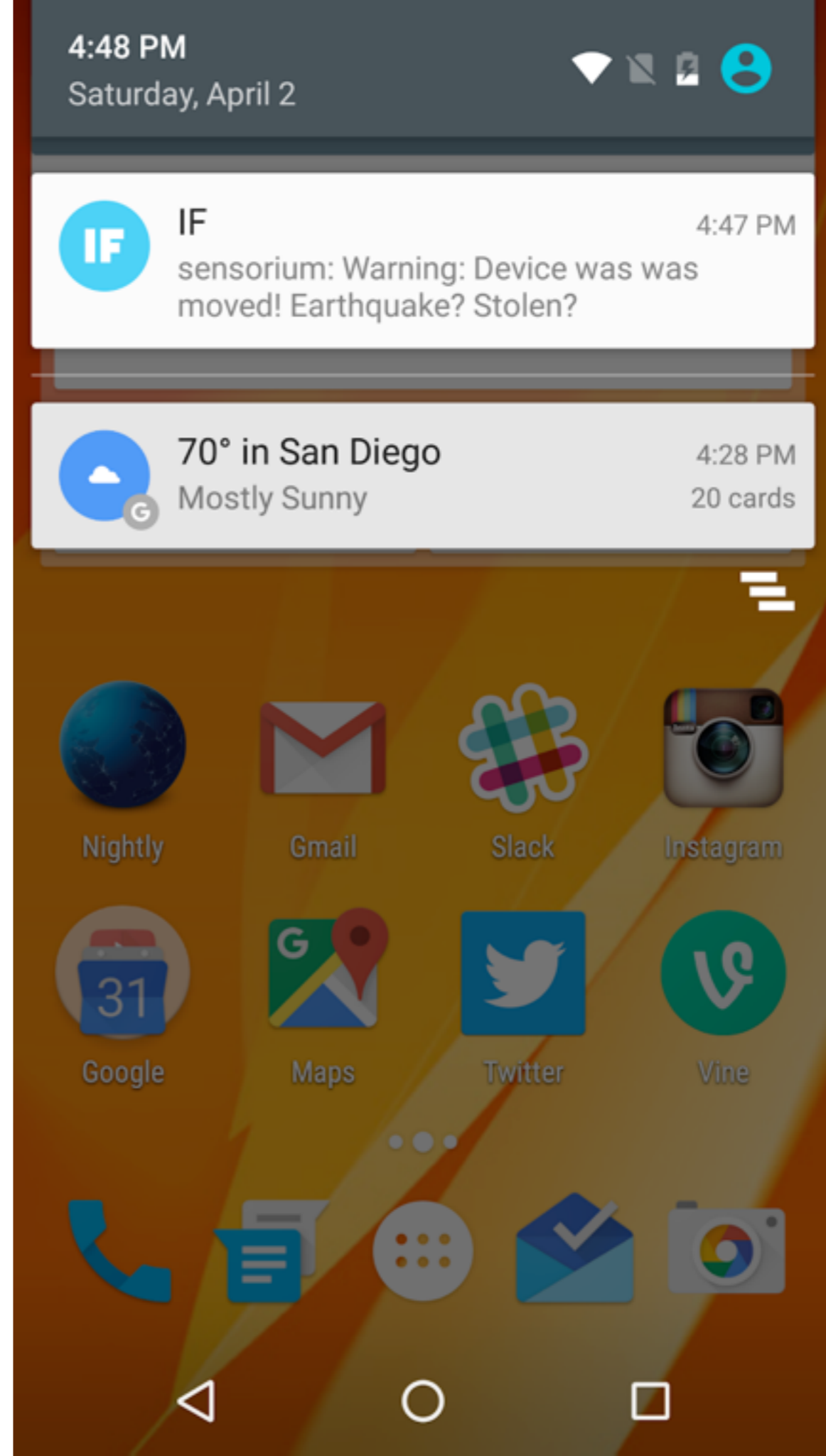
I'M TRAVELING.

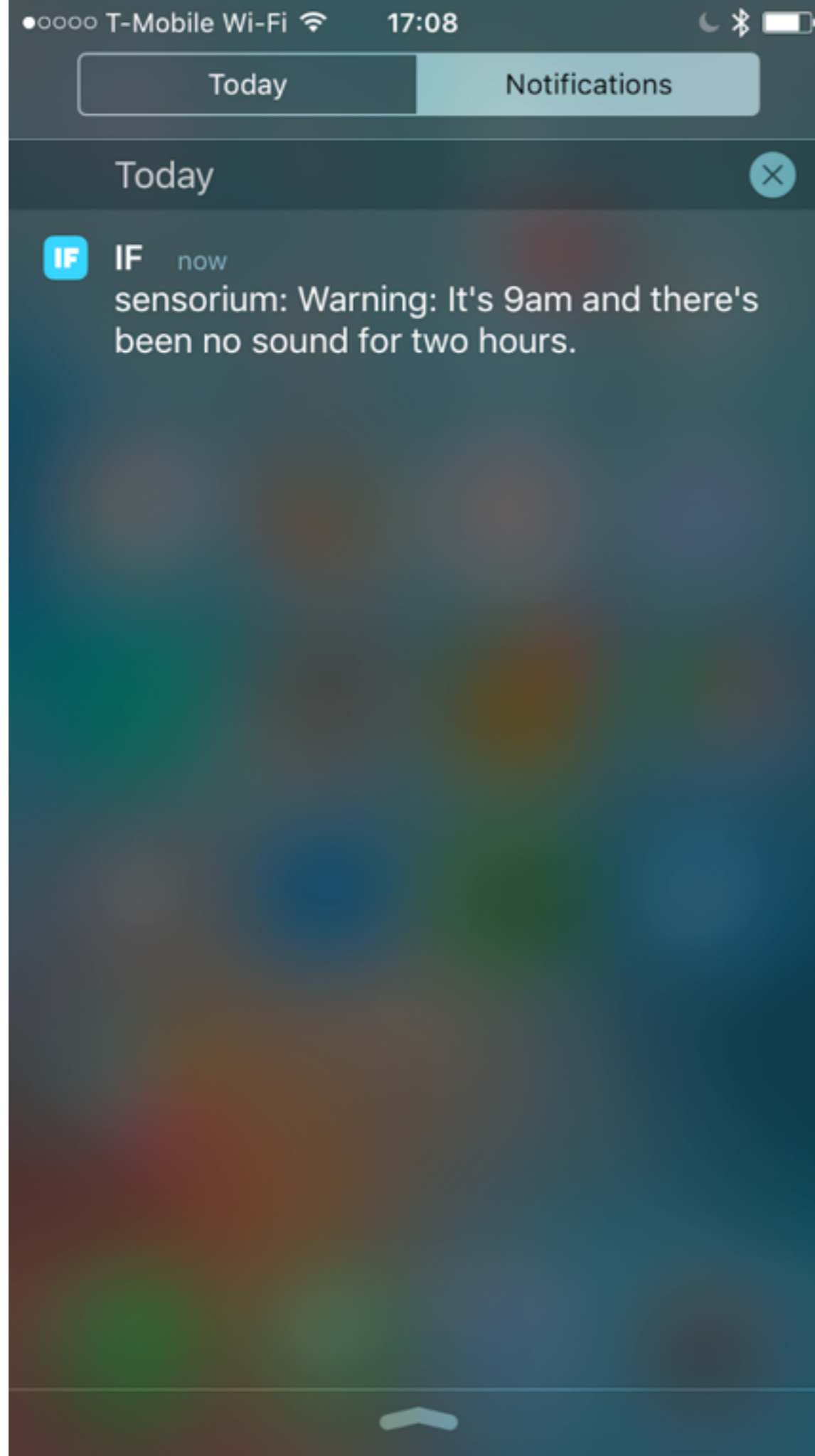
***I WANT TO KNOW
IF A STRANGER
ENTERS MY
HOME.***

PHYSICAL AWARENESS.

***DO APPLIANCES
KNOW IF THEY
MOVED OR NOT?***

***WHAT DOES IT
MEAN IF THEY
MOVED?***



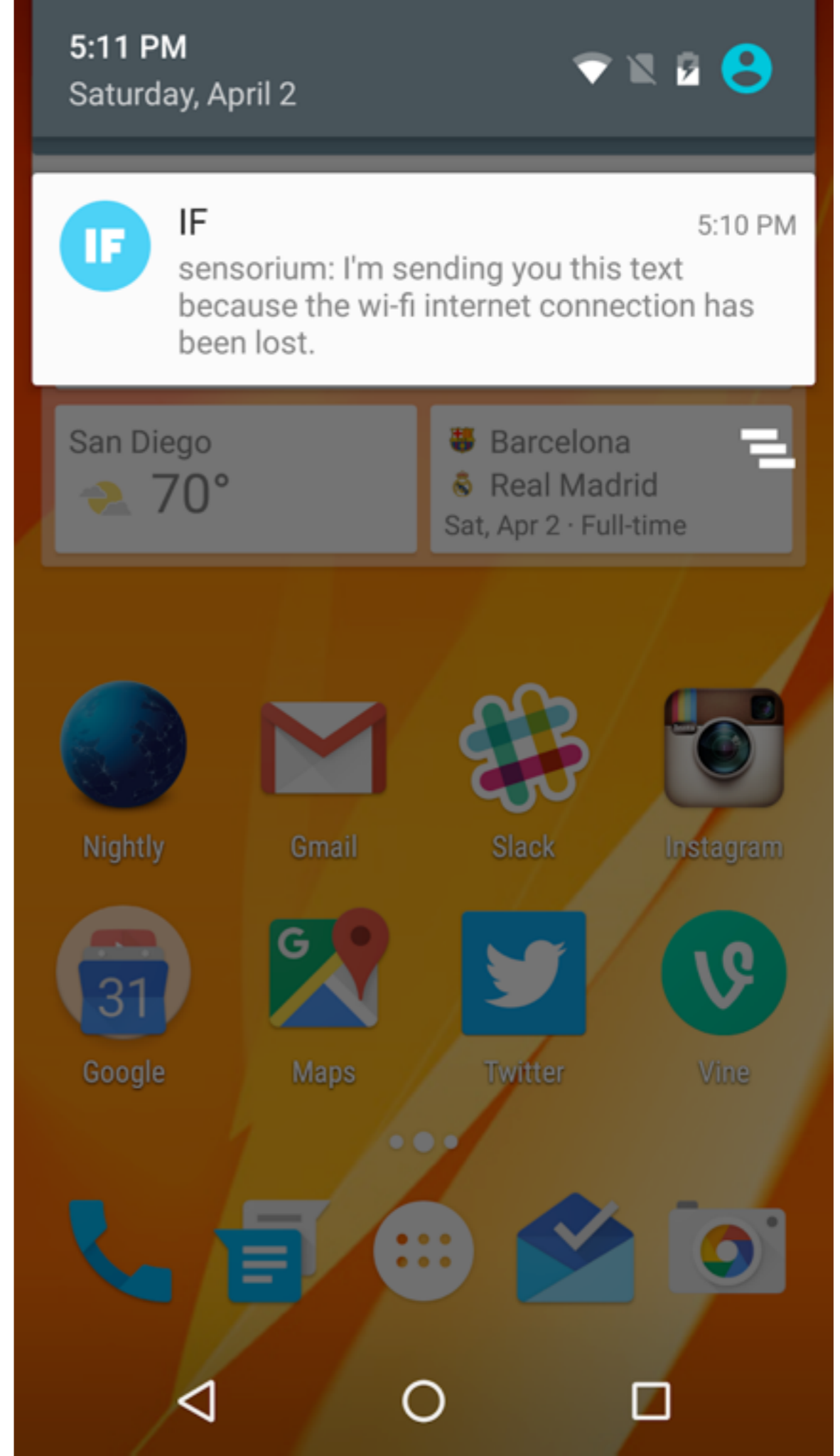


***GRANDMA LIVES
ALONE NOW.***

***IF SHE'S NOT UP
AND AROUND BY
9AM, THEN
SOMETHING MIGHT
BE WRONG.***

UGH, NOT AGAIN.

***FRIGGIN
COMCAST.***



***YOU CAN DO
THESE THINGS
WITH **CONTEXT.*****

***YOU CAN GET
CONTEXT FROM
SMARTPHONE
DEVICE APIS.***

APIS -> TRIGGERS

BATTERY API POWER OUTAGE

ACCELEROMETER..... EARTHQUAKES/ THEFT

BLUETOOTH PRESENCE / ABSENCE

WI-FI NEIGHBORHOOD

MICROPHONE PRESENCE / ABSENCE

CAMERA PRESENCE OF CATS

PHYSICAL APIS

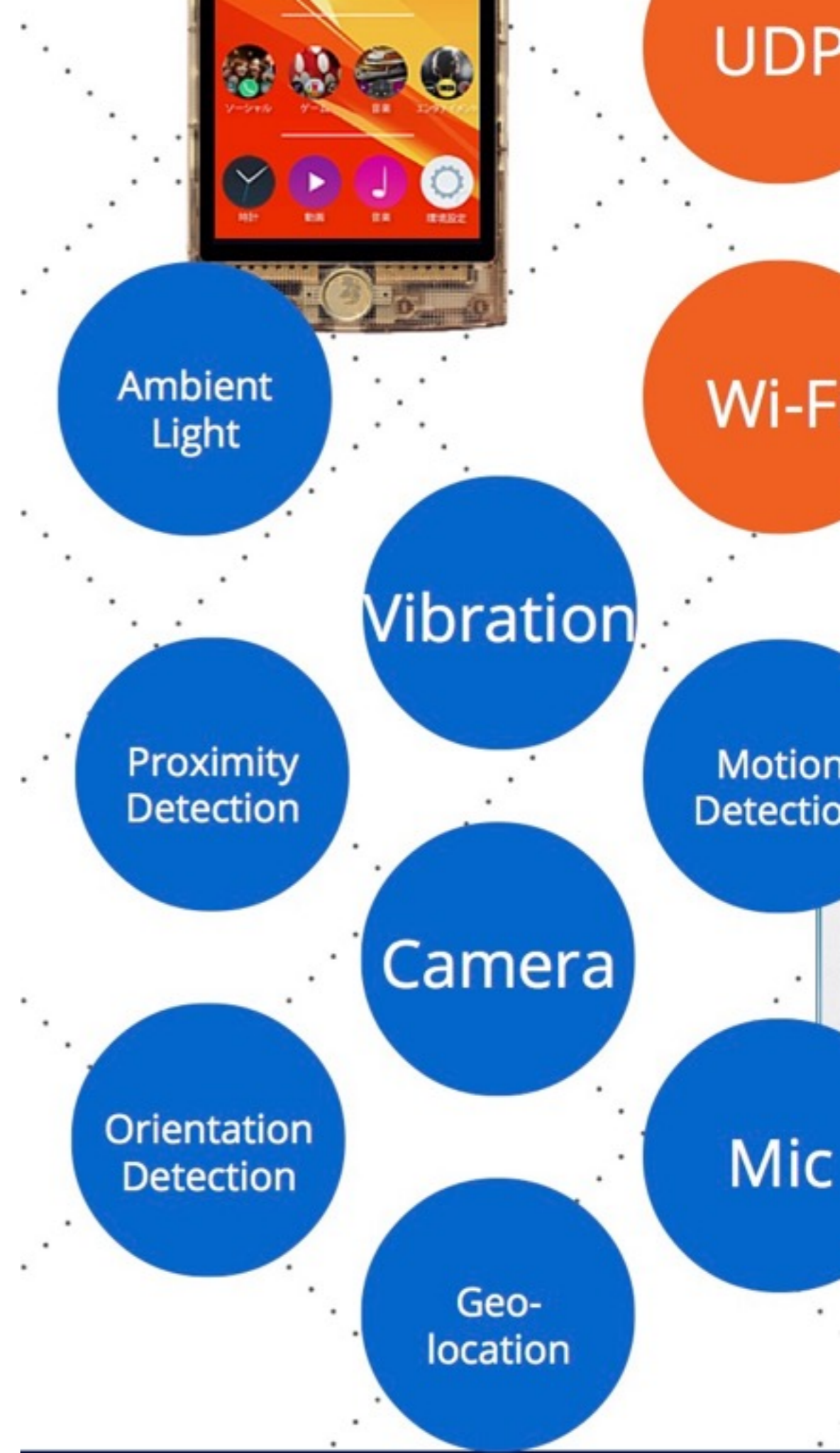
ACCELEROMETER

ORIENTATION

PROXIMITY DETECTION

AMBIENT LIGHT DETECTION

POWER / BATTERY



MEDIA APIS

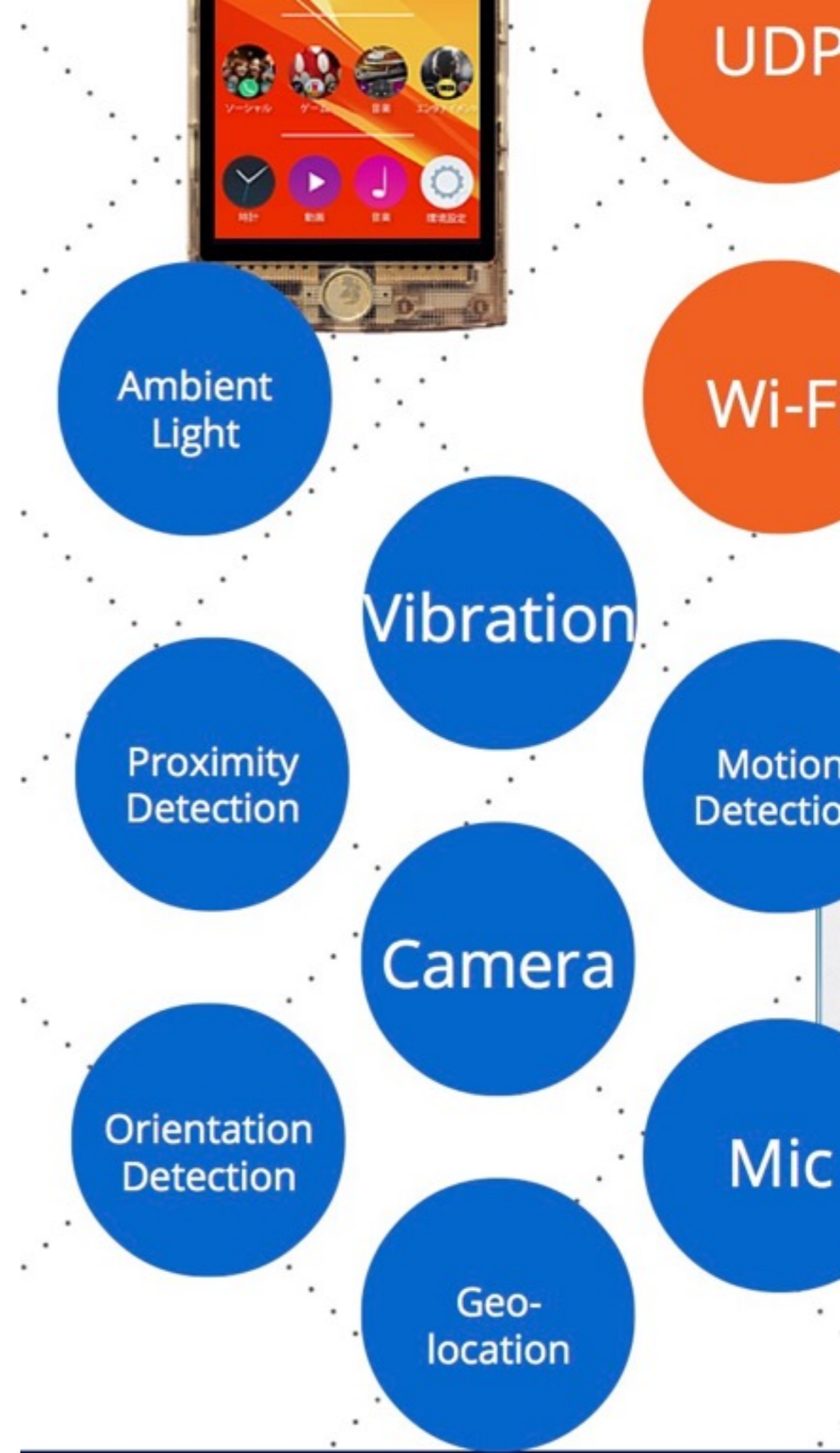
MICROPHONE

CAMERA

SPEECH RECOGNITION

SPEECH SYNTHESIS

A SPEAKER



RADIO APIS

BLUETOOTH (LE/SMART)

NFC

GEOLOCATION

WI-FI

NFC

I2C

SPI

BLE

GPIO

EXEC

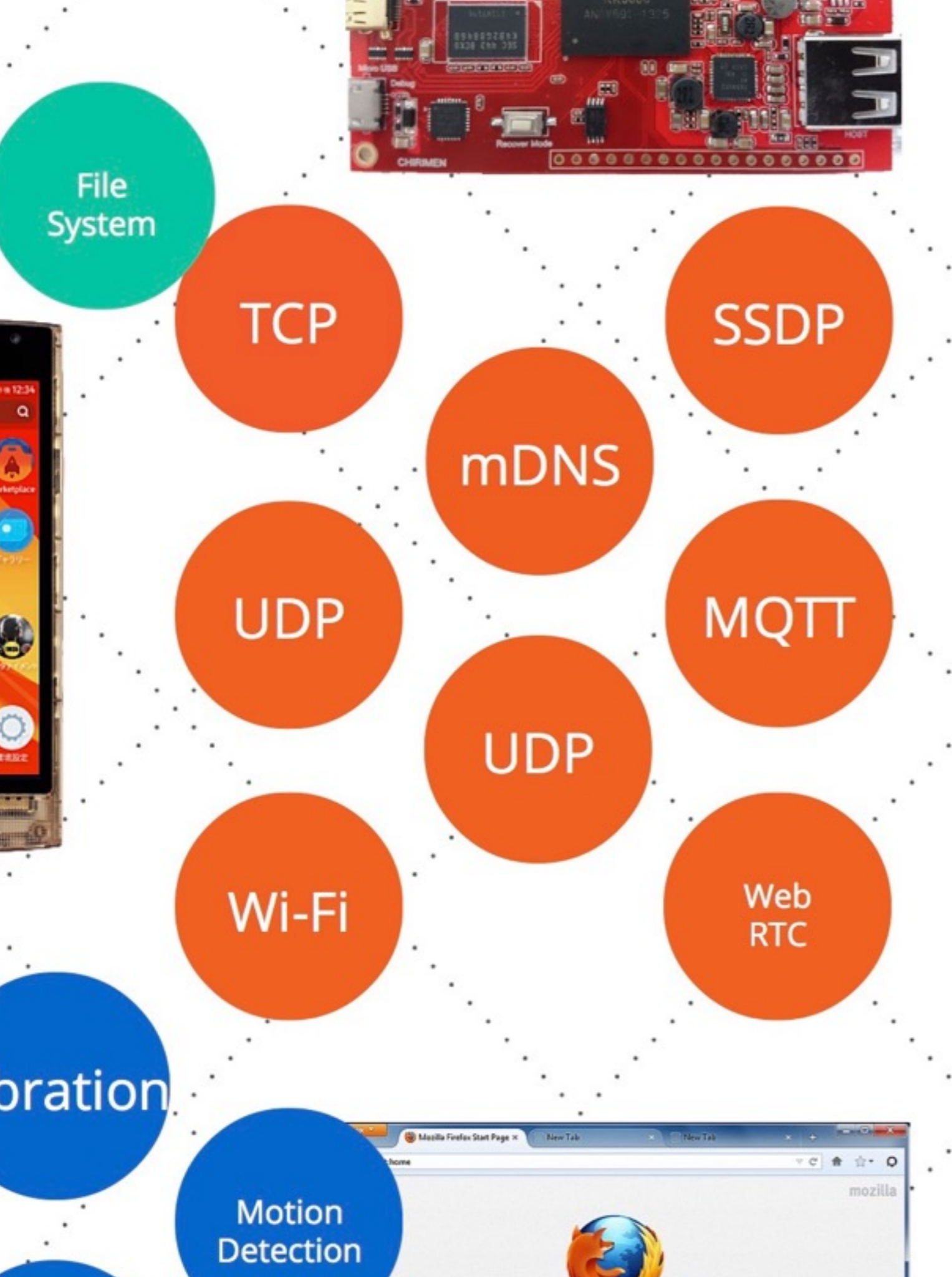
File
System

TCP

UDP

mD





NETWORK APIS

XHR

TCP & UDP SOCKETS

MDNS / BONJOUR

SSDP

DLNA

NOTIFICATIONS

WEB PUSH NOTIFICATIONS

SMS

SLACK BOT

IFTTT'S MAKER CHANNEL

YOU CAN TRY THIS AT HOME.

[HTTPS://GITHUB.COM/AUTONOME/CONTEXT](https://github.com/AUTONOME/CONTEXT)

OPEN IN A WEB BROWSER!

FIREFOX OS, PHONEGAP, ANDROID, IOS



THANK YOU.

@DIETRICH