

React

Process Documentation

Week 8

Week	Phase	Standup Presentation	Milestones	Resources
Week 7	This phase of the project will involve making sense of the GSR data and identifying the human values that emerge from awareness of one's own affective state whilst consuming particular news stories. We will be		Prototype the bracelet.	GSR materials; Photon; cardboard; LEDs; 78-207.
Week 8 (Standup)	prototyping the bracelet and getting several people to use it. The main focuses of this phase will be prototyping and user testing.	In this week's standup presentation, we will present our findings and discuss the human values that emerged and how these values may inform our future design.	Conduct user testing with the bracelet and identify the human values that emerge surrounding the awareness the bracelet provides.	People; a private room to conduct testing and interviews in.

Milestone	Tasks	Alyssa	Dennys	Kevin	Rena
Prototype the bracelet.	Set up GSR. Connect GSR to Photon. Send data to a database. Create LED visualization.				
Conduct user testing with the bracelet and identify the human values that emerge surrounding the awareness the bracelet provides.	Conduct testing. Conduct interviews. Analyze outcomes. Identify human values.				

[Home](#)[Support forum](#)[Internet Of Things \(IOT\)](#)

- IOT Kits (23)
- IOT Boards (10)

[Makeblock](#)

- Robot kits (38)
- Electronics modules (69)
- Hardware parts (26)
- Mechanical parts (147)

[Starter Kits](#)

- Arduino UNO R3 Kits (7)
- Raspberry Pi Kits (14)
- Robot Starter Kits (12)
- Wearable Starter Kits (12)
- STEM Kits (59)

[Raspberry Pi](#)

- Kits (14)
- Main boards (5)
- Hats / Shields (42)
- Accessories (134)
- Books (7)

[Genuino \(Arduino.cc\)](#)[Arduino & Compatible](#)

- Arduino Kits (9)
- Arduino Boards (53)
- Arduino Shields (66)
- Arduino Books (15)
- Arduino Accessories (6)

[Books](#)[Catalogue](#)

- Staff's Selection (164)
- Kits (480)
- Development Platforms (286)
- Sensors and Shields (352)
- Wireless (277)
- Adapters & Breakouts (138)
- LEDs and Displays (576)
- Wearables (123)
- Mechanical & Robotics (367)

[Home](#) — [Grove \(SeeedStudio\)](#) — [Grove - GSR](#)
[Product Description](#)
[Shipping Information](#)
[Reviews](#)

Grove - GSR

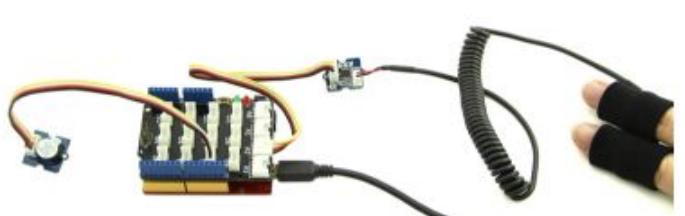
\$16.35 AUD Ex. GST

\$17.98 AUD Inc. GST

Be the first person to review.

SKU SS101020052

Ships In 3 to 10 days 4 units

Qty:
 [Share](#)
 [Tweet](#)
 [+1](#)


GSR, standing for galvanic skin response, is a method of measuring the electrical conductance of the skin. Strong emotion can cause stimulus to your sympathetic nervous system, resulting more sweat being secreted by the sweat glands. Grove - GSR allows you to spot such strong emotions by simple attaching two electrodes to two fingers on one hand, an interesting gear to create emotion related projects, like sleep quality monitor.

Renayuu commented 4 days ago deco3500 member

<https://www.seeedstudio.com/Grove-GSR-sensor-p-1614.html>

Renayuu commented 4 days ago deco3500 member

<http://www.robotshop.com/en/galvanic-skin-response-grove-module.html>

Renayuu commented 4 days ago deco3500 member

<http://www.pakronics.com.au/collections/grove-shield-australia/products/grove-gsr-ss101020052>

Renayuu changed the pipeline from **In Progress** to **Review/QA** 4 days ago

Renayuu commented 4 days ago deco3500 member

	Grove - GSR Local stock	\$32.70 AUD
		Subtotal \$32.70 AUD
		Shipping \$8.90 AUD
		Taxes \$4.16 AUD
		Total AUD \$45.76 AUD

Order done, we will be receiving it by next week hopefully

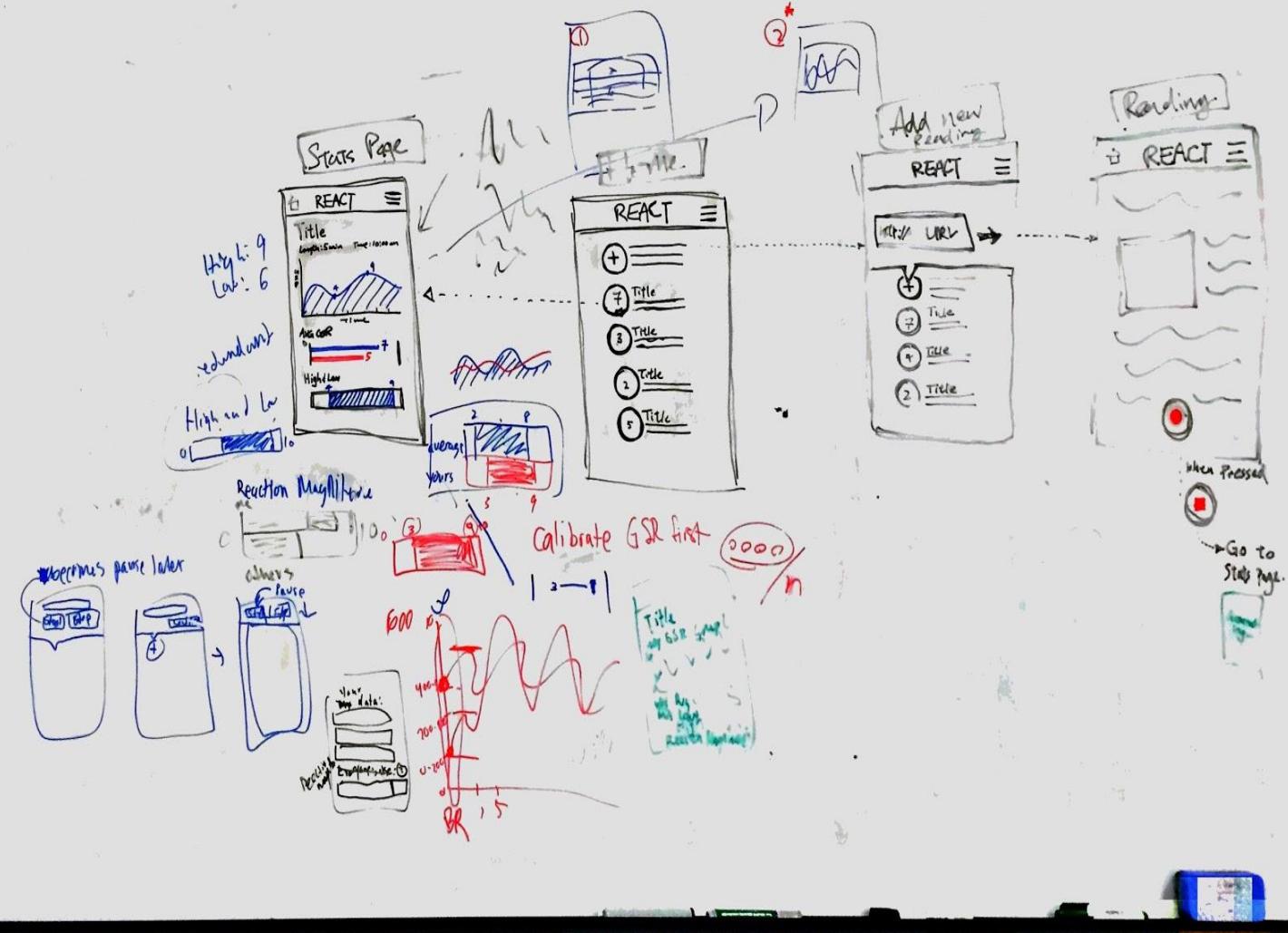
Renayuu changed the pipeline from **Review/QA** to **Pending Test** 4 days ago

Renayuu commented 4 days ago deco3500 member

Finally we got this: <http://www.pakronics.com.au/collections/grove-shield-australia/products/grove-gsr-ss101020052>

We bought two GSR sensors and selected expedited shipping, but they still haven't arrived...

Not having the GSR sensors, we diverged from our project plan and decided to sort out the basics of the mobile app...



REACT

REACT



REACT



Add a new entry.



Title



Title



Title



Title

Enter a url.



Add a new entry.



Title



Title



Title

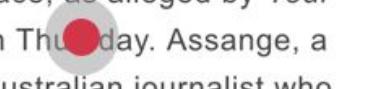


JULIAN ASSANGE MAKES CLAIMS THAT HILLARY CLINTON THREATENED BERNIE SANDERS TO DROP OUT OF PRESIDENTIAL RACE? [UPDATED]

SEPTEMBER 9, 2016

Julie Johnson

Julian Assange recently made claims that Hillary Clinton, 68, threatened Bernie Sanders, 75, to drop out of the presidential race, as alleged by *Your News Wire* on Thursday. Assange, a 45-year-old Australian journalist who

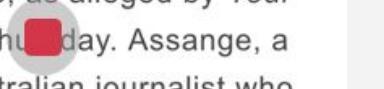


JULIAN ASSANGE MAKES CLAIMS THAT HILLARY CLINTON THREATENED BERNIE SANDERS TO DROP OUT OF PRESIDENTIAL RACE? [UPDATED]

SEPTEMBER 9, 2016

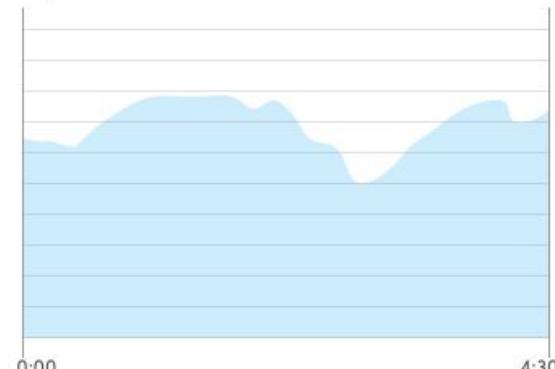
Julie Johnson

Julian Assange recently made claims that Hillary Clinton, 68, threatened Bernie Sanders, 75, to drop out of the presidential race, as alleged by *Your News Wire* on Thursday. Assange, a 45-year-old Australian journalist who

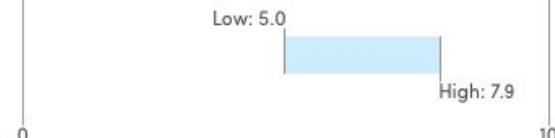


Title

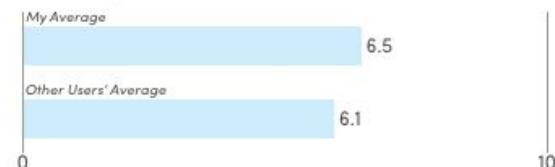
My GSR



My GSR Range



Average GSR



Server: localhost » Database: React

Structure SQL Search Query Export Import Operations

New Closets data information_schema mysql newdata performance_schema phpmyadmin React New gsr urls

Untitled * key

React.gsr

gsr_index : int(11)
gsr_reading : int(11)

React.urls

url : varchar(300)
gsr_index : int(11)

The screenshot shows the phpMyAdmin interface for the 'React' database. On the left, the database structure is listed with tables like 'Closets', 'data', and 'React'. The 'React' table has three sub-tables: 'New', 'gsr', and 'urls'. The 'gsr' table is currently selected, displaying its structure with two columns: 'gsr_index' (int(11)) and 'gsr_reading' (int(11)). A green line connects the 'gsr_index' column to the 'gsr_index' column in the 'urls' table, indicating a foreign key relationship. The 'urls' table structure is also shown, containing 'url' (varchar(300)) and 'gsr_index' (int(11)). The top navigation bar includes tabs for Structure, SQL, Search, Query, Export, Import, and Operations, along with various toolbar icons.

We also configured our zone
and set up our database...

<https://goo.gl/forms/kdAapPnj3IX56MVo2>

React - Initial Research

This survey should take approximately 10 - 25 minutes to complete depending on the length of your responses. It is being conducted as part of our research for a design project within the course DECO7350 Social and Mobile Computing. All responses will be kept anonymous, and will only be discussed with teaching staff and other students within the course. We greatly appreciate your participation! Thank you!

- Team DARK

PLEASE READ before completing the survey...

React is an application that enables users to have greater awareness of the magnitude of their own reactions to particular news stories. It is comprised of a smartphone app and a wearable bracelet. When the smartphone app is open, the bracelet measures the user's real-time galvanic skin response ("GSR"), which is indicative of psychological or physiological arousal. This data is then sent to the smartphone app, which provides the user with a more detailed report of their reactions to varying news stories.

The bracelet component of React is intended to be worn regularly by users, but it will only turn on once users open the React smartphone app and press "track" after finding a news story to read or watch (and inputting its url). As users consume the news story, the bracelet will measure and visualize their GSR. When they are done consuming the news story, users must "stop" the tracking (which will also turn off the bracelet). The smartphone app will then provide them with a graph of their GSR throughout the duration of their consumption time as well as their average GSR, their high, and their low (out of 10, where 10 indicates the highest

Questions Asked

Would you be interested in knowing your own affective data that was generated while you were consuming particular news stories? Why or why not?

In what ways might you value awareness of **your own affective data** that was generated while you were consuming particular news stories?

Would you be interested in knowing other people's affective data that was generated while they were consuming particular news stories (ones that you have also consumed)? Why or why not?

In what ways might you value awareness of **other people's affective data** that was generated while they were consuming particular news stories (ones that you have also consumed)?

What would you like to see done with the affective data React collects and provides? (*Examples were given and further explanation was provided for this question.*)

Any other comments?

Your own affective data

Would you be interested in knowing...

Yes, I think that it would be interesting to see in a purely statistical sense exactly which area of the news affects me the most rather than relying on my own hindsight which requires much personal reflection and effort and is inherently affected by my own bias as to what I think should affect and interest me the most.

I think you need to be particularly concerned about self-awareness, impacted enough by the news you are consuming to want to know what kind of skin response it results in. I do not think I am the kind of person who would make the effort to find out what the GSR is - whose resulting impact I can conceive no practical use for - hence would not want to make the effort required to monitoring and capturing it. I think my own inbuilt capacity to think and comprehend how I feel supersedes the need to visualize the results in a graphical representation.

Not really. As a frequent online articles reader, my interest is to receive a better understanding in response to the matters happening around the globe or in the local, rather than focusing on my personal affect towards certain topics. Frankly speaking, it is not rocket science to figure out my emotion when reading certain types of articles. For instance, when I am reading an article related to the victims in a war zone, it is common sense that I as a normal human being would feel terrified and ashamed of the attackers.

In what ways might you value awareness...

To have an indicator that alerts me to potential stress would help me to calm down. I could then either make a decision to stop reading the article or to continue reading but practice deep breathing exercises as I continue to read.

It could allow me to browse the internet better by knowing what kind of news I have a better psychological reaction to.

As a person that used to suffer from depression, it would be informative to know how I would respond to particular types of articles and to avoid them.

I think the most value I would gain out of my affective data would be the statistical nature of data and how I would allow me to more easily see what truly affects me as an individual about a particular news story or subject.

It might give me an idea on what I am interested in reading.

It would allow me to see the ways in which how I thought I reacted might differ from what my body indicates.

Other people's affective data

Would you be interested in knowing...

Yes, especially if such data was broken down to show how particular **demographic groups** were affected more or less strongly than others. I believe that this **would make differing values between age groups, religions, genders, and ethnicities more open, and would lead to a greater understanding of how others in the community feel about certain topics.**

[Yes, it would allow me to **find people with the same feelings.**]

[Yes, it would allow me to **compare myself to others.**]

[Yes, it could **indicate to me whether it is a good idea to talk about a particular news story.**]

To be honest, **tracking my own reactions would be more than enough.**

I don't think I would - I am **not the most empathetic person out there.** It would be **too much of an effort** to find out how people are behaving when they consume news. I can however see myself looking at something similar if lets say I was a parent trying to monitor my child's consumption of media during the formative years of their lives. So yeah it could be helpful...just not to me, and not just yet.

In what ways might you value awareness...

With greater understanding of how strongly other people feel about certain topics would come **greater empathy** towards others and **change the way we talk about those topics.** On a purely personal level, I would be greatly interested to see the level of impact others experience.

Through this, we may figure out **which news stories are popular and interesting.**

If it's **not anonymous** (for example: a friend on Facebook), it will be useful for **finding a way of approach** that I'd use to contact the person in the future.

I would not be interested in how other people respond to stressful stories. **Handling my own reactions to stress is more than enough for me.**

On a larger scale, other people's data would **provide a general consensus of reactions, allowing me to see if I am insane to react so "lightly" to something.** It would also allow me to **see which part of the news everyone focused on the most** -- like, was it "689 people gone missing" or "the plane returned safely."

What you would like to see done with the data

I would like to see this data become part of the social consciousness when talking about impactful topics and social policies as I believe the **increased empathy** towards one another could result in real positive change for those most affected.

One way I can think of using this is an adaptive news/content app. It could gradually study my reading patterns and **suggest articles that might interest me**.

Basically my own mood/emotions are unconsciously generated, so it would **help to control my ways of reading/browsing in the future**.

Recommendations for more or less impactful news would be nice. I would also want to see **trends and reactions towards certain topics of popular discussion**.

This app would be an excellent tool for a **psychologist**. If for example, a patient is borderline autistic, this device may show inappropriate responses and aide in the proper diagnosing of the patient. I would want to present this app to a group of psychologists to see if this product would be useful to them.

I think it could help with therapy, stress release, **make people who have anxiety disorders be less prone to exposure to news which causes them to be anxious**. I think it'd be really cool for that as well as for parents trying to monitor and ensure that their children aren't being exposed to negative news and sentiments which may indoctrinate them.

Difficulties Encountered & Our Actions

Not having the GSR sensors in time meant that we could not follow the project plan we outlined.

Due to this, we decided to move on to tasks for future weeks. Most of our time was spent sorting out the interface of the mobile app, which was a task we had originally planned for Week 9.

We plan to finish the GSR-related tasks by the end of this week.

Our Next Steps...

This week...

- prototyping the bracelet
- making sense of the data
- getting people to use the bracelet
- seeing what human values may emerge (creating personas might be good at this point)

Shortly after that...

- conceptualizing a more targeted and specific application (based on survey & bracelet feedback)
- finishing our mockup
- creating an interactive prototype with InVision > Testing > Iteration...

Week 9	This phase of the project will involve analyzing our findings from the previous phase and designing a more targeted application that responds to one of the human values we identify. Once this is completed, we will begin building the application. We will endeavor to have a functional coded prototype (in which there is an actual connection between the bracelet and smartphone application) by the end of the break.		Analyze findings. Identify one specific human value to target. Refine our design to cater to this value. Create an interactive prototype of the smartphone application using InVision.	Illustrator; InVision.
Break			Test the interactive prototype. Refine our design based on testing outcomes. Build a functional coded prototype.	People; Illustrator; Photon.
Week 10 (Standup)		In this week's standup presentation, we will explain the design directions we have chosen to go in based on one of the human values we identified within our last presentation. We will also present our findings from testing our first interactive prototype of the smartphone application, and how this has informed our design. Finally we will discuss our progress in terms of building our functional coded prototype.	Finish building the functional coded prototype (if not already completed over break).	Photon.

Milestone	Tasks	Alyssa	Dennys	Kevin	Rena
Prototype the bracelet.	Set up GSR. Connect GSR to Photon. Send data to a database. Create LED visualization.				
Conduct user testing with the bracelet and identify the human values that emerge surrounding the awareness the bracelet provides.	Conduct testing. Conduct interviews. Analyze outcomes. Identify human values.				
Identify one specific human value to target.	Choose a human value.				
Refine our design to cater to this value.	Refine design.				
Create an interactive prototype of the smartphone application using InVision.	Create mockups. Put mockups on InVision.				
Test the interactive prototype.	Conduct testing.				
Refine our design based on testing outcomes.	Refine design.				
Build a functional coded prototype.	HTML. Back-end development. CSS styling.				
Conduct user testing with the functional coded prototype.	Conduct testing.				

Week 10

To refresh your memory...

React is about exploring (through design) the human values that emerge surrounding the application of affective feedback to news consumption.

What we've accomplished

1. Got our GSR sensor working and sending data into our database.
2. Made a new InVision prototype responding to feedback from our previous user testing session.
3. Making sense of the GSR data in a workshop with 3 participants.

In terms of our project plan, we are behind where we said we'd be by now (though we have been working hard!)... We have made some modifications to the plan, which we will discuss later...

••••• vodafone AU ⚡ 3:45 pm



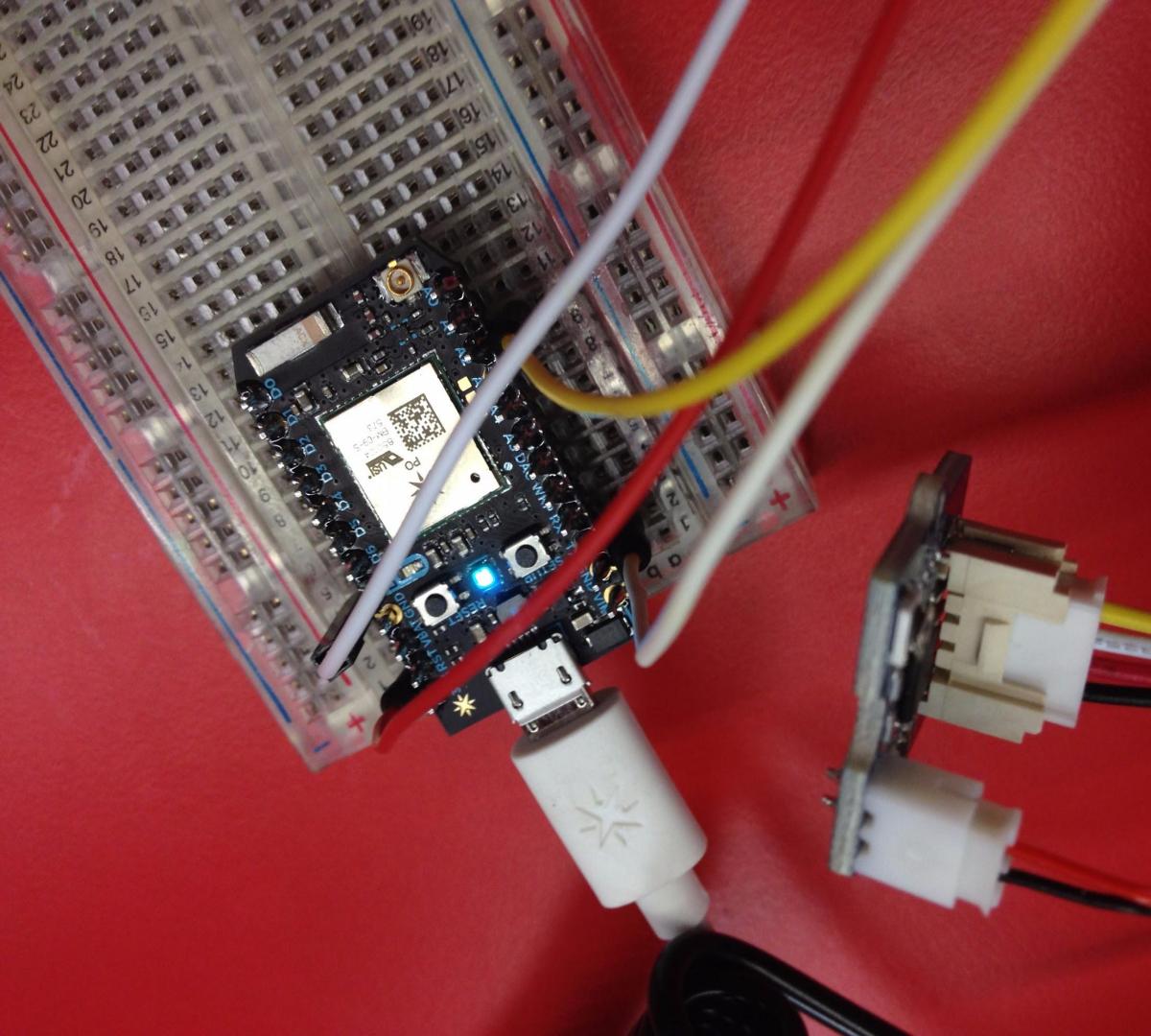
Your Particle device is connecting to:

WiFi TPW4G_6F7C22

This can take about a minute.

- Configure device Wi-Fi credentials
- Connect to Wi-Fi network

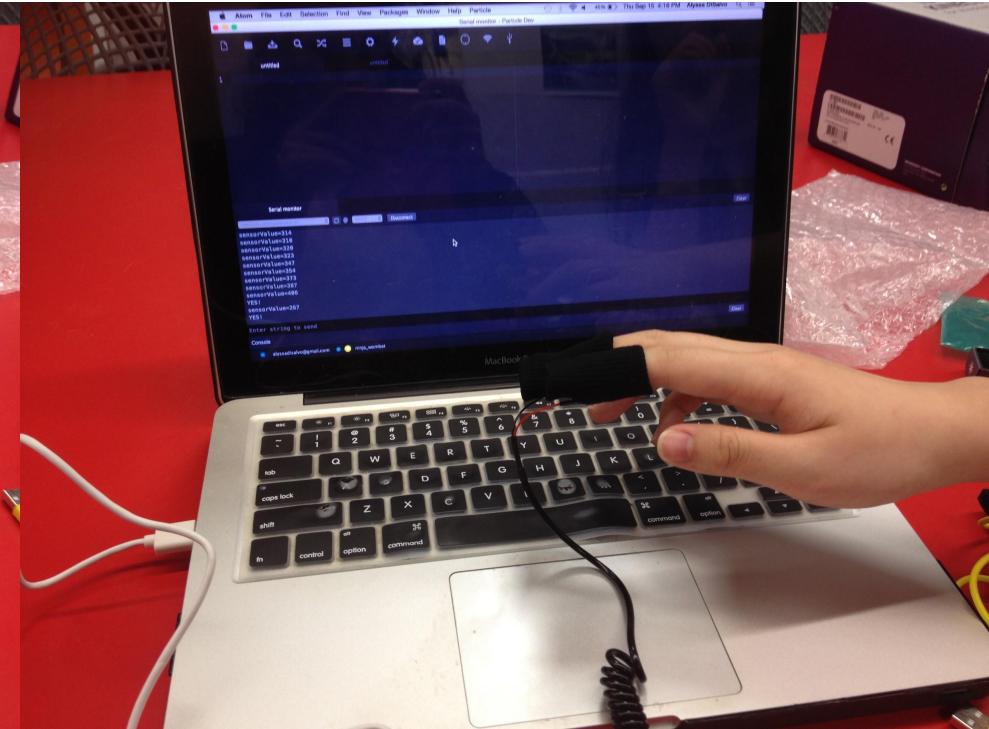
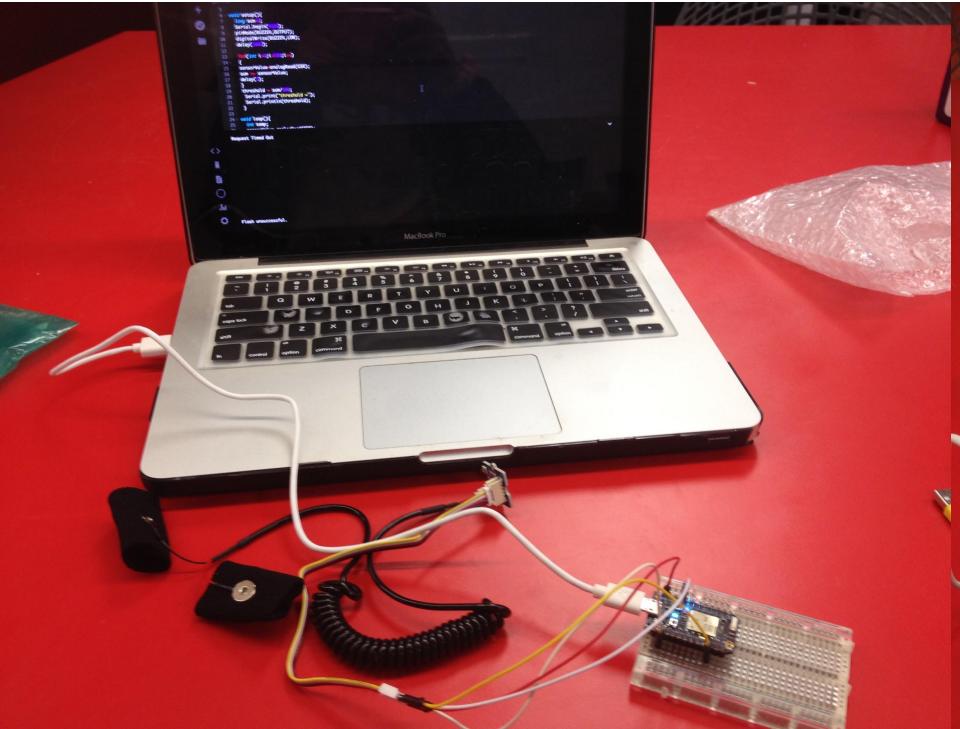
Setting up Photon.

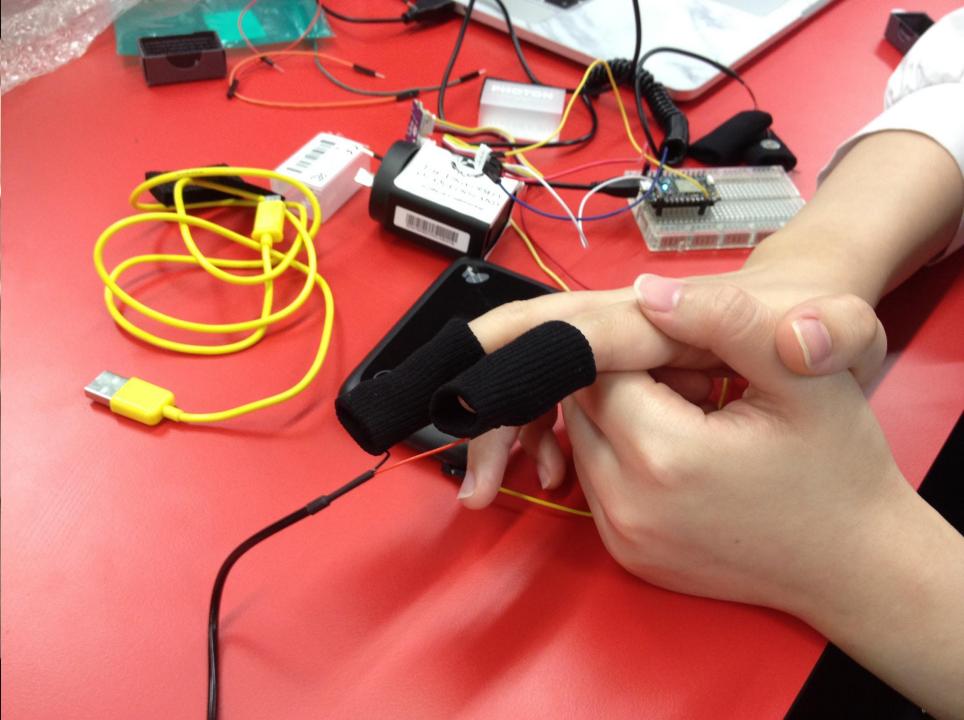
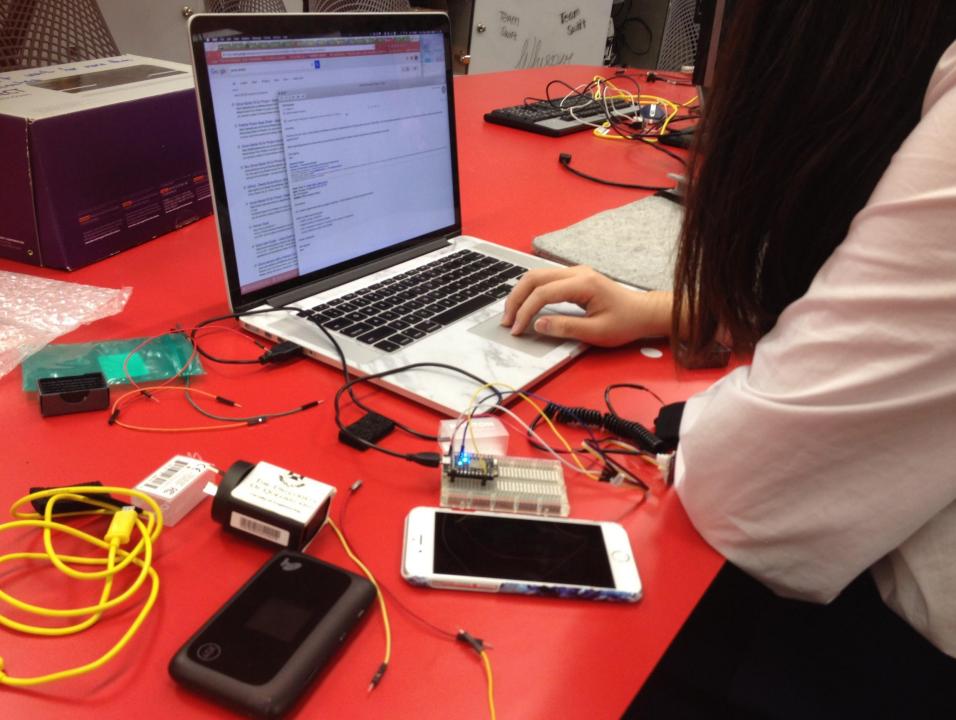


2 Photons, 2 GSR
sensors, lots of wires...



Reading the data...





Getting everything configured....

Serial monitor

```
/dev/cu.usbmodemfa131  
sensorValue=330  
sensorValue=348  
sensorValue=384  
sensorValue=404  
YES!  
sensorValue=325  
sensorValue=333  
sensorValue=326  
sensorValue=343  
sensorValue=362  
sensorValue=392  
YES!
```

```
ENTER STRING TO SEND  
Console
```

sensorValue=2569

sensorValue=2572

sensorValue=2571

sensorValue=2573

sensorValue=2571

sensorValue=2568

sensorValue=2573

sensorValue=2569

sensorValue=2579

sensorValue=2569

sensorValue=2570

sensorValue=2571

sensorValue=2571

sensorValue=2570

sensorValue=2572

sensorValue=2570

sensorValue=2571

sensorValue=2569

sensorValue=2568

sensorValue=2569

sensorValue=2573

sensorValue=2564

sensorValue=2563

YES!

This is when we came to realize that the data was a bit crazy...

Both readings are from different GSR sensors. The same people tried both. For one sensor, neither of us got values over 700. For the other sensor, neither of us got values below 2000.

Also, when we took our fingers out of the gloves, the data didn't change much at all... This led us to believe that the GSR sensor was really just a random number generator.

```
sensorValue=26  
YES!  
sensorValue=0  
YES!  
sensorValue=0  
YES!  
sensorValue=157  
YES!  
sensorValue=705  
YES!  
sensorValue=149  
YES!
```

Enter string to send

Console

* alyssadisalvo@gmail.com

● P ninja

Serial monitor

/dev/cu.usbmodemfa131 @ 9600 Connect

```
25  
33  
33  
417  
31  
20  
31  
353  
379  
531  
325  
413
```

Enter string to send

Console

* alyssadisalvo@gmail.com

● P static members

Weird data...



Docs

T Webhook Builder (Custom JSON)

Event Name ⓘ
gsr_detected_update

URL ⓘ
http://s4404812-minimize.uqcloud.net/views/gsr_testing.php

Request Type ⓘ
POST

alyssadisalvo@gmail.com ▾

Integrations

 Webhook

gov.au
wavedata
any device

 Webhook

gov.au
wavedata
any device

 Webhook

gov.au
wavedata2
any device

 Webhook

gov.au
workWaveData
any device

 Webhook

uqcloud.net
rfid_minimalist...
any device

 Webhook

uqcloud.net
pbotnewdata
any device

 Webhook

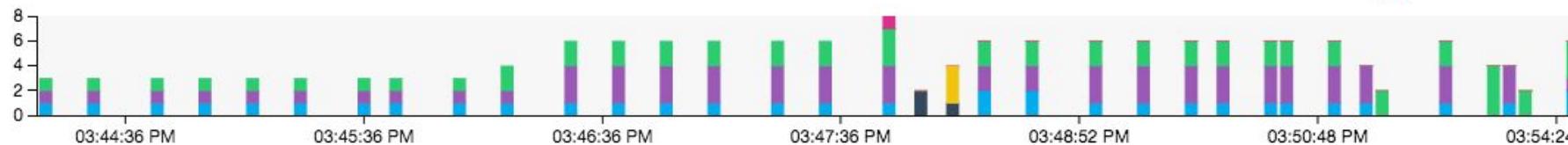
uqcloud.net
rfid_scan
any device

 Webhook

uqcloud.net
new_rfid_scan
any device



Logs



EVENT NAME	DATA	PUBLISHED AT	DEVICE
hook-	Connected to dbhellow	<i>September 16th at 3:54:45 pm</i>	particle-in
hook-sent/gsr_detected_update	undefined	<i>September 16th at 3:54:43 pm</i>	particle-in
gsr_detected_update	1025	<i>September 16th at 3:54:43 pm</i>	ninja_won
hook-	Connected to dbhellow	<i>September 16th at 3:54:30 pm</i>	particle-in
hook-sent/gsr_detected_update	undefined	<i>September 16th at 3:54:29 pm</i>	particle-in
gsr_detected_update	1030	<i>September 16th at 3:54:29 pm</i>	ninja_won

```
{"data": "1030", "ttl": "60", "published_at": "2016-09-16T05:54:29.630Z", "coreid": "43003b000a47353138383138", "name": "gsr_detected_update"}
```

Logs



spark/flash/status device came online gsr_detected_update



EVENT NAME	DATA	PUBLISHED AT	DEVICE
gsr_detected_update	1025	<i>September 29th at 10:19:35 am</i>	ninja_wombat
gsr_detected_update	1029	<i>September 29th at 10:19:21 am</i>	ninja_wombat
gsr_detected_update	1032	<i>September 29th at 10:19:07 am</i>	ninja_wombat
gsr_detected_update	1014	<i>September 29th at 10:18:53 am</i>	ninja_wombat
gsr_detected_update	1017	<i>September 29th at 10:18:39 am</i>	ninja_wombat
gsr_detected_update	1025	<i>September 29th at 10:18:25 am</i>	ninja_wombat
gsr_detected_update	1030	<i>September 29th at 10:18:11 am</i>	ninja_wombat

Finally we got the data into the database...

phpMyAdmin

Server: localhost » Database: React » Table: gsr

Browse Structure SQL Search Insert

Recent Favorites

New information_schema mysql performance_schema phpmyadmin React New gsr records

Collapse all

gsr_index	gsr_reading
3	128
3	110
3	138
3	124
3	119
3	134
3	138
3	125
3	135
3	133
3	133
3	121
3	132
3	137
3	131
3	128
3	110
3	133
3	125
3	120
3	133
3	123
3	134
3	138
3	129
3	132
3	121

Old InVision prototype...

REACT

REACT



REACT



Add a new entry.



Title



Title



Title



Title



Add a new entry.



Title



Title



Title



JULIAN ASSANGE MAKES CLAIMS THAT HILLARY CLINTON THREATENED BERNIE SANDERS TO DROP OUT OF PRESIDENTIAL RACE? [UPDATED]

SEPTEMBER 9, 2016

Julie Johnson

Julian Assange recently made claims that Hillary Clinton, 68, threatened Bernie Sanders, 75, to drop out of the presidential race, as alleged by *Your News Wire* on Thursday. Assange, a 45-year-old Australian journalist who



JULIAN ASSANGE MAKES CLAIMS THAT HILLARY CLINTON THREATENED BERNIE SANDERS TO DROP OUT OF PRESIDENTIAL RACE? [UPDATED]

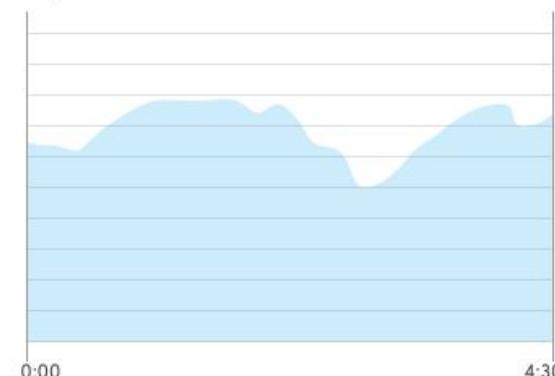
SEPTEMBER 9, 2016

Julie Johnson

Julian Assange recently made claims that Hillary Clinton, 68, threatened Bernie Sanders, 75, to drop out of the presidential race, as alleged by *Your News Wire* on Thursday. Assange, a 45-year-old Australian journalist who

Title

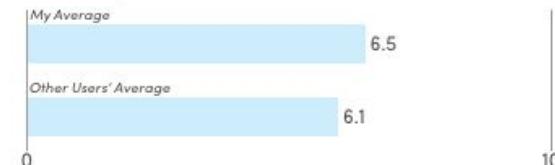
My GSR



My GSR Range



Average GSR



New InVision prototype...

react

react

 User Name

 Password

Login

[Sign up](#)

react



Read a new article.

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

react



Read a new article.

7.0

Julian Assange makes claims that Hillary...

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

react

www.link.com/article1



Read a new article.

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

react

INQUISITR
NEWS WORTH SHARING

f SHARE



JULIAN ASSANGE MAKES CLAIMS THAT HILLARY CLINTON THREATENED BERNIE SANDERS TO DROP OUT OF PRESIDENTIAL RACE? [UPDATED]

SEPTEMBER 9, 2016

Julie Johnson

Julian Assange recently made claims that Hillary Clinton, 68, threatened Bernie Sanders, 75, to drop out of the presidential race, as alleged by Your News Wire on Thursday. Assange, a 45-year-old Australian journalist who

Press button to start measuring

react



f SHARE



JULIAN ASSANGE MAKES CLAIMS THAT HILLARY CLINTON THREATENED BERNIE SANDERS TO DROP OUT OF PRESIDENTIAL RACE? [UPDATED]

SEPTEMBER 9, 2016

Julie Johnson

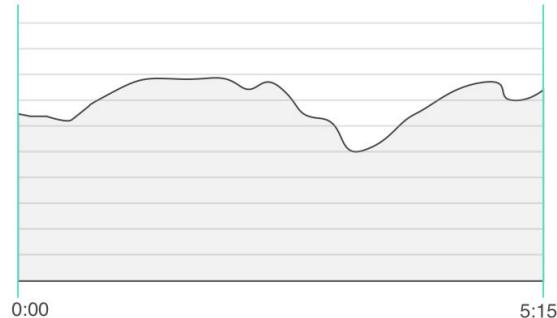
Julian Assange recently made claims that Hillary Clinton, 68, threatened Bernie Sanders, 75, to drop out of the presidential race, as alleged by Your News Wire on Thursday. Assange, a 45-year-old Australian journalist who

react

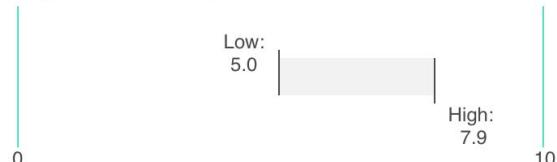
Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

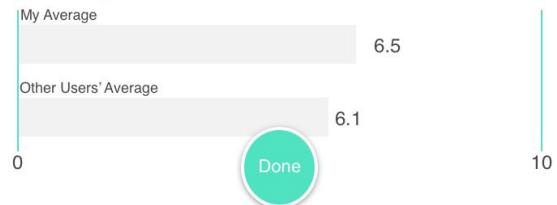
My Overall GSR



My GSR Range



Average GSR



My Account



Settings



Home



Tutorial



Summary

react

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

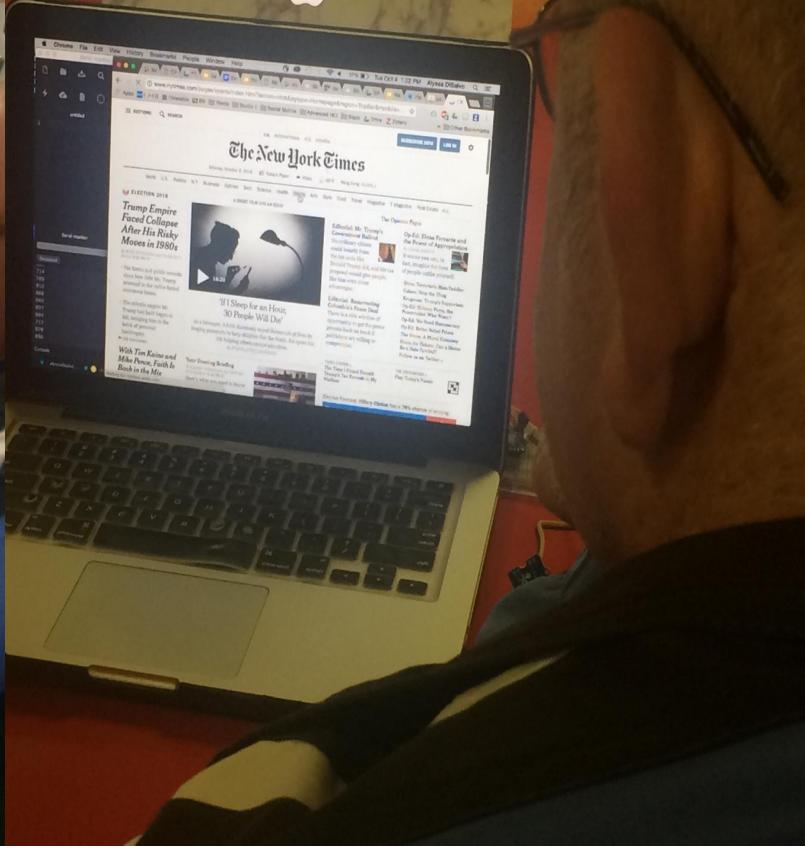
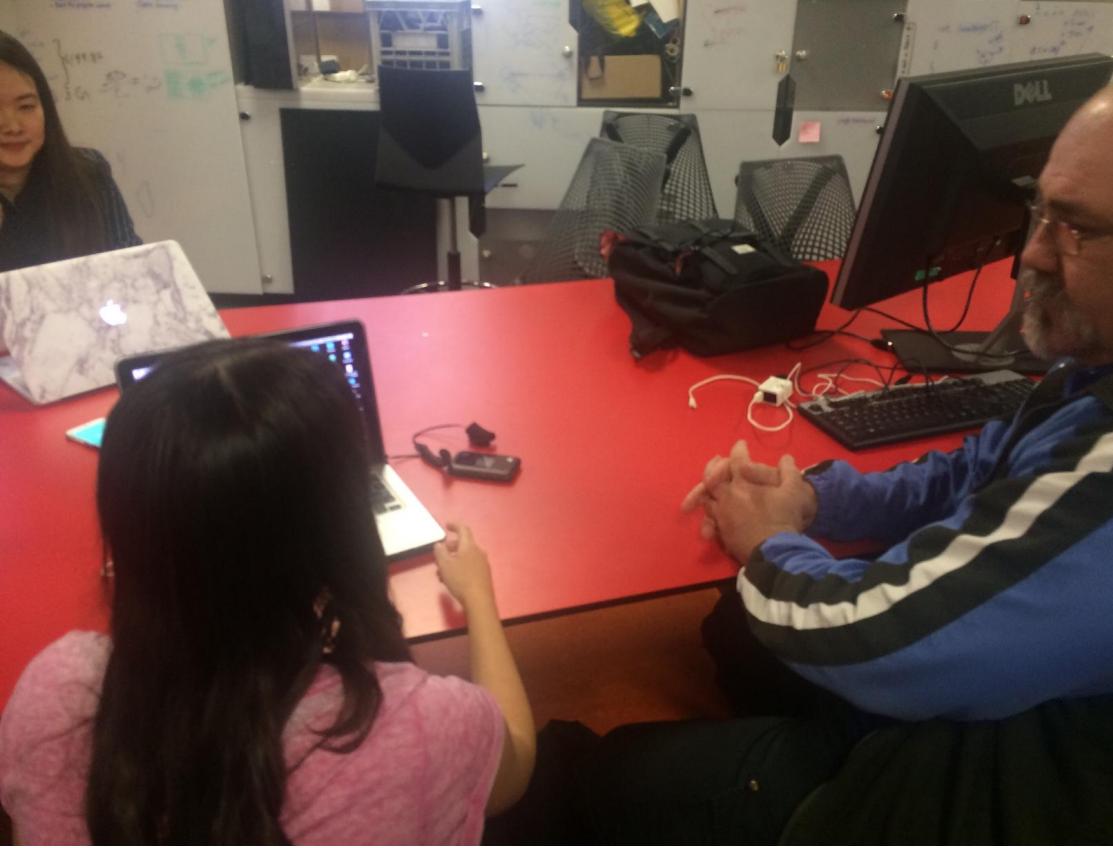
7.0

Title

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11 |

Making sense of the GSR data with users

- Held a workshop with 3 participants: Trevor, Shiva, and Awais
- Participants were instructed to wear the GSR sensor while reading two news articles (their GSR data was being printed in Particle Dev on the left side of the screen so they could see it when it updated)
- Showed participants the InVision app and discussed some of our past survey responses regarding why people might value awareness of such data (including other people's data)
- Unstructured interview with each participant regarding why/how they might value such data, possible changes we should make, and suggestions for future directions



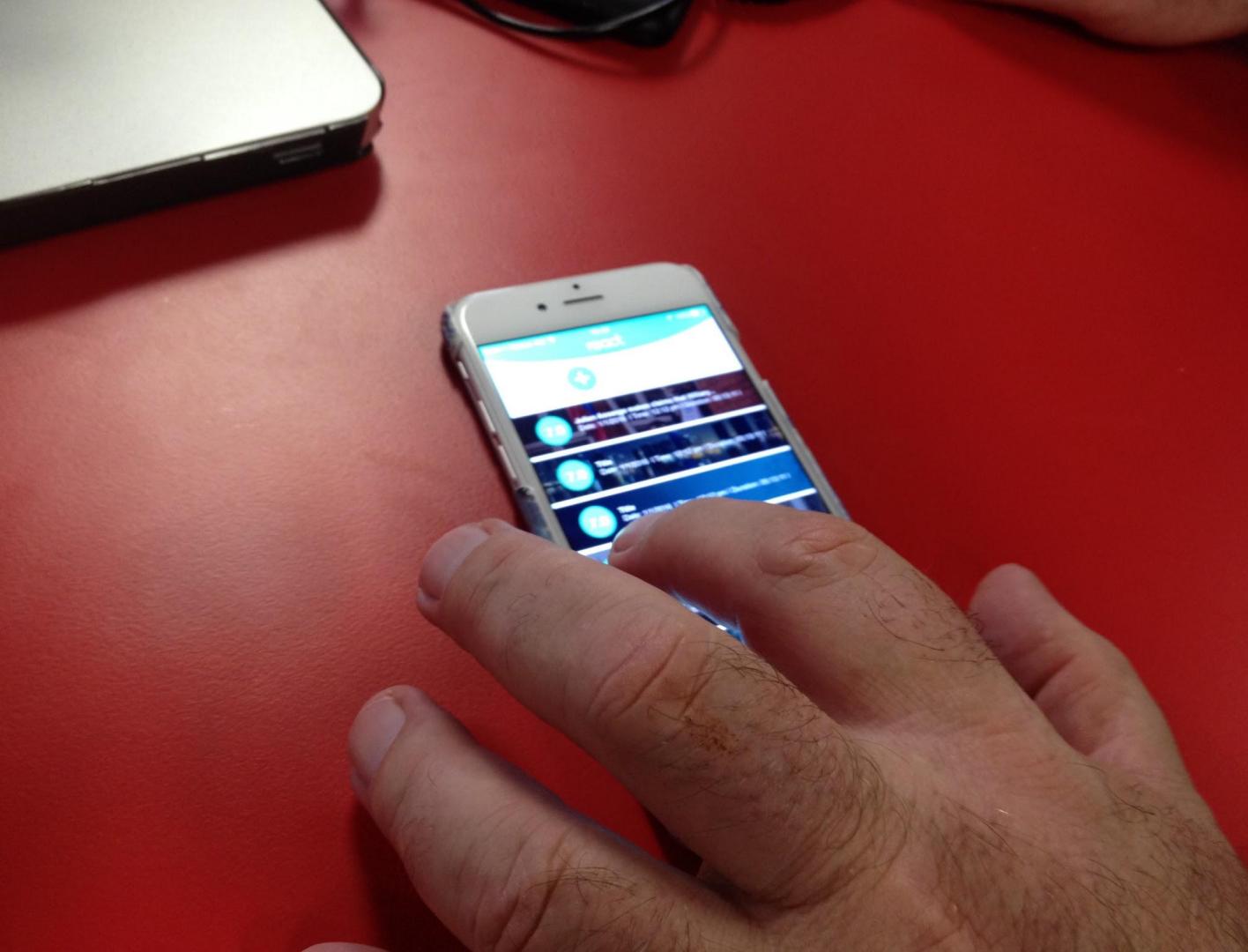
Our set-up...

Trevor reading his first article on sports...



Trevor reading his second article on Donald Trump...





Trevor playing around
with our InVision
app...

Trevor

- A reading that showed stress -- animal cruelty
- Show a higher level reading
- Maybe gsr is inadequate
- How to show stress levels
- Would want to avoid articles that make me stressed
- Data from other people wouldn't mean much to me
- Other people's stress is different to mine -- I don't know the cause of it (could have just had a bad day)
- Don't take other people's judgments highly
- My own opinion matters more than the hard data of others
- **Seeing other people's average could prompt me to either read or avoid reading an article**
- Base reading
- Everyone is different -- everyone will come into this with different stress levels and different emotions

Shiva reading a science article...



831

835

647

623

971

1742

718

Console

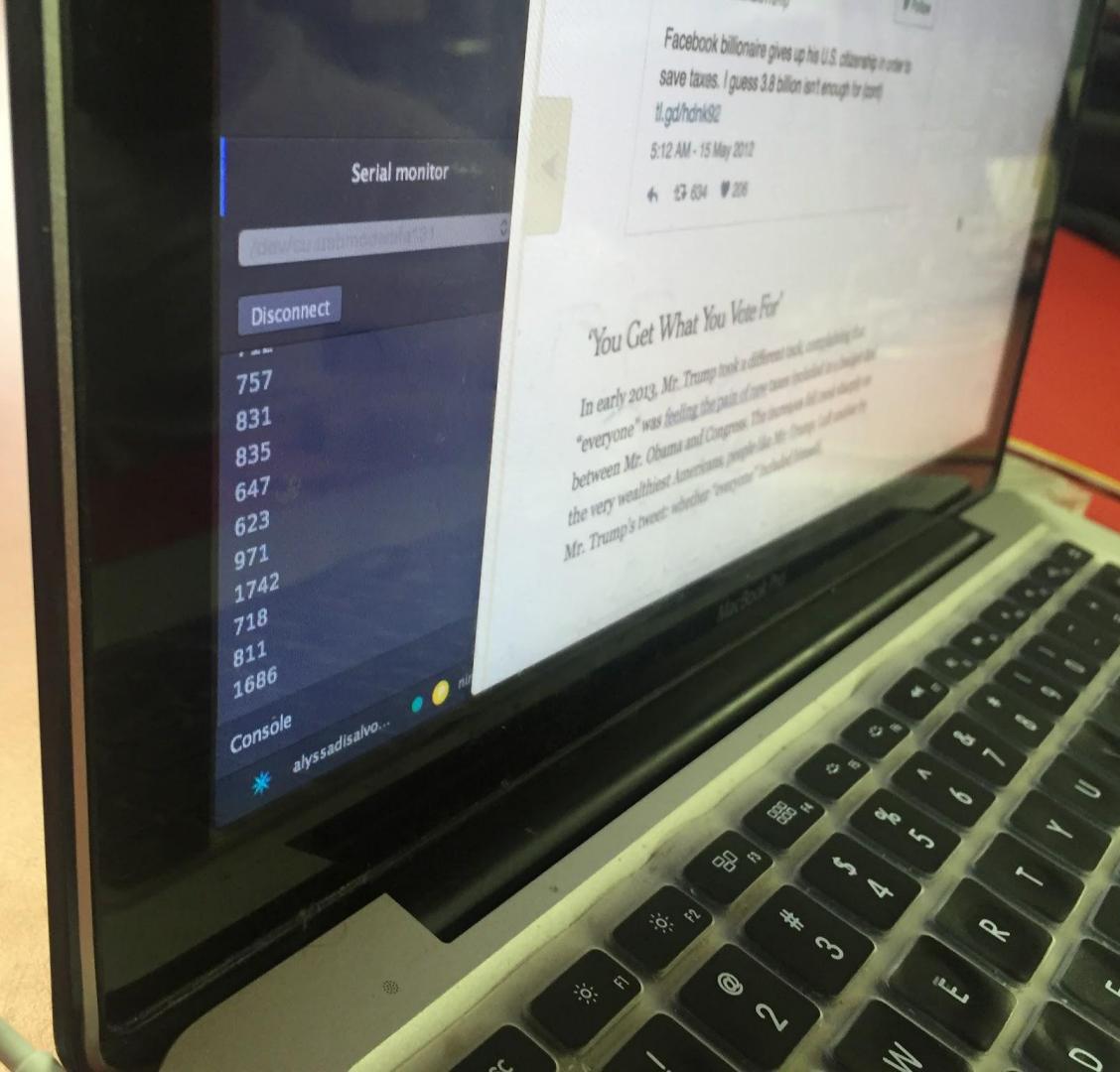


alyssadisalvo...



When Dennys tickled Shiva, his GSR jumped ...perhaps indicating that the device we bought isn't just a random number generator.

More data jumps...





Shiva playing around
with our InVision
app...

Shiva showed us the Fitbit app and suggested we show the “spikes” in a similar way...

Show the exact parts of the article that lead to jumps in arousal...



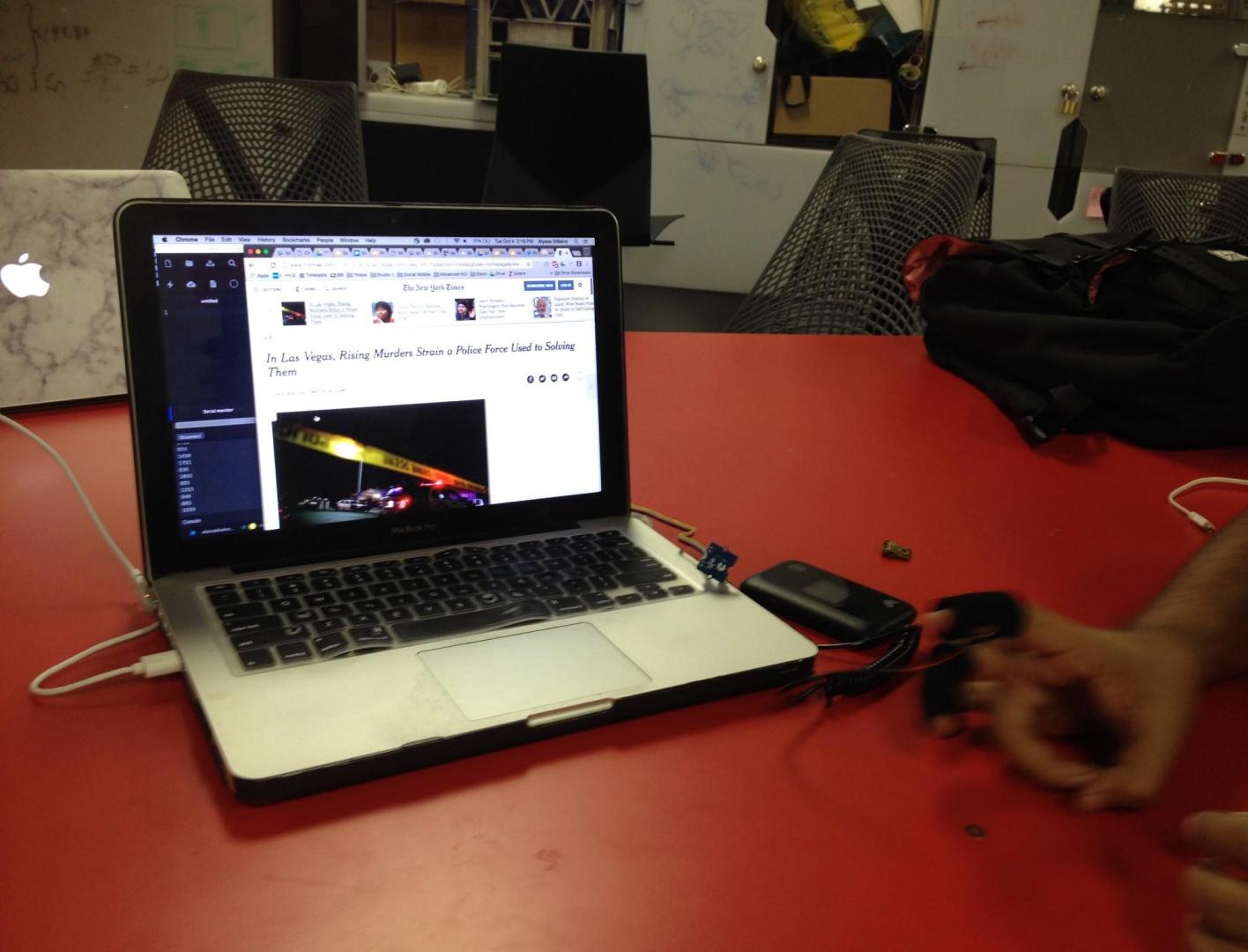
Shiva

- Emotions vary -- gsr could measure any kind of response -- anger, happiness -- qualitative data is important here
- I don't care about Donald Trump, but something I could relate to would maybe promote more of a response
- Can't know Trevor's emotions -- doesn't tell me much about what he was feeling... was he sad? Or just normal?
- Doesn't tell what emotion it is... I want to know the emotion
- Display the level of arousal in terms of level of interest maybe
- BCI can show level of attention/focus -- if you could show this data it would maybe be more valuable to people
- I like science, but science is just too broad, and something related to space -- to like, maybe like a tsunami, that would probably arouse me more ---- tragic news and unknown outcomes may capture attention more, and **could teach me about my own values**
- **Show spikes -- let me know the sentence that aroused me the most**
- If you can **map or show spikes on the articles themselves**, that would be cool
- Kind of like **fitbit** -- that guy did 2400 steps today i did barely 500 steps... promotes competitiveness... **you compare yourself to others**... in terms of news, it will promote a positive or negative response and maybe putting a threshold value to measure that would be good... but **you won't be able to say whether it's positive or negative with gsr**
- Fitbit -- would like to see where other people's spikes are/were as you're reading the article



Awais reading an
article about Donald
Trump...

Awais reading an article about murders in Las Vegas...



Awais

- Find out what the 1200 and 700 mean...
- Find out what the jumps mean...
- Doesn't really know what the numbers mean
- What is the threshold?
- Present categories rather than numeric values e.g. "very aroused"
- Gathers data too slowly -- my emotions change far more rapidly -- they change every second
- What is the deviation?
- If you use numbers, only use 1-5
- Know the exact part of the article that make people's data jump
- "This means nothing to me" - when looking at the data page of our app
- Assign a base value -- this is your general normal GSR
- Say I read Kim Kardashian news, and I get a 3. I read one about an earthquake, and I get a 9. I read another about wrestling, and I get 8. This still means nothing to me. It doesn't tell other people much either. **If you could correlate arousal with liking or disliking the article -- let people say whether they liked it or disliked it -- this could make other people's data more meaningful**
- Monitoring the data is too much of an effort, unless it has some kind of impact on my stress levels or health...
- Maybe target people suffering from post-traumatic stress disorders - war, loss, hypochondriacs... use this as a way of making them more aware

Setbacks & how we're moving forward

The actual GSR data doesn't really vary much at all, and seems to us (and others) to be entirely random with little accuracy.

How this impacts our project:

The participants found it really hard to make sense of the data, and also had less of idea of why/how they might value such data... **While this isn't what we hoped for, this isn't necessarily a "bad" thing.** Our project is about exploring the human values that emerge surrounding the application of affective feedback to news consumption. What we have found is that GSR was a rather inadequate reading for many of our participants (not just because of its inaccuracy but also because of the fact that the data is not qualitative -- that is, you can't know whether the arousal was positive or negative).

This in and of itself gives direction for future research. Other technologies (such as BCI) might offer data that is more valuable to users.

That said, we are sticking with GSR (as we don't have access to other tech) and using the feedback we gathered to ideate in regards to how we can present this data in such a way that is valuable to users.

Setbacks & how we're moving forward

It took us way longer than expected to get our initial prototype with the GSR. Why? (1) The GSR sensors arrived later than expected, so we didn't achieve what we hoped to for our last standup. (2) We really struggled to get this data into the database. Having used Photon before and having already gone through the process of getting the data into the database for another project, Rena and Alyssa were somewhat confident with this task. However, they ended up running into unexpected problems.

How this impacts our plan:

We wanted to fully code the mobile app, but no longer think that doing so would be meaningful. This would occupy too much of our remaining time, and we don't think it should be the focus of our project. We will only code a simple webpage (meant to be seen by people doing the demo) that shows near real-time GSR while reading an article.

For the mobile app, we will stick to InVision. This will give us more time to focus on iteration and designing for emerging human values -- what this project is really about.

Next steps

1. Analyze the feedback we got from running our workshop. Select one or two human value to address within our application.
2. New InVision prototype → testing.
3. Final iteration.
4. Promotional material creation - video & poster.

Week 11	This phase of the project will involve testing our functional coded prototype and making any final changes. Following this, our focus will shift to the creation of high quality promotional material in the form of a video and a poster.	Conduct user testing with the functional coded prototype. Make any appropriate changes in response to feedback. Create promotional material.	People; Photon; Illustrator; Final Cut Pro.
Week 12 (Standup)	In this week's standup presentation, we will explain our findings from our user testing with our functional coded prototype. We will also showcase our promotional material. Lastly, we will discuss our project within the larger context of the application of affective feedback to news consumption, and what the exploration of this space may involve in the future.	Finish creating any promotional material (if not already completed) before the standup presentation within our Wednesday session.	Illustrator; Final Cut Pro.

To refresh your memory...

React is about exploring (through design) the human values that emerge surrounding the application of affective feedback to news consumption.

What we've accomplished

1. Analyzed feedback from our workshop and derived new directions for our project
2. New Sketch mockup and InVision prototype
3. Video storyboard and script

Analyzing our workshop outcomes

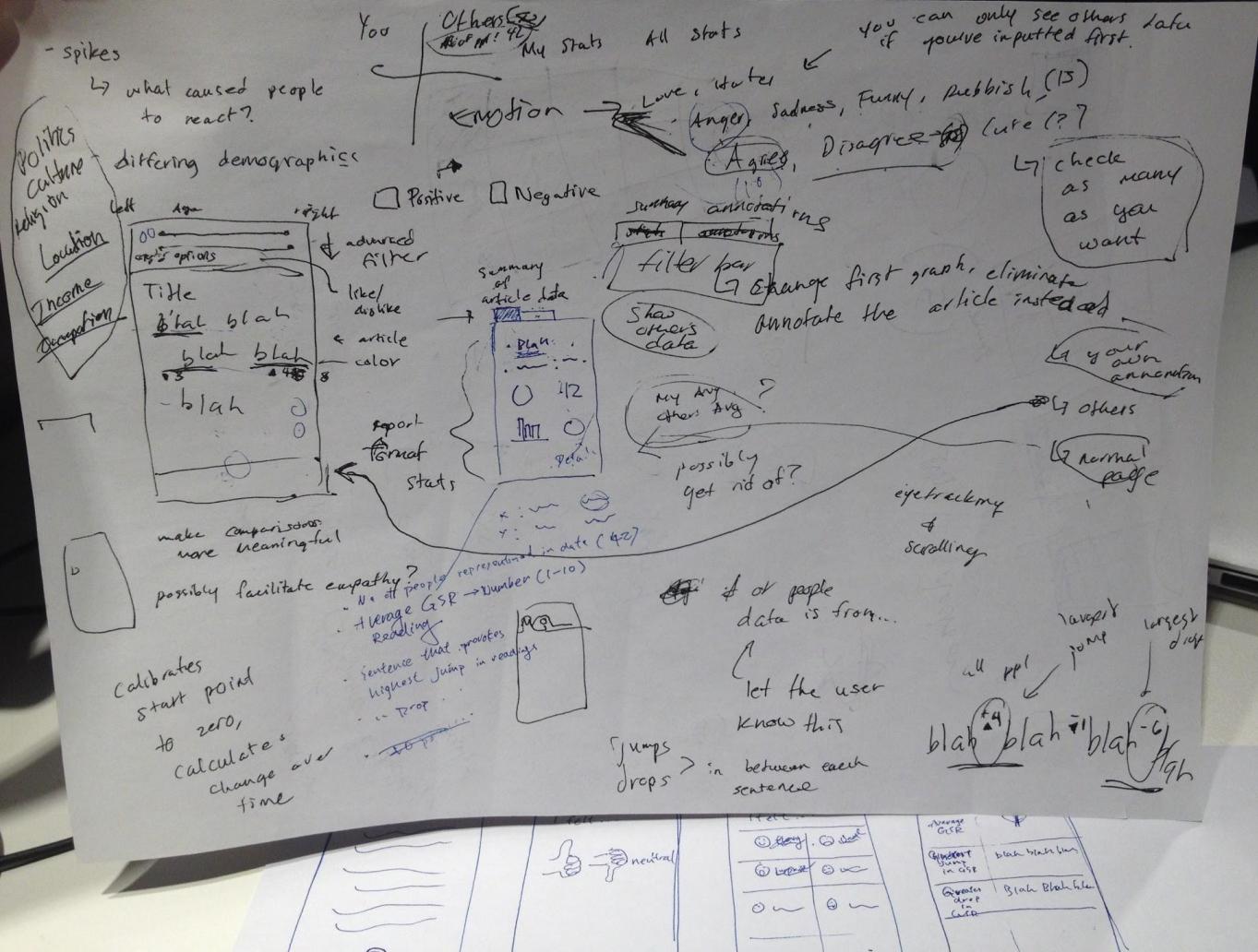
1. Our visualization of the data was not meaningful
2. The data on its own means nothing

"Say I read Kim Kardashian news, and I get a 3. I read one about an earthquake, and I get a 9. I read another about wrestling, and I get 8. This still means nothing to me. It doesn't tell other people much either. If you could correlate arousal with liking or disliking the article -- let people say whether they liked it or disliked it -- this could make other people's data more meaningful."

Rethinking how we might display data in a way that is meaningful to users...

Spikes/changes in GSR are of interest...

Visualized with annotations in the article...



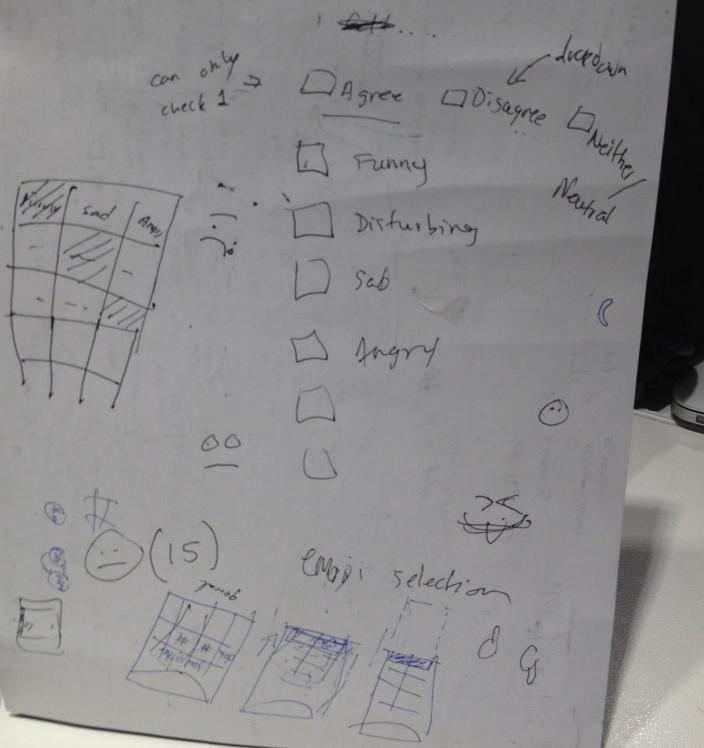
Is the data worth knowing if you don't know the people it's related to and know their belief systems?

Filtering data based on information about all readers of the article... (Data about yourself is optional to give, but in order to use the filters you must give this data...)

Categories:

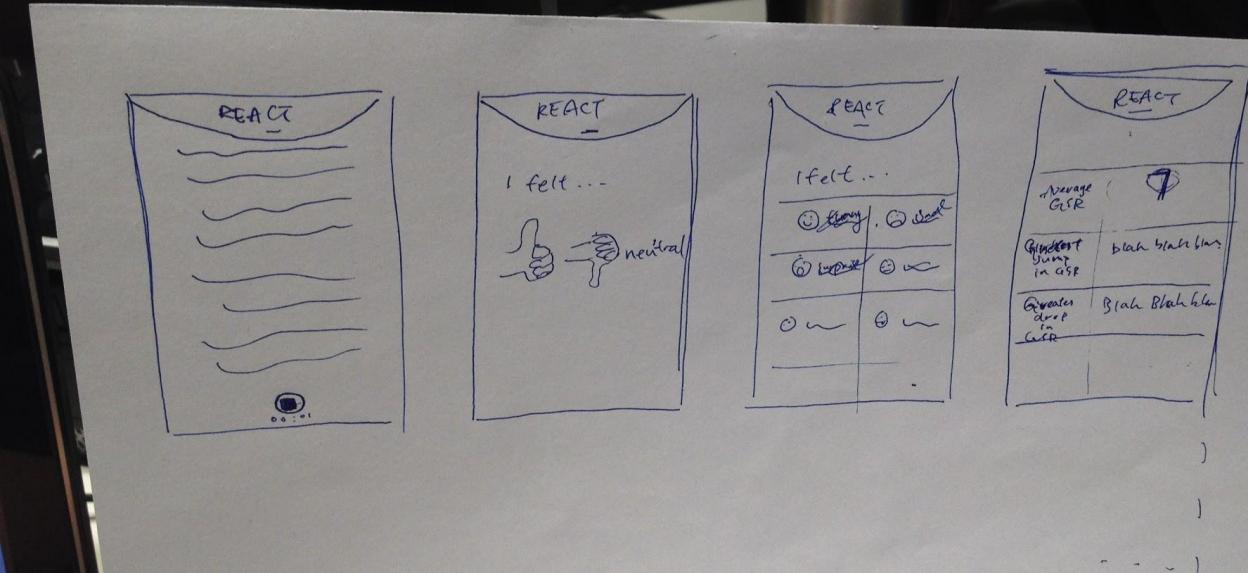
- Like or Dislike
- Feelings
- Political Stance
- Occupation
- Location
- Age Group

"I would be very interested in knowing other people's affective data, especially if such data was broken down to show how particular demographic groups were affected more or less strongly than others. I believe that this would make differing values between age groups, religions, genders, and ethnicities more open, and would lead to a greater understanding of how others in the community feel about certain topics. I would value awareness of this data because I believe that with greater understanding of how strongly other people feel about certain topics would come greater empathy towards others and could possibly change the way we talk about specific topics. I would like to see this data become part of the social consciousness when talking about impactful topics and social policies as I believe that increased empathy towards one another could result in real positive change for those most affected."

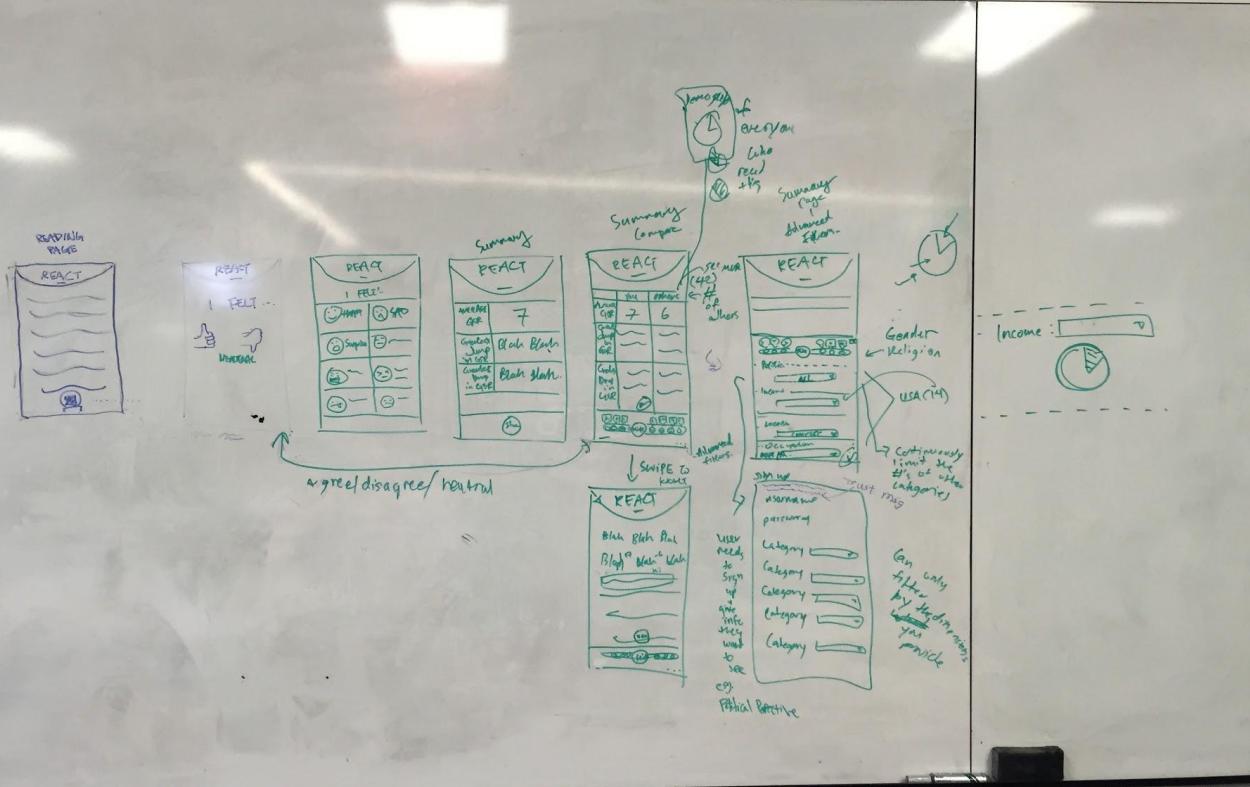


Like / dislike

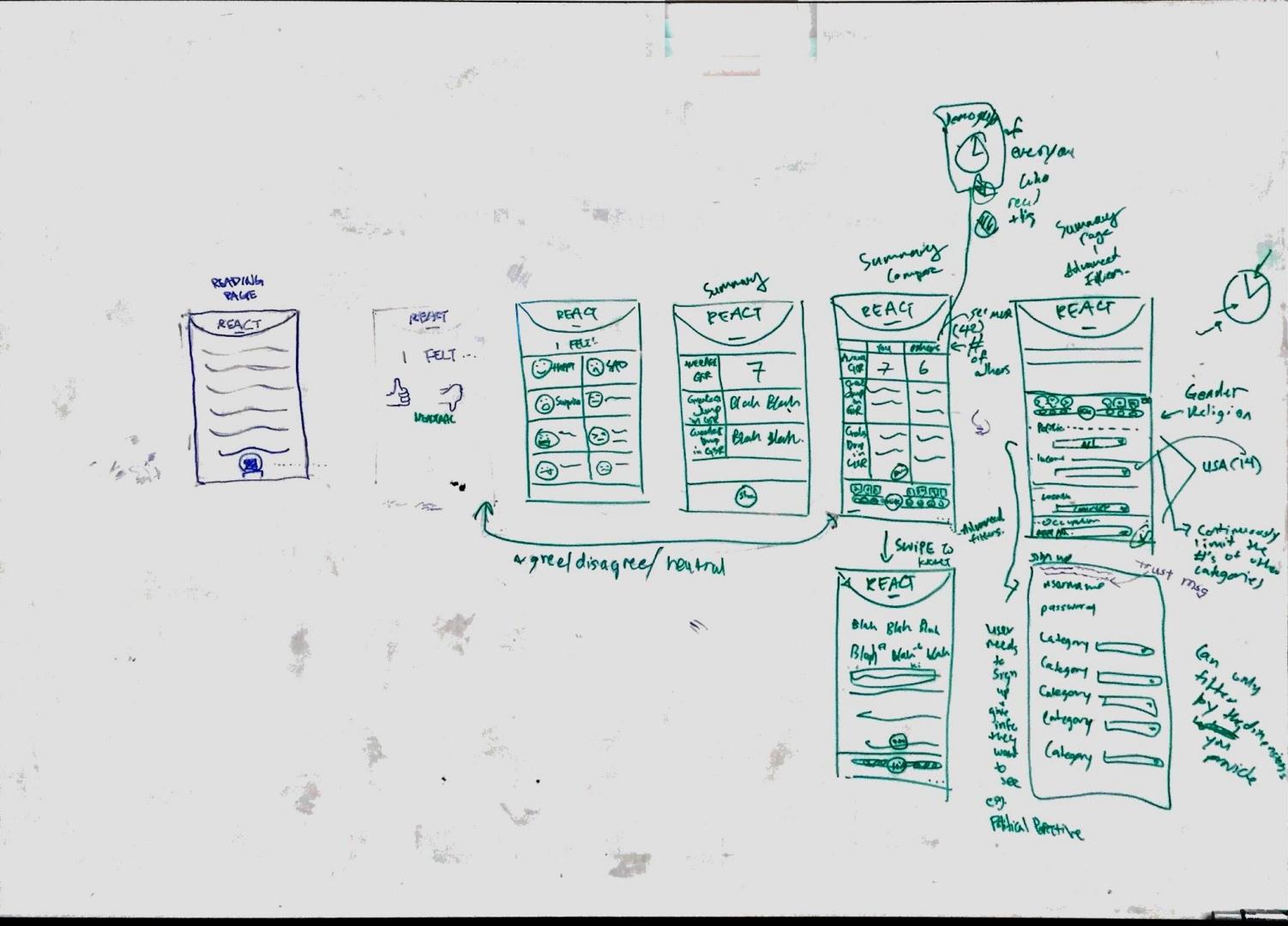
Using emoji's to
communicate reaction
to the article

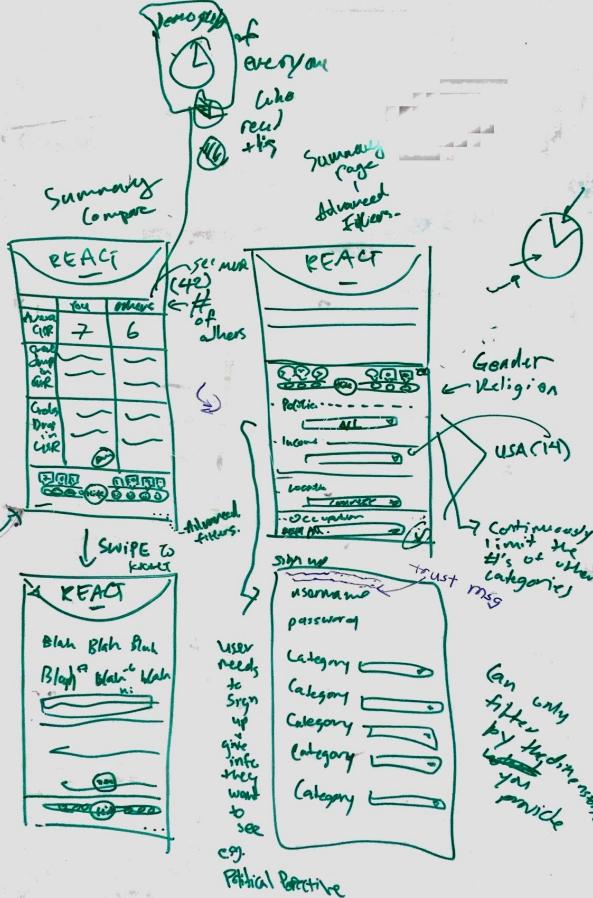


Drawing our ideas out
as a team...



Drawing our ideas out
as a team...





Thinking out the filtering aspect...

react



f SHARE

We need some of your feedback to show you
the analysis :

What do you think about the article?

JULIAN ASSANGE MADE CLAIMS THAT HILLARY CLINTON THREATENED BERNIE SANDERS TO DROP OUT OF PRESIDENTIAL RACE [UPDATED]

Like Dislike

Neutral

SEPTEMBER 9, 2016

Julie Johnson

Julian Assange recently made claims that Hillary Clinton, 68, threatened Bernie Sanders, 75, to drop out of the presidential race, as alleged by Your News Wire on Thursday. Assange, a

05:13:11

react



f SHARE

We need some of your feedback to show you
the analysis :

How do you feel after reading
the article?



JULIAN ASSANGE MADE CLAIMS THAT HILLARY CLINTON THREATENED BERNIE SANDERS TO DROP OUT OF PRESIDENTIAL RACE? [UPDATED]

SEPTEMBER 9, 2016

Julie Johnson

Julian Assange recently made claims
that Hillary Clinton, 68, threatened
Bernie Sanders, 75, to drop out of the
presidential race, as alleged by Your
News Wire on Thursday. Assange, a

confirm

05:13:11

react



f SHARE

We need some of your feedback to show you
the analysis :

How do you feel after reading
the article?



JULIAN ASSANGE MADE CLAIMS THAT HILLARY CLINTON THREATENED BERNIE SANDERS TO DROP OUT OF PRESIDENTIAL RACE? [UPDATED]

SEPTEMBER 9, 2016

Julie Johnson

Julian Assange recently made claims
that Hillary Clinton, 68, threatened
Bernie Sanders, 75, to drop out of the
presidential race, as alleged by Your
News Wire on Thursday. Assange, a

confirm

05:13:11

react

Julian Assange makes claims that...

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11

Summary

Your data

<< compare

Average GSR:

7.2

Blah blah blah
blah blah blah
blahblah blah blah
blah blah blah
blahblah blah blah
blah blah blah
blah.

Blah blah blah
blah blah blah
blahblah blah blah
blah blah blah
blahblah blah blah
blah blah blah
blah.

react

Julian Assange makes claims that...

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11

Summary

People's feeling about this article



Add Filters +

Your data

>> Others' data

Average GSR:

7.2

Sentence with greatest rise in GSR:

Blah blah blah
blah blah blah
blahblah blah
blah blah blah
blahblah blah
blah blah blah
blah blah blah
blah.

Sentence with greatest drop in GSR:

Blah blah blah
blah blah blah
blahblah blah
blah blah blah
blahblah blah
blah blah blah
blah blah blah
blah.

6.9

Blah blah blah
blah blah blah
blahblah blah
blah blah blah
blahblah blah
blah blah blah
blah blah blah
blah.

Blah blah blah
blah blah blah
blahblah blah
blah blah blah
blahblah blah
blah blah blah
blah blah blah
blah.

Sentence with greatest rise in GSR:

Sentence with greatest drop in GSR:

Done

react

Julian Assange makes claims that...

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11

Summary

People's feeling about this article



Filters

Feelings:



Age Group:

18 - 18 - 29 30 - 49 50 - 65 65 +

Location:

▼

Political Stance:

Left-leaning Right-leaning Neutral

Occupation:

▼

Apply filters +

Cancel X

Your data

>> Others' data

Your data

Average GSR:
Done

7.2

>> Others' data

6.9

react

Julian Assange makes claims that...

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11

Summary

People's feeling about this article



Filters

Feelings:

Age Group:

Location:

Political Stance:

Occupation:

Apply filters +

Cancel X

Your data

7.2

>> Others' data

6.9

Average GSR:
Done

react

Julian Assange makes claims that...

Date: 1/1/2016 | Time: 12:12 pm | Duration: 05:13:11

Summary

People's feeling about this article



Add Filters +

Your data

7.2

Average
GSR:

Sentence with greatest rise in GSR:
blah blah blah
blah blah blah
blahblah blah
blah blah blah
blah blahblah
blah blah blah
blah blah blah
blah blah blah
blah.

Sentence with greatest drop in GSR:
blah blah blah
blah blah blah
blahblah blah
blah blah blah
blah blahblah
blah blah blah
blah blah blah
blah blah blah
blah.

>> Others' data

6.9

Blah blah blah
blah blah blah
blahblah blah
blah blah blah
blah blahblah
blah blah blah
blah blah blah
blah blah blah
blah.

Blah blah blah
blah blah blah
blahblah blah
blah blah blah
blah blahblah
blah blah blah
blah blah blah
blah blah blah
blah.

Title of an article

image

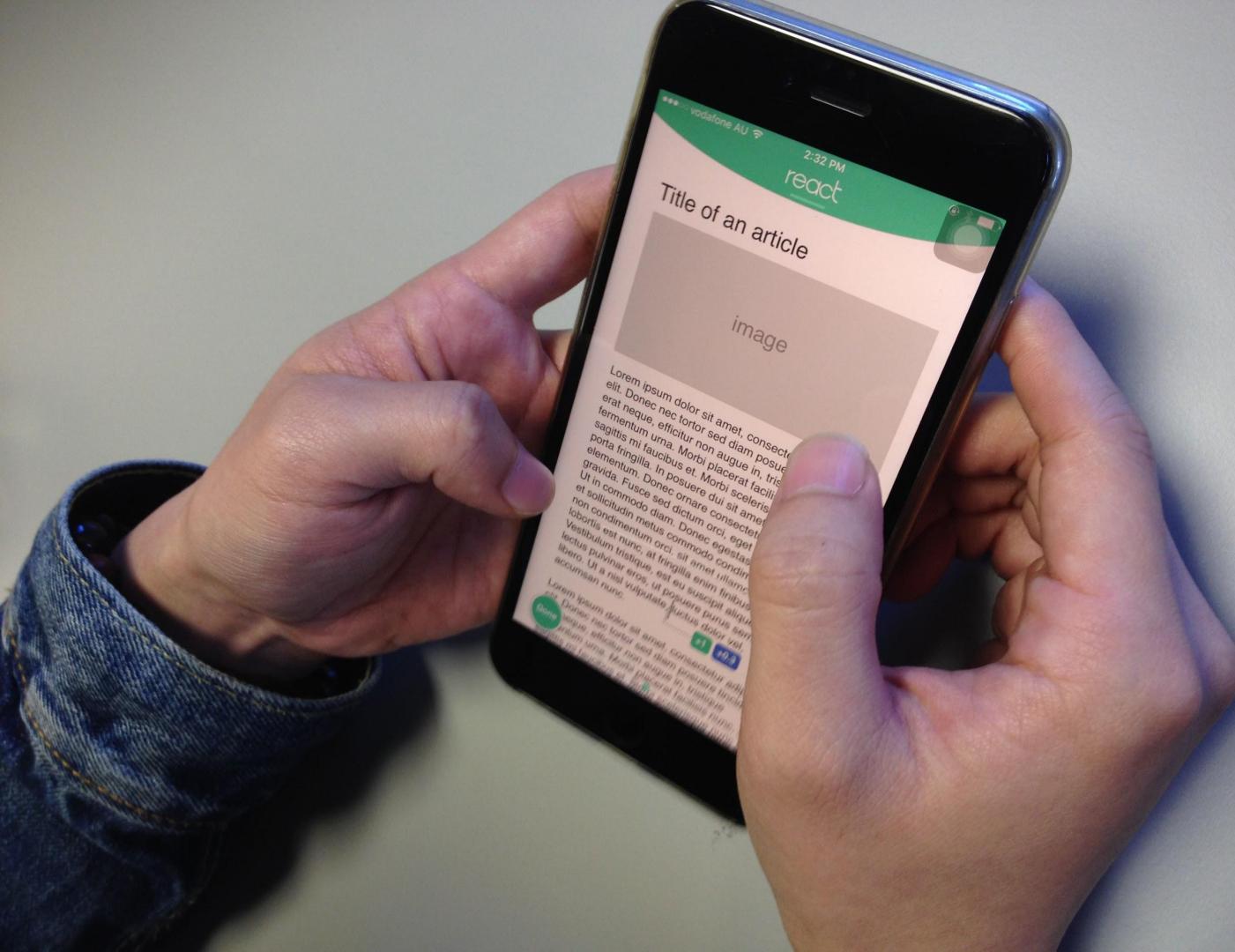
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec nec tortor sed diam posuere tincidunt. In erat neque, efficitur non augue in, tristique fermentum urna. Morbi placerat facilisis nunc, vel sagittis mi faucibus et. Morbi scelerisque nunc sed porta fringilla. In posuere dui sit amet malesuada elementum. Donec ornare consectetur arcu quis gravida. Fusce sed dictum orci, eget pretium nibh. Ut in commodo diam. Donec egestas libero lectus, et sollicitudin metus commodo condimentum. Donec non condimentum orci, sit amet ullamcorper nisl. Ut lobortis est nunc, at fringilla enim finibus ac. Vestibulum tristique, est eu suscipit aliquet, massa lectus pulvinar eros, ut posuere purus sem quis libero. Ut a nisl vulputate, luctus dolor vel, accumsan nunc.

+1 +0.3

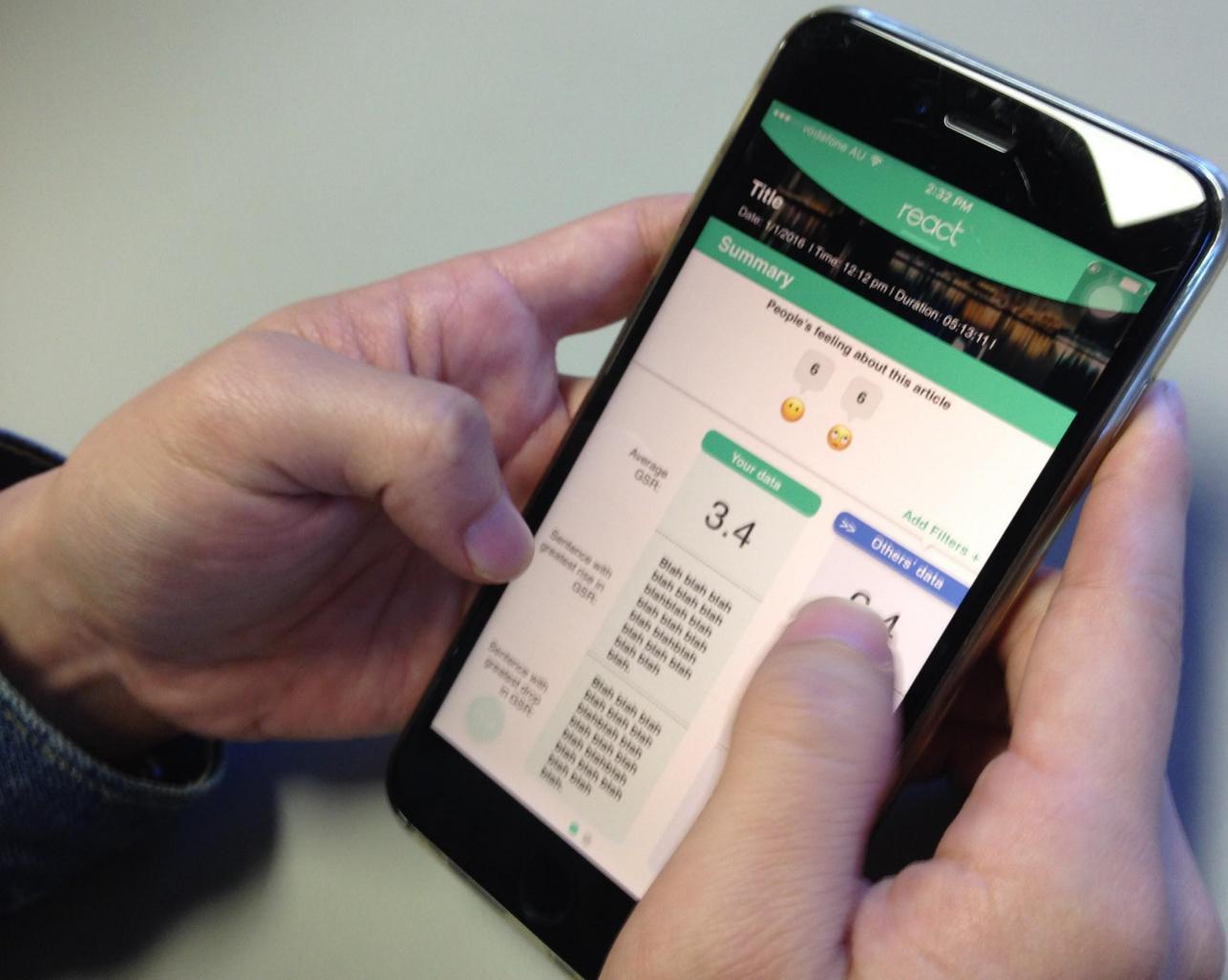
Done

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec nec tortor sed diam posuere tincidunt. In erat neque, efficitur non augue in, tristique fermentum urna. Morbi placerat facilisis nunc, vel sagittis mi faucibus et. Morbi scelerisque nunc sed

Most people
understood the
annotations...



How many others total?



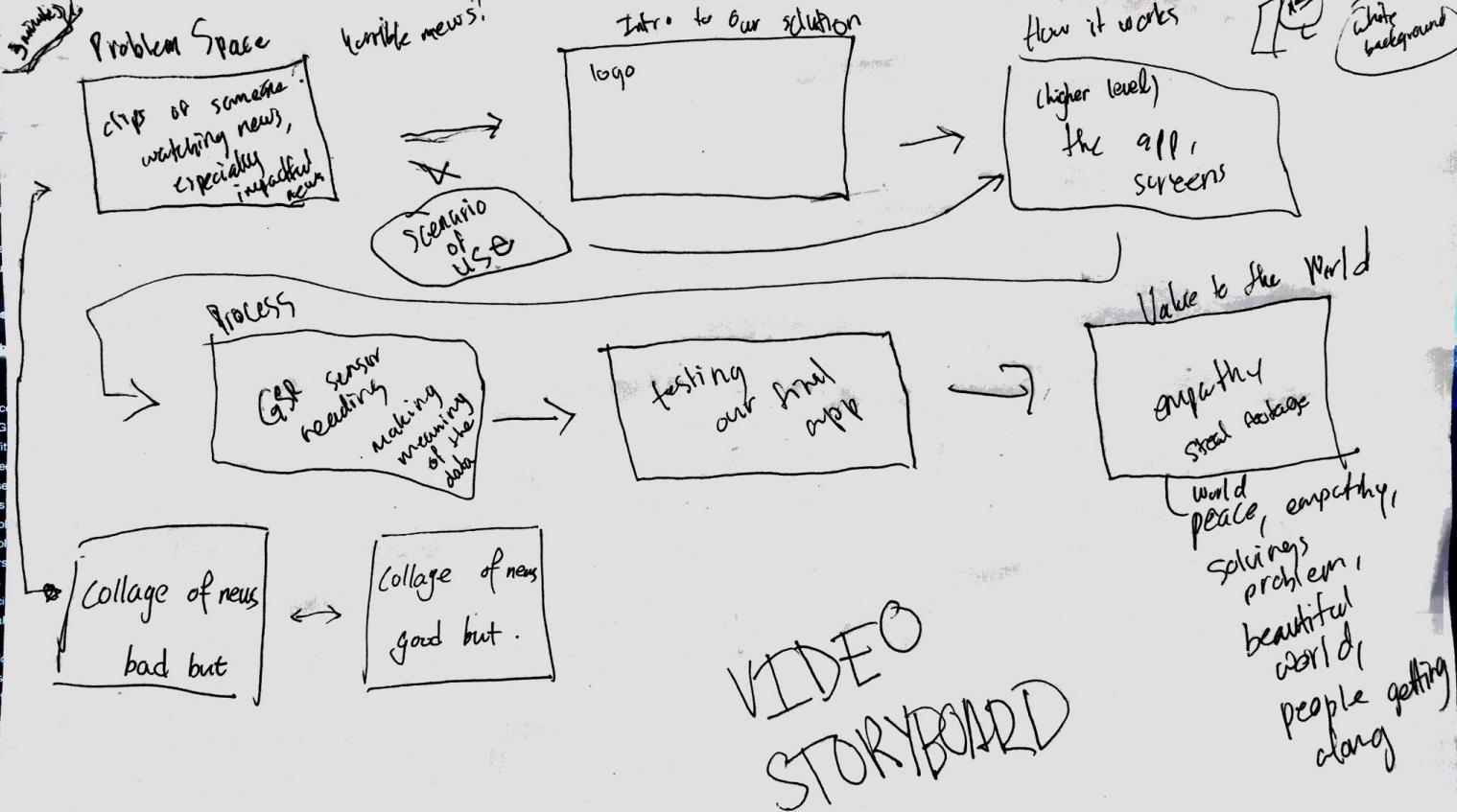
User Testing Findings

- “You can’t visualize the relationship between GSR and any personal attribute (e.g. political stance) without actually **switching back and forth between different pages**”
- “I see the app as being **more useful to researchers** to determine whether GSR or other affective measurements actually have significant correlation with a person’s perception of an article or its impact on them”
- “**Words might be better than numbers for communicating GSR.** The numbers will give a more exact idea, words might be easier to make sense out of. For example, ‘low arousal,’ ‘moderate arousal,’ etc. If you prefer the numbers, you should at least give people a key to look at that gives them an idea of what normal GSR is.”
- “I’m confused whether I’m filtering my own data or others’ data because both are green in color.”

Next iteration

- Allow the user to compare and contrast data between different groups
- Better communicate the meaning of GSR values
- Small visual design changes to improve usability

Creating a storyboard for our promotional material...



time : 2 - 3 mins

Setting : white background. (cardboard), table ~~lamp~~.

due : OCT. 28th, Week 13.

Writing out the video script...

<Interview -- can you recall a news story that made you feel negative? Can you recall a news story that made you feel positive? can you recall a news story that made you feel something? (film their response thinking...)>

Although few studies have examined the effects of news on consumers' affective state, it is commonly understood that news can and does psychologically impact those who consume it, but not always in the ways we might expect.

<show clips of sad news on screen – sept 11th>

<show clips of happy news on the screen>

<brutality-desensitization>

While affective data has already been utilized for recommender systems, the application of affective feedback to news consumption is an unexplored space. There are no commercial products or applications designed to bring ordinary news consumers awareness of their affective state while consuming news.

<show people reading or watching news on tv>

Our idea, React, aims to change this.

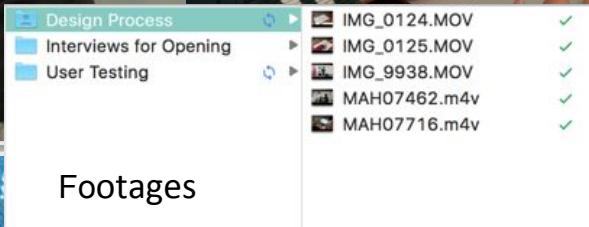
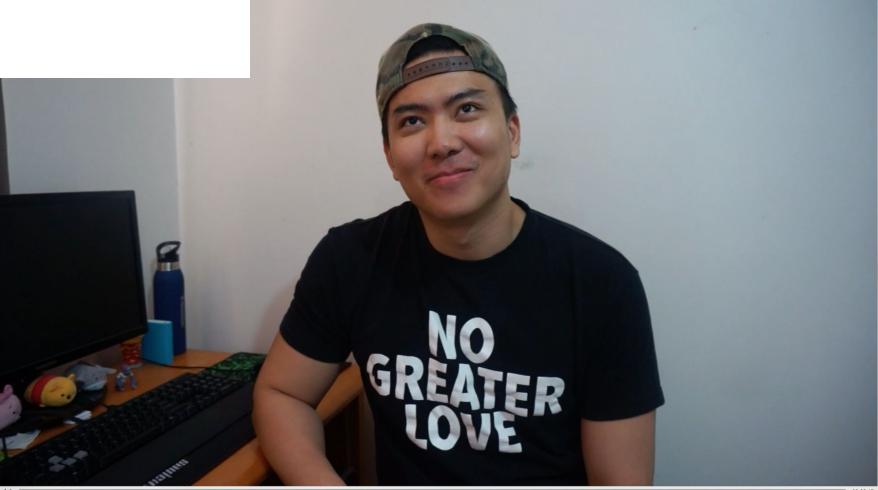
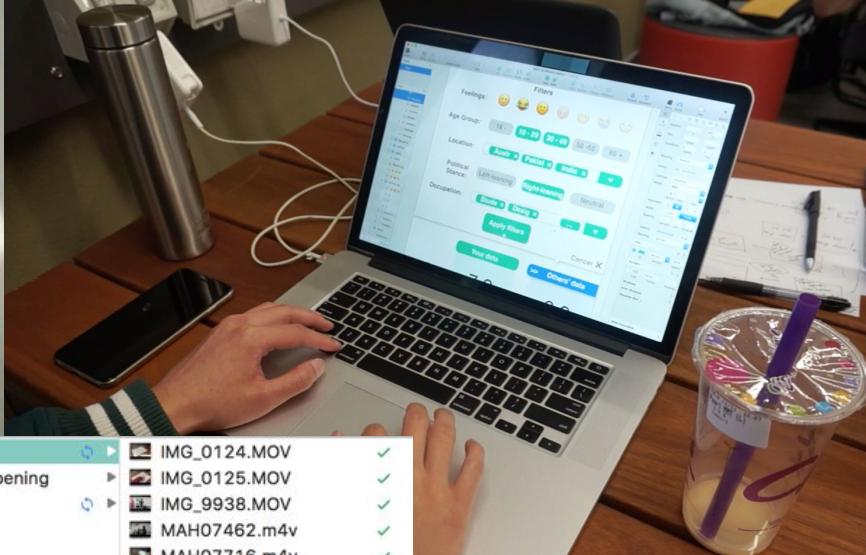
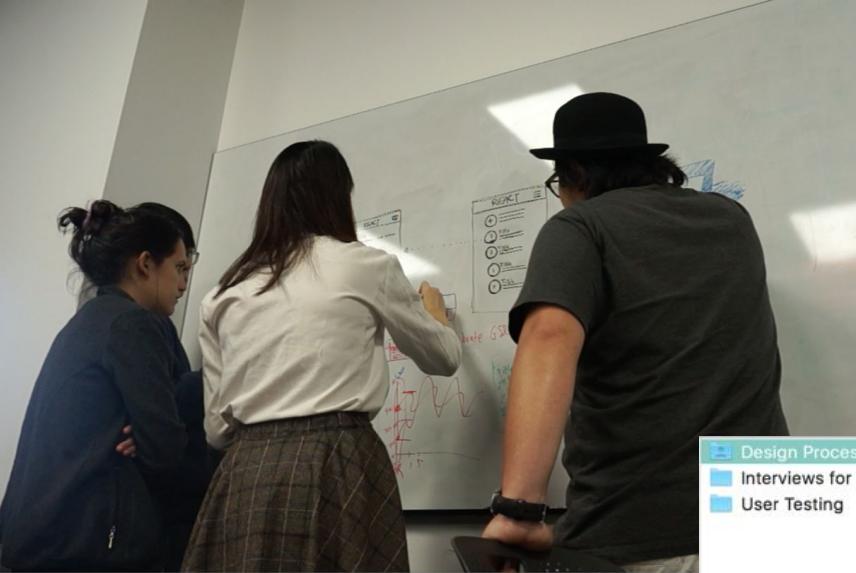
<logo>

The primary objective of our project was to see how the introduction of the prototype we developed could lead to human values emerging surrounding the application of affective feedback to news consumption. We endeavored to explore what awareness of affective data might mean to people, and how designers could leverage emerging human values in order to develop socially meaningful applications within this space.

<human values>

<title: REACT>

React is an application that enables users to have greater awareness of the magnitude of their own reactions to particular news stories. It is comprised of a smartphone app and a wearable bracelet. When the smartphone app is open, the bracelet measures the user's real-time galvanic skin response ("GSR"), which is indicative of psychological or physiological arousal. This data is then sent to the smartphone app, which provides the user with a more detailed report of their reactions to varying news stories.



gsr_oct19a | Arduino 1.6.12

```
gsr_oct19a
int sensorPin = A0; // select the input pin for the GSR
int sensorValue; // variable to store the value coming from the sensor

// Time variables
unsigned long read_time;
int secForGSR;
int curMillisForGSR;
int preMillisForGSR;

void setup() {
// Prepare serial port
Serial.begin(9600);
secForGSR = 1; // How often do we get a GSR reading
curMillisForGSR = 0;
preMillisForGSR = -1;
}
void loop() {
read_time = millis();

curMillisForGSR = read_time / (secForGSR * 1000);
if(curMillisForGSR != preMillisForGSR) {
// Read GSR sensor and send over Serial port
sensorValue = (analogRead(sensorPin) - 438)*(-1);
Serial.println(sensorValue);
preMillisForGSR = curMillisForGSR;
}
}

Done uploading.
```

Rena was laughing

Normal Kevin

Alyssa didn't wear the sensor properly

Dennys was presenting

Sketch uses 1,908 bytes (5%) of program storage space. Maximum is 32,256 bytes
Global variables use 198 bytes (9%) of dynamic memory, leaving 1,850 bytes

24

Arduino/Genuino Uno on /dev/cu.usbmodem340

Setbacks & how we're moving forward

The actually GSR sensor doesn't work very well.

How this impacts our project:

It doesn't. The project is more about **human values** and how **affective data** can be meaningfully presented within this context... So it is okay to not necessarily have real data, and it is okay if there are better methods of affective data collection than GSR. These are all just **future directions** the project could go in.

Next steps

1. Finishing our **promotional material** -- video and poster.
2. Group **reflections** on our process and product

Week 12 (Standup)

In this week's standup presentation, we will explain our findings from our user testing with our functional coded prototype. We will also showcase our promotional material. Lastly, we will discuss our project within the larger context of the application of affective feedback to news consumption, and what the exploration of this space may involve in the future.

Finish creating any promotional material (if not already completed) before the standup presentation within our Wednesday session.

Illustrator; Final Cut Pro.