

Card sorting Analysis

1 weather

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Scope

Objectives

In this research we wanted to understand how users perceive, understand information.

We wanted to understand, how users relate information to each other.

We wanted to understand the priority of these groups of Information.

Geographic areas

USA , Canada

Participants

Age group 35-65 yrs old

Employed, self-employed, partially employed

Income group : 20'000\$-150'000\$

Participants were chosen on the basis of available TracFone user demographic Data.

Male/female : 47%/ 53%

Methodology

Card sorting

Prioritization matrix

Research sketchbook

https://miro.com/app/board/o9J_lpRGbEg=/
o9J_lpRGbEg=/

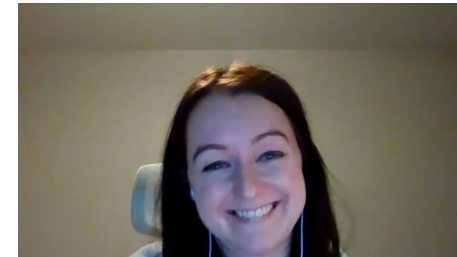
Participant criteria

We interviewed 6 users, who were using 1 weather and other weather application on their phone.

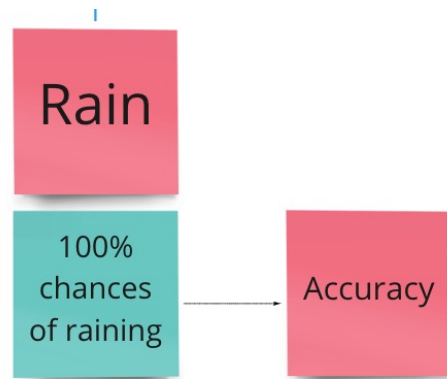
The market analysis shows a split of 47/53 male to female ratio for 1w app usage.

And primary age group of above 40+yrs for 1w app usage.

Participants



INSIGHTS



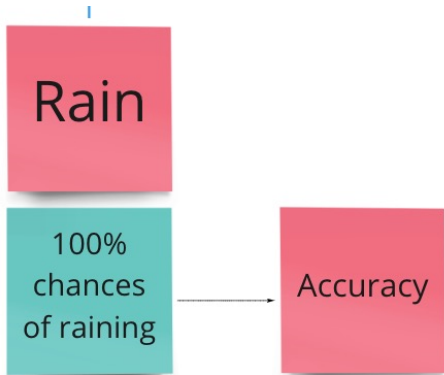
100 % chances of raining is associated to **accuracy– Trust factor- Retention**



User Prioritized "Rain alerts " overall " precipitation details "

PERCEPTION

User perception on effects



100 % chances of raining is associated to **accuracy– Trust factor- Retention**

Few user associated Weather shorts with " advice "



User Prioritized "Rain alerts " overall " precipitation details "



CLUSTERS & GROUPS

All GROUPS formed by users

FORECAST

- Weekly/day/hourly
- Precipitation
- Rain alerts
- Radar

HEALTH

- Weather effects (short-term/long-term), Pollutants, Air quality
- Allergy

CURRENT CONDITION/ SAFETY

- Dew point, cloud cover, Humidity outside, UV index
- Radar

SUN & MOON

- Length of the day, Sunset, sunrise etc.

Advice/outdoor activity/exercise

- When to go out for running
- Health advice

WORLD WEATHER FORECASTING

- Worldwide weather in other cities/countries

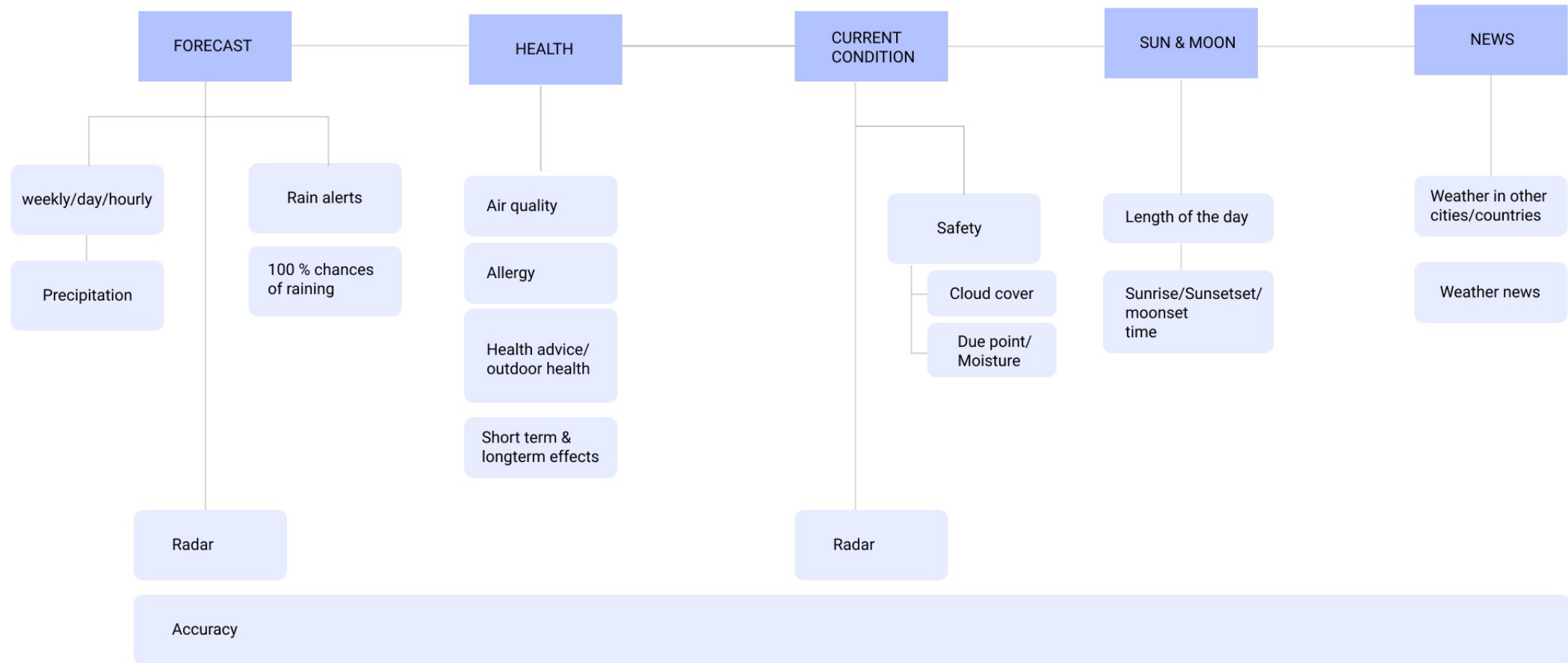
ACCURACY

- Accuracy of data

NEWS

- News
- Shorts
- Forecast discussion

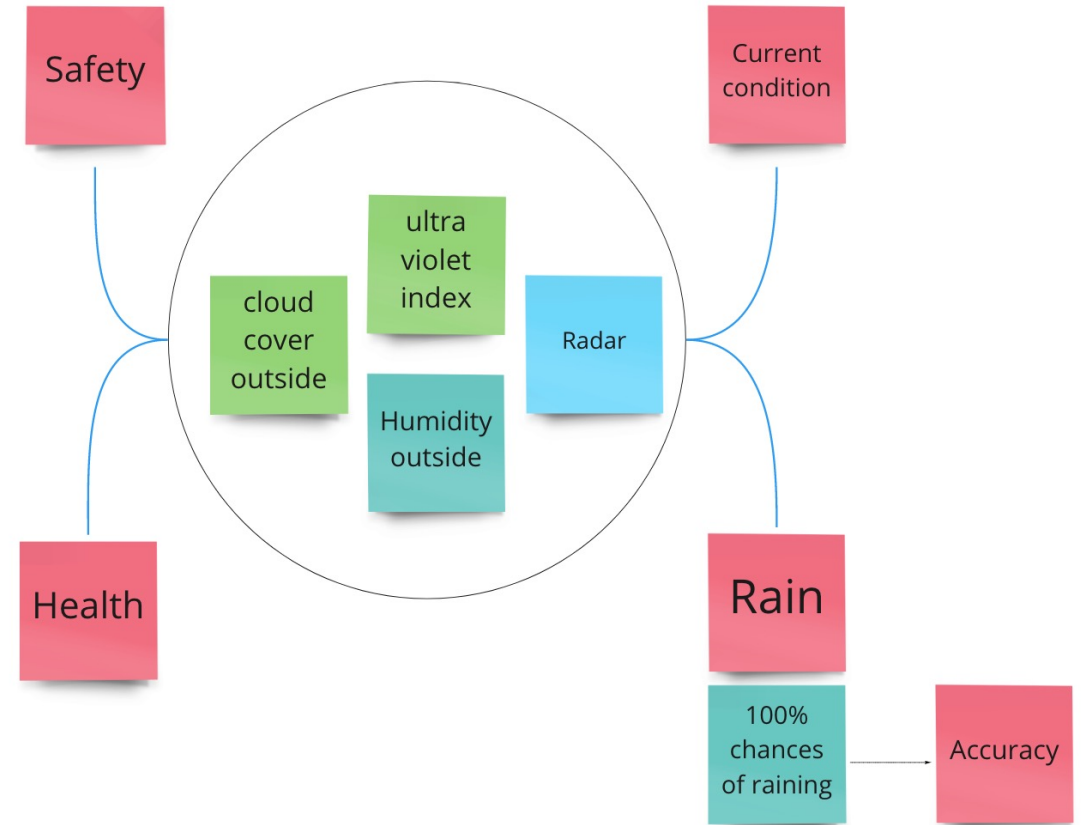
Group alignment as per analysis



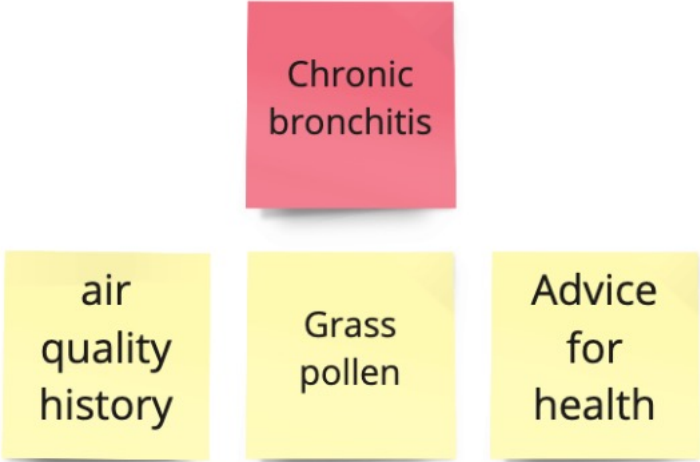
GROUP OVERLAPS

Users associated the cards inside the circle with all 4 groups **Rain, safety, Health and Current condition.**

100 % chances of raining is associated to **accuracy– Trust factor- Retention**



NEW GROUPS/ OPPORTUNITY



Providing prompt on current weather condition/ pollution level etc. on specific disease/syndrome.

Health advice on specific disease/syndrome.

Personalization on the basis of existing disease , user will get weather advice on the same.



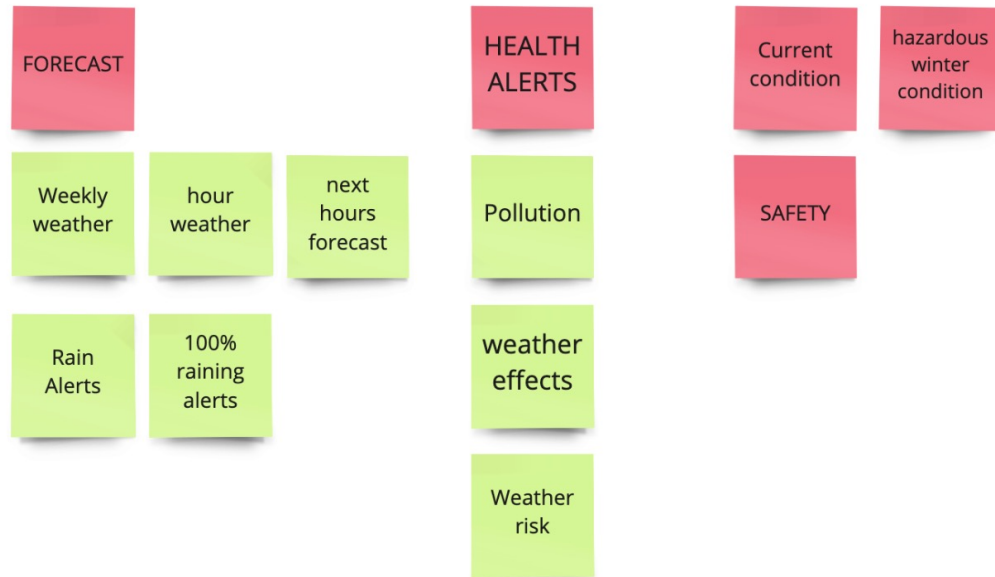
Needs of users living in areas with Extreme and abrupt weather conditions. Eg. Living/moving through vast open land , Farm in cold mountain area.



Enhance driving experience By informing on good weather condition .

PRIORITIZATION

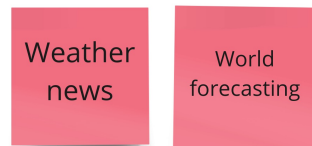
1. Considered as very essential



2. Considered as essential



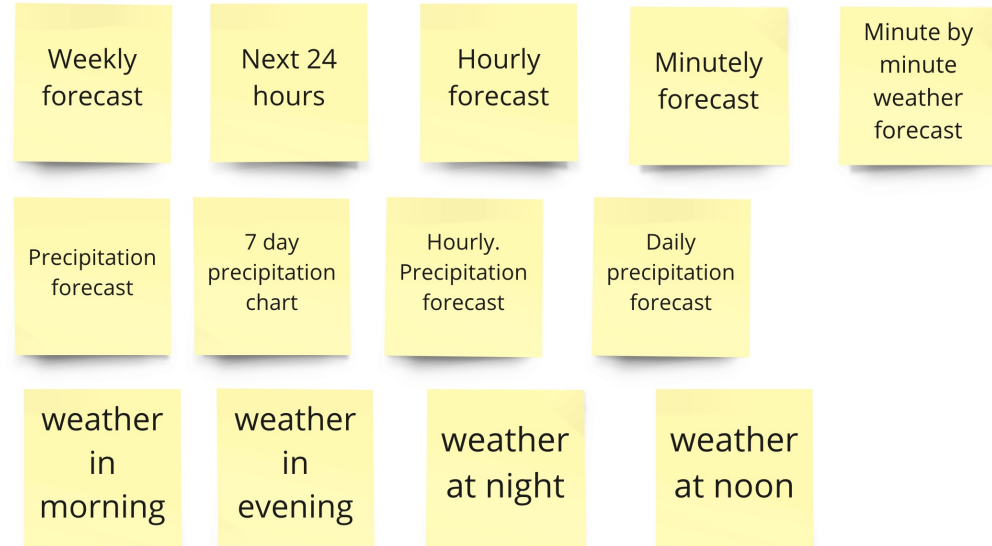
3. Considered as least essential



Ps: Please go to next slide to see group details

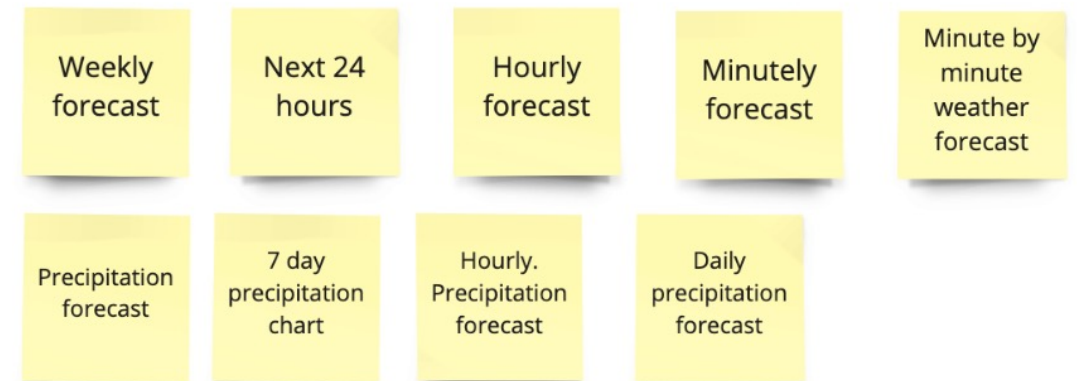
GROUP DETAILS

1. Group name – Forecast



All the users kept these information's in the group named " **Forecast** "

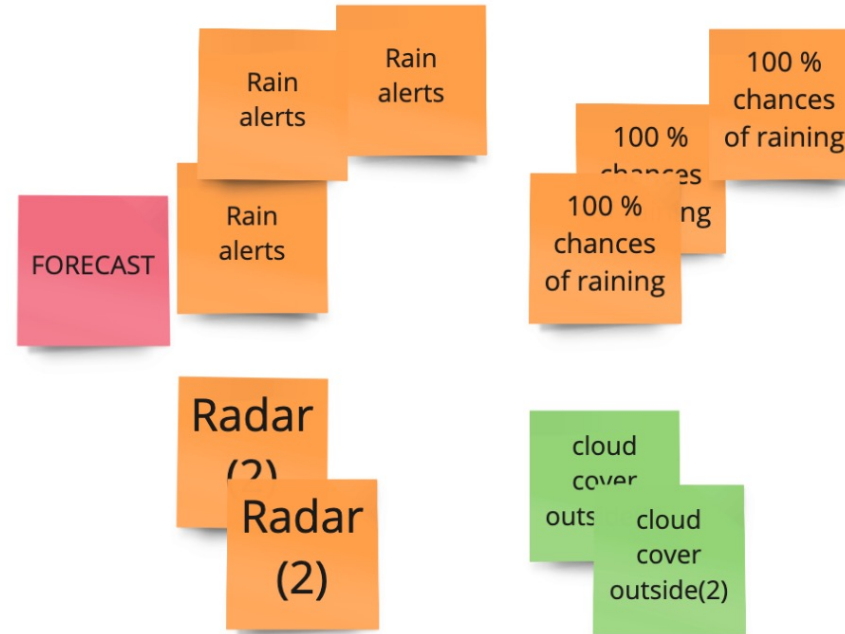
Subgroup- Weekly, day, precipitation



Also , these information were looked with few other group names.
" Weekly, day, precipitation "

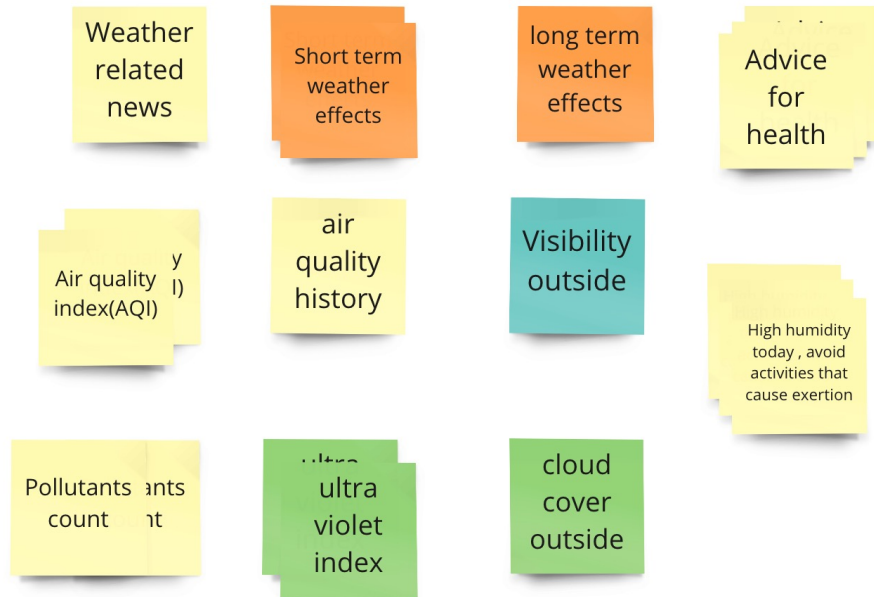
1. Group name - Forecast

Subgroup- Rain, Radar, Cloud cover

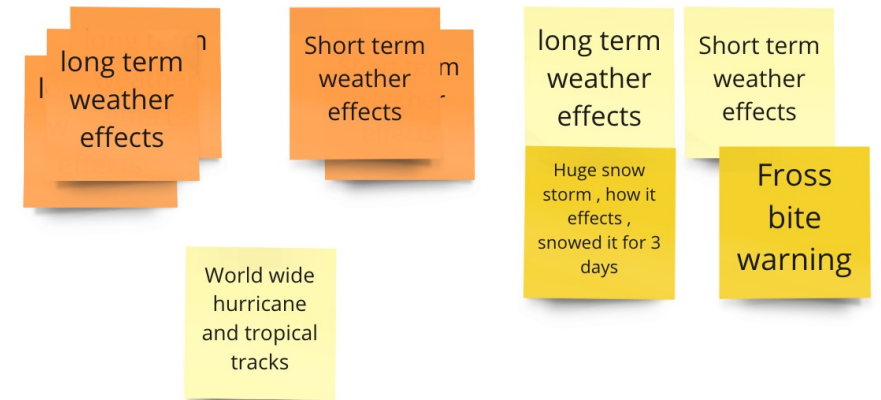


Users perceived and related **Rain**, **Radar** and **cloud cover** Under forecast

2. Group name – Weather health , Health alerts, weather risk



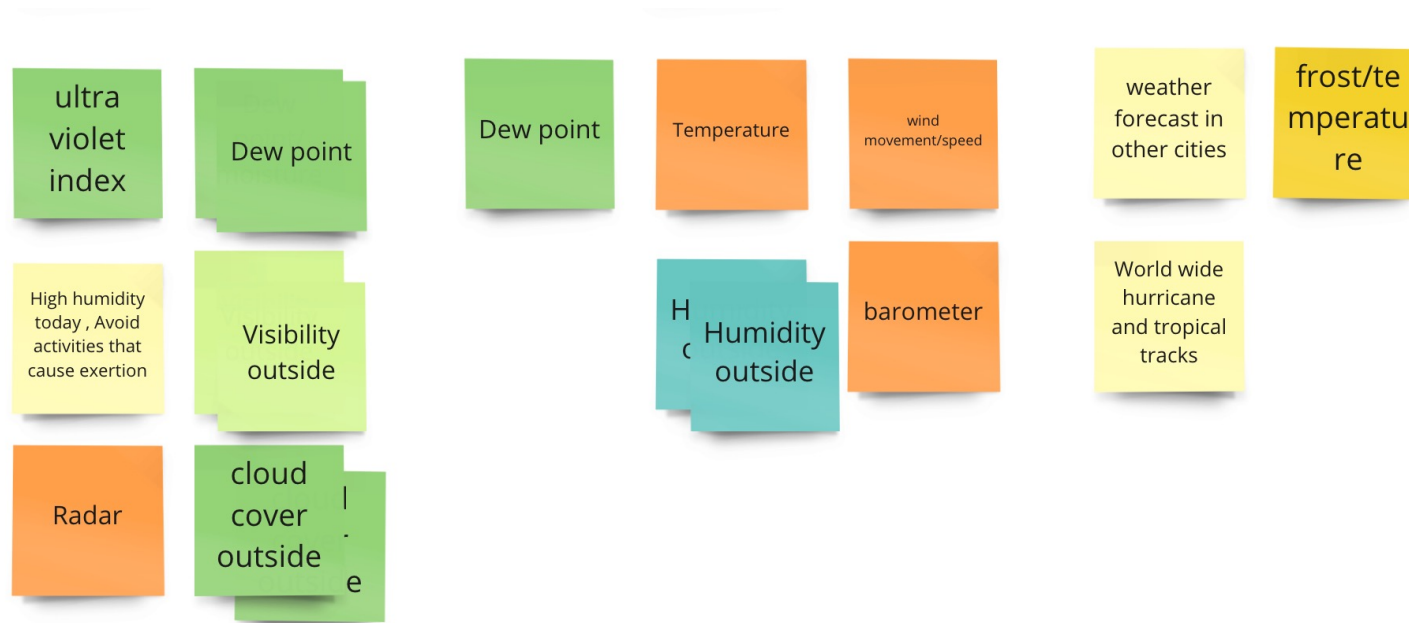
Subgroup- Effects



Subgroup- Allergy



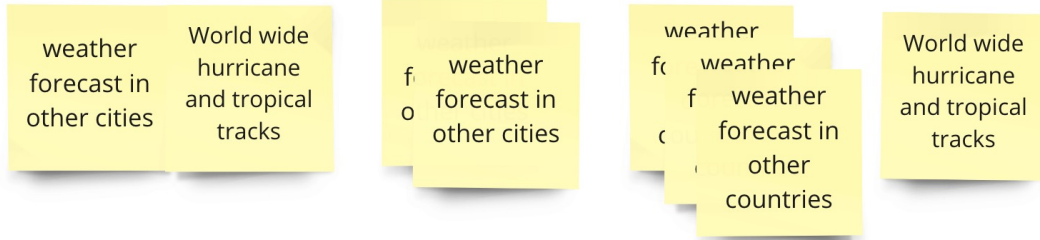
3. Group name – Safety , Current condition, Travel



4. Group name – Advice/activity sport/ exercise



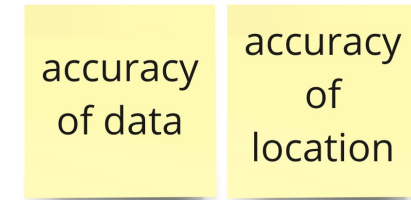
5. Group name – Foreign, Comparison, world forecasting



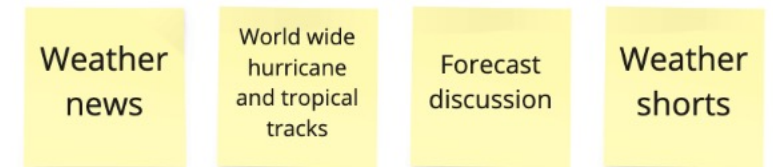
6. Group name – Time, Clock, Sunset & sunrise information, sun & moon, length of the day



7. Group name – Weather accuracy



8. Group name – Weather News//media



Scope II

Objectives

In this research we wanted to understand how users navigate through the application.

What are the difficulties they face while using the product.

Geographic areas

USA , Canada

Participants

Age group 35-65 yrs old

Employed, self-employed, partially employed

Income group : 20'000\$-150'000\$

Participants were chosen on the basis of available TracFone user demographic Data.

Male/female : 47%/ 53%

Methodology

Usability test

One-on-one interview

Research sketchbook

https://miro.com/app/board/o9J_lpRGbEg=/

OBSERVATIONS

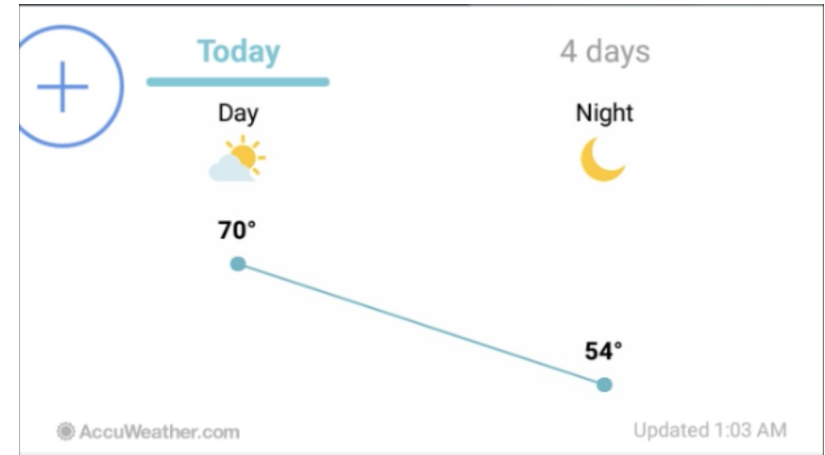
Observations :

App interaction :

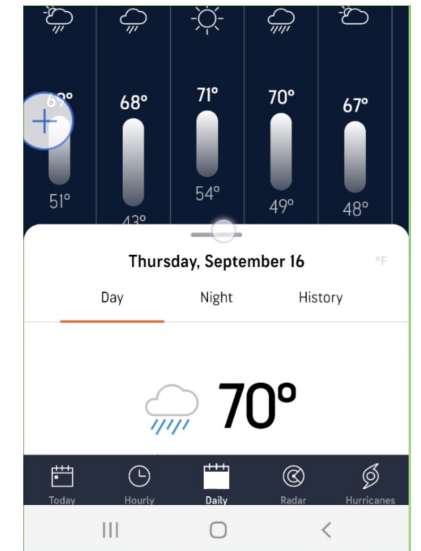
1. Usually drags through their keyboard to type. [#quickactions](#)
2. When both the navigation bars were provided top & bottom , users were using the top to navigation through. [#Navigation](#)

The bottom navigation was primarily used when the upper navigation bar was not available.
[#Navigation](#)

3. User finds the pop-up info card handy (fig1.1 pop cards from accuweather). [#quickactions](#)
User likes the idea of not having to leave the screen and gets aa temporary card
4. Finds the information simple and intuitive from accuweather.
(Fig 1.2) [#delight](#)
5. The icon for radar on top navigation bar was not being used .



(fig1.2)

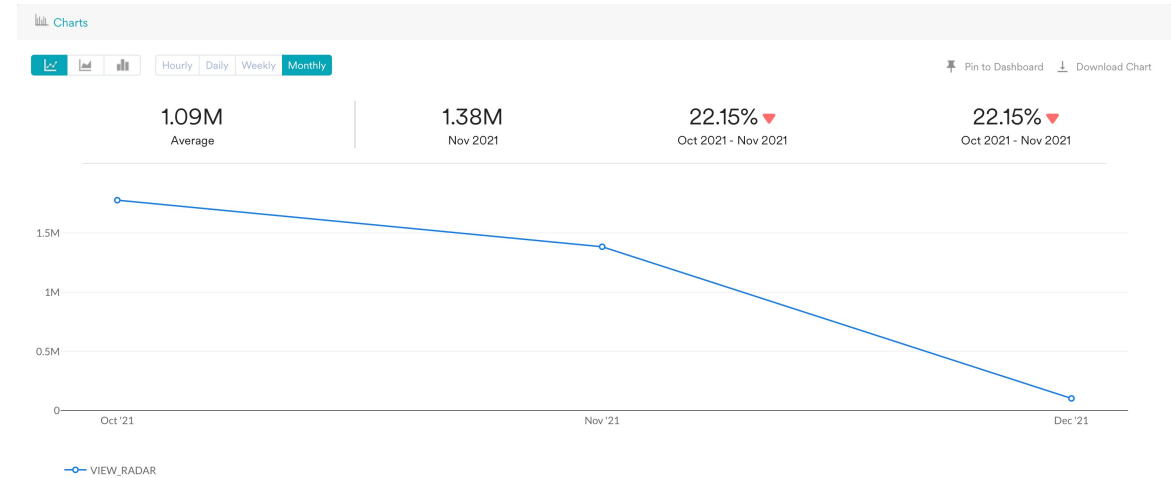


(fig1.1)

6. Map beside search icon is not being used a lot.
7. Upper navigation was preferred for precipitation.

User perception/engagement with RADAR (Fig 1.3) :

1. User is not aware what to expect form radar.
2. User expects to see weather information, if they click on any location on radar map . "
3. User tries to find pollution level on Radar feature
4. User checks back on radar to cross check and verify precipitation information. Radar being used as an apprehension tool for users.
5. Usage of radar to apprehend precipitation using cloud cover feature on the radar map. Users who have understood the feature Uses it as tool to validate and check precipitation information on radar map, using the cloud cover filter .
6. User expected multiple layer to be switch-on in the radar feature. [#Usercomment](#)



(Fig 1.3)

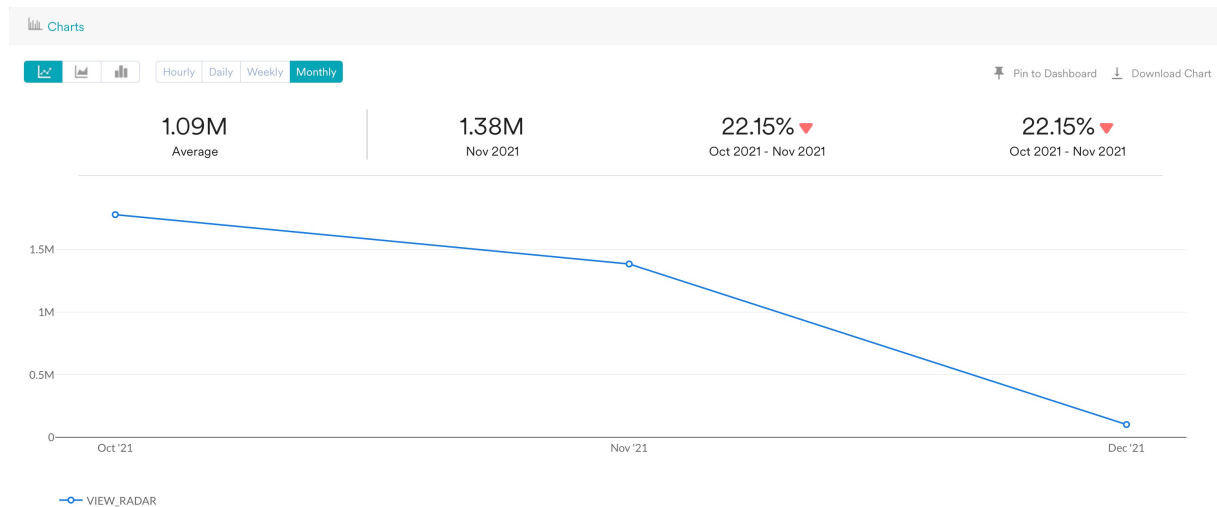
INSIGHTS

Radar awareness , functionality and usage :

Users are not aware with the functionality and potential of the feature.

What to expect from radar is not comprehensible for the user. Users who have understood the feature Uses it as tool to validate and check precipitation information on radar map, using the cloud cover filter .

1. User is a confused on the functionality of radar. What to expect out of it ? " (Observation)
2. User expects to see weather information, if they click on any location on radar map . " (Observation)
3. User checks back on radar to cross check and verify precipitation information.(User confirmation)
Radar being used as an apprehension tool for users.



OPPORTUNITIES AND LINKAGES

touch points/
observations

pleasure
points

painpoints

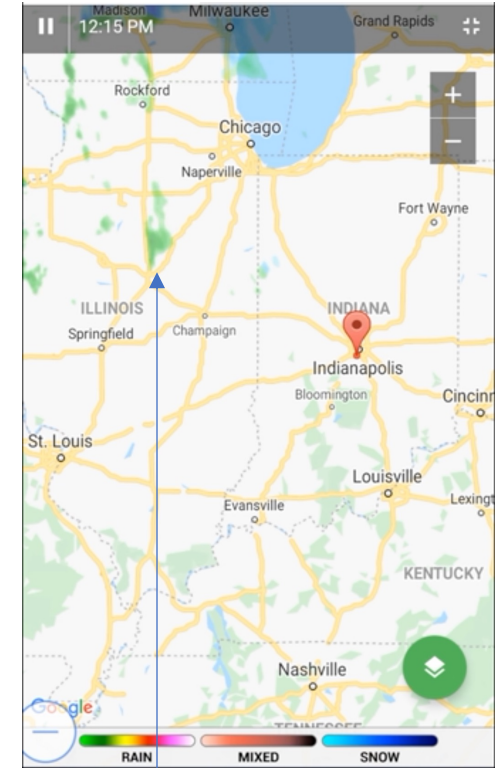
Radar apprehending/Validation tool.

The fluctuating weather is a problem for all users , mothers, pet owners, commuters (long drive, multiple transit changes) etc.

Precipitation information changes in 2-8 hours, to cope with this sudden shift, user takes the help of radar to apprehend the precipitation using the Cloud cover.

Radar acts as an **apprehending tool**. Many users are not of radar functions.

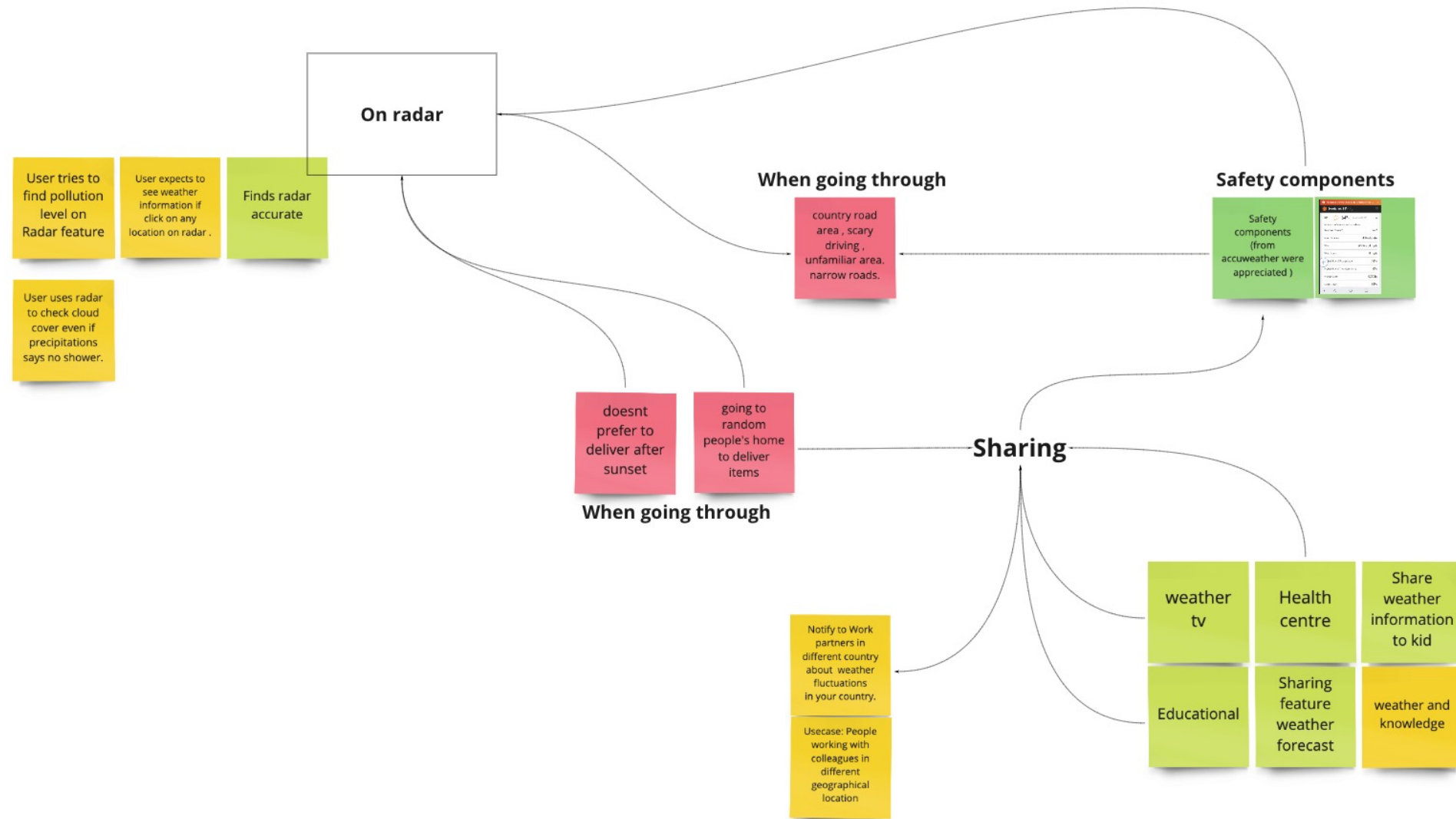
Can radar be connected to precipitation information ?



Cloud to reach Illinois by night

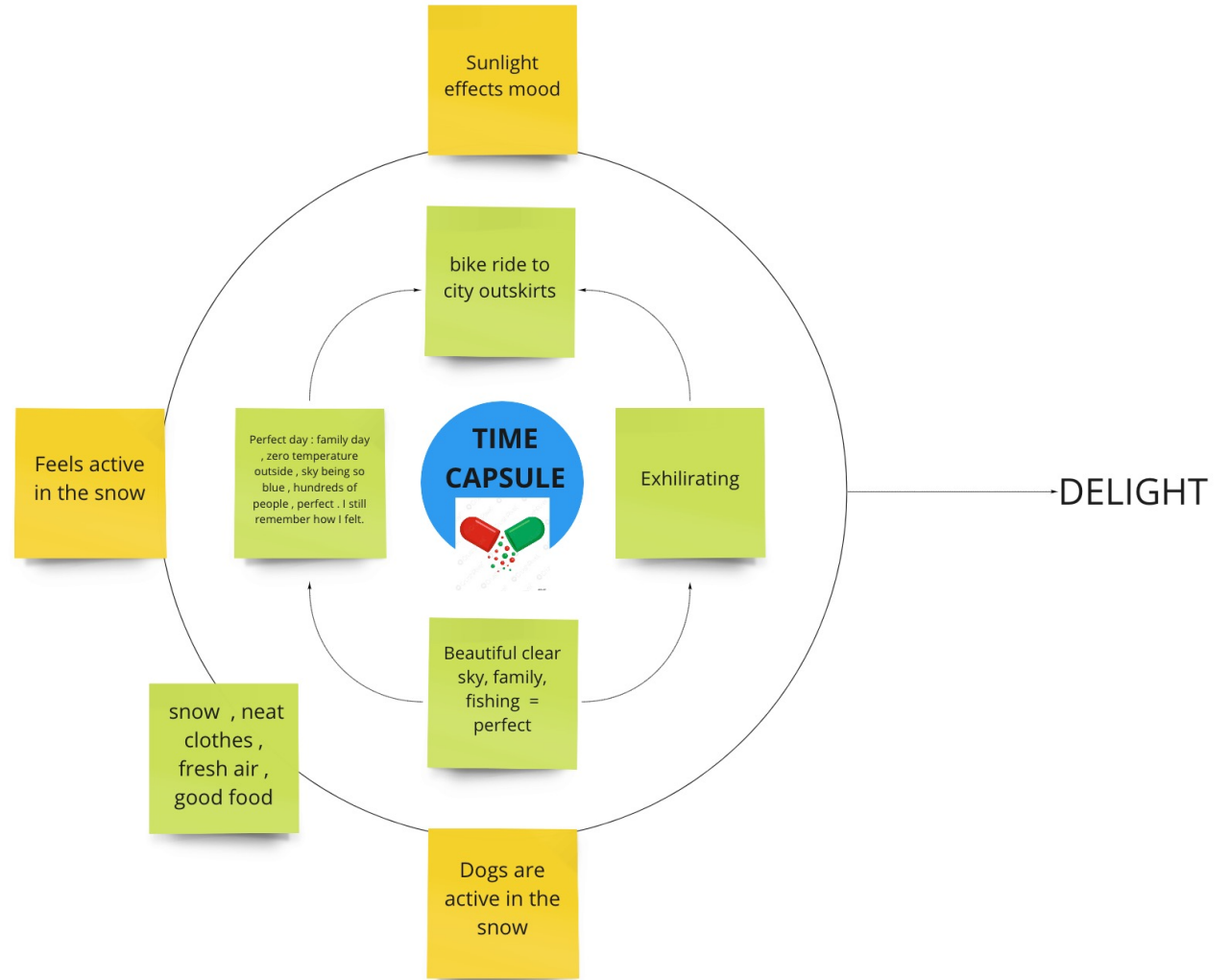
Linkage 1 : Radar as an experiential map

1. Plan for unpredicted , support for safety, Apprehend weather effects
2. Weather predictions Driving experience



Sensorial delight

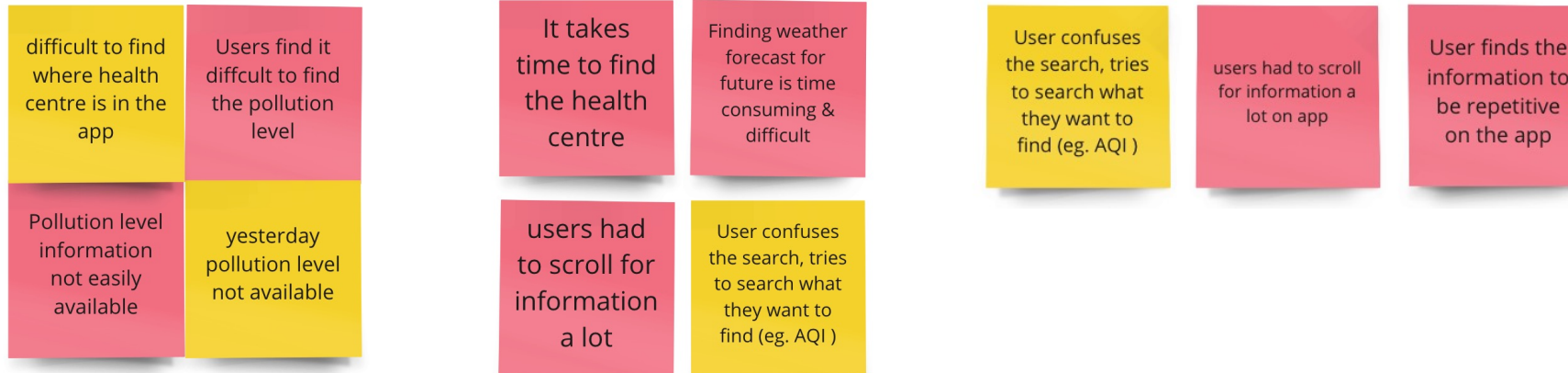
“ Rain sounds makes me feel of tranquility ”



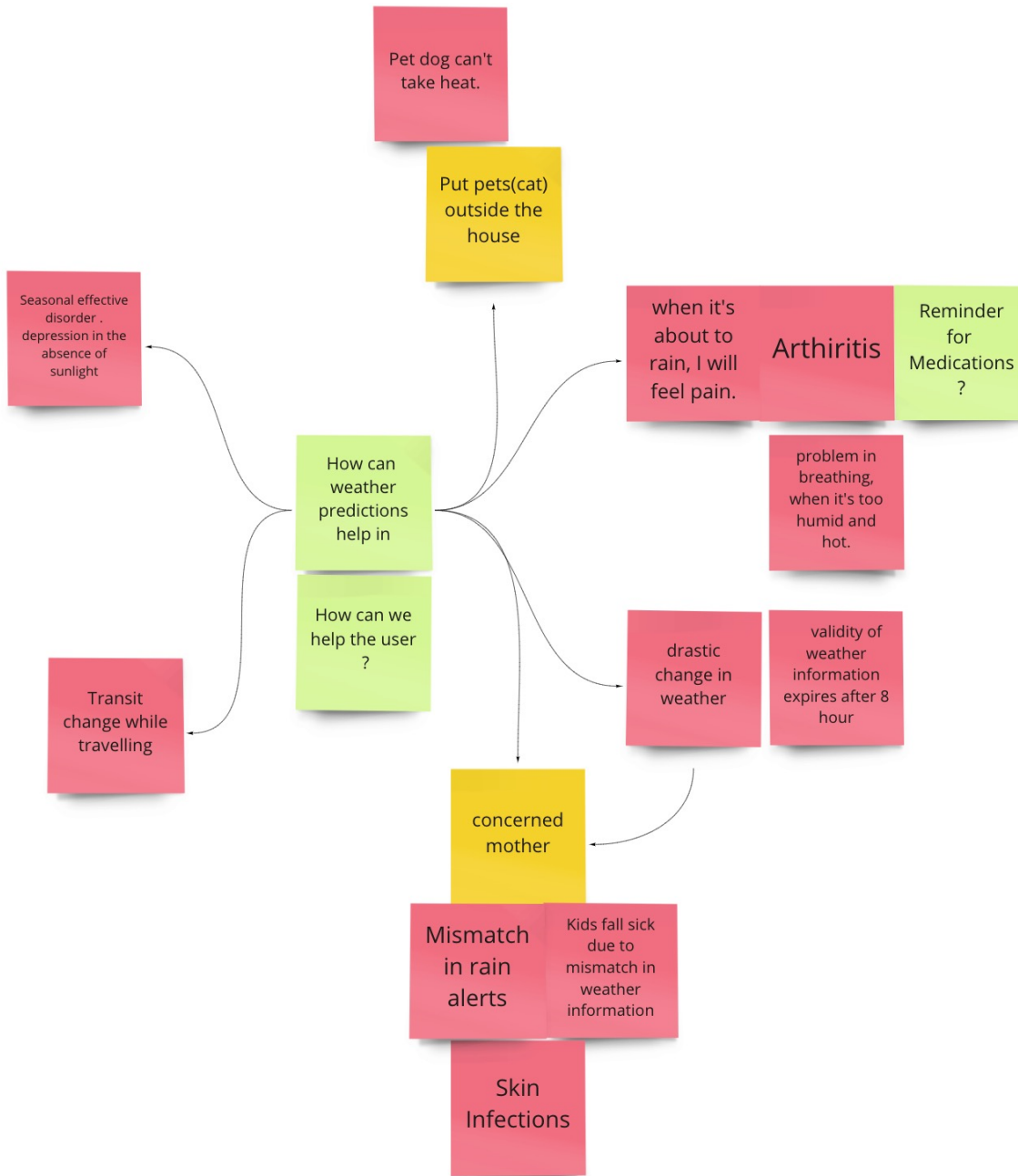
FINDABILITY

TIME

USAGE BEHAVIOUR



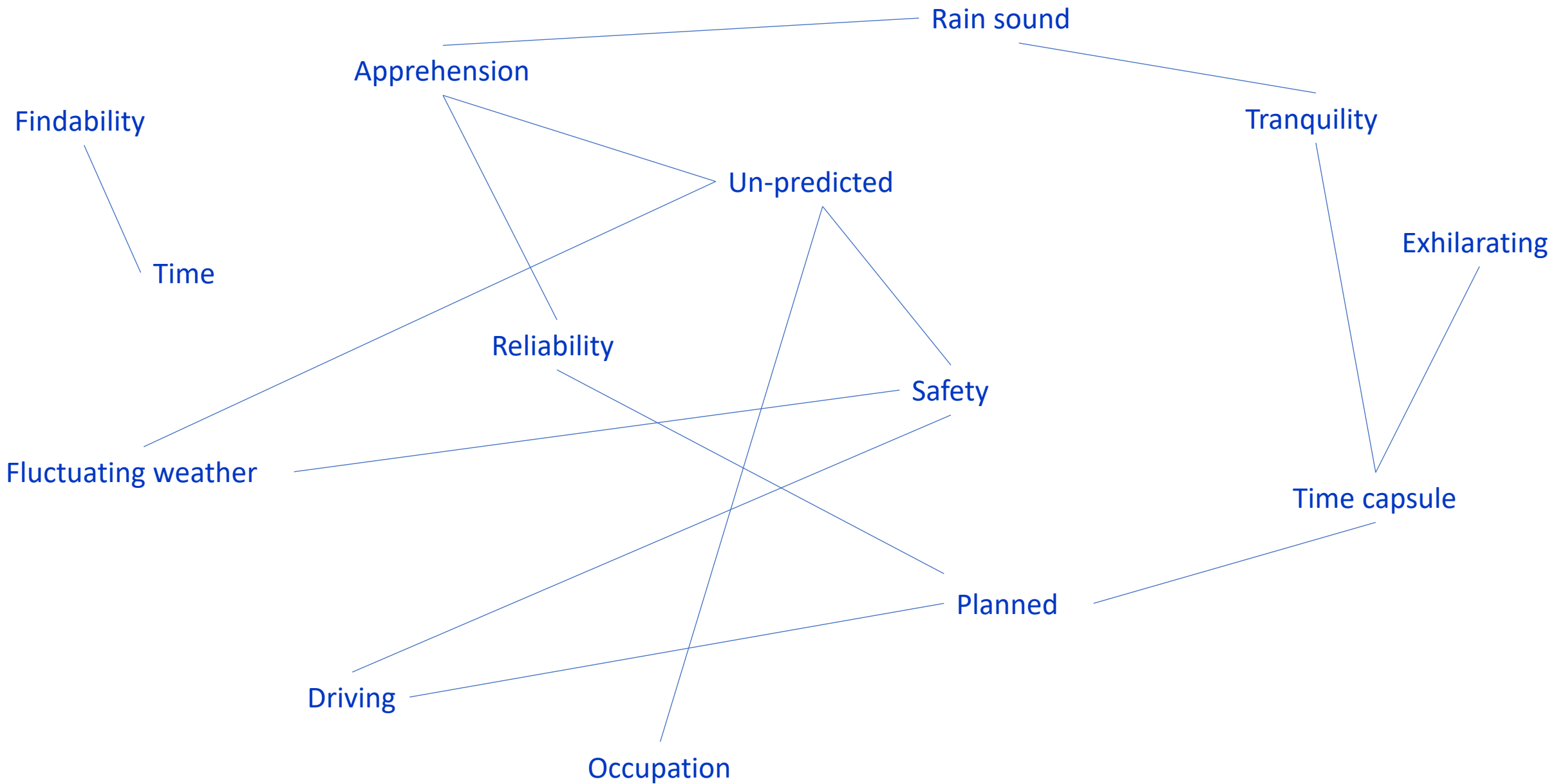
- Finding few features on the app was time consuming, users had to scroll a lot to find a feature (specially on today's page)
- User commented on information being *repetitive*.
- From users behaviour ,it seems that user can be prompted to find specific information by direct search.



Assistance for

- Concerned mother for kids in school
- Concerned pet lover
- Multiple **transit changers** (commuters)
- Weather recommendations on health issues.
- Weather for unpredictable job roles (outdoor activity requirements)
- Unexpected extension of driving hours (due to weather) while coming back from office.

KEYWORDS



PRELIMINARY PERSONAS

Chantal describing the exhilarating moment of a "perfect weather" from her memory, she calls it a "time capsule"

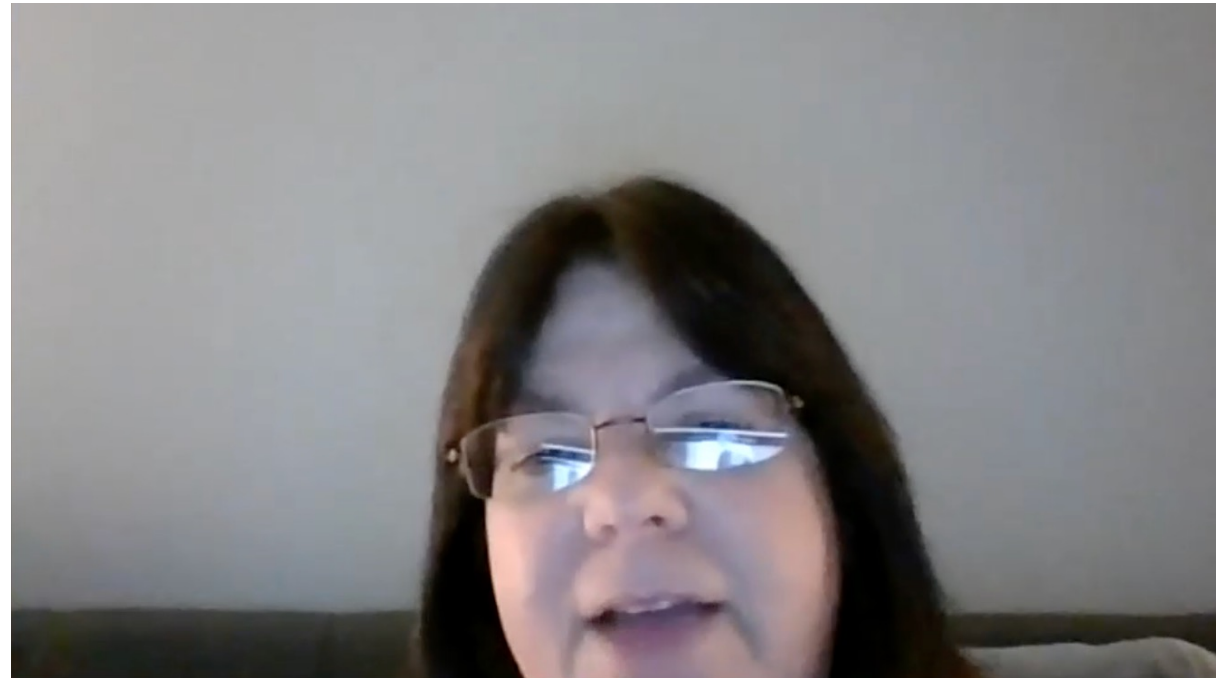


"When it's about to rain I feel pain"

Chantal
Canada
Management executive
Language translator

“ I need the sun to make sure that my solar lights are working ”

“ So, also I like that 10 day forecast, but they always say, especially Michigan, this is one of the hardest weathers to predict. ”



Kamila
Age 60
Michigan
Retired defense professional

*My dogs, I have a breed of dog that can't take heat, they just can't and one of them was sick this past he he got sick in March, and he died in August. And I had to take him to the vets every weekend that was a 90 miles drive. Because they would he had bone cancer and he would get treated once a week **and I have to check the weather, to make sure it wasn't too hot for him to travel.***



Ruari
42 yrs ,
USA , Ohio
Small business owner

“ Yes, I love the atmosphere around skiing you get to wear really neat clothes and good food, just have a good time and it's the snow is so clean I love it air is fresh it's fun. ”

"I did have one student talking about whether with me, he was from from Bangladesh he was very interested in whether especially extreme weather in the USA."

"The student, you know they think that the tornadoes or they're really cool rain. "



Corrina
39 yrs ,
Living in Manila, from USA
School teacher

" It starts with the impact of global warming on weather, maybe starts to really make an impact, especially when they start to see. You know the terrible storms and what they can do, and you know they see the pictures of the flooding and things like that, so I mean we hope that students now will be able to maybe to use this knowledge. "

“ Usually it takes 30 minutes to drive to my office , when it snows it extends to 1.5hrs to 2 hrs ”

“ If you're working on weather your application that will be nice to have something that is more reliable because I try a lot of application government application, private application etc. ”



Johanna
36 yrs
Canada
Marketing professional