

2017 National Air Quality Conference National Association for Clean Air Agencies (NACAA)

January 25, 2017



### Introductions

Kevin Brundage: EPA Emissions Inventory System

**Project Manager** 

Victoria Wasem: EPA Emissions Inventory System

Lead Business Analyst and Emissions SME



### Wearable Tech Providers











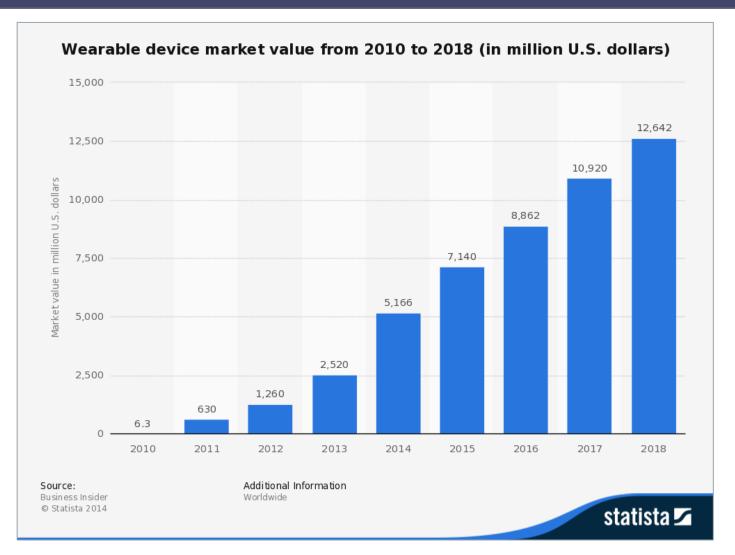






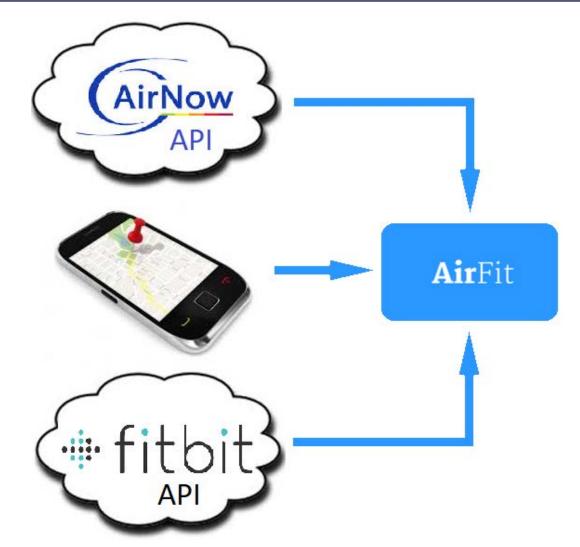


## Wearable Tech Growth





## **AirFit Architecture**





#### AirNow Data

AirNow API is publically available and receives real-time air quality observations from more than 2,000 monitoring stations and collects forecasts for more than 300 cities.

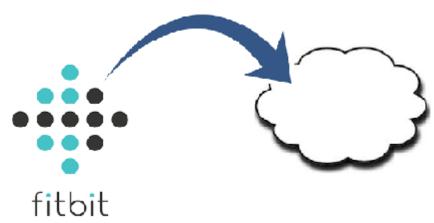
- Search for conditions by zip code or geographic coordinates
- Air quality forecasts and action days issued by air quality agencies.
- Real-time air quality observations by reporting areas
- Historical air quality observations by reporting areas
- Specify a distance range, and the web service will return information for the nearest reporting area





## Wearable Tech Data

- Daily Activity Summary
- Frequent activities
- Log activity
- Recent activities
- Favorite activities
- Body fat logs
- Activity goals





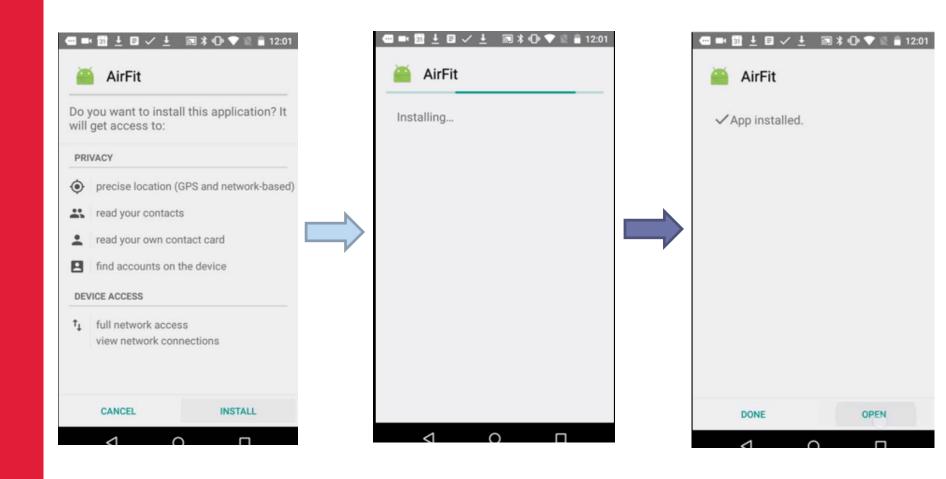
## Integrating AirNow and Wearable Tech

- View the number of steps taken compared to the air quality on a specific day
- Receive information about air quality in my area
- Track personal activity level per day over a period of time
- Track when you exercise indoors versus outdoors
- Choose your location to view air quality and the amount of activity you have in that location





# AirFit Workflow – Install App



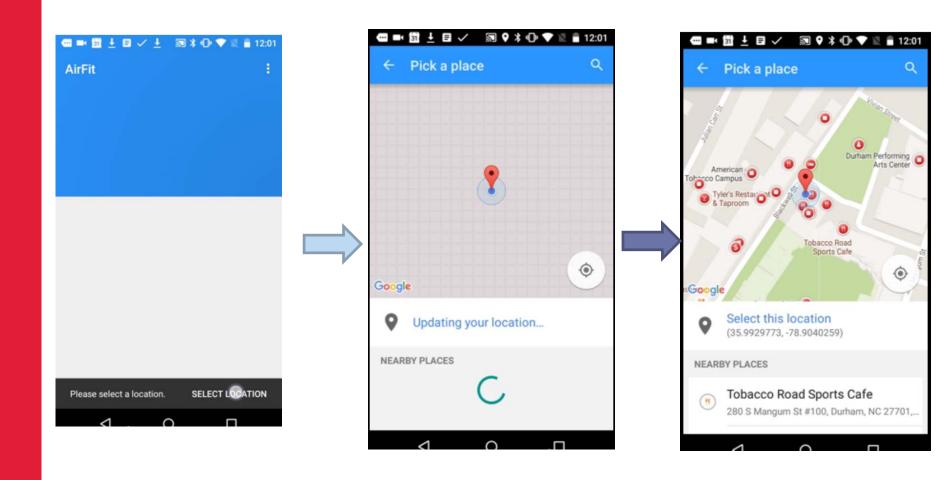


# Sign in with Fitbit





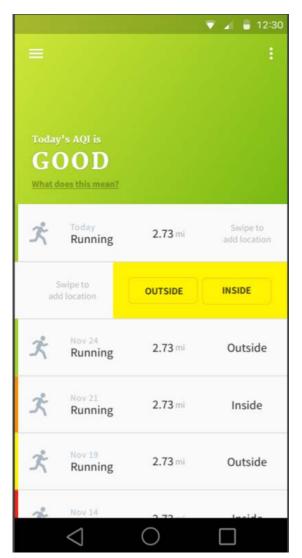
## **Select Your Location**





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## **AQI** and **Activity Level**



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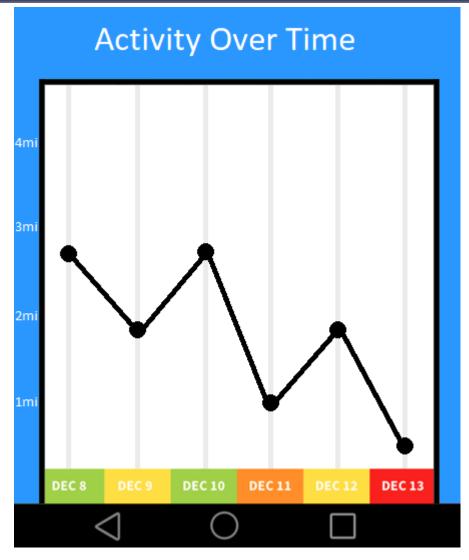








## **AirFit Metrics**





## As the public, you can...

- Understand AQI ratings and what it means to them and their activity choices
- Receive information on recommended exercise environments or suggested periods of time for when to partake in physical activity
- Make more informed choices for your health





## As the EPA, you can...

- Access accumulated data from the public who are using wearable fitness tracker technology to review activity choices
- Determine if there is any connection between air quality and physical activity
- Identify areas where infrequent exercise coincides with poor air quality

Recommend particular exercise environments based on a larger set of air quality data





## **Future Capabilities**

- Collect demographic data about the individual to personalize the recommendations and alerts
- > Show alerts when there is good air quality so user knows when to exercise
- Make recommendations for daily activities based on air quality and personal settings (e.g. allergies)
- Provide additional data regarding the specific pollutants and how they impact your recommended activity level
- Integrate with other types of wearable technology devices





