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An IBM Business!!!



our mission never changed:
 provide weather for all

1. Cultivate a **global neighborhood** of citizen meteorologists sending data from their backyard weather stations
2. Provide **hyper-local** weather forecasts, current conditions, and history by feeding the data from nearly 200,000 local stations into the models provided by **our meteorologists**
3. Make it available to **everyone**, not just people who happen to be near the 12,000 government provided stations, using simple and **intuitive data design**

Weather Underground is a website, an app, a TV show, and a data source.
 But most importantly, a neighborhood of passionate people who believe in **weather for all**.



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the largest PWS network in the world

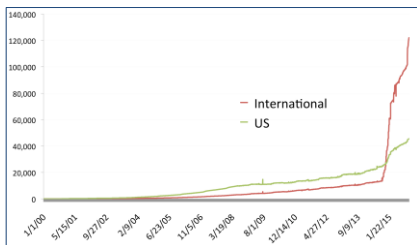


- 195k+ personal weather stations worldwide
- Earliest form of crowd sourcing via sensors
- 27% US, 73% international
- 123k stations added in 2015



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Growing Rapidly



Big Data is Noisy

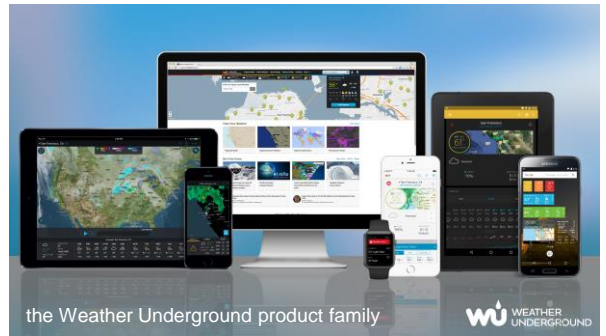
3 level real-time QC checks

- Range checks
- Stuck sensor
- Neighborhood cluster comparison





Visualization is Important

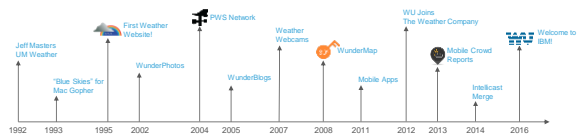


Mobile Crowd Reports

- 1-2 million reports each month
- 2 types: confirmation and hazard
- Used to corroborate observations and share reports of hazardous weather
- Huge potential in developing world
- Integrity challenges



an early innovator, challenging conventions



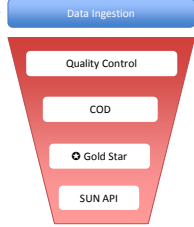
INTERNAL ONLY

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How WU PWS network works



Weather Station Data are
- **Pushed** to WU; or
- **Pulled** from Data Feeds



1. 200,000+ observations per minute ingested
2. QC every 10 minutes to remove bad data
3. Current conditions available on mobile, web & API
4. 20,000 Gold Star stations' data used to generate Forecast on Demand

