**Tutorial:**

* <https://community.modeanalytics.com/sql/tutorial/a-drop-in-user-engagement/>

**Strategic question:**

* What are plausible causes for the dip in engagement?

**Observations:**

* <https://modeanalytics.com/lucianocoviedo/reports/6d955d426245> 🡪
* Biggest drop off occurred during two weeks of July 27 and Aug 10, 2014;
* Typical patterns include peaks in the mornings, which also tapers down Monday through Friday with slumps on weekends;
* During the 2-week drop off, here are:
  + Top devices = Macbook pro, Lenovo Thinkpad, Macbook air, iPhone 5, Dell Inspiron;
  + Top locations = USA, Japan, Germany, France, UK;

**Recommendations:**

* Deep dive on top 20% of devices used before vs. during 2-week drop off and evaluate if/how any impacted from new features/updates;
* Deep dive on top 20% of locations from before vs. 2-week drop off and evaluate if/how any impacted from geo/cultural specific holidays/events;
* Deep dive on top 20% of active users from before vs. during 2-week drop off and evaluate if/how any impact from time as user;

**Analysis:**

* My questions ~ What are details around the dip? What does drop mean?
  + When - (time/days/weeks) are most active? Vs. the biggest drops?
    - % drop over time (hour / day / week / month)?
  + Who – (users) are the most active? Vs. the biggest drops?
  + Where - (locations) are most active? Vs. the biggest drops?
  + What - (devices) are most active? Vs. biggest drops?
* Hypothesis
  + Timing ~ Daily/weekly/quarterly timing interruptions
  + Location ~ Events impacted geo/country locations
  + Product ~ New feature impacted devices
  + Users ~
* Tutorial questions
  + Do the answers to any of your original hypotheses lead you to further questions?
  + If so, what are they and how will you test them?
  + If they are questions that you can’t answer using data alone, how would you go about answering them (hypothetically, assuming you actually worked at this company)?
  + What seems like the most likely cause of the engagement dip?
  + What, if anything, should the company do in response?
* Datasets (used first two)
  + Tutorial.yammer\_users
    - user\_id
    - created\_at
    - state
    - activated\_at
    - company\_id
    - language
  + Tutorial.yammer\_events
    - user\_id
    - occurred\_at
    - event\_type
    - event\_name
    - location
    - device
  + Tutorial.yammer\_emails
    - user\_id
    - occurred\_at
    - action
  + Benn.dimension\_rollup\_periods
    - period\_id
    - time\_id
    - pst\_start
    - pst\_end
    - utc\_start
    - pst\_start