Tableau Advanced Module

Working with Social Media Data

This class demonstration covers several ways in which social media data can be visualized with Tableau to support business decisions. Students are encouraged to follow along and/or take notes on the provided Student Handout. This topic uses the Excel file **Twitter Activity Metrics – Bakery Brand**, which is a full month of tweets (December 2015) for a fictitious company. This Excel dataset is in the exact format that the data comes in when downloaded from analytics.twitter.com.

*[[Note: instructors can expand this module if desired – the “Completed Twitter Examples” file in the instructor materials includes many more complicated calculated fields and many more example vizzes]]*

**Initial steps to prepare the Twitter data:**

* After importing the data, **try** to change the Time field to a Date. It doesn’t work – this data is not in a format that Tableau can handle automatically. So we will use the DATEPARSE calculation to fix the date
  + **Make a note** of exactly how this date is stored in the Excel file (write on board)
  + Go to a worksheet, create calculated field named “Date”: **DATEPARSE("yyyy-MM-dd hh:mm",[Time])**
  + (post this pre-reading for students: <http://kb.tableau.com/articles/knowledgebase/understanding-the-dateparse-function>)
* Create two Custom Dates (**right-click** Date, **create**, **custom date**):
  + “Day of Week” (select Weekdays, select Date Part)
  + “Hour” (select Hours, select Date Part)
* Next, we might want to differentiate between our organic tweets and the tweets we paid for (promoted tweets)
  + Right-click the data icon and **view data**. Note that there is a field called “Promoted Impressions”, and it sometimes contains only a dash. This indicates that it is an organic tweet (promoted impressions is irrelevant for this organic tweets)
  + Create a Calculated Field named “Organic Tweet?”: **CONTAINS([Promoted Impressions], "-")**
* So now we can distinguish between organic and promoted tweets. But Organic tweets can be either original posts or replies, and we need to distinguish between those
  + View data again, and this time note the @Reply field – organic tweets are sometimes replies
  + Create a Calculated Field “Type of Tweet”:

**IF [Organic Tweet?] = false THEN "Promoted Tweet"**

**ELSEIF [@Reply?] = true THEN "@Reply"**

**ELSE "Organic Tweet"**

**END**

**Twitter Visualization Examples:**

1. Do we receive more likes on certain days of the week? Create a **bar chart**:
   1. **Likes** to Rows
   2. **Day of Week** to Columns
   3. include an **Average** line from Analytics pane
   4. Show **Filter** for **Date/Time** (Select **Range of Dates**)
      1. You can also change to DAY (continuous) of Date/Time if you do not want to display hours, minutes, etc. in the filter
   5. Show **Filter** for **Type of Tweet**
   6. Spend some time exploring with the filters – what can we see about our Twitter activity
2. How many tweets did we send throughout the month? Create an **area chart**:
   1. Double-click Date/Time, change to continuous Day
   2. Double-click Number of Records
   3. Change Number of Records to Table Calculation **Running Total**
   4. Change Mark to Area
   5. Drag **Type of Tweet** to **Color**
   6. Customize Label to match instructor file (drag needed fields to **Label** on **Marks** card)
   7. **Reorder** areas in legend to have organic tweets on top
3. Are there certain times of day in which people like our tweets? Create a **box plot**:
   1. Use CTRL to select **Likes** and **Date/Time**, select Box Plot from Show Me
   2. **Move Year** from Marks card to **Columns**
   3. Drop-down Year and select **Hour** (discrete)
   4. Analysis menu, **uncheck** Aggregate Measures
   5. Drag right edge of viz out to widen the viz
   6. Right-click x-axis, select **Format**
   7. Changes **Dates** format to **12-hour**
   8. Drag **Day of Week** to **Filter**; since we want check boxes for days, click the drop-down on the pill and select **discrete**
   9. Check All and click OK, then use drop-down to **Show Filter**