**Does speed matter in E-commerce?**

[](https://ibit.temple.edu/analytics/files/2017/09/QVCHigh.png)

QVC provides its customers with a variety of product offerings around the globe. The largest market for QVC is currently the US.  In the US alone, QVC ships millions of packages each year to enrich its customers’ lives.  The future of fulfilling customer orders and meeting or exceeding their expectations is always at the forefront of QVC’s decisions.  One expectation is related to delivery speed.  Some retailers, primarily online retailers, focus primarily on quick turnaround on shipping goods to customers.  The faster the turnaround the more extensive the logistics/delivery network or the more costly it is.  QVC doesn’t just provide its customers with products, it prides itself on top notch customer service and a rich and rewarding overall experience.

Your challenge is to analyze QVC’s customer geography, distribution network, and product mix, purchase patterns and develop a visualization that contains useful information for QVC to use to understand what the relationship between speed of product/package delivery and customer loyalty is.

Your analysis should address one or more of the following questions:

* Does the current distribution network maximize customer penetration (spend)?  If not, what should QVC do to increase customer penetration with the current distribution network?
* Are there specific products or product categories that should be located in specific distribution centers?
* Do customers that receive their product sooner purchase more than customers with longer delivery times?

**Data:**

[**Click here for QVC Data**](https://www.dropbox.com/sh/m7hf33yzmbf4tqv/AADOPe8A3qyHCFacu79_kB8ka?dl=0)

This data is extracted and anonymized from QVC.

There are two options for using the data.  Those with experience and the technology needed to work with a large data set should choose option 2 below.  Those that are working just in excel should chose option 1 below.

1. A sample population was pulled from the larger data set and placed into the excel spreadsheet named “Smaller Sample set of QVC data”.
2. The large data set was broken up into six excel spreadsheets (named QVC data 1, 2, 3, etc) with less than 1 million rows each.  You may combine these spreadsheets and do your analysis on the larger set if you have the technology needed to do so.

There are also excel spreadsheet with the following information in them which applies to option 1 and 2 above:

* distribution center data
* order type data
* data dictionary

**How can you predict which movies will be a hit or a bust?**

[](https://ibit.temple.edu/analytics/files/2014/09/ComcastNBC2014.png)

Box-office forecasting is a challenging but an important task for movie distributors in their decision making process.  The global film industry shows healthy projections for the coming years, as the global box office revenue is forecast to increase from about 38 billion U.S. dollars in 2016 to nearly 50 billion U.S. dollars in 2020.  However, box office revenue is down 10% so far from 2016.  Leverage the data below to help determine the unexpected behavior of movies.

Your analysis should address one or more of the following questions:

* Why do some small budget films end up being blockbuster hits? Conversely, why do some large budget films fail?
* Do certain genres lend themselves to higher return? Horror, romantic comedies, science fiction?
* Do remakes, tent-poles and sequels perform differently?
* How does the time of year, weather and economic trends influence box office performance?

# How can you eliminate the harmful effects of smoking on society?

Cigarette smoking is the leading causes of preventable morbidity and mortality globally1,4.  Tobacco dependence is a chronic and relapsing disease which causes significant negative health, economic, and social consequences1. Currently, there are more than one billion smokers globally, leading to approximately 6 million deaths each year1.  The problem continues to grow – by 2030, the total number of smokers globally could reach 2 billion based on current population and smoking trends1.

The chronic nature of tobacco addiction has been creating significant social and economic challenges all over the world, including direct costs such as outpatient care and premature deaths, and indirect costs such as absenteeism, loss of productivity, and morbidity1.

Pfizer applies science and global resources to bring therapies to people that extend and significantly improve their lives.  In June of 2015, Pfizer and the American Lung Association® launched a mobile app and online community called Quitter’s Circle®2,3.  Quitting smoking is difficult.  68 percent of all smokers say they want to quit, and 40 percent will make an attempt to quit this year5 but it takes a smoker 6 to 11 quit attempts before they are completely smokefree6.  The intent of Quitter’s Circle® is to help smokers quit through educational, social and financial support.  Continued research is needed to determine if technology solutions can assist smokers in their quit journey.

Your analysis should address one or more of the following questions:

* How can technology play a proactive and supportive role in assisting patients to quit smoking?
* What are the attributes of the users that are most likely to leverage technology to assist in quitting smoking?
* What is the cost to society of smoking?
* What are some of the unexpected consequences of smoking?
* What are some of the barriers for people trying to quit smoking?

**Data:**

[**Click here for Pfizer Data**](https://www.dropbox.com/sh/fpm6jktomph97tc/AADxxcWVPvENOjQcEI_wQpGAa?dl=0)

* Quitter’s Circle App data- March – September 2016
  + Quitter’s Circle Users spreadsheet which includes attributes of users.  Each registered user is a unique line in this table. There is also a data dictionary tab which explains the fields.
  + Quitter’s Circle Events spreadsheet – events completed by a user.  There are multiple lines per user. There is also a data dictionary tab which explains the fields.
* There are quite a few cells with NA in them.  Part of the challenge is for you to determine what you should do with that data (or lack of).