**Article 1: Web Analytics**

Four main categories of metrics and relation to google analytics lessons:

* Web Site Usability - How easy is the website to use, page views, how long are people on the site, is the site easy to navigate
* Traffic sources - analyzing how people get to your site - do they arrive there through search engines, direct or indirect traffic, are users referred from a different site, etc
* Visitor profiles - geographical data, data on time of day people visit the site, do keyword searches result in visits,
* Conversion statistics - new visitors v. unique visitors, do visits result in completed sales,

The common techniques for Web analytics are:

• Clustering/classification - Clustering, or classification, is a means to developing profiles of items with similar characteristics.

• Association rules - Association rules are the ones that govern data warehouses “Big Data” of transactions where each transaction consists of a set of items.

• Path analysis - Path analysis is a technique that involves the generation of some form of graph that represents relation[s] defined on Web pages.

• Sequential patterns - This technique is applied to Web access server transaction logs. The purpose is to discover sequential patterns that indicate user visit patterns over a certain period.

Business applications of web analytics:

* Provide users dynamic information based on their interests.
* Design and evaluate promotional campaigns
* Avoid non-participating users.
* Provide better customer care and customer intimacy.
* Clustering/classifying users based on demographics and profiles within neighborhoods.
* Focus efforts on building relationships with loyal customers. Not everyone is a potential or desired customer.
* Matching available resources to visitor profile and usage. Amazon and Syracuse's advertisements appearing while surfing other sites.
* User Q/A topics and troubleshooting guides based on users' concerns

**Article 2: How eBay Uses Data**

1. What is an A/B test and what is its purpose?

A/B test are common in understanding user response to site or feature changes, and policy changes that come from different forms (user behavior data, transactional data, and customer service data). Empirically compare two experiments to determine optimal change.

1. Describe the three biggest challenges of web data

* Data at large scale, you need the proper infrastructure to handle data at such a large scale and you want to be able to respond to the data quickly. You need to account for the fact that larger data sets will deliver more extraneous information. You want to be able to keep a short response time to data despite the size of the data set
* Collecting the right data is essential. You need to be able to clean the data driven by bots or search engines or other extra sources of data that will skew your results and therefore alter your interpretations.
* New kinds of data - data that is derived from smartphones such as location data, video data, image data, etc has provided a wealth of information that was not available before. The data arrives in all different formats which is hard to compile into one format.

1. How can Power Sellers use data better?

Power Sellers are running their own analysis; running their own regressions and drawing their own conclusions

Large Scale Test

1. Why are web analytics better than surveys?

- Data trends to quantitative data from analytic processes. It reflects actual user performance versus a perceived interaction.

- Survey data can be skewed based on individual squeaky wheels.

- Likert-type scales in a survey can skew an individuals' measurement of enjoyment or dislike.

- Web analytics can measure the specific paths and choices users make. These same users would be unlikely or unwilling to share these insights through a survey.

- Survey data is still beneficial for identifying specifics of why a user left or why a user stays loyal.