# SQL PRESENTATION: Tabs! (and bookmarks...l guess...)! And Why!

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#### Problem

- Should we concentrate on revamping the bookmarks experience, or improve support for having a large number of tabs?
- Both indeed are important, however, given that there is more usage activity with the tabs than there is with the bookmarks, the priority should be given to improving tab support.

#### Data findings

- After an initial query regarding the amount of time those surveyed used Firefox, it is apparent that the majority (about 80%) used Firefox for 3 years or more.
- Another query found that approximately one third of those surveyed (about 34%) only used Firefox as their browser. Furthermore, a plurality of users used Firefox as their primary browser if indeed they used other browsers besides Firefox.

### Findings (Cont.)

- Female users in the survey were vastly undersampled and underrepresented, as a query regarding the gender of those respondents yielded an approximate measure of 93% respondents as male users of those who answered the question.
- Furthermore, the majority of users appear to be between the ages of 18 and 35, and the majority spend about 2 to six hours on the internet on any given day.

## Findings (Cont.)

- Upon closer inspection (and using "Join" three times), it became clear that the alleged "power users" actually use less tabs than those who are not "power users." Those non-power users actually use more windows than power users, albeit by a negligible average.
- Additionally the users in the study who use Firefox as their one and only browser only use about 2/3rds as many bookmarks as those who use other browsers.

### Survey Conclusion

- Because the initial findings of the Survey Data clearly show that the Survey DOES NOT represent the larger population of Firefox users, the survey data should be considered "Closed," and the focus should be on the usage data distributions and calculations.
- Based on the initial findings of the survey data, it is, however, very evident that people DO use tabs quite a bit, and they shouldn't be ignored AT ALL! In fact, Firefox power users use on average about 7.5 tabs, non-power users about 8.5 tabs on average.

#### Distributions

- The following graphs show distributions:
- The number of bookmarks detected on startup
- The number of bookmarks selected on instance
- The number of tabs selected on instance
- These graphs are somewhat misleading at first glance because some data was not "human-driven," as was discussed, but they do show insightful and valuable information, as well as the fact that tab usage is more prevalent than bookmark usage.

#### Number of Bookmarks Detected Upon Startup Max = 680, Median = 10, Average ~ 38.7 After Trimming to 300 for Sanity's Sake



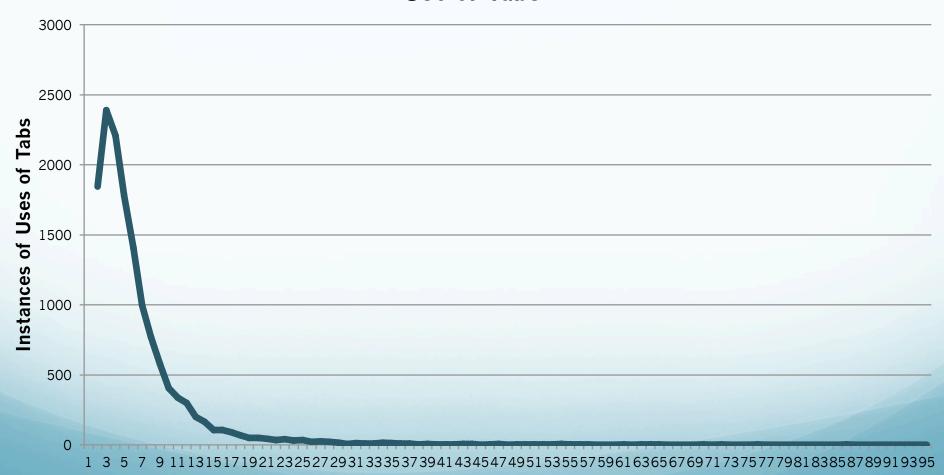
## Distribution of the Number of Bookmarks Chosen Maximum = 1342, Median = 30, Average ~ 128

#### **Amount of Bookmarks Chosen, by People**



## Distribution of the Number of Tabs Chosen Maximum = 2391 Instances at 3, Median = 4, Average ~ 5.75

#### **Use of Tabs**



**Number of Tabs** 

#### Calculations

- According to the data, simple division shows that approximately 2/3rds of the instances of use of tabs occurred well within the first 2-5 tabs.
- 70% fell between 2-6, and 87% of the instances of use of tabs occurred well between the values of 2-10 tabs.
- About 95% occurred between 2 and 15 tabs.
- About 43% of users used anywhere from 3 to 5 tabs, and the majority (57%) used 3 to 7 tabs.
- Just to reiterate, Firefox "power users" used about 7.5 tabs, whereas non "power users" used about 8.5 tabs on average.
- Obviously, tab 1 was not included, as one is necessary to open Firefox.
- This is in comparison to a median of 4 bookmarks used, and shows the prevalence of tab usage to bookmark usage.

# Assumptions and Limitations

- Because of the nature of the data, it was obvious that some of it was blatantly unrealistic, such as having 1,103 tabs open at one time, or having upwards of 675 Bookmarks detected upon opening the Firefox Browser. Computers and human error probably played a significant role in this.
- Averages were borderline useless, as they were greatly influenced by outliers. The Maximum was also unrealistic, as some values were generated by computers, not by people.
- The Median, the middle value, was much more helpful, as it was less affected by severe outliers.
- The "Max" operator in SQL was very helpful in cleaning the data, as it helped show a more realistic tab and bookmark count.

#### Conclusion

- Because there is significantly more usage with respect to tabs than there is with respect to bookmarks, I would agree with my colleague in that improving support for having a large number of tabs is a very worthwhile venture.
- This is not to say, however, that developing and revamping of bookmarks is not important, as it was found that the Firefox "Power Users" actually used less tabs than the other users, signaling an importance of bookmarks to those who may not be as familiar or experienced with the Firefox Browser itself, or to those who just prefer bookmarks to tabs.