## MixPanel presentation thoughts

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MixPanel, as a means to analyze how users interact with Primo, is easy to use and integrates visualization of information seamlessly into its interface. While it is simple to create new reports, it is also easy to modify existing reports to explore entirely new facets of how users utilize Primo: your own reports or existing ones created by others. It is easy to quickly expand or contract the information you are receiving and to set up boards where, at a glance, you can see the latest data from our users. This dynamic interface makes finding what you are looking for far simpler than was previously the case. I believe that it significantly lowers the barriers for users that existed with the earlier Analytics options provided by ExLibris so that now, essentially anyone can readily explore what is taking place within Primo on their own and following their own mental explorations rather than needing to rely on someone who had taken the time to master the interface to mediate both what they can explore and what they can discover. That said, like all other iterations of Analytics software that ExLibris has offered us for exploring Primo (and Alma for that matter), the software is not designed with libraries in mind and contains many aspects that are either non-useful to us within the library world, or do not function because we do not set out to garner the extensive demographic, financial and personal information about our users that most businesses desire. Also, at least within the current test setup, ExLibris has not had MixPanel examine all behaviors that take place within the realm of Primo, but only a selected array of such behaviors so that, at present, we can not examine Actions that we are able to examine within our current Analytics environment. It is my understanding that they will likely be included once we move beyond a test version of MixPanel, but as we can not currently test them, it is hard to say how that inclusion will operate.

There are 4 basic tools for exploring the data provided by MixPanel: Insights, Funnels, Flows and Retention.

Insights is essentially the traditional analytics approach—select what you want to examine: modify, explicate, limit as you choose, then look at the results both as data tables and as graphics—selecting the view that works best for you.

Funnels is aimed at seeing how many users who take one action end up taking other subsequent actions. While fine in principle, it is partially hamstrung in terms of what libraries are doing both because most of our users are not signed in and because there is no clear, ultimate action we want users to take. So, for instance, if we set it up to show, after running a search, what percentage of our users clicked on a facet within a given set of time, then clicked upon a display full record within a given time period, it is not really telling us anything about either the user's personal success at getting what they were after or our success in teaching them how to get what they are after. That is because success does not have to take place within the Primo environment (for instance obtaining physical items held within a library) nor does the original action have to have anything to do with the initial one (this is because funnels does not determine the relationship of the two actions, merely the proximity within time and their default time

period is set at a week). It allows us to follow varied patterns of behavior, but in a fairly limited fashion. To use this with any degree of relevance, one needs to keep the time periods very short.

Flows is perhaps the most intriguing and potentially useful means of understanding how our users interact with Primo. Selecting a given action, we can track the flows, forward and backwards, as many steps as we choose, to see how our users were navigating through our catalogs. Not only is it intriguing to examine this now as the data is currently set up, it will be equally interesting to see how our users behave once we can more fully follow their actions once all behavior taken within Primo is available for examination.

Retention, as it exists for us, is essentially meaningless. As most of our users do not have to sign in to interact with Primo, each time any of them do so they are viewed as a new, unique user. Thus, we can't really tell if users are turned off after one encounter and never use our catalogs again, or if they are coming back all the time. If a user does sign in, which I presume mostly happens when they are off campus and need to access some online material, then the subsequent actions of that user get tied to the historic actions from that user while signed in. Even among those signed in, Retention is not overly informative in the library context. If one of our users undertakes a research project and finds the resources they need, they do not necessarily come back immediately and continue doing more research. Often, they may not come back at all until weeks, or even months later when they have a new project. Strangely, what one can most readily see when running Retention reports is a relative picture of what percentage of users at a given institution reside on campus. In that sense, the differences between the three institutions whose data is currently present for us to observe are striking, but it is not telling us what MixPanel intended. They wanted businesses to be able to know how effective they were at getting and retaining users of their websites and the products and services they provided.

Similarly, MixPanel provides information on how long a user interacts, both in a given session, and over time, with a website. Drop off rate is a key metric they provide access to, but what does it mean in the context of an academic library? For us, if a user is seeking a specific item and immediately finds it, that would be good—but the implication seems negative when first viewed in MixPanel, making one wonder why our users give up so quickly. Alternately, lengthy sessions could be good, bad or neutral for our users. If they are out for extensive research and keep working through many searches and variations, that could be good if they are discovering ever more resources, or it could be bad if they are not really finding what they are after. As a result, drop off essentially tells libraries nothing, yet reminds us to make our own mental framework for the information MixPanel provides, not relying solely on their "weighted" terminology.

Events, Users and Cohorts—these are additional ways provided by MixPanel to view what takes place within Primo. Events is an intriguing, yet potentially troubling look at what is happening—real time—within Primo. With it you can examine how users are interacting with our catalogs—the searches they are making, the actions they are taking, and so on. If it is a signed in user, you can then access everything that user has done within a given time frame while signed in. This would be more troubling if we could readily identify users, but, while it is possible, if one has additional information about the searching someone specifically did, to identify a user and track all searching they have ever done while signed in (for example I have identified my own unique user ID number), mostly it is not because we, within the context of MixPanel—do not have any users. For MixPanel, users are ones with profiles—all

the information about someone that a company or website might obtain in the course of their interactions with a user, information given either voluntarily or in coordination with other entities that might have that information. We, as libraries, have intentionally tried to separate that sort of information about our users from the actions they take leaving us with, in the MixPanel sense, no users.

Since we do not have any users with profiles, all the tools MixPanel has to utilize that data, like their Cohorts which can be created by merely clicking on selected items in any of the graphical displays, do not work for us as MixPanel intended and have little obvious meaning. So, for instance, we can create Cohorts by clicking on some category in a graph—such as users who accessed a particular e-book—and then use that Cohort in some other search as a refinement to the results. While it might be possible that someone among us would find it of interest to link the propensity of those who took one action within our catalog to perform another unrelated action and compare that to those who did not take the first action, the utility of the information is far less obvious than it would be for businesses that are trying to maximize what they can get from their users. Thus, at least for now, in my estimation you can ignore any place you encounter Cohorts as an available limiter. All we know about our users is the categories we place them in (such as student, staff and faculty) and none of that qualifies within MixPanel to make them a user with a profile. Without such users, Cohorts merely provides us with interesting behavioral correlations, though feel free to play with those if you are so inclined—identifying unusual correlations can be fun.

Overall it has been fun to explore what MixPanel can do and I found myself far more inclined to continue exploring possibilities than I was with the previous Primo analytics options where it felt as if there was a finite amount of information and, once one chose to garner it all, there was nothing new to do-merely examine and report on the changes in behavior over time using the same reports. MixPanel opens up new possibilities for exploring behavior and garnering insights and, if we are allowed to continue to examine Primo behavior across the consortium, a powerful way of comparing the ways in which our varied Primo choices shape the ways in which our users interact with their own instance of Primo. Being able to look at University of Washington, Portland State University and Central Oregon Community College data, combined and separately, allowed me to garner new insights when examining data. Similarly, being able to follow how MixPanel recorded my own search behavior within Primo allowed me to test both what was being recorded and what was not in terms of individual actions, but also how order of actions taken in conjunction influence what is being recorded as having taken place—that was enlightening. Finally, seeming anomalies in what I was seeing in the reports—like users first action taken within Primo being to display a full record or download a book or article—showed me instead the degree to which permalinks, provided to users by others, are a prominent component of how our users interact with our resources and that many of our users may never search our catalogs, yet still access our resources. These are the sorts of insights that can be gleaned because we are allowed via MixPanel to see how our users interact with Primo from a variety of perspectives and that can be mentally stimulating.