Tableau vs Cognos: a comparison of "ad-hoc" vs "enterprise" business analytics platforms - a view from a University analytics office

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Summary

Our in-depth experience with both Tableau and Cognos Analytics (version 11) allows us to provide a hands-on comparison of both products, which will be of great interest to institutions considering either product (or both), or more generically, considering an ad-hoc tool versus an enterprise platform.

A proper comparison of any tool requires comparison of the business contexts in which they will be used. We thus compare the roles filled by ad hoc analytics tools versus enterprise analytics tools. In a University setting, Institutional Research (IR) offices often lead ad hoc analyses, whereas Information Services (IS) departments are generally charged with the enterprise perspective. There is an accelerating trend towards both these functions working together to plan and resource an integrated analytics platform that will support the campus of the future.

EXTENDED ABSTRACT

The Institutional Research (IR) office at the University of Regina (Canada) has been a Tableau user since 2006 and is currently leading a new University-wide installation of IBM Cognos Analytics (version 11). Tableau and Cognos are, respectively, exemplars of tools to support "ad-hoc analytics" (Tableau) versus tools which are oriented to a more comprehensive "enterprise analytics" platform (Cognos). The Cognos platform is also undergoing a major transition, from primarily reporting-oriented desktop tools (versions through Cognos 10), to a web-based development platform (version 11) that greatly expands the ad hoc functionality.

Our in-depth experience with both Tableau and Cognos Analytics allows us to provide a hands-on comparison of both products, which will be of interest to institutions considering either product (or both), or more generically, considering an ad-hoc tool (e.g. Tableau, MS Power BI, Qlik) versus an enterprise platform (e.g. Cognos, SAS, Information Builders). Since our University is a new installation, we have been highly exposed to the new (and rapidly evolving) functionality of Cognos 11. Our presentation should thus also be of interest to institutions already using legacy versions of Cognos (and evaluating version 11).

In addition to our direct experience with these analytics platforms, we feel that we are at the vanguard of an emerging trend – a much more prominent role of IR offices in implementation of enterprise-wide data analytics. This is exemplified by a very recent joint conference on "Enterprise Analytics" held by the primary U.S. higher education associations for Information Services (EDUCAUSE), Institutional Research (AIR) and University Business Officers (NACUBO), which included a joint statement by the Presidents of the three organizations, "Analytics as a Team Sport".

This emerging role of IR offices is generally due to their experience in bridging the gap between ad-hoc IR analytics, and the trusted enterprise data sources which are maintained by the Information Services (IS) department. In our opinion, a proper comparison of Tableau and Cognos requires a comparison of the typical roles filled by IR and IS departments in a University setting, particularly their respective responsibilities for ad hoc versus enterprise perspectives.

The interplay between enterprise / infrastructure and individual / ad hoc is a perennial tension in all management of information services, perhaps best exemplified by Eric Raymond's exploration of "Cathedral" versus "Bazaar". We will touch upon several examples of this tension to assist in understanding the implications of enterprise versus ad hoc approaches.

Due to varying environments and the path dependency of past choices, organizations vary widely in their individual interplay between ad hoc and enterprise needs – even among organizations that in many other ways appear highly homogenous (e.g. similar tiers of national University systems). Understanding these contexts is a key factor in planning and resourcing an integrated analytics platform that will support the campus of the future. Only then can a "next step" choice of actual products, such as Tableau versus Cognos, be made.

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After a twenty year career as a transportation economist, **Keith Fortowsky** became Director, Institutional Research at the University of Regina (Canada) in 2004. In June 2016 he was given the additional responsibility of Data Governance Officer. Keith has over 30 years of experience working to extract consistent and coherent meaning from large corporate datasets. He has an MSc in Agricultural and Applied Economics from the University of Minnesota.

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