

**Academic Technology Experience**

Analytics

*Fall 2022*

For more information, please email us at acadtechfeedback@umd.edu

**ATEX Team Description**

Newly established in 2015, the Academic Technology Experience Team (ATEX) team is committed to transforming academic and research practices through the thoughtful evaluation of patterns of technology use. To support this vision, we create data-driven insights by continually analyzing how faculty, students, and staff are engaging with technology, and use these data to inform everything from business decisions to scholarly research, to strategic plan~~n~~ing for evolving technology needs.

* The ATEX team has been recognized as a key partner in the design, dissemination, analysis, and communication of campus-wide surveys informing critical decisions surrounding physical classroom spaces, software licensing, wireless technology, research technology, the use of digital technologies, and most recently, [student, faculty, and staff](https://provost.umd.edu/covid-survey-results) transitions to online learning, teaching, and working practices. Results of our surveys are also made available to the UMD community through digestible Tableau dashboards, allowing for survey results to be more easily interpreted by a variety of stakeholders.
* We love to share data in ways that are dynamic, allowing interested members of the campus community to dive deeper into the data we make publicly available, with the goal of creating new, actionable insights within their own unique contexts. Information derived from these data are used to measure everything from student engagement to faculty satisfaction. Tableau dashboards have been created for seven of our most widely used academic technologies, including: [ELMS-Canvas](https://tableau.umd.edu/#/views/ELMS-CanvascoursesforUMD/ELMS-CanvasCourses?:showAppBanner=false&:display_count=n&:showVizHome=n&:origin=viz_share_link&:iid=1), [Panopto](https://tableau.umd.edu/#/views/PanoptoUMDusage/PanoptoUsage?:showAppBanner=false&:display_count=n&:showVizHome=n&:origin=viz_share_link), [Zoom](https://tableau.umd.edu/#/views/Zoom/ZoomMeetingsWebinars?:showAppBanner=false&:display_count=n&:showVizHome=n&:origin=viz_share_link), [WebEx](https://tableau.umd.edu/#/views/WebexusageatUMD/WebexSessions?:showAppBanner=false&:display_count=n&:showVizHome=n&:origin=viz_share_link), [Honorlock](https://tableau.umd.edu/#/views/HonorlockUsage/HonorlockUsageReport?:showAppBanner=false&:display_count=n&:showVizHome=n&:origin=viz_share_link), [Gradescope](https://tableau.umd.edu/#/views/GradescopeusageatUMD/GradescopeUsageReport?:showAppBanner=false&:display_count=n&:showVizHome=n&:origin=viz_share_link&:iid=3), and [Piazza](https://tableau.umd.edu/#/views/PiazzausageatUMD/PiazzaUsageReport?:showAppBanner=false&:display_count=n&:showVizHome=n&:origin=viz_share_link). We regularly provide [high-level overviews](https://infogram.com/1p77yeez7wlwrmazlkwegd973vsngexrm3q?live) of the usage of academic technology systems and services supported by the Division of Information Technology.
* Recognizing that the interface between students’ and instructors’ experiences with academic technology plays a key role in learning processes within both face-to-face and digital contexts, we engage in systematic learning analytic research with collaborators across campus to uncover statistical trends and patterns of technology use that have important implications for pedagogical practices. Notable faculty collaborators include Scott Moses (Senior Lecturer, Professional Writing Program), Dr. Tracy Tomlinson (Senior Lecturer, Psychology), and Dr. James Vaughn Green (Director, Entrepreneurship Education and Hinman CEOs and Senior Lecturer and Associate Director of MTECH). Results of our research partnerships have been recognized by top-tier peer-reviewed conferences and journals such as the [Psychonomic Society](https://drive.google.com/file/d/1t3OUSDBAy22yud-tP9zAW6PAwBVPARB7/view) and the [Society for Learning Analytics and Research](https://learning-analytics.info/index.php/JLA/index), where our most recent publication, “[The Positive Impact of Deliberate Writing course Design on Student Learning Experience and Performance](https://learning-analytics.info/index.php/JLA/article/view/6764)” was one of just two U.S. papers accepted for publication in a special issue of learning design and learning analytics.
* In addition to engaging in peer-reviewed, scholarly research, we also contribute to national initiatives focused on advancing higher education through the use of information technology. Most recently, a multi--institutional collaboration between the University of Maryland College Park and the Ohio State University discussing [Perceptions of Online Privacy at the Intersection of Teaching and Learning](https://drive.google.com/file/d/1l_5G3gy_C35_LHGywVIo-wfZ8m2GlpSl/view) was featured at the EDUCAUSE Learning Initiative annual conference. Our work, focusing on [Prototyping a learning analytics platform](https://infogram.com/educause-2019-1hkv2nkewdow2x3?live) and [Meeting your Campus’s Academic Technology Needs](https://infogram.com/2018-educause-poster-eportfolio-1ho16volpgw074n?live) was also featured at EDUCAUSE in 2019 and 2018, respectively. We have also been invited to speak about [Accessibility implications of personal technology bans in the classroom](https://drive.google.com/file/d/17J0l53Q57gaIEg13MBBjTZKwO-Vd4NJv/view) and [Evidence-based Leadership](https://drive.google.com/file/d/11C2SzxgBMonjfqWNB1pnuVznzi3SK5Fi/view) at the Women Advance IT Conference at the University of Nebraska-Lincoln in 2019 and 2018, respectively. We regularly communicate advances in ELMS-Canvas related [data infrastructure, querying, and processing](https://community.canvaslms.com/t5/InstructureCon-2019/Surfing-Learning-Analytics-on-Canvas-Without-Wiping-Out/td-p/384405) at InstructureCon, the premiere conference held by Instructure, the vendor that owns our Learning Management System, Canvas.
* It has been said that “data is the new oil” (a quote often attributed to the British mathematician Clive Humby). And like oil, data can be challenging to extract and needs to be refined into a usable form before it can truly power insight and innovation. Unlike oil, however, data is an ever-increasing resource. We employ data science / data engineering techniques and tools to help prototype the analytic pipelines needed to take advantage of the University’s data reserves. Our recent focus has been creating a pipeline for our Enterprise Learning Management System (ELMS-Canvas) data to support our learning analytic work. Over time, this workflow has moved from laptops to an on-premises server and is now transitioning to a cloud-based infrastructure. Our vision is to responsibly provide University partners and stakeholders with timely data in a secure environment to enable data-informed decision making. We have worked with others within DIT to build the server structure below as a prototype for storing and processing terabytes of data from ELMS-Canvas. Click [here](https://dev-it-umd.pantheonsite.io/analytics/initiatives) for our current prototype for extracting complex data from the ELMS-Canvas data system.
* We are committed to not just working with data, but to advancing UMD’s understanding of how data, considered in tandem with other data sources such as the Student Information System (SIS), student activity data (e.g., RecWell, Dining Services, Resident Life), and Institutional Reporting, can enhance our understanding of the holistic student experience. This mindset, in addition to our expertise in data visualization and storytelling, has allowed us to engage in high-level briefings across the University of Maryland community, such as the President’s Cabinet, the Provost’s Senior Staff, as well as at various governance and working groups.
* Recognizing the need for increasing data literacy across campus, we created a series of “data jams”, with the pilot including key partners from the Office of Institutional Research, Planning, and Assessment (IRPA, Alan Socha, Danielle Glazer), the Teaching and Learning Transformation Center (TLTC, Mary Warneka, Alice Donlan, and Tami Kopische Smith), and Academic Technology and Innovation (ATI, John Burke, Mark Breneman, Ana Palla-Kane, Jeanne Gregor, Sam Porter, Alia Lancaster, and Martyn Clark). The goal of the data-jam sessions are to facilitate a collective mission and vision surrounding data use, access, reporting, and visualization, and to elicit high-level discussions concerning the role of data in our daily work in support of the University’s strategic plan.

**Testimonials from our campus partners**

* “This is the best presentation of data that I have ever seen.” -President Darryl Pines (20Sep21)
* “This presentation was terrific. I love the way you so thoughtfully and clearly presented multiple sources of data related to the use of Panopto. These data will inform the basis of our future discussions" -Dr. Phillip Piety (14Feb22)
* “Megan, I’ve got to say, you present data in a way that is so compelling. The way you present data that allows it to truly tell a story is unparalleled.” -Provost Jennifer King Rice (15Feb21)
* “Megan, I heard your presentation to the ALF today and learned much from it.  I wonder if you would be willing to make a similar presentation to the Advance Professors (this is a group of full professors, all women, one representing each college, plus one for PTK faculty, who try to push for good policies and reforms in policy/structure and who work with faculty  in their colleges to help them thrive)." Professor Linda Steiner, Journalism, Director of Advance Program for women faculty
* “Thanks for the terrific presentation today.  I am looking forward to learning more about the effects of our test optional policy to inform future policy decisions.  This is a tricky analysis given the many factors at play, but the discussion today was a great start." Provost Jennifer King Rice (15Mar21)
* "You did a masterful job once again.  The conversation was terrific.  And, in several meetings since, the presentation was referenced again." Dr. Patty Perillo, Associate Vice President, Division of Student Affairs (09Mar22)
* “Martyn's presentation on graphical data warehouse organization was so interesting!” Data Jam participant (29Mar22)
* “Thanks for inviting us to join the Data Jam session (and for the free lunch)! Great work! I especially enjoyed the first group activity -- it was a great example about how you can come to different conclusions based on the data you have, and how challenging it can be to get direct measures of impact.” Danielle Glazer, data jam participant and IRPA Senior Research & Assessment Analyst (30Mar22)