Recommendations for Collaboration Technology at University of Illinois at Urbana-Champaign

FINAL REPORT OF THE COLLABORATION PORTFOLIO ADVISORY GROUP - JANUARY 2022

EXECUTIVE SUMMARY

The Collaboration Portfolio Advisory Group (CPAG) was charged in January 2021 by the Office of the CIO as an advisory body to support the planning for what is beyond Microsoft Skype for Business and related collaboration technologies.

Over the course of the past year, CPAG worked to 1) define collaboration in the context of our campus; 2) assess the current state and community sentiment of collaboration technology through conversations and surveys; 3) identify current strengths and gaps in this portfolio; and 4) develop recommendations for the future of the collaboration technology portfolio supported by campus.

The overall satisfaction with the current collaboration technology portfolio is positive. The migration away from Skype for Business has already begun, as several units have moved to other forms of collaborative communication. With few exceptions, our campus has the tools it needs to collaborate successfully, even in an increasingly hybrid work environment. In fact, some of our challenges exist because we have too many tools and platforms from which to choose, which fragments our ability to develop the skills to leverage a more focused set of tools. The portfolio lacks stakeholder governance to assess its evolution. Individual tools, while available, aren't supported with in-depth training within the context of our various faculty, staff, and student roles. External collaboration presents unique challenges due to an even wider set of tools used by other partners.

With this context as background, our recommendations include:

- Adopt Microsoft Teams as the primary communication and collaboration platform for UIUC.
- Maintain Zoom Pro licensing for all faculty, students, and staff in the short term.
- Maintain Box.com licensing.
- Create an IT Council-sponsored working group to identify a project management tool.
- Create an IT Council-sponsored working group to identify a virtual whiteboarding tool.
- Assign responsibility to a campus governance group to assess and manage the evolution of the collaboration technology portfolio.

- Provide resources to support central and unit-level IT teams to deliver consultative training on effectively using technology to enhance collaboration.
- Finalize FERPA Certification of Microsoft Office 365, One Drive, Exchange Online, and Teams.

Our full process, analysis, and recommendations follow.

PURPOSE, SCOPE, AND MEMBERSHIP

Purpose

The Collaboration Portfolio Advisory Group (CPAG) was charged in January 2021 by the Office of the CIO as an advisory body to support the planning for what is beyond Microsoft Skype for Business and related collaboration technologies. The purpose of CPAG is to gather campus perspectives and requirements to help shape the future of the collaboration technology portfolio intended to support the entire campus workforce and make recommendations for a collaboration technology strategy and suite of tools that will be sought and supported.

Membership

CPAG was comprised of faculty and staff from diverse units and functional areas. The complete membership of the group is available in Appendix D (p. 44)

Scope

CPAG worked in four phases between January 2021 and January 2022.

DEFINING COLLABORATION

For the purpose of our efforts and this report, collaboration is defined as **two or more people working together toward a common goal**. We identified three main categories of collaboration:

- **Transactional**: collaborations done through an established workflow as a regular part of administrative operations (e.g., team communications, HR processes, business workflows)
- **Short-term**: collaborations toward a common, defined short-term goal (e.g., event planning, strategic planning, class projects, ideation)
- **Long-term or ongoing**: collaborations over time with common groups (e.g., student organizations, project management, interdisciplinary research, teamwork)

Who collaborates?

We identified the following major collaboration participant categories in our discussions.

Internal Collaborators

- Faculty
- Staff
- Undergrad Students
- Residential Graduate Students
- Online Graduate Students
- International Students
- Professional Students
- Service Offices
- Post-Docs
- Non-Degree Students

External Collaborators

- Corporate Partners
- Government Partners
- Alumni
- Prospective Students/Families
- Professional Organizations
- Community Members
- Researchers
- Funding Partners
- University Partners
- Clients
- Vendors

What forms does collaboration take?

We identified major functional areas of collaboration. A detailed list of these forms within these areas can be found in Appendix C (p. 41)

We discussed that this list, while not exhaustive, approaches a laundry list of “all the things a university does.” We do not intend to expand the scope and definition of collaboration here, but rather acknowledge that a significant portion of university functions involve collaboration between faculty,

students, staff, and other parties. The distinction between what is collaboration, and what is not, lacks clear definition.

It is more productive, perhaps, to look at collaboration through the lens of the major interactions/functions involved in collaborations.

What are the major interactions/functions involved collaborations?

We identified the following major interactions/functions involved in collaborations that can be enabled by technology.

- Texting/Chat (synchronous and asynchronous)
- Content Sharing/Web
- Document Sharing
- Document Creation
- Workflow
- Audio Conferencing/Telephony
- Video Conferencing
- Team Collaboration
- Meeting Management
- Task/Project Management
- Data Sharing
- Conferences/Networking Events

ASSESSING CURRENT STATE AND SENTIMENT

Skype for Business Retirement and Skype2Teams Transition

Microsoft Skype for Business (SfB) is the current telephony tool for the UIUC campus and provides the major functionality (phone/chat) in our Microsoft Unified Communications platform. SfB Online was retired by Microsoft in July 2021. Campus Technology Services is maintaining infrastructure to support the continued use of an on-premise instance of SfB on campus until an alternative platform is identified. The retirement of SfB is the primary motivator of the formation of CPAG.

In fall 2021, Technology Services announced plans to transition from SfB to Microsoft Teams as an interim telephony solution in May 2023. Technology Services relied on advice from the Skype2Teams Steering Team in making this decision and defining the timeline. Microsoft Teams is Microsoft's next generation telephony and collaboration solution. Campus leadership approved the purchase of A5

licensing for all employees who previously had A3 licensing so that UIUC can use Teams for external calling. This A5 licensing also includes access to the Microsoft Power Platform (workflow automation) and Power BI (data visualization) for all full-time faculty and staff.

This transition and investment decision necessarily preceded our CPAG recommendations. The current Skype for Business 2015 on-premise implementation ended mainstream support in October 2020 and exists with only security updates and limited, costly support. This on-premise solution can only be maintained through October 2025 at the latest. Technology Services has recommended transitioning as quickly as feasible to a different solution. If CPAG were to recommend exploring a different telephony solution in January 2022, that would trigger a state-mandated RFP. RFPs of this size and scope could stretch 18-24 months before purchase, with another 9-18 months of technical implementation after purchase. Without transitioning to Teams, at least as a stopgap solution, campus would assume a significant risk of a gap where there is no campus or severely limited telephony solution available. The Skype2Teams transition removes this risk and provides campus with more time to make long term decisions with input from CPAG.

UIUC Collaboration Technology Survey

In Summer 2021, CPAG conducted the UIUC Collaboration Technology Survey to gather input from the university community. We promoted the survey through the CPAG website, multiple reminders in the eWeek newsletter, campus communicators, and IT Council. The survey aimed to identify collaborative relationships, assess sentiment related to using collaboration technologies, and measure use of different collaborative technology tools.

Full survey results can be found in Appendix A (p. 18).

The survey was completed by 1,153 participants, including 264 researchers, 186 instructors, 181 program staff, 500 operations staff, 131 grad students, 8 post-docs, and 8 undergraduate students.[1]

All major campus units were represented in survey respondents (Figure 1).

We are confident that the number of responses and diversity of unit and employee type provides reasonably good insight into sentiment and technology use on our campus. Because of the lack of student responses, we targeted a second survey to students in November 2021 (see p. 10).

[1] Participants can belong to more than one category.

Who do you collaborate with?

We asked participants to identify the groups with whom they collaborate (Figure 2). As expected, staff (87.3%) and faculty (77.9%) are the most common groups, followed by

- residential graduate students (46.8%),
- undergraduate students (41.7%),
- student organizations (41.7%)
- international students (38.5%),
- service offices (37.6%),
- university partners (35.9%),
- professional organizations (35.2%),
- vendors (34.8%), and
- external researchers (31.7%).

The responses here illustrate that while campus collaborators are more common, our collaboration activities often cross campus borders to external collaborators.

Sentiment Analysis: How do you feel about collaboration?

We asked participants to rate their agreement with several statements regarding collaboration and collaboration technologies on campus.

- Eighty percent of respondents agree completely or mostly that **it is easy to collaborate in their work**, with an additional 18% who agree somewhat (Figure 3).
- More than a third of respondents feel they **have to use different technologies than the campus supports/provides** to be an effective collaborator (Figure 4).
- Nearly one-third of respondents currently **have the technology they need to collaborate** and another 48% agree mostly with this sentiment (Figure 5).
- Only half of respondents feel completely or mostly that they are **aware of the technology available to them** for collaboration (Figure 6).
- Half of respondents agree mostly or completely that they **use Skype for Business as a part of their regular job** (Figure 7).
- Just over a third of respondents agree mostly or completely that **they use Skype for Business as a collaboration tool** (Figure 8).
- Eighty percent of respondents agree mostly or completely that they are **confident using technology to enable collaboration in their work** (Figure 9).
- Slightly over half of respondents agree mostly or completely that they **know where to get training on collaboration technologies** (Figure 10).

- Two-thirds of respondents do not agree that **technology is a barrier to being an effective collaborator**. An additional 25% agree somewhat to this statement (Figure 11).
- Eighty-three percent of respondents agree mostly or completely that **technology enables them to be an effective collaborator** (Figure 12).
- Nearly 72% of respondents agree completely or mostly that **they have enough IT support to collaborate successfully** (Figure 13).

We noted that these percentages related to sentiment vary widely by unit. Sample sizes for some units were small, so we are careful not to draw conclusions from this variance. However, the variance could be explained by differences in technology availability and awareness, training resources, or IT support among units.

What is the current level of collaboration tool use of university-supported platforms?

We asked participants to rate how much they use our current portfolio of campus collaboration tools.

Email remains a primary collaboration tool for respondents, with 95% reporting that they use Outlook or other email applications for collaboration every workday (Figure 14).

Skype for Business and Microsoft Teams are the two primary supported tools used for messaging and audio conferencing at UIUC. Skype for Business was a more popular everyday collaboration choice (41.5%) for respondents than Microsoft Teams (23.4%) (Figures 15 and 16). These percentages vary widely by unit. In units that moved to Teams for internal collaboration and communication to support remote work during the pandemic, the percentage of respondents who reported everyday Teams use is much higher. Nearly 70 percent of respondents have some experience with using Teams.

Nearly all respondents reported some Zoom use for collaboration, with 52% noting daily use and 86% using Zoom at least a few times a week (Figure 17). Zoom is the primary delivery platform for online teaching at UIUC and has also been the dominant video-conferencing platform for remote meetings and external conferencing during the pandemic. The current annual cost of Zoom Pro licensing for all faculty, students, and staff is $160,000. The contract is currently being negotiated. Anecdotal evidence suggests that Teams may be slowly assuming a larger share of remote meetings as it becomes adopted more widely.

Box.com, Google Docs/Sheets, Microsoft One Drive and Microsoft Office 365 are the platforms currently supported by Technology Services for document creation and storage. The university has contracts with all three providers (Box, Google, and Microsoft) to support these platforms.

The current Microsoft contract provides A5 licensing to most faculty and staff at an annual cost of $1,451,970. A5 licensing includes access to Exchange Online, Office 365, Power Apps, Power BI, One Drive, and external telephony. Our agreement also includes unlimited A1 licensing for other users and A3 licensing for all students. The current contract expires in June 2022, and is generally renewed in 3 year increments.

Office 365 (including Word, Excel and PowerPoint) is Microsoft's cloud document creation platform, and One Drive is Microsoft's corresponding document storage platform. All full-time UIUC employees and students have access to Office 365 and 5TB of storage on One Drive. Nearly 70% of respondents use Office 365 daily, while 85% use it at least a few times a week. Just 19% of respondents use One Drive at least a few times a week.

Box.com is primarily a storage platform. All UIUC employees and students have unlimited storage on Box.com. The current Box.com contract is maintained at the UI System level and runs through 6/30/23. The UIUC annual cost is currently $116,283. The UI System intends to renew this contract for an additional 2 years through 6/30/25. Box is FERPA-compliant and security-approved for sensitive data within specified guidelines.

Forty percent of survey respondents report daily Box.com use, and 90%+ use Box.com at least occasionally. It is the most common file storage solution on campus. Some units have moved all primary file storage to Box, replacing storage on on-premise file servers. A limited number of researchers have used Box.com to store large quantities of video and other research data, taking advantage of the unlimited storage available, especially in cases where other large data storage options don't satisfy needs.

The usage of Box.com and Office 365 aligns with general best practice recommendations of using Office 365 for document creation and Box.com for file storage.

Google Docs/Sheets is a hybrid document creation and storage platform. All UIUC employees and students have access to Google Workspace for Education Fundamentals, which is free. Google Docs/Sheets is used less often, with 19% reporting everyday use and an additional 20% using the platform a few times a week. Anecdotally and in free response survey answers, many express a preference for Google's ease of synchronous collaborative editing features.

What non-university platforms are used in significant numbers?

We asked respondents to "list any other technology solutions that you use for collaboration."

Slack was by far the predominant answer, with 15% of respondents reporting some use of Slack in collaboration. This use ranges from units who have adopted Slack as their primary messaging platform to occasional use when necessary to collaborate with other/outside groups that use Slack as their

primary communications platform. We conducted three focus groups to understand Slack use. Feedback from these groups included:

- Slack provides an easy-to-use interface that is broadly accessible to internal and external collaborators.
- Slack is an industry leader in the messaging application space.
- Slack is commonly used by external collaboration groups.
- Slack includes many native integrations with other collaboration and workflow tools.
- Slack offers ease of entry for their free tier of service. A new user can be added effortlessly to a Slack community.

We confirmed that Technology Services explored enterprise licensing for Slack, and the cost was considered prohibitive for the toolset. In April 2020, Slack had 12 million users, compared to 75 million users for Microsoft Teams.[2]

We noted that many of the features that Slack users noted as advantages of Slack are also available in Teams.

Other platforms/tools that were mentioned in significant numbers include:

- Project management (Asana, Trello, Basecamp, Airtable, Microsoft Tasks by Planner, Smartsheet)
- Braintstorming (Miro, JamBoard)
- Messaging/Conferencing (Discord, WeChat, WhatsApp, WebEx, GotoMeeting)
- Scheduling (Doodle)
- Document storage (Dropbox)

Where do technology, service gaps, or other obstacles exist?

We asked respondents, “Where do the technology or service gaps exist when it comes to collaboration at UIUC?” and “What non-technology obstacles to collaboration exist at UIUC?”

The following common issues were raised:

- The availability and use of multiple platforms by different units and external collaborators leads to confusion, fatigue, and difficulty in developing expertise in any platform. Comments included:
    - “I’m tired of using three different collaboration tools. It’d be great if it was all in one.”

[2] https://www.changingsocial.com/microsoft-teams-vs-slack/

    - "It seems like every college does it differently, and sometimes it's even done differently within the same college."
    - "Not everyone is using the same platforms, so it can be a logistical hurdle at the beginning of each project or collaborative venture to decide on tools and make sure everyone has access and adequate training."
    - "There are too many options! Today I wanted to connect with someone and first we had to decide if we would meet on skype/teams/zoom with voice or video. That's 6 options when we used to do a simple phone call.
- There is a lack of awareness of what's available and/or how to use it. Many respondents identified gaps for which available technology solutions already exist.
- There are no quality virtual whiteboarding or brainstorming tools.
- There is no centrally-supported project management tool.
- There is variability in the level of IT support provided across units.
- Training on supported platforms is lacking.
- Some external collaborators have trouble connecting to UIUC-supported platforms (Zoom, Teams)
- Unit and funding autonomy and lack of central funding leads to "haves" and "have nots" when it comes to technology.

Illinois Student Technology Platform Survey

Students were not specifically targeted in the UIUC Collaboration Technology Survey due to its timing during summer, so a student-centric survey was launched in November 2021 to gather input from students. We worked with Student Affairs to solicit participation from 5,000 randomly sampled students. The survey was completed by 105 students, including 66 graduate students, 39 undergraduates, 73 residential students, and 31 online students. We find it hard to draw definitive conclusions due to the low response rate but are providing the results here for reference and insight.

Full survey results can be found in Appendix B (p. 29).

Nearly all major academic units were represented in the respondents (Figure 22).

Who do students collaborate with?

We asked students to identify the groups with whom they collaborate (Figure 23). Faculty (51.4%) and other students – online graduate students (48.6%), student organizations (46.7%) undergraduates (46.7%), residential graduate students (40.0%) are the most common groups, followed by international (32.4%), staff (30.5%), and community members (14.3%).

How do you feel about collaboration?

We asked students to rate their agreement with several statements regarding collaboration and collaboration technologies on campus.

- Seventy-nine percent of student respondents agree mostly or completely that they **have the technology platforms they need to collaborate** (Figure 24).
- Nearly 58% of student respondents do not agree that **technology is a barrier to being an effective collaborator** (Figure 25). Nearly 1 in 5 students respondents agree mostly or completely with this statement.
- Half of student respondents report that **technology enables them to be an effective collaborator**. An additional 36% agree mostly with this statement (Figure 26).
- Nearly 52% of student respondents agree mostly or completely that **they have to use different technology platforms other than campus supports/provides to be an effective collaborator** (Figure 27). Just 1 in 4 student respondents disagrees with this statement.
- A strong majority (87%) of student respondents agree mostly or completely that **they are confident using technology to enable collaboration as a student** (Figure 28).
- Student respondents were divided when asked if they **know where to get training on collaboration technology platforms**. While 1 in 5 students agree completely, 28% do not agree at all (Figure 29).
- Student respondents agree more strongly that **they have enough IT support to collaborate successfully**. (Figure 30). Nearly 2 in 3 students agree mostly or completely with this statement.

What is the current level of collaboration tool use?

We asked participants to rate how much they use our current portfolio of campus collaboration tools.

When it comes to document creation/storage platforms (Figures 31-34), student respondents use Office 365 predominantly (51% every day), followed by Google Docs/Sheets (31%), Microsoft One Drive (27%), and Box.com (18%).

Eighty percent of student respondents reported using Outlook every day (Figure 36) and 46% used Gmail every day (Figure 35). For context, all students starting after November 2018 have been issued an Exchange (Office Online) email account. Prior to November 2018, undergraduate students were issued Gmail (Google) email accounts and maintain those accounts through graduation.

All UIUC students have Microsoft Teams and Zoom accounts via university licensing. Zoom is the primary delivery platform for online teaching at UIUC. One-third of student respondents report using

Zoom for collaboration every day, while 12% use Teams every day. Zoom is much more ubiquitous, as 46% of students report never having used Teams, while 99% of students use Zoom at least occasionally.

We specifically asked about usage of four popular messaging/collaboration platforms that are not directly supported by campus: Slack, WhatsApp, Discord, and WeChat (Figures 42-45). Three of the platforms had notable everyday use -- Slack (17%), WhatsApp (14%), and Discord (13%) – that is higher than that of Teams (12%). Campus has not promoted a preferred messaging platform (outside of email), so it is not surprising to see such fragmentation in usage.

We also asked students to report on their usage of the three main campus learning management systems (LMS): Compass 2G, Canvas, and Moodle (Figures 39-41). Compass 2G has been the predominant LMS, but campus is currently transitioning to Canvas as the campus-supported LMS. This transition is scheduled to be completed by Summer 2022. Moodle is offered as a service by the College of LAS and has been adopted by some colleges and academic departments as their primary LMS.

The Canvas transition is evident in the student responses. Nearly 47% of student respondents reported everyday usage of Canvas, while 23% use Moodle every day and 18% use Compass 2G. Nearly 78% of student respondents use Canvas at least a few times a week.

IDENTIFY CURRENT STRENGTHS AND GAPS

Based on the results of both surveys, conversations with service providers, and our discussions as a group, we have identified the following strengths in the campus collaboration technology portfolio as it exists today.

- Much of the campus community has positive sentiment about the state of collaboration on campus. Four in five respondents felt that it is easy to collaborate in their work, that they currently have the technology they need to collaborate, and that they are confident using technology to enable collaboration.
- UIUC was able to move to remote work during the pandemic and maintain business continuity because of the availability of collaboration technology platforms, particularly Zoom.
- A large portion of the campus has already started to move away from Skype for Business, which is scheduled for retirement in May 2023. Only half of respondents still use Skype as a regular part of their jobs and just a third use it as a collaboration tool.
- Improving university processes related to vetting the security of new technology platforms have decreased the risk to sensitive data and other data privacy issues.
- Box.com provides both unlimited file storage and has been vetted by campus security for storage of sensitive data.

We have identified the following as gaps in the campus collaboration technology portfolio as it exists today.

- State procurement policies and rules hinder the university's ability to be agile in acquiring new technology platforms that support operational excellence. This creates an incentive to maintain existing vendor relationships who have existing contractual agreements or reseller agreements through state-approved vendors. Procuring enterprise-level platforms outside of these existing agreements via RFP can be an 18-24 month process, a timeline that is unacceptable to meet emerging technology needs.
- There is too much variability between units in funding for technology, technology support, and training. This is particularly evident in the adoption of new technologies.
- The current proliferation of platforms and tools creates user confusion, dilutes potential expertise, introduces inefficiencies in collaborative processes, and puts university data at risk.
- There is no coordinated mechanism to govern the decisions surrounding collaboration technology at UIUC.
- Integrations between platforms and tools is sporadic.
- The lack of best practices and standardization in the use of cloud file storage (Box.com, One Drive, and Google Drive) introduces risks to business continuity and organizational ownership of critical information resources.
- Faculty and staff feel they regularly must use different technologies than the campus supports to be effective collaborators. Some of this sentiment can be explained by lack of awareness of supported tools, but this sentiment is strongest in the campus research community, where nearly 3 in 5 researchers agree mostly or completely that they have to use different technologies than the campus supports/provides to be effective collaborator. Researchers often have to use the platforms used by external partners to collaborate.
- Students are often using technologies other than campus provides or supports. This could be due to lack of awareness/training or general willingness to use multiple platforms that meet their needs.
- Platform transitions are not well supported, so faculty and staff have trouble adopting new technologies.
- Central training resources lean heavily on written documentation and general workshops, not consultative and/or customized training sessions.

RECOMMENDATIONS

Our recommendations are not intended to be exclusive. No standard and centrally-supported suite of collaboration tools will ever meet all use cases, and innovation and experimentation with new tools is a hallmark of a healthy technology ecosystem. Our recommendations here are intended to answer the question: Where should our campus invest resources in technology to ensure that faculty, students, and staff have the tools and training necessary for productive collaborations?

To that end, we recommend the following:

Adopt Microsoft Teams

Adopt Microsoft Teams as the primary communication and collaboration platform for UIUC, including external and internal telephony. Teams provides the natural transition from Skype for Business while remaining in the Microsoft ecosystem. Teams is fully integrated into Office 365 (including Exchange Online), the most used productivity suite on campus. Some campus units like Gies College of Business and the College of Education have been early adopters of Teams and have been pleased with the transition.

Campus leadership has approved the purchase of Microsoft A5 licensing to enable external calling in Teams as an interim transitional step, leaving open the possibility of CPAG recommending a move to a new collaboration and telephony platform. We do not believe that recommending an RFP process for a different platform is the right choice for campus. We believe that Teams provides a rich and continually improving feature set, ecosystem integrations, and a head start on full campus transition because of early adopters. Campus has an existing relationship with Microsoft that provides expert consultation and high-quality training resources.

There are prevailing negatives with Microsoft Teams, which we need to address.

- There is a current lack of integration between Teams tenants (platform instances generally corresponding to organizations). It is currently cumbersome for users to be members of more than one tenant, so campus users who may belong to professional organizations or other external collaborations that use Teams must switch back and forth between tenants. However, the public roadmap for Teams includes tenant integration in a single interface, which will remove this obstacle in 2022.
- Many external (and some internal) collaborations require campus users to use a different platform than Teams. We feel that this problem is inescapable, regardless of platform. There will always be external collaborators that use different platforms than our campus uses.
- Member management in Teams isn't fully automated. Rosters can be imported via campus Active Directory groups, but not synchronized thereafter. This makes it difficult to manage

membership based on role or enrollment. We recommend that Technology Services investigate and solve this problem to provide more automated member management in Teams.
- There is no standardized process for approving cross-platform integrations with Teams. This issue should be addressed by the portfolio governance group recommended below.

Microsoft Teams is an industry-leading collaboration platform with integrated telephony where Microsoft continues to invest resources for improvement. We believe that it can meet a majority of campus collaboration needs and therefore recommend that campus adopts and supports Teams as the center of our collaboration technology portfolio.

Related to this recommendation is Slack use on campus. Our conversations with Slack users revealed a passionate community that benefits from using Slack. Many Slack features compare favorably to Teams, but it lacks robust external telephony, full integration with the rest of our standard Microsoft Suite, and advanced levels of security, so we cannot recommend it as the primary messaging platform. However, we do recommend that campus performs a full security and privacy review of Slack. If this results in a favorable review, we additionally recommend that campus:

- allows continued Slack use because of its importance to external collaborations
- engages the Slack community to develop best practices around security and privacy
- explores the possibility of offering Slack Pro licensing through Webstore for those uses cases where Teams isn't a viable option

Maintain Zoom Licensing in the Short-Term

Maintain Zoom Pro licensing for all faculty, students, and staff in the short term. Zoom is our primary virtual education delivery platform and the predominant remote meeting tool for faculty and staff.

The need for Zoom should be closely monitored beyond 2023 as Teams is adopted more widely. It is likely that Teams video meetings will replace Zoom for most remote/virtual meetings as users become more comfortable with Teams. Teams also has large meeting and webinar functionality like Zoom. We recommend an annual assessment of the service redundancy between Zoom and Teams, with a long-term goal of retiring enterprise Zoom Pro licensing if Teams meets campus needs.

While beyond the scope of our recommendations, it's worth nothing that some units are already exploring what is beyond Zoom for the delivery of synchronous educational content. If this materializes into a new virtual education platform for campus, we recommend a faster exit from Zoom.

Maintain Box.com and Expand Integrations

Maintain Box.com licensing as cost allows or until organizational controls of document storage are more robust in Microsoft One Drive via Teams**.** Box.com is the predominant file storage platform on

campus and provides the most robust mechanisms for sensitive data storage and organizational control of document storage. Box.com allows for units, rather than individuals, to "own" the document storage hierarchy, greatly reducing the risks introduced by employee turnover.

Expand and allow full Box.com integration with Microsoft Teams. File storage and sharing is a critical part of collaboration, so our file storage solution must be fully integrated with our primary collaboration and communication platform. We recommend that IT Council sponsor a technical working group to explore and recommend an implementation path for this integration.

Identity and Adopt Project Management Tool

Create an IT Council-sponsored working group to identify a project management tool to be centrally-funded and supported. We cannot immediately recommend Microsoft Tasks by Planner (integrated with Teams) because it was beyond our scope to deeply assess project management needs on campus. It is one of the project management tools currently used on campus along with Asana, Trello, Basecamp, Airtable, and others.

Identify and Adopt Virtual Whiteboarding Tool

Create an IT Council-sponsored working group to identify a virtual whiteboarding tool to be centrally-funded and supported. Miro and JamBoard are two of the more commonly used tools on campus. We must identify and support a tool that replaces the physical whiteboard of the past. Our current and future hybrid workforce needs a tool that supports brainstorming, ideation, and design in a virtual environment.

Establish Ongoing Portfolio Governance

Assign responsibility to a campus governance group to assess and manage the evolution of the collaboration technology portfolio. When it comes to how technology enables our mission activities, we can't afford to leave ambiguous the ownership of the questions "Where are we and where should we be going?" Our needs and the technologies available to meet them change more rapidly than a task force every few years can reasonably address. We need a more iterative and adaptive approach that measures success, identifies and supports innovation, responds to emerging needs, and sees around the corner.

Invest in Consultative Training Resources

Provide resources to support central and unit-level IT teams to deliver consultative training on effectively using technology to enhance collaboration. Current training resources rely heavily on documentation (the knowledgebase) and generic live or asynchronous training sessions. While these general forms of documentation and training are important, they are not enough. Consultative training

services are closer to campus mission activities, helping groups understand how to leverage technology in their context. It can mean the difference between technology-enabled collaboration and technology-enriched collaboration.

Finalize FERPA Certification of Microsoft Platform

Finalize FERPA Certification of Microsoft Office 365, One Drive, Exchange Online, and Teams. Universities are tasked with certifying technology platforms for use with sensitive student data per the Family Educational Rights and Privacy Act (FERPA). Our campus has not completed the FERPA certification process for Microsoft platform tools, despite the regular storage and transfer of FERPA-protected data via Microsoft tools including Exchange email. Other universities, including UIC, have completed this certification process. There is no reason why our campus should not certify Microsoft platform tools, and we recommend that the responsible parties complete the process as quickly as possible to ensure our compliance.

APPENDIX A.
UIUC COLLABORATION TECHNOLOGY SURVEY RESULTS (N=1,153)

Figure 1. Survey Respondents by Unit

College/Unit	Surveys	% of Surveys	Researchers	Instructors	Program Staff	Ops Staff	Undergrads	Grad Students	Post Doc
OVCR	122	10.6%	45	2	5	66	0	0	0
Grainger College of Engineering	106	9.2%	47	26	11	41	4	15	3
Gies College of Business	103	8.9%	7	10	20	18	0	59	0
College of ACES	95	8.2%	21	16	15	41	0	2	1
Other	88	7.6%	31	3	2	38	0	2	0
Student Affairs	84	7.3%	2	5	40	34	0	4	0
College of LAS	75	6.5%	21	26	16	34	0	5	1
College of Education	64	5.6%	17	13	6	17	4	17	1
Technology Services	53	4.6%	1	1	0	53	0	1	0
College of Veterinary Medicine	43	3.7%	10	9	2	19	0	3	1
School of Social Work	41	3.6%	15	11	4	8	0	3	0
Facilities and Services	39	3.4%	0	0	0	37	0	1	0
School of Information Sciences	36	3.1%	15	18	5	12	0	7	1
College of Fine & Applied Arts	32	2.8%	1	4	12	14	0	0	0
College of Law	32	2.8%	13	19	7	6	0	0	0
Intercollegiate Athletics	21	1.8%	0	0	9	6	0	1	0
College of Media	20	1.7%	4	9	6	5	0	2	0
Graduate College	19	1.6%	1	2	7	3	0	8	0
Carle-Illinois College of Medicine	16	1.4%	0	3	2	10	0	0	0
CITL	15	1.3%	3	1	4	10	0	0	0
University Administration	14	1.2%	0	0	1	12	0	0	0
University Library	14	1.2%	6	5	0	6	0	0	0
	11	1.0%	2	1	4	3	0	1	0
College of Applied Health Sciences	8	0.7%	2	2	2	5	0	0	0
School of Labor and Industrial Relations	2	0.2%	0	0	1	2	0	0	0

Figure 2. Collaboration Partners

898	77.9%	**301**	26.1%
Faculty		Corporate Partners	
1006	87.3%	**318**	27.6%
Staff		Government Partners	
481	41.7%	**247**	21.4%
Undergraduate Students		Alumni	
540	46.8%	**176**	15.3%
Residential Graduate Students		Prospective Students	
354	30.7%	**406**	35.2%
Online Graduate Students		Professional Organizations	
444	38.5%	**331**	28.7%
International Students		Community Members	
278	24.1%	**365**	31.7%
Professional Students		External Researchers	
481	41.7%	**291**	25.2%
Student Organizations		Funding Partners	
433	37.6%	**414**	35.9%
Service Offices		University Partners	
305	26.5%	**304**	26.4%
Post-Docs		Clients/Customers	
139	12.1%	**401**	34.8%
Non-Degree Students		Vendors	

Sentiment Analysis

Participants were asked to “Please select your level of agreement with the following statements.”

Figure 3. Sentiment: It is easy to collaborate in my work.

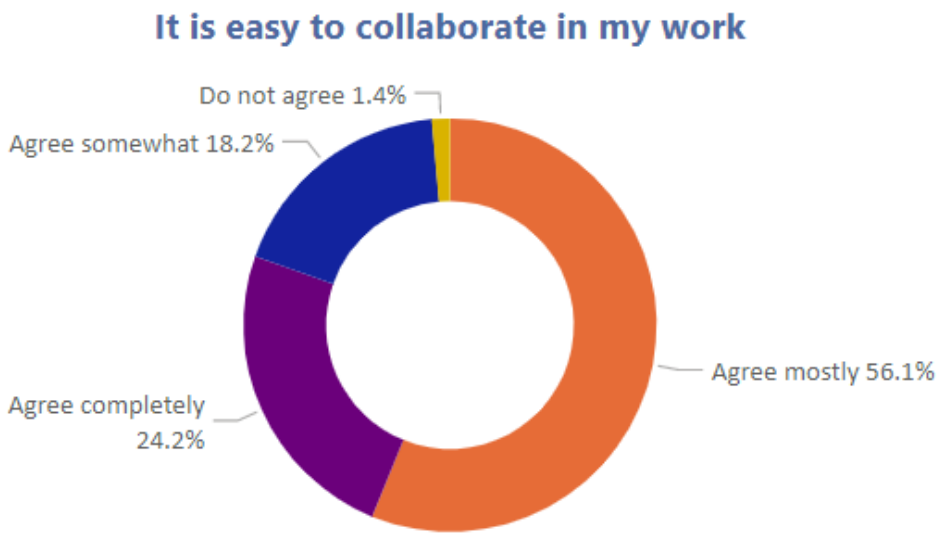


Figure 4. Sentiment: I often have to use different technologies other than the campus supports/provides to be an effective collaborator

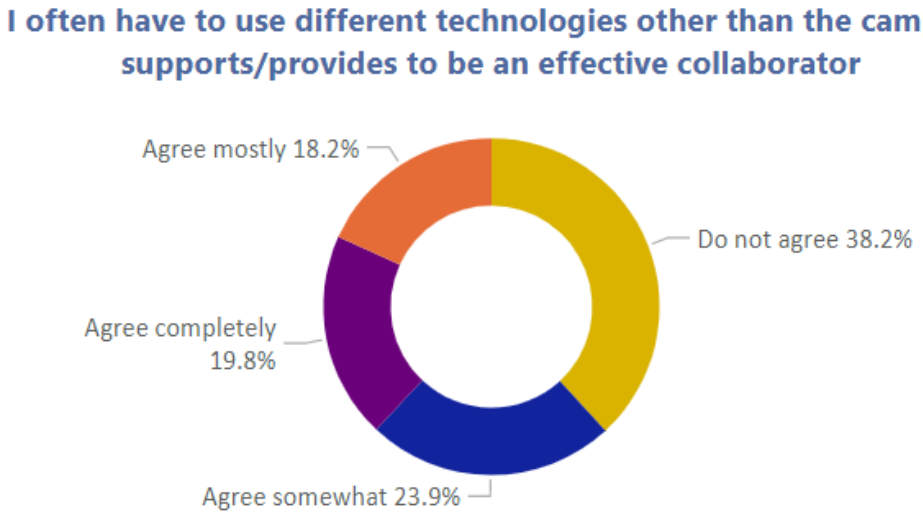


Figure 5. Sentiment: I currently have the technology I need to collaborate as part of my job

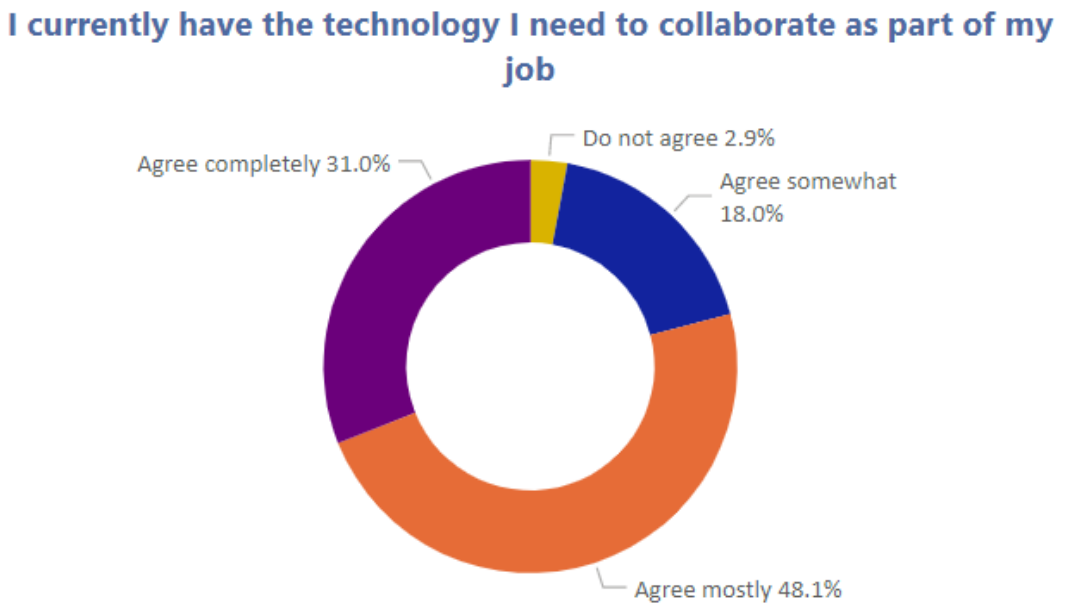


Figure 6. Sentiment: I am aware of all the technologies I have available to me at UIUC for collaboration

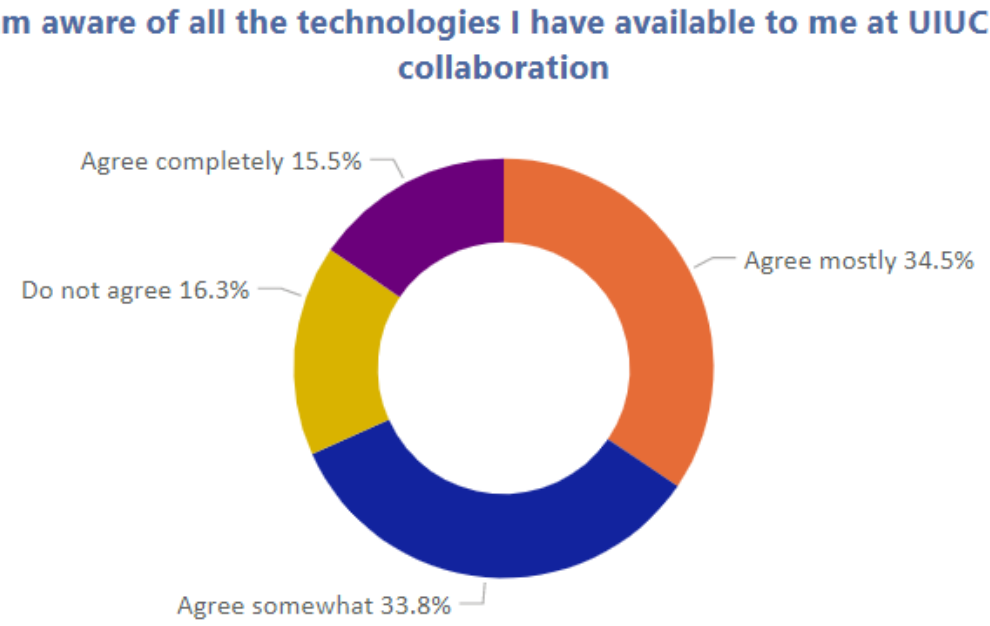


Figure 7. Sentiment: I use Skype for Business as a regular part of my overall job

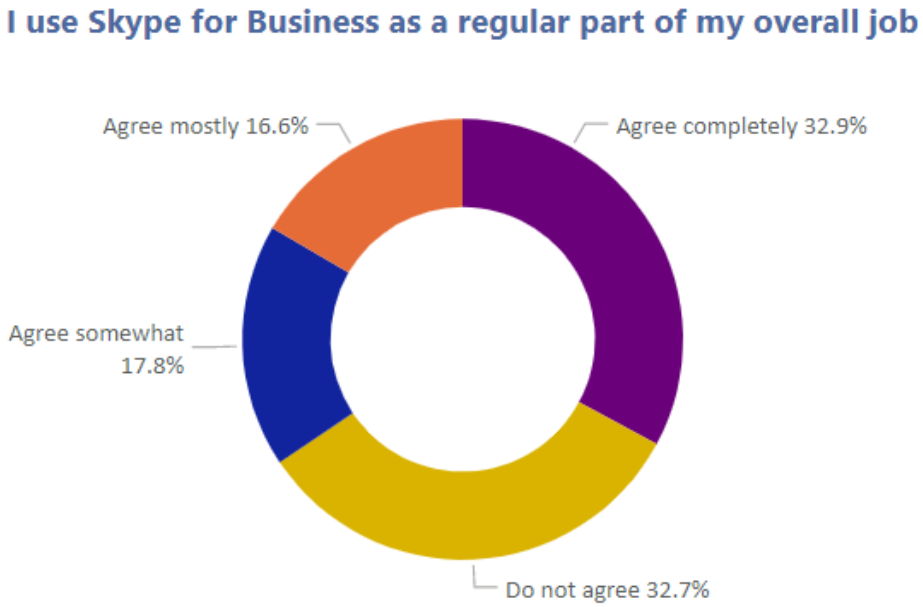


Figure 8. Sentiment: I use Skype for Business as a collaboration tool

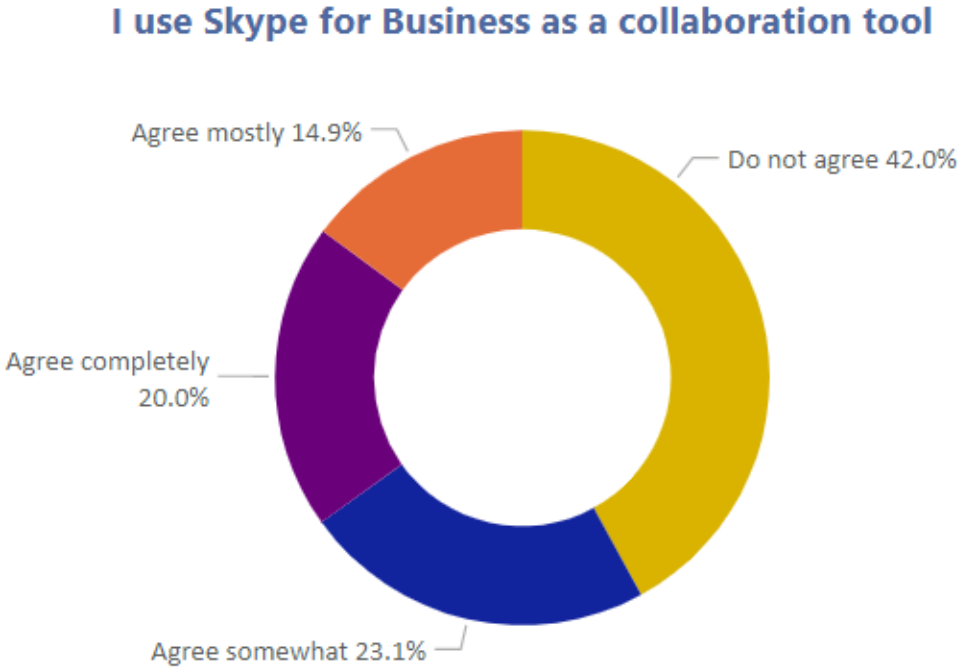


Figure 9. Sentiment: I am confident using technology to enable collaboration in my work

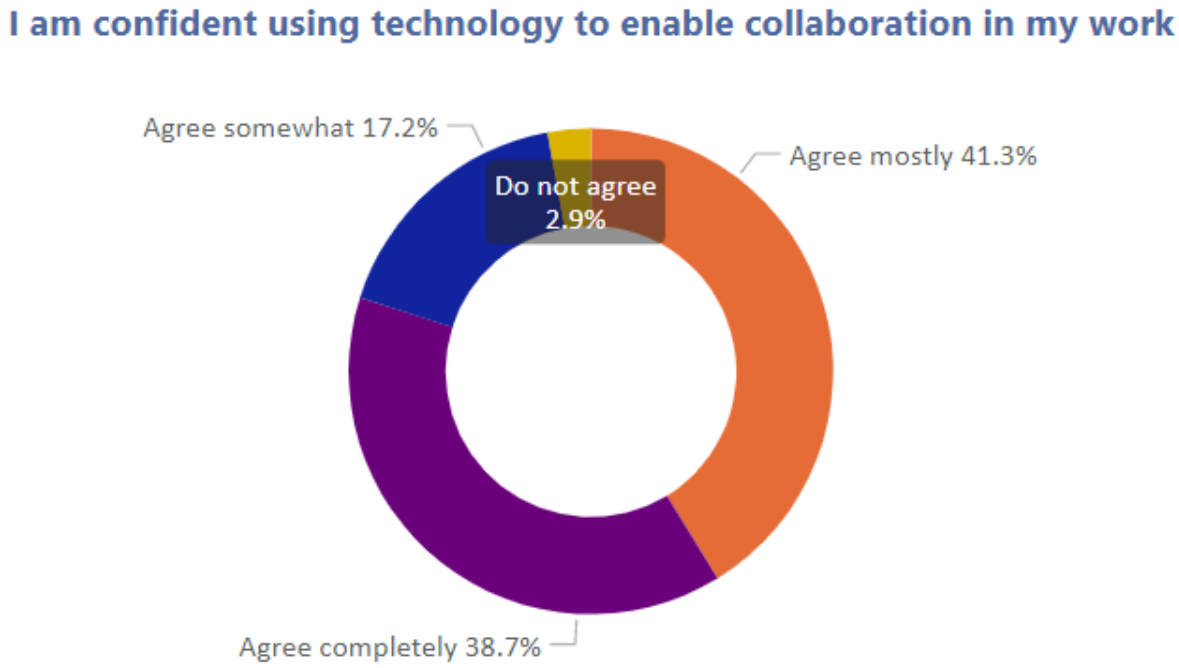


Figure 10. Sentiment: I know where to get training on collaboration technologies

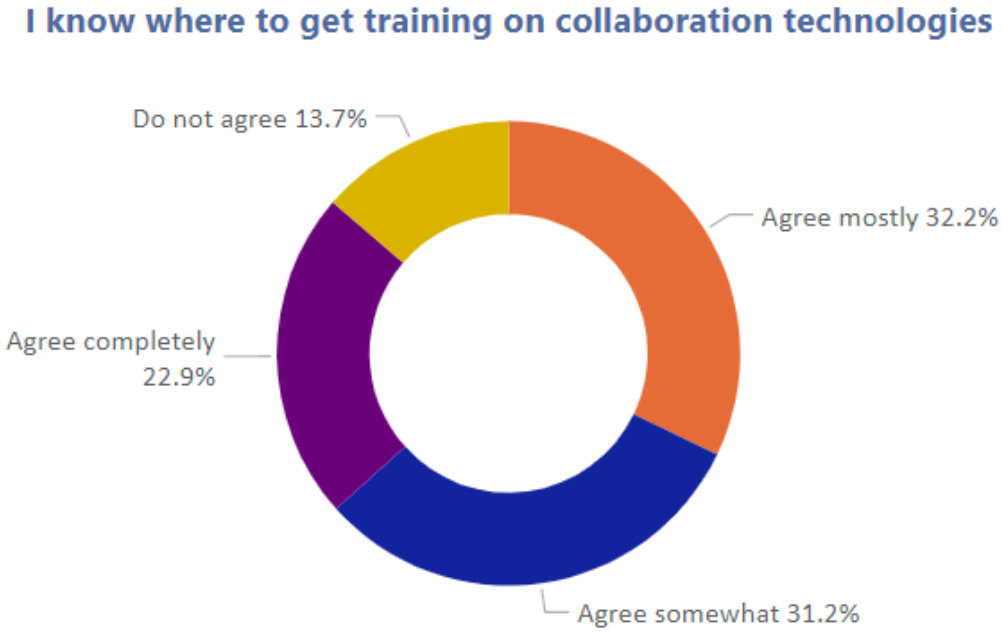


Figure 11. Sentiment: Technology is a barrier to me being an effective collaborator

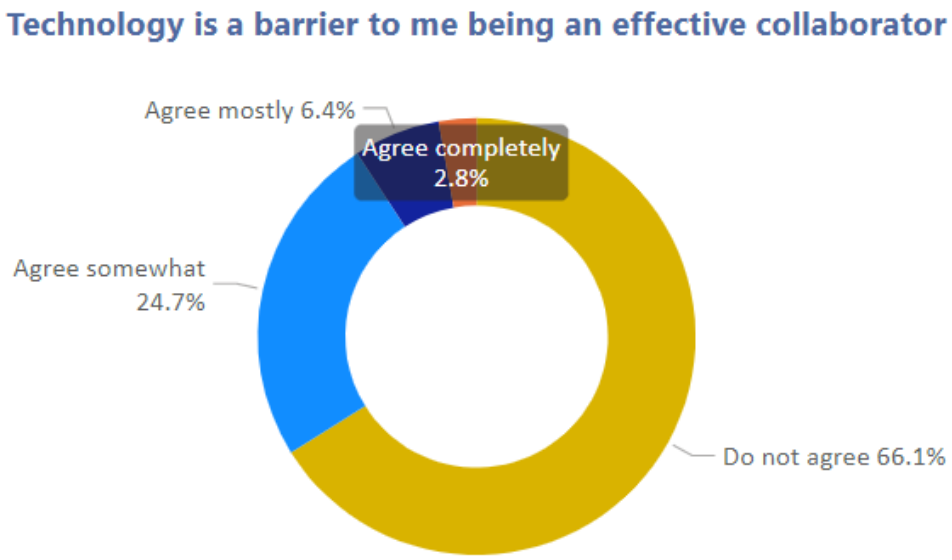


Figure 12. Sentiment: Technology enables me to be an effective collaborator

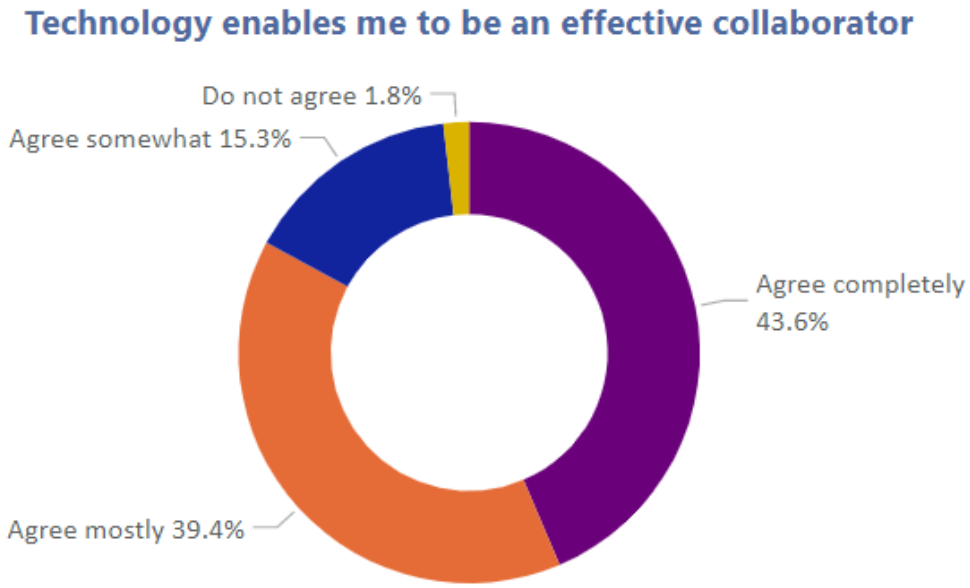
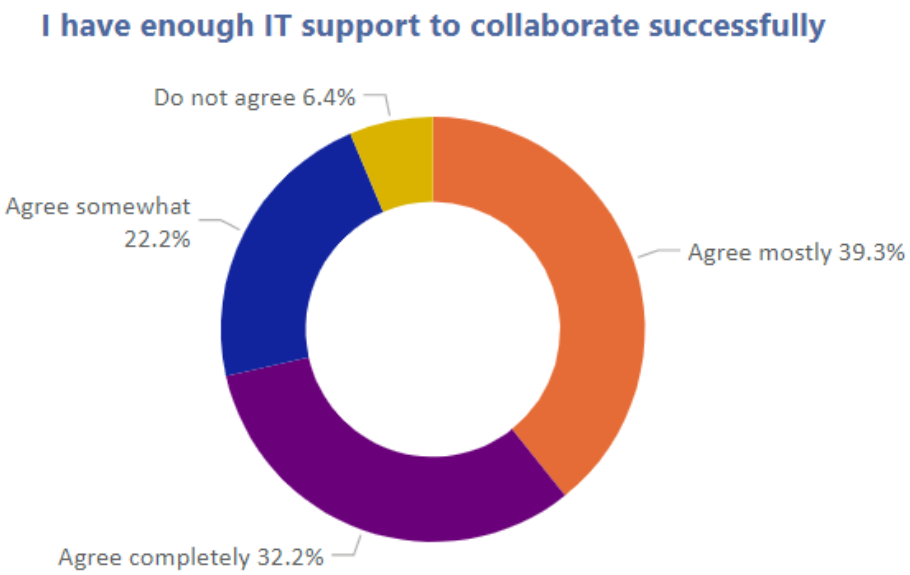


Figure 13. Sentiment: I have enough IT support to collaborate successfully



Platform/Tool Usage

Participants were asked “How often do you use these university-provided technology platforms for collaboration?”

Figure 14. Usage: Outlook/Email

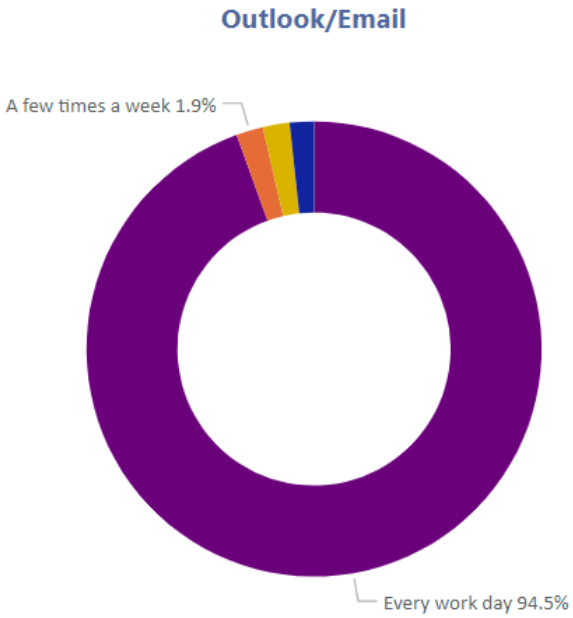


Figure 15. Usage: Skype for Business

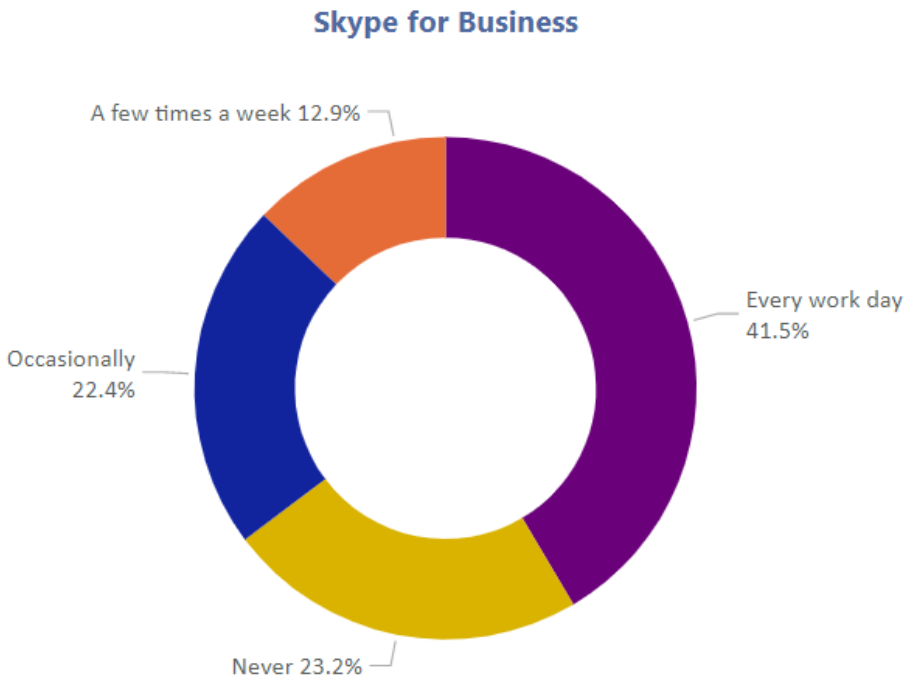


Figure 16. Usage: Microsoft Teams

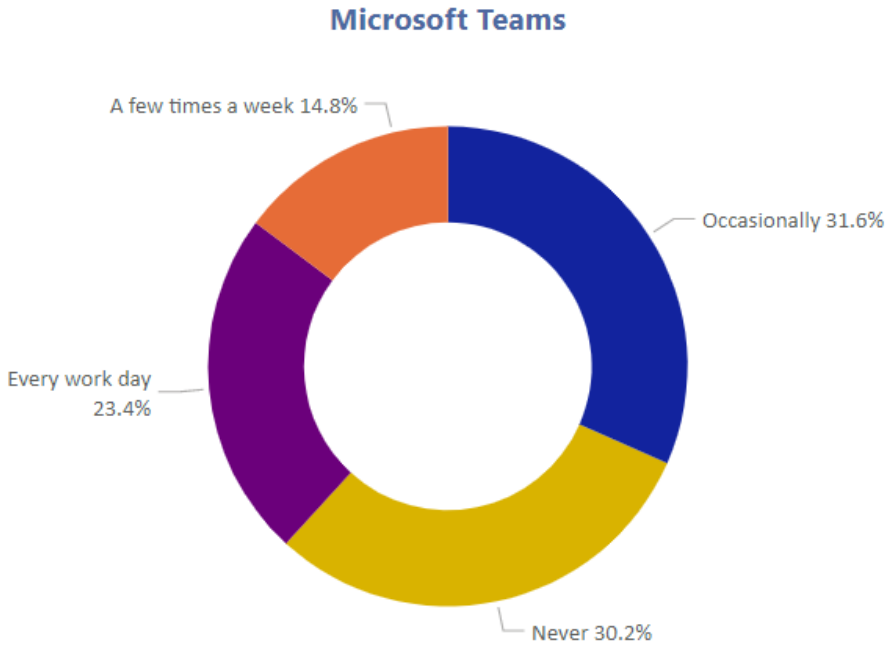


Figure 17. Usage: Zoom

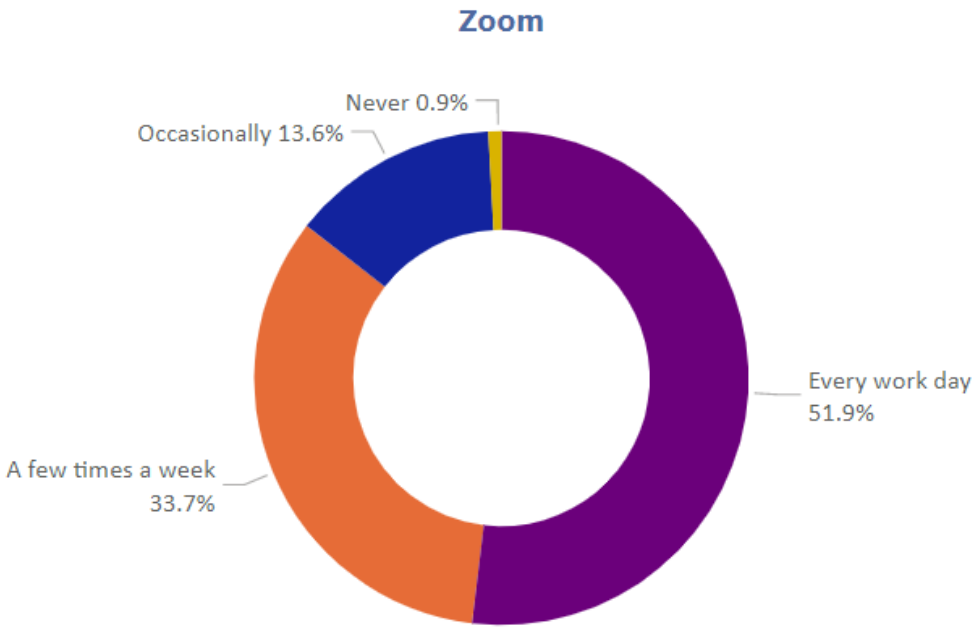


Figure 18. Usage: Box.com

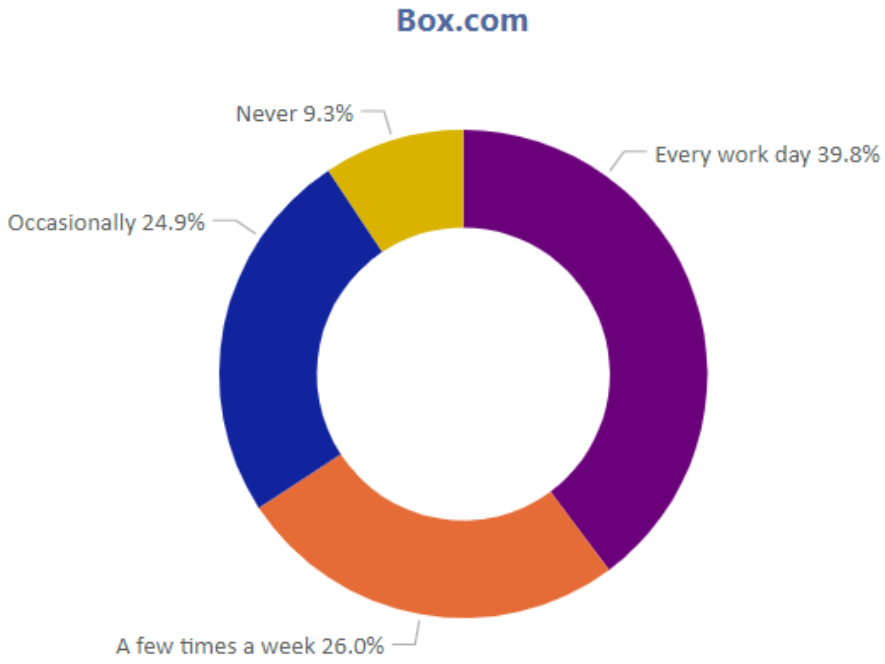


Figure 19. Usage: Microsoft One Drive

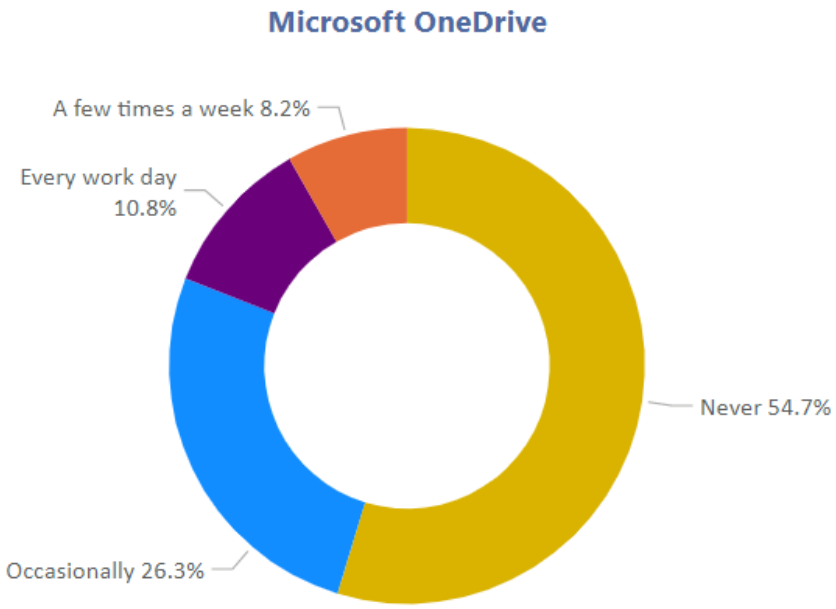


Figure 20. Usage: Google Docs/Sheets

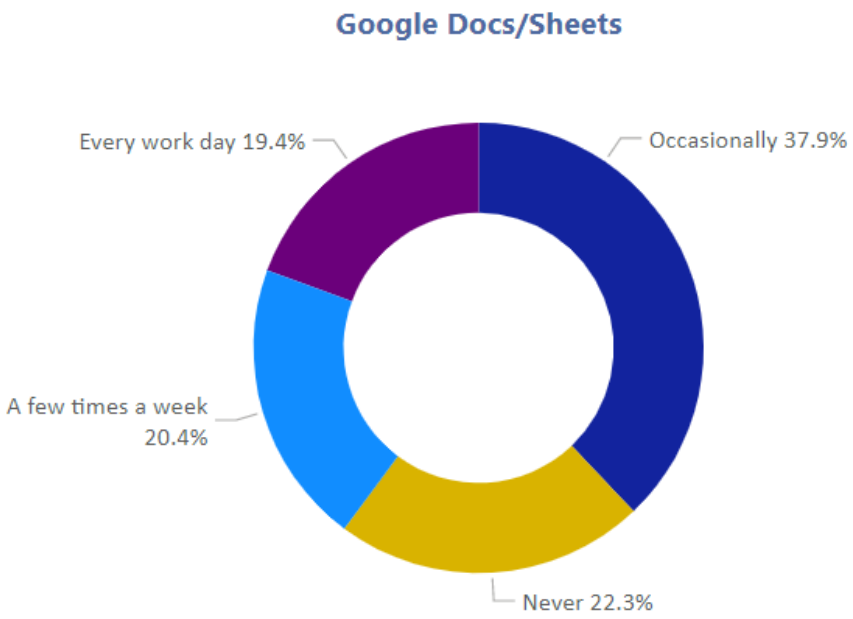
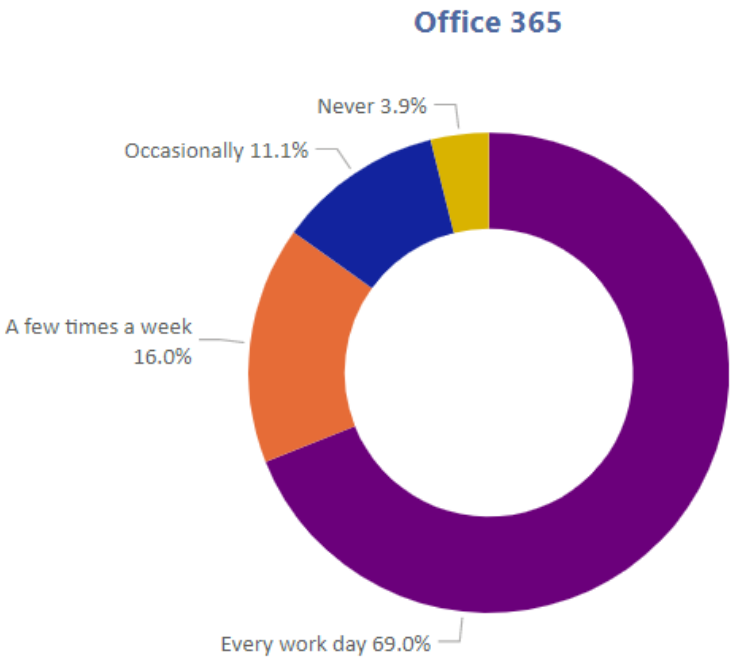


Figure 21. Usage: Office 365



APPENDIX B.
ILLINOIS STUDENT TECHNOLOGY PLATFORM SURVEY (N=105)

Figure 22. Student Respondents by Academic Unit

College	Completed Surveys	% of Surveys	Undergrads	Grad Students	Residential Students	Online Students
	2	1.9%	0	2	0	2
College of ACES	7	6.7%	2	5	7	0
College of Applied Health Sciences	5	4.8%	3	2	5	0
College of Education	13	12.4%	2	11	8	5
College of Fine & Applied Arts	4	3.8%	3	1	4	0
College of LAS	15	14.3%	11	4	15	0
College of Media	3	2.9%	3	0	3	0
Division of General Studies	1	1.0%	1	0	1	0
Gies College of Business	25	23.8%	3	22	4	20
Graduate College	9	8.6%	0	9	7	2
Grainger College of Engineering	14	13.3%	10	4	14	0
School of Information Sciences	7	6.7%	1	6	5	2

Figure 23. Collaboration Partners for Students

54 Faculty	51.4%	**3** Corporate Partners	2.9%
32 Staff	30.5%	**3** Government Partners	2.9%
49 Undergraduate Students	46.7%	**10** Alumni	9.5%
42 Residential Graduate Students	40.0%	**0** Prospective Students	0.0%
51 Online Graduate Students	48.6%	**0** Professional Organizations	0.0%
34 International Students	32.4%	**15** Community Members	14.3%
13 Professional Students	12.4%	**0** External Researchers	0.0%
49 Student Organizations	46.7%	**0** Funding Partners	0.0%
3 Service Offices	2.9%	**0** University Partners	0.0%
6 Post-Docs	5.7%	**0** Clients/Customers	0.0%
7 Non-Degree Students	6.7%	**0** Vendors	0.0%

Sentiment Analysis

Students were asked to “Please select your level of agreement with the following statements.”

Figure 24. Student Sentiment: I currently have the technology platforms I need to collaborate as a student

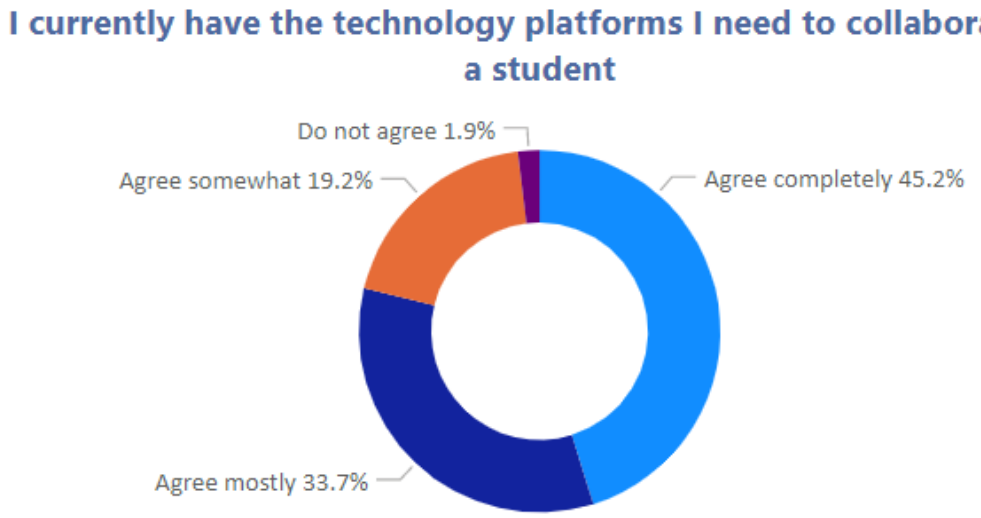


Figure 25. Student Sentiment: Technology is a barrier to me being an effective collaborator

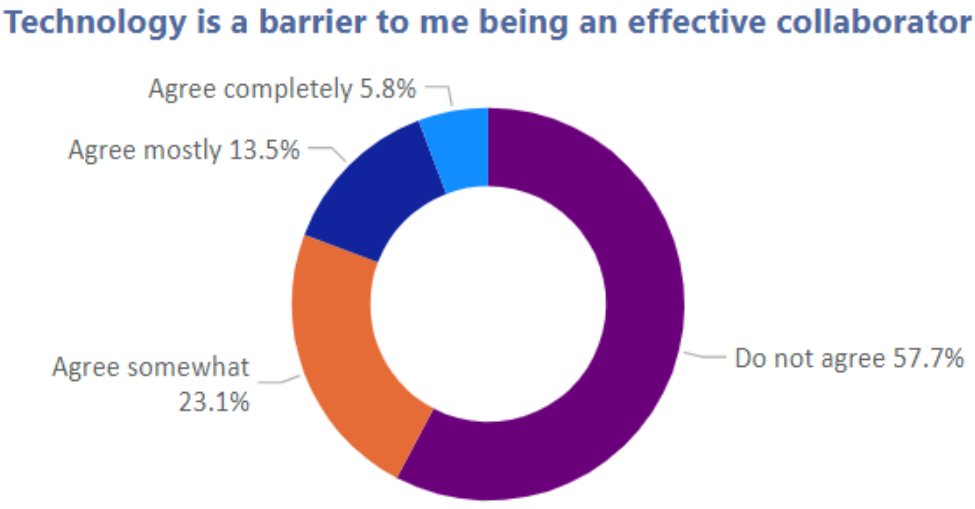


Figure 26. Student Sentiment: Technology enables me to be an effective collaborator

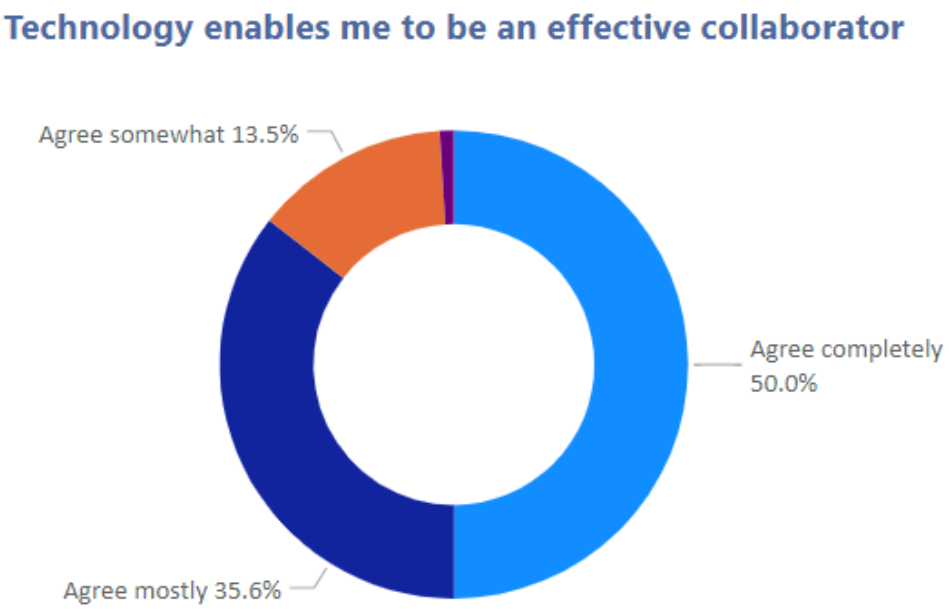


Figure 27. Student Sentiment: I often have to use different technology platforms other than the campus supports/provides to be an effective collaborator

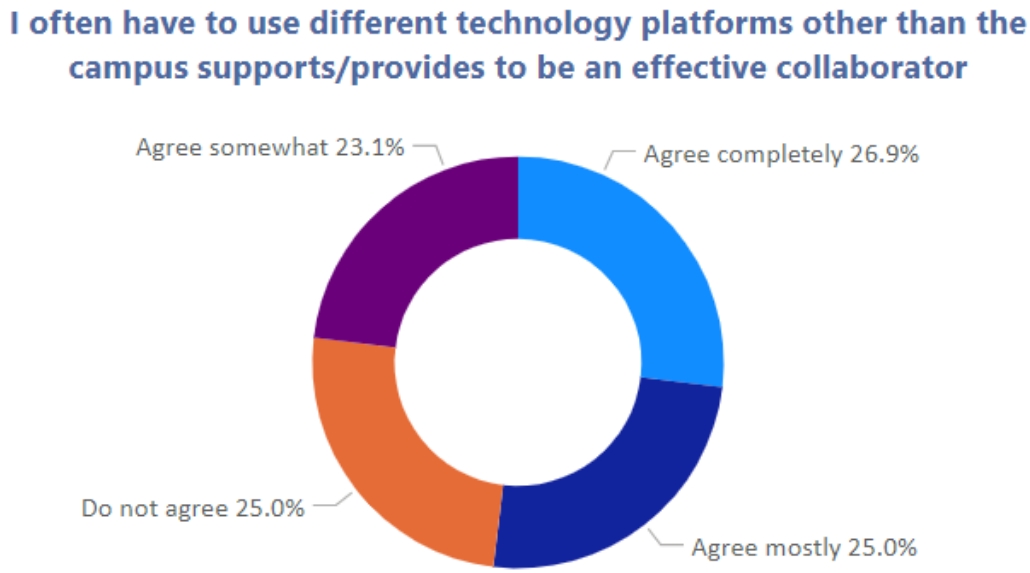


Figure 28. Student Sentiment: I am confident using technology to enable collaboration as a student

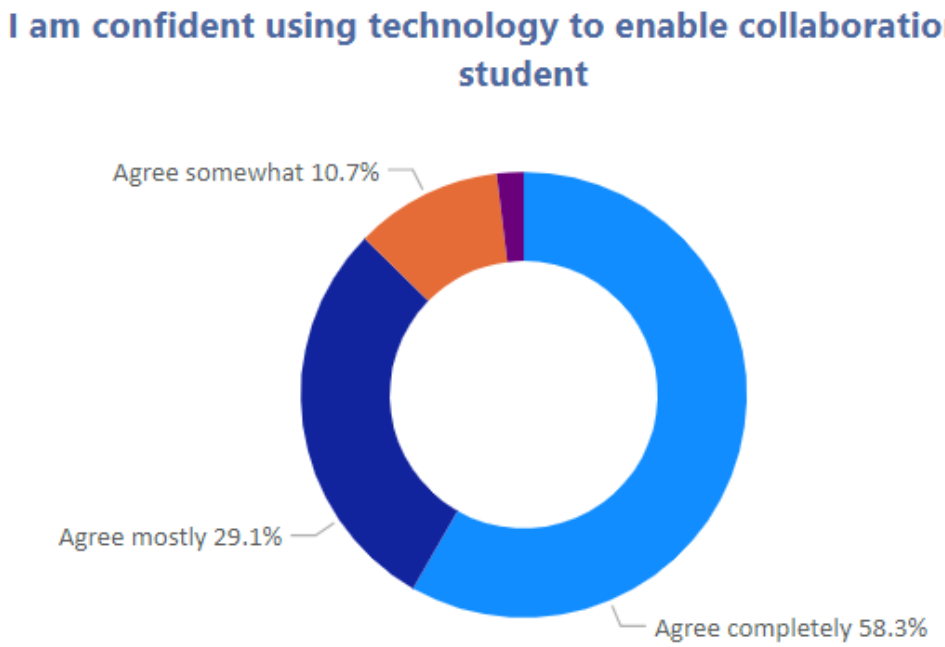


Figure 29. Student Sentiment: I know where to get training on collaboration technology platforms

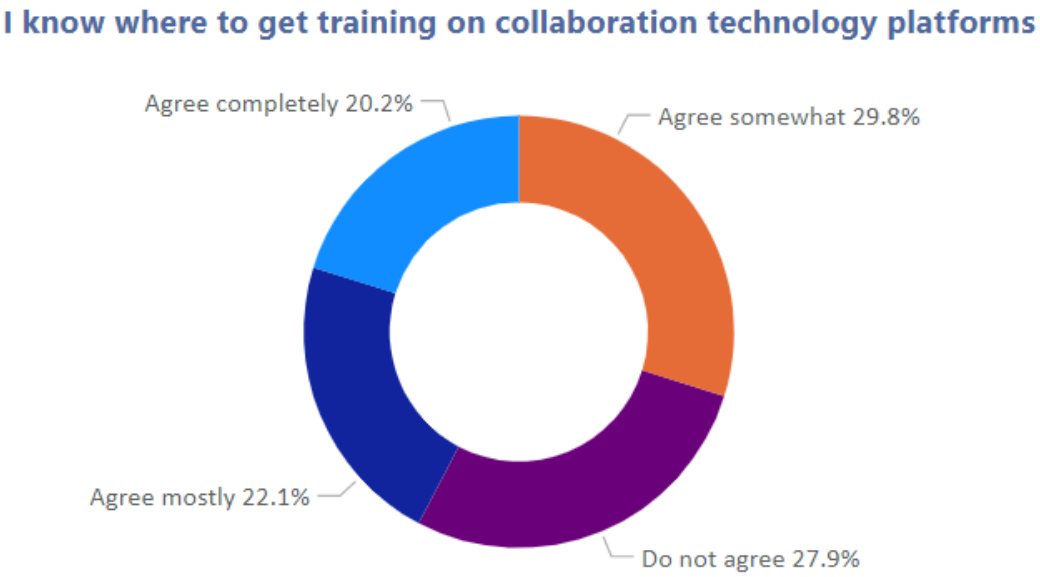
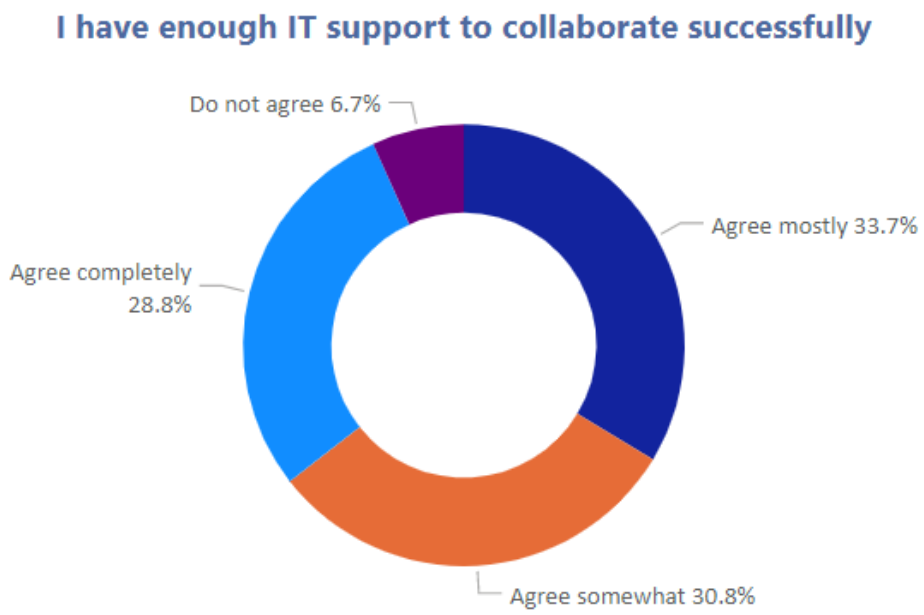


Figure 30. Student Sentiment: I have enough IT support to collaborate successfully



Platform/Tool Usage

Students were asked “How often do you use these university-provided technology platforms for collaboration?

Figure 31. Student Usage: Box.com

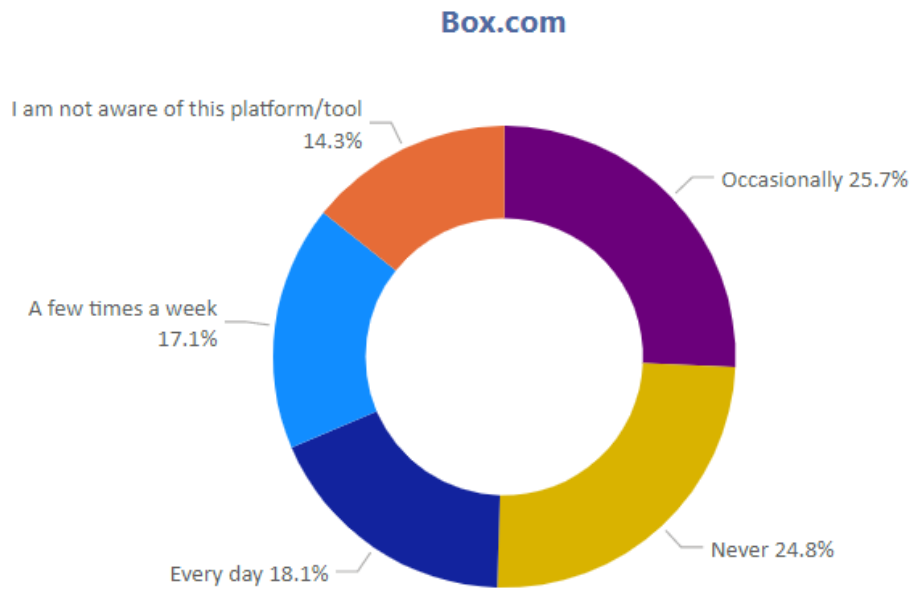


Figure 32. Student Usage: Google Docs/Sheets

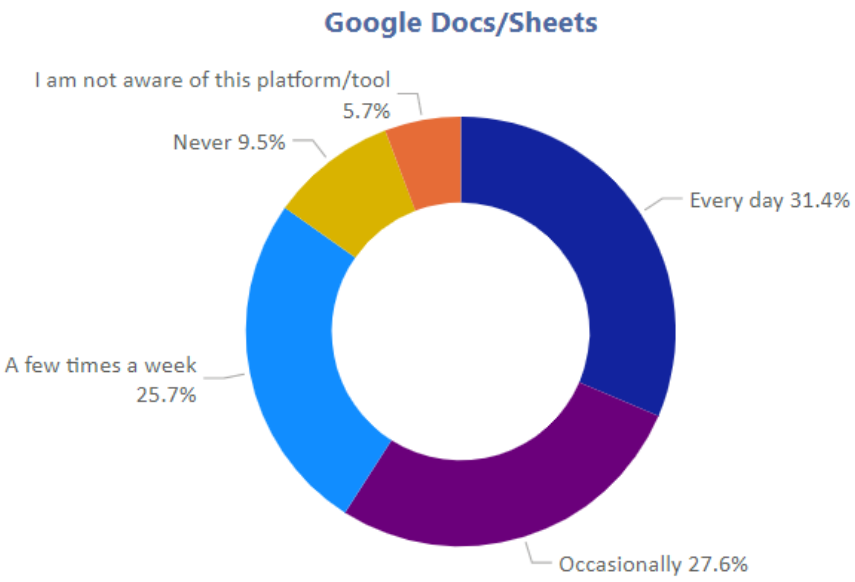


Figure 33. Student Usage: Microsoft One Drive

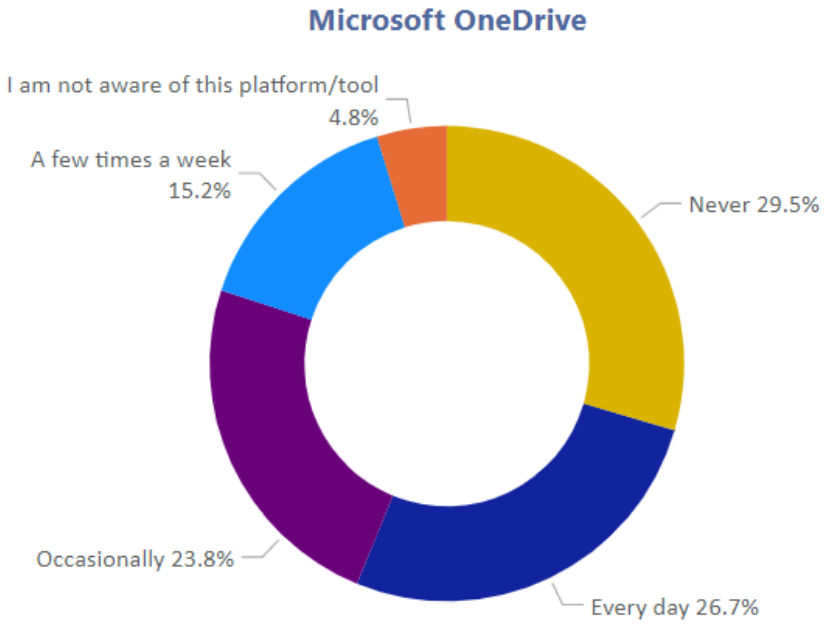


Figure 34. Student Usage: Office 365

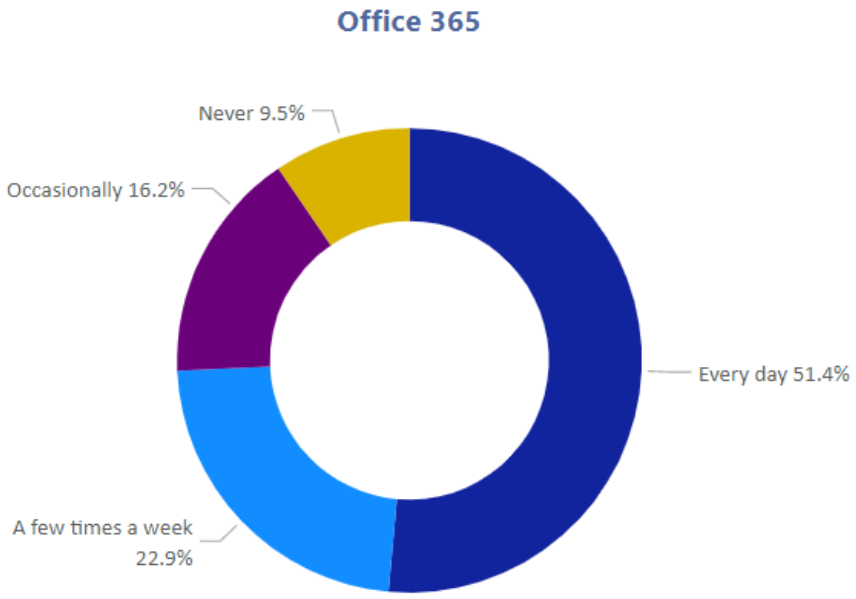


Figure 35. Student Usage: Gmail

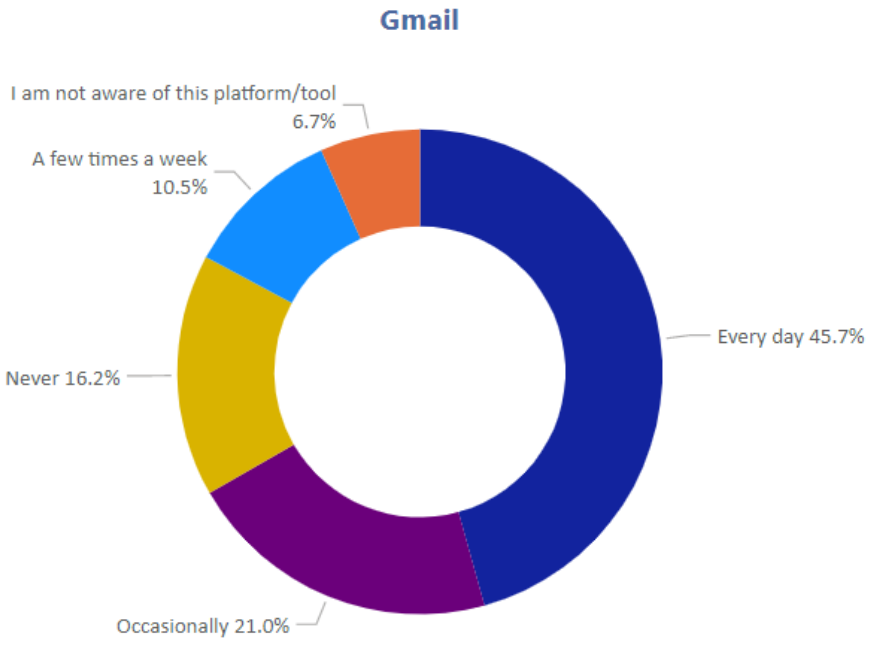


Figure 36. Student Usage: Outlook

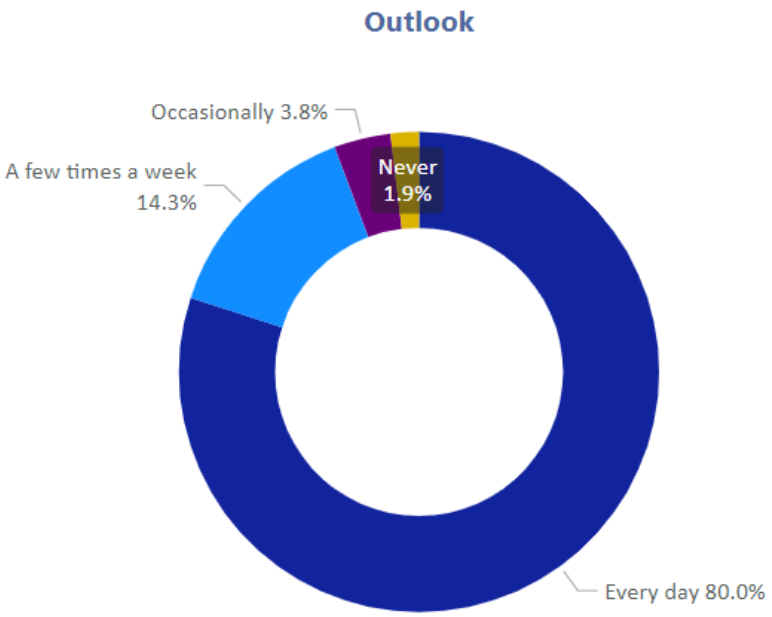


Figure 37. Student Usage: Microsoft Teams

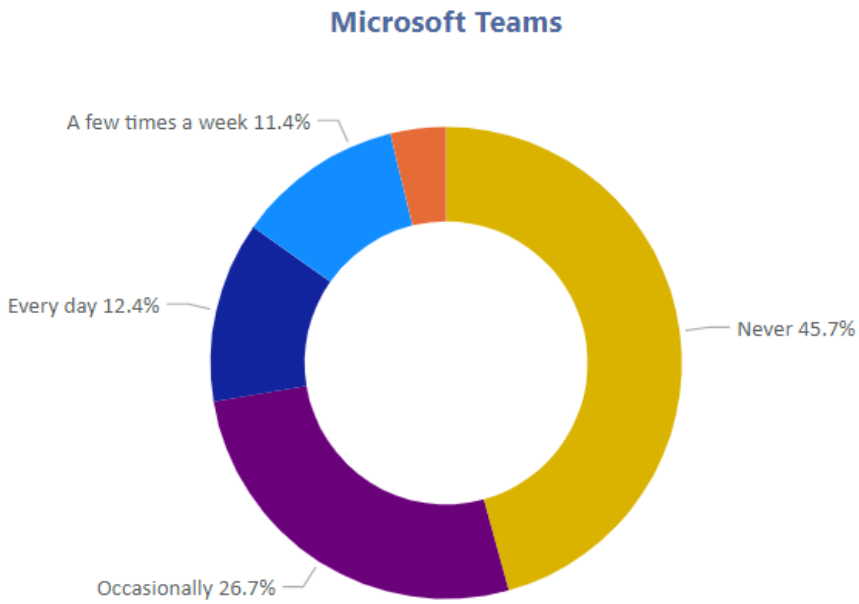


Figure 38. Student Usage: Zoom

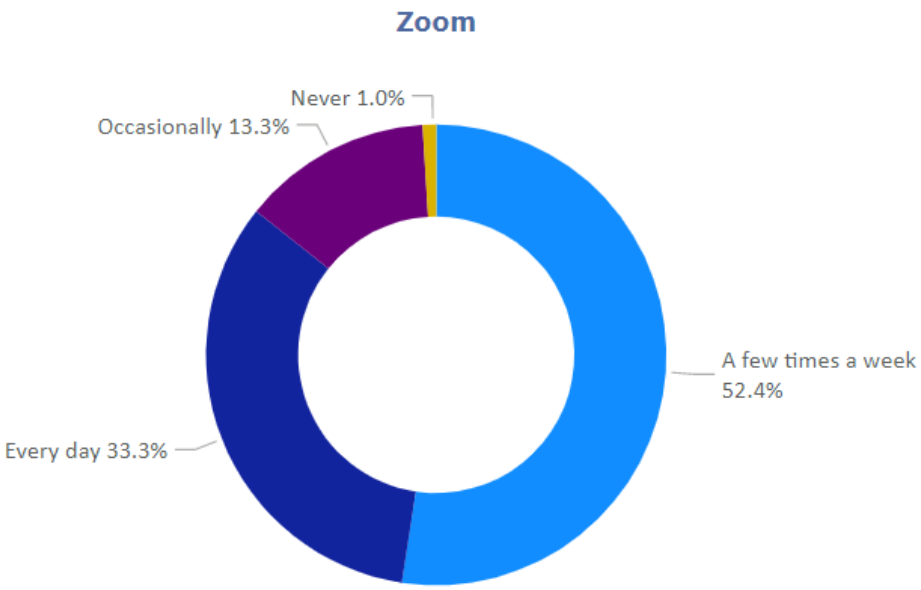


Figure 39 Student Usage: Compass 2G

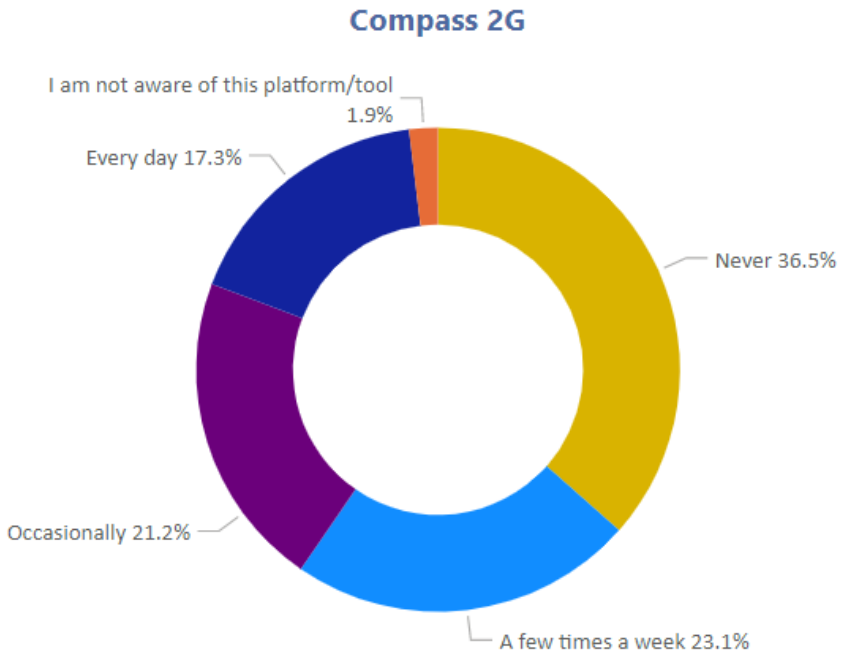


Figure 40. Student Usage: Canvas

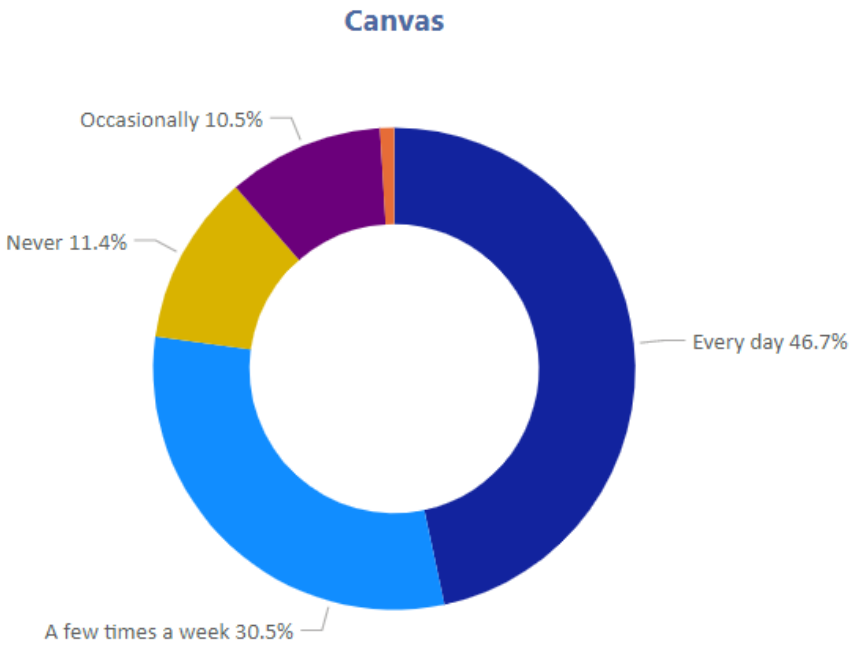
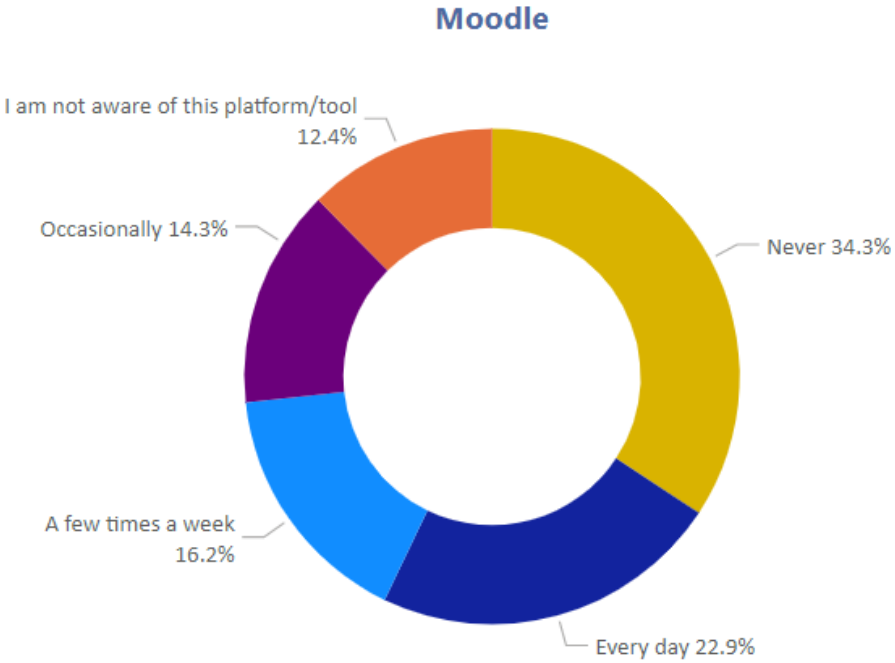


Figure 41. Student Usage: Moodle



Students were asked “How often do you use these university-provided technology platforms for collaboration?

Figure 42. Student Usage: Slack

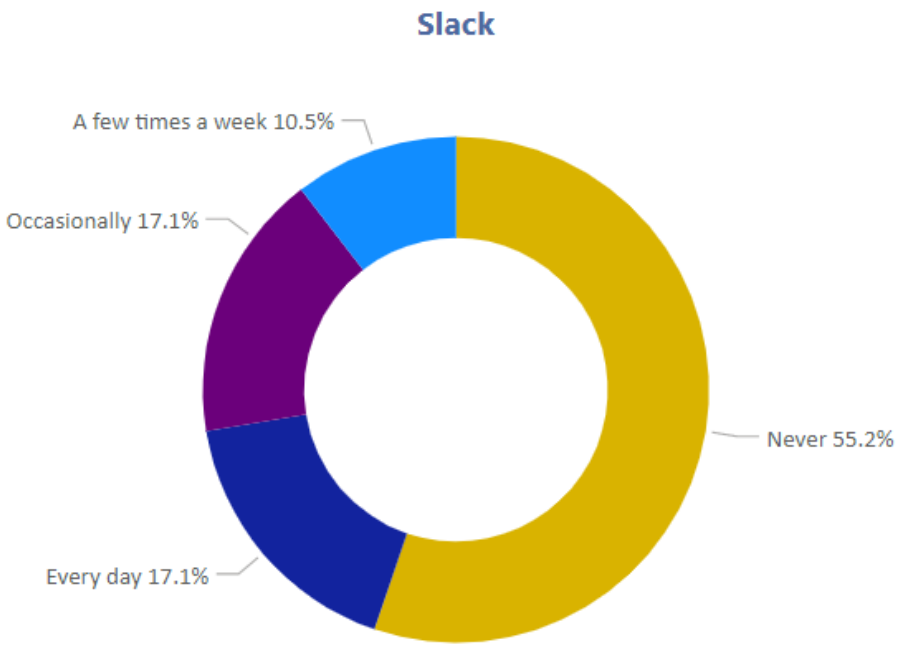


Figure 43. Student Usage: Discord

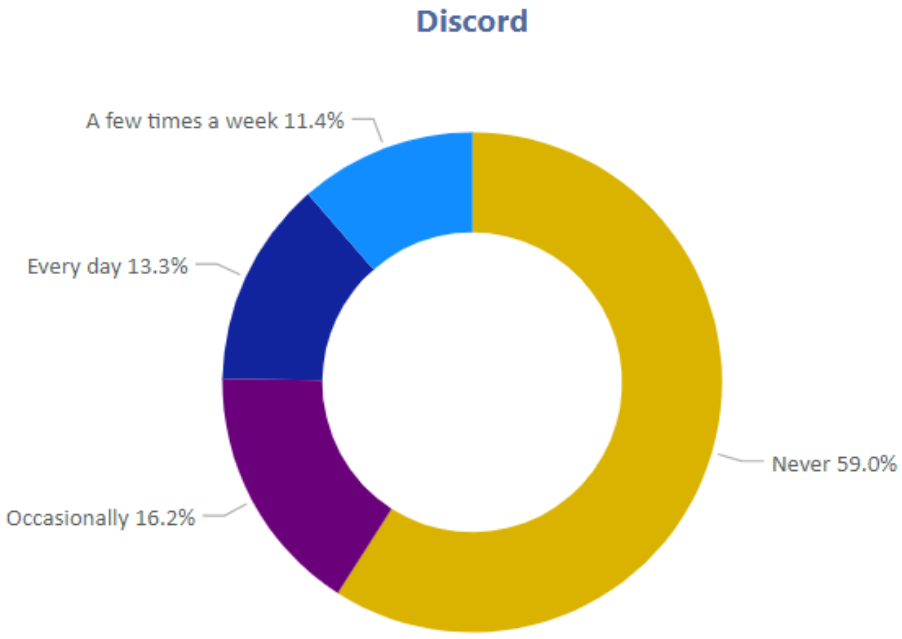


Figure 44. Student Usage: WhatsApp

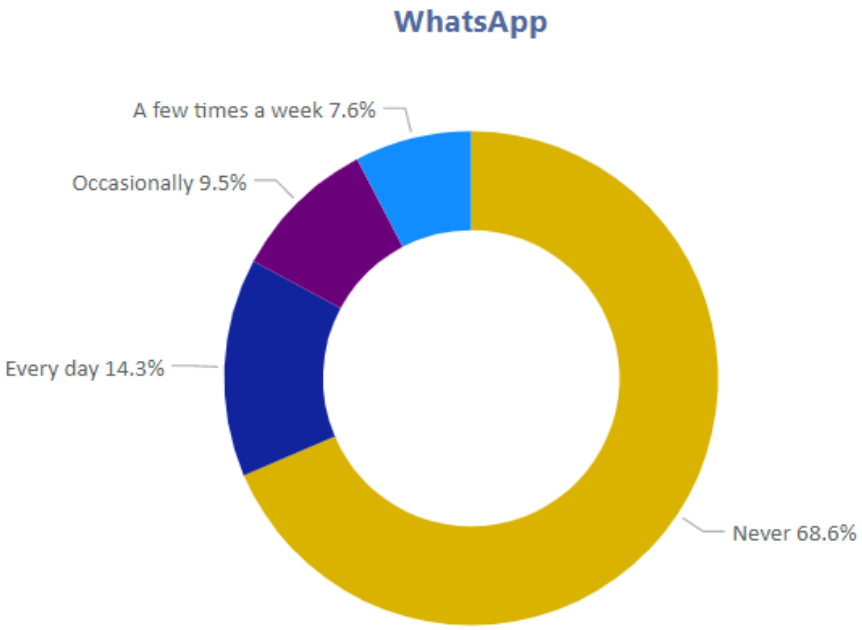
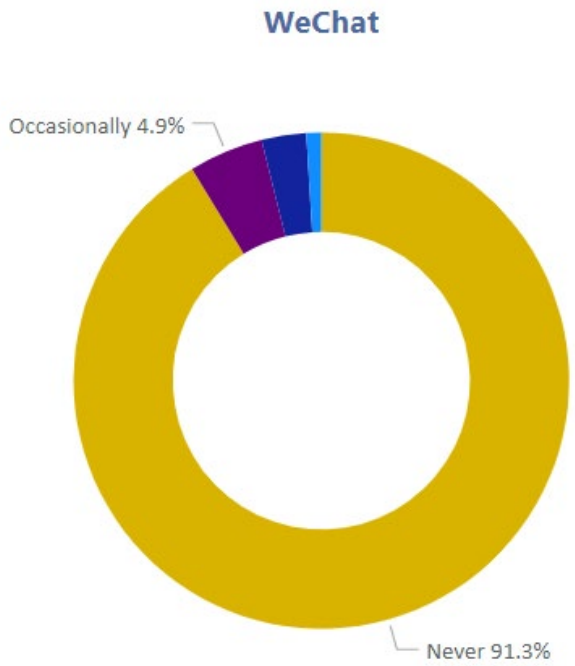


Figure 45. Student Usage: WeChat



APPENDIX C. FORMS OF COLLABORATION

- General
    - Exchange/sharing of information
    - Brainstorming/ideation
    - Committees
    - Event planning
    - Conference planning
    - Meeting management
    - Communications
    - Public relations
    - Legislative affairs
    - Goal setting
    - Marketing
    - Scheduling
- Academic Life
    - Lab sections
    - Discussion sections
    - Coursework (instructor-to-student)
    - Group projects
    - Study groups
    - Peer tutoring
    - Advisors
    - Instructor-to-student interactions
    - TA-to-student interactions
    - Guest speakers/lecturers
    - Remote speakers/lecturers
    - Team teaching
    - Exam development
    - Office hours
    - Papers/publications
- Advancement/Alumni
    - Alumni boards
    - Fundraising/donor relations
    - Engagement tracking
    - Sponsor/speaker requests (with and without advancement's support)
    - General alumni engagement

- Student life
    - Registered student organizations
    - Orientations
    - Networking
    - Mentoring
    - Student government
    - Student-to-student services
    - Campus-to-student services
    - Extra/co-curricular activities
    - Social groups
    - Career services
    - Student employment
    - Civic engagement
- Grant Development and Management/ Research Management
    - Grant seeking
    - Proposal writing
    - Fund management
    - Cross-disciplinary work
    - Problem identification
    - Data sharing
    - Paper writing
    - Resource management
    - Corporate partnerships
    - Applied research programs
    - IP/patents/technology transfer
    - Regulatory requirements
    - Tech commercialization tracking
- Team Management
    - Conflict management
    - Productivity management
    - Operations
    - Team-building
    - Staff management/development
- Professional Lifecycle/Development
    - Networking
    - Mentoring
    - Birds of a Feather groups
    - Recruitment

    - Evaluation
    - Promotion & Tenure
    - Onboarding
    - Search committees
    - Visa/sponsorship
    - Employee group negotiations
    - Workshops/Trainings
    - Coaching
- Program Management
    - Cross-unit workflows
    - Program meet-ups
    - Governance
    - Customer/client interactions
    - Course scheduling
- Infrastructure and Support
    - Space management
    - IT Support
    - EdTech Support
    - Capital project development
    - Procurement
    - Remote work management
    - HR workflows
    - Budget management
    - Asset management

APPENDIX D. MEMBERSHIP

CPAG was comprised of the following members:

- Chris Tidrick, Senior Director of Information Technology Partners, Gies College of Business, CHAIR
- Greg Anderson, Assistant Dean, Budget and Resource Administration, College of Fine and Applied Arts
- Charlotte Bauer, Assistant Dean of Communications and Strategic Planning, Graduate College
- Douglas Fein, Assistant Director, National Center for Supercomputing Applications
- Kim Gudeman, Communications Director, Coordinated Science Lab, Grainger College of Engineering
- Catharine Ingram, Coordinator of Student Innovation and Entrepreneurship Programs, Grainger College of Engineering
- Sarah McCarty, Director, Engineering Human Resources, Grainger College of Engineering
- Annette McCoy, Associate Professor, Equine Surgery, College of Veterinary Medicine
- Paul Redman, Associate Dean for Administration, College of Fine and Applied Arts
- Elaine Robbins, Operations Manager, Information Technology Partners, College of Education
- Vishal Sachdev, Clinical Associate Professor, Business Administration, Gies College of Business
- Alejandro Suñé, Senior Associate Director for Student Engagement & Assistant to the Associate Vice Chancellor for Student Success and Engagement, Student Affairs
- Brad Trankina, Director of IT Services, Facilities and Services
- Staci Wagers, Director of HR, College of Liberal Arts and Sciences