Like Technology from an Advanced Alien Culture [1]: Google Apps for Education at ASU

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ABSTRACT
Last October, Arizona State University (ASU) partnered with technology giant Google to offer Google Apps for Education to ASU's 65,000 student community. In less than two weeks, ASU was able to transition away from its homegrown IMAP email client to Gmail for ASU, giving students two gigabytes of storage space as well as enhanced spam filtering, calendaring, instant messaging, and the ability to sort, search, and tag email.

This paper describes ASU's ability to implement Google Apps for Education at a massive scale in a small timeframe as well as highlights ASU's vision of the future in higher education.

Categories and Subject Descriptors
H.4.3 [**Information Systems Applications**]: Communications applications – *electronic mail*

General Terms
Management

Keywords
Google Apps for Education, Gmail for ASU, Email

1. INTRODUCTION
Arizona State University's (ASU) University Technology Office (UTO) strongly supports President Michael Crow's vision to remodel ASU into a New American University, an institution focused on Academic Excellence, Access, and Impact. As a New American University, ASU will make every effort to meet the challenges and opportunities presented by the 21st century. ASU is approaching higher education using new methods of thinking and teaching, and "[m]any of these new approaches will be based on a continual infusion of emerging technologies, skillfully applied to accelerate the advancement of teaching and research….At its core, [ASU] will define itself not by who it excludes but by who it includes; it will distinguish itself by the quality of its output rather than the quality of its input" [1].

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2. ASU'S IT STRATEGY
According to technology strategist Geoffrey Moore, "[c]ore activities are those that can set an enterprise apart from its competition, [while] context activities…are those that, while critical to the enterprise's success, do not directly distinguish the institution from the others in its market segment" [2]. Using Moore's Core vs. Context approach, UTO hopes to reach several goals, including boosting student enrollment, increasing resources, and improving research outcomes.

There are several key Core technology initiatives at ASU:

- The ongoing application of technology to the Instructional and Research missions;
- The ongoing development of an interactive online environment that supports student access and embodies the vision of 'One University in Many Places';
- The ongoing development of an integrated system to amass and disseminate digital knowledge assets [2].

In order to successfully adopt the Core vs. Context methodology necessary to reach the aforementioned goals, UTO is implementing a new strategy called the Strategic Technology Alliance, the goal of which is to "gracefully transition ASU from internal to external fulfillment of Context activities" [2].

University Technology Officer Adrian Sannier explains the Strategic Technology Alliance:

> In order to accelerate ASU's overall technology adoption while simultaneously allowing it to focus on achieving maximum advantage from the application of technology to its Core instructional and research mission, ASU is establishing a coordinate set of Strategic Technology Alliances and working with those allies to supply the Context services as an integrated platform [2].

Under these guidelines, ASU met with Google last October to discuss the adoption of Google Apps for Education. Two weeks later, Google announced at Educause their decision to partner with ASU. ASU was the only university to successfully implement and deliver Google Apps for Education by this announcement date.

3. ASU AND GOOGLE
In less than two weeks, ASU was able to transition away from its homegrown IMAP email client to Gmail for ASU, giving ASU's 65,000 student community two gigabytes of storage space as well

as enhanced spam filtering, calendaring, instant messaging, and the ability to sort, search, and tag email.

ASU strives to remain at the forefront of technological innovations. By partnering with Google, ASU was given the extraordinary opportunity to provide leading edge technologies to its faculty, staff, and student populations on a continuing basis, as shown in Figure 1. After successfully launching Gmail for ASU – students were converting their email accounts to Gmail for ASU at the rate of 300 per hour the day the application was announced – ASU introduced to students the Google Personal Start Page in November and Google Docs and Spreadsheets in March.

Although ASU's faculty and staff use Exchange as their primary email application, ASU is currently working to accommodate the surprisingly high demand from faculty and staff to move to Gmail and to take advantage of Google's services as well. The university will first offer Google Docs and Spreadsheets to its faculty and staff and will continue to strive to meet the technological needs of the entire ASU community as additional services are adopted.

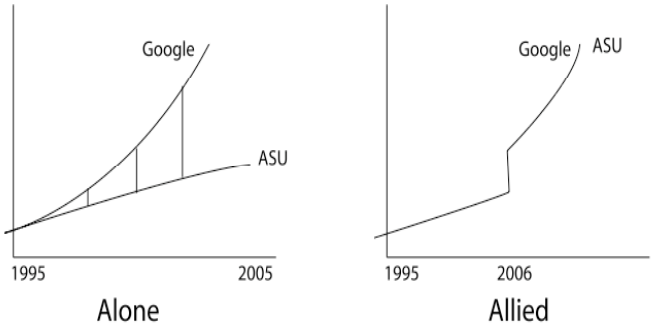

Figure 1: By partnering with Google, ASU has considerably accelerated its rate of technological growth and expansion.

3.1 Other Google Applications

ASU is rapidly on its way to tailoring the ASU experience to each and every one of its students. ASU Google Maps allows users to view all four of ASU's campuses using the map, satellite, and hybrid features already common to Google Maps and is available in both two- and three-dimensional viewing. Users can personalize the map to fit their needs by plotting building and parking structure locations and can take a detailed look at the surrounding city of Tempe. And by July 2007, wireless and GPS installations on local shuttles will allow commuters to view Google Maps to identify exact bus locations and estimated arrival times.

The Google Personal Start Page allows students to personalize and self-design their own ASU front page. Students can choose and organize the information on their Personal Start Page, including their latest Gmail for ASU messages, their ASU courses, news headlines, weather forecasts, movie show times, and bookmarks to their favorite websites, as shown in Figure 2.

Google has also worked with ASU to provide the university with a customized version of Google Docs and Spreadsheets. This online tool allows the ASU community to create and share documents and spreadsheets with one another, enhancing collaboration among students and teachers.

Furthermore, as new applications are available to domains using Google Applications for Education, ASU will continue to leverage the functionality to improve ASU's online experience.

Figure 2: The ASU Personal Start Page.

3.2 Expansion

In addition, ASU has high hopes of providing its students with an "Amazondotcom-like" experience by taking user experiences like the Google Personal Start Page one step farther. Like Amazon, ASU would like to let students log on with a single click to their own personal webpage that will evolve with the student as the student advances through their college career. The webpage will offer a number of personalized services, including greeting students as they log in, suggesting courses students may be interested in based on the classes they are already enrolled in, and allowing students to create their own customized profile similar to those offered by websites like MySpace and Facebook. As one of the largest institutions in the nation, ASU's goal is to provide students with both leading-edge technologies as well as the kind of attention and service they may otherwise find at a much smaller school.

3.3 Support Strategy

Google Apps for Education was easily implemented given Google's provisioning of two Application Program Interfaces that supported ASU's single-sign-on environment and account provisioning processes. As a result, few problems have surfaced during the transition to Gmail for ASU. The university's front-line help desk fields all initial issues concerning student email, with most problems centering around ASU's electronic post office versus Gmail itself. Issues that are not immediately resolved are sent to a second-line support team. If the concern is a Gmail technical support issue, it would then be sent to ASU's third-line support team who would contact Google if they were also unable to resolve the issue. However, ASU has easily handled all issues that have surfaced and has not had to contact Google's support team.

3.4 Legal and Security Questions

A number of institutions have asked about security and policy concerns. ASU requires that students obtain an @asu.edu email address, but students are permitted to forward their student email to a personal mailbox of their choosing. Therefore, there were no barriers in implementing Google Apps for Education since the Gmail for ASU accounts carry the @asu.edu address.

ASU prefers that Google fields all legal inquiries to access student email. This eliminates conflict of interest and protects students' rights to privacy. The new Gmail for ASU application is also

superior to ASU's previous IMAP email client in guarding data against system hackers.

3.5 Measuring Success

ASU's IMAP email client will be completely decommissioned in July 2007, allowing ASU to reallocate $450 thousand per year to core activities. Statistically speaking, there are currently 88,739 active Gmail for ASU accounts, with over 23,000 active daily users during peak periods. Usage will continue to expand as the old system is retired and faculty and staff are given access to the system.

71,843 out of 88,739, or 81%, of all Gmail for ASU account users have visited the Google Personal Start Page. There were 74,224 Personal Start Page views during the last two weeks of the semester alone, and 433,702 total Personal Start Page views following its announcement and implementation.

4. CONCLUSION

Arizona State University believes that the future of higher education is heavily influenced by a university's ability to adapt, change, and grow. ASU also recognizes the potential of forming successful partnerships alongside industry leaders like Google and Amazon. ASU's Google alliance "gives ASU access not only to today's innovative Google Apps Suite – that is an order of magnitude better than what ASU could field on its own – but it also puts ASU on an accelerated technology trajectory that is capable of keeping pace with leaders in the field" [1].

As one of the largest universities in the nation, ASU is excited to continue working with Google and will consistently strive to provide its faculty, staff, and student populations with exceptional standards, options and solutions.

5. ACKNOWLEDGMENTS

Special thanks to Google and especially the Google Apps for Education team for helping Arizona State University become a highly flexible university that can provide extraordinary technology experiences for its students.

6. REFERENCES

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