7 things you should know about...

Google Apps

Scenario

To support her master's thesis in sociology, Sylvia developed a project that brought together students from a high school in downtown Chicago with students from Monroe High School in Monroe, Wisconsin. Despite being just a two-hour drive away, the schools were worlds apart culturally, and the project's goal was to investigate attitudes that students in each school held about those at the other. The instrument for the project was a fiction-writing exercise in which a group of students at each school would write a story set in the other school's town. As the stories developed, the students at each school would review and make edits to the story from the other school. Both schools suffered from outdated computers with a range of software (though all of it was PC-based) and no prospect of district funding for hardware or software improvements. Sylvia was a dyed-in-the-wool Mac user, which presented another compatibility concern. They all had Internet connections, however, at least at school, and most of the students selected to participate also had Gmail accounts.

Sylvia set up blank documents on Google Docs and granted access to the participating students. She left the story ideas and development entirely up to the students. Once a week, the two groups would "trade" papers, seeing how the story—ostensibly about *them*—was progressing and making comments in the file itself about how their town and its culture differed from the story's portrayal. Sylvia also reviewed the files and made her own suggestions. Because all of the writing and reviewing happened through web browsers, there were no problems with file compatibility, and Google Docs kept a record of the many versions of each story. Initially, Sylvia thought she and the students would keep in touch using Gmail, but the students soon began using Google Talk among themselves, so Sylvia did too. Those students who had Internet access at home could access the files and the software to work on them, which was vital because many of the students could not afford to buy traditional software. Sylvia spent spring break visiting her family in Arizona and, without having to take her computer, could access and comment on the stories from there. The ability to share documents—and to communicate—with others, regardless of platform or software, allowed Sylvia's project to succeed. Students in both groups saw how stereotypes influenced their ideas about urban and rural culture, and they came away with an appreciation for their differences—and their similarities.

1 What is it?

Google Apps is a collection of web-based programs and file storage that run in a web browser, without requiring users to buy or install software. Users can simply log in to the service to access their files and the tools to manipulate them. The offerings include communication tools (Gmail, Google Talk, and Google Calendar), productivity tools (Google Docs: text files, spreadsheets, and presentations), a customizable start page (iGoogle), and Google Sites (to develop web pages). The tools are free, or users can pay for a Premium Edition that adds more storage space and other features. Alternatively, an Education Edition includes most of the extras in the Premium Edition and is offered at no cost to K–12 and higher education. Google Apps allows institutions to use their own domain name with the service and to customize the interface to reflect the branding of that institution. In this way, a college or university can offer the functionality of Google Apps in a package (and with a URL) that is familiar and comfortable to constituents.

2 Who's doing it?

Since its launch, Gmail has been a popular choice among students—higher education as well as K–12—and many of these same students are users of Google Apps. For them, being able to access their documents from any Internet-connected computer, without having to worry about software versions or compatibility, fits well with their always-connected, just-in-time lifestyles. Many faculty, however, have been hesitant to store their files on someone else's servers, given perceived concerns over security and the stewardship of their data. Some institutions have adopted Gmail for student and alumni accounts while maintaining in-house mail services for faculty and staff. Still, a number of colleges and universities have migrated to Google Apps, often only for e-mail but increasingly for the entire suite of communication and productivity tools.

3 How does it work?

All of the applications in Google Apps work through a web browser. Users must have a Google account and, once logged in, can access familiar—if scaled-down—functionality for word-processing, calendaring, chat, and other tools. Google Docs, for example, allows basic formatting of text documents but without higher-level functions (such as style sheets and templates) found in traditional software. Spreadsheets support formulas and simple functions but not macros or the creation of figures and tables. Each file has a creator/owner, who determines who is allowed to access the file,

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either as a viewer (with read-only rights) or a collaborator (who can change the file). Because Google stores all of the files and content centrally, collaboration and document management become far simpler than when distributing files to multiple people and keeping track of different versions. For a text document, for example, the application maintains the file, allowing authorized users to see or edit the text while keeping track of all the changes and who makes them. This version history is available and allows comparing any two versions of the document. Similarly, the content in a user's calendar can easily be shared with other users, and Google Sites provides a simple tool for groups to collaborate on developing web pages or whole websites. When a file is complete, it can be "published," which gives it a unique URL, or it can be exported. In the case of a text document, export options include PDF, Word, RTF, OpenOffice, and others. A spreadsheet can be exported as a PDF, a text file, or an .xls file, among others. Much of the Google Apps functionality is available on mobile devices.

Why is it significant?

Particularly for higher education, the notion of providing software to constituents as services rather than as products offers several key benefits. Such an approach transfers responsibility for software updates and maintenance away from the institutional IT department, freeing IT staff from a considerable amount of software support. The resources saved can be directed at making the IT department more innovative and agile, attributes that are increasingly important in responding to rising student expectations of technology on campus. Sharing content is as simple as granting someone access, which facilitates collaboration without having to transfer files or worry about software compatibility. The limited functionality available through Google Apps is sufficient for the needs of most users, who have access to their files and related software any place they have a computer and an Internet connection. In addition, Google Apps can work with existing single sign-on programs, and hardware (and hardware failures) becomes less of a concern.

Although Google is not the only provider of web-based applications, it is in a strong position to make this concept acceptable to a broader audience, in part because of the cost savings it offers and in part because of Google's reputation as a "good citizen." Google is seen as responsive to the concerns of its users and as a company that is not likely to disappear overnight.

What are the downsides?

The greatest concern about Google Apps and similar services is the loss of control. Because access rights are shared across the service, users rely—to some extent—on how carefully others protect their login credentials. Even though providing e-mail and other applications is complex and expensive, many in academia see this as a core responsibility of the IT department. Given concerns about long-term availability, security, and privacy, storing files, e-mail, calendar entries, and other content on non-institutional servers is a deal-breaker for some colleges and universities. From an administrative standpoint, Google doesn't offer as much granularity in managing user accounts as many institutions want and need. For users, the menus and tools are not consistent from one application to another, and applications running over the web do not work as smoothly and predictably as those running locally. Users who find themselves without an Internet connection cannot access the applications or their files.

Where is it going?

Google owns several companies including YouTube and GrandCentral, and Google Apps may see increased integration across the family of Google companies. GrandCentral, for instance, gives users a single phone number that, when called, will ring on any of the user's phones. All of that person's contacts can use the same number, even if that person graduates or transfers to another institution, changes jobs, or otherwise changes numbers. Google may incorporate these and other tools into Google Apps, and we may see more integration with applications outside the Google family. Because each new added feature affects the speed of the service, however, Google will need to balance complexity with performance. In addition, Google is said to be working on offline functionality, which would allow users to access the software and their files even when not connected to the Internet.

What are the implications for teaching and learning?

While the financial incentives to use Google Apps might compel a university to try it, the benefits for building a more collaborative teaching and learning environment could be the reason to stay. These benefits potentially include peer review of academic work and the ability to observe and participate in the creation of scholarly material. Today's students are generally comfortable sharing content and collectively generating knowledge. The Google Apps model of application delivery and file storage provides a set of tools and an infrastructure to make this happen. By leveraging student interest in and use of such tools, institutions might be able to encourage more experimentation with collaborative learning. Google Apps also facilitates sharing of information such as syllabi, and it offers an easy way to publish student work. Google Apps allows students and instructors to forget about the tools and focus on creative ways to use technology in their disciplines.