Collaborative Computing to Improve Work Process: Document Collaboration

by

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Introduction

From Wall Street to main street, large corporations to small businesses, all face a similar issue in collaborative computing- how to share documents and make edits across the office or across the world. Now that word processing has become standard at most workplaces, the problem of effectively sharing and editing documents has become a thorn in the side of business. Many organizations have taken matters into their own hands, setting up a shared network drive in the office, providing a Flash drive to all employees or simply emailing documents back and forth. The problems with these scenarios are numerous.

On a shared network drive, people are limited to editing or working on a document when no one else is working in the file. One person has to exit out of the document before another person can open it. There is also the issue of network security; a company may worry that their shared drive could be hacked into or that they may lose data if the files are not backed up on a regular basis. Using a Flash drive to save and edit documents is another way to try and collaboratively work on shared documents. This idea may work for some places, but it has a host of issues as well. Keeping track of documents on multiple Flash drives is cumbersome. If a coworker is out of the office, a day of work could be lost if other employees do not have access to a file that person holds. Finally, email is a collaborative tool used by many teams, especially those working nationally or internationally. Email is a great tool, but again, can be hard to work with, particularly if one is on a larger team. Keeping track of multiple changes, edits and revisions to a document through email can be very confusing. Not to mention that large files take up space in a person's inbox and can slow down a network server.

So, in this ever-changing world of collaborative computing, how do teams and businesses best work together on documents and files? This paper is set to explore three different collaborative tools that may meet the needs of many organizations. Google Docs, Microsoft Office Web Apps, and Microsoft SharePoint are all online collaborative tools that can provide teams and businesses with the security, affordability and flexibility of today's office computing.

Discussion

Google Docs

Google has entered into the collaborative computing realm with their shared document online collaboration tool, Google Docs. According to Kennedy, Mighell, & Kennedy (2010), Google docs allows users to create documents, spreadsheets and powerpoints and share them with other online users. When a person is done editing a document, they can save it as a Microsoft Word or Adobe PDF file. It helps to be comfortable with multiple people editing your documents when using this platform. The nice thing about Google Docs is that it keeps a record of all edits made to a document. This is very helpful when trying to figure out who made what changes and when (Kennedy, Mighell, & Kennedy, 2010). Another nice feature of Google Docs is the ability to upload one type of document and convert it into additional file formats such as HTML, plain text and the formats mentioned earlier (Fleishman, 2010). Google allows users to share folders containing a mix of files, which can be helpful when working on a document and say, corresponding powerpoint presentation. Google Docs allows users to upload files no greater

that 1 GB, documents no larger than 1 MB, presentations no more than 10 MB, and spreadsheets have to be less than 20 MB (Getting to know Google Docs: Size limits, 2011).

According to Bradley (2010), the most current version of Google Docs allows a user to share a document with up to 200 people, and as many at 50 users can work on it at the same time. Bradley states, "If two users are editing the same document at the same time, a box at the top of the screen will list the current collaborators" (Bradley, 2010). The other great thing about this new Google Docs feature is the ability to see all edits and additions in real time. Google monitors the exact time of when an edit was made and will apply the changes in the correct order. Additionally, Google provides a chat window so that users can discuss changes with one another as they work on a document (Bradley, 2010). Google has beefed up its online display, some noting the similarities to Microsoft Office. Google Docs' newest version boasts tab stops, a ruler for adjusting margins, and like Microsoft Word's "Track Changes," comments can be linked to any part of the document (Friedman, 2010). Google Docs has similar functions for spreadsheets and presentations. It is worth mentioning that Google does offer business applications for small, medium and enterprise businesses. Most of these do require some sort of per user fee but could be excellent collaborative business tools for those buinesses that are interested in the Google platform (Google Apps for Business, 2011).

While Google Docs seems like an excellent collaborative tool, it does not come without criticism. Griffiths (2010) discusses five of Google Docs most serious shortcomings. First off, Google Docs is operated on a set of web pages, and it is limited by one's internet browser. This means that if the browser crashes or a person has a shaky internet connection, using Google Docs might be risky (Griffiths, 2010). Griffiths complains of the lack of customizability in Google Docs; the limitations of toolbars and non-floating palettes could hinder users. Next, Google Docs seems to be missing features when compared to desktop alternatives. A user cannot create a mail merge in Google Docs, and the spreadsheet feature doesn't allow printing without gridlines. Slideshows have limited themes and no slide transitions which doesn't work when trying to create a dynamic powerpoint presentation. Using Google Docs documents offline and then uploading them creates other hassles. Mac users especially feel this burden as many of their applications do not support Google Docs features. Lastly, Griffiths notes that printing in Google Docs can be troublesome, and print preview is not an option (Griffiths, 2010). He summarizes to say, " Google Docs is great if you have a bunch of people who all need to work on files either at the same time or repeatedly over a period of time. With centralized storage, change tracking, and easy sharing abilities, this is a niche that Google Docs fills perfectly" (Griffiths, 2010). However, Griffiths says, "But for virtually every other need, I disagree with people who say it can replace Microsoft Office or iWork as an everyday productivity tool" (Griffiths, 2010).

Microsoft Office Web Apps

In 2010, along with its latest version of Microsoft Office, Microsoft released online Web Apps that work with Microsoft Word, Excel, PowerPoint and OneNote. This software is so new that there is not a lot of research on the subject. However, what we do know is that these online web-based collaborative tools are a direct competitor to Google Docs. According to Baig (2010), all you need to run these free apps is a Windows Live account (also free) and an internet connection. The web apps can be run through a PC or a Mac, and Microsoft even gives users 25 gigabytes of storage from an online storage database called SkyDrive (Baig, 2010). The web apps are based for use with Office 2010; there is a button atop the software that allows for

document upload. Web apps can be used without the 2010 software, but users will have to upload the documents to Windows Live first, instead of pulling them straight from Word or Excel (Using Office Web Apps in Windows Live SkyDrive, 2011). Also, According to Arar (2010), "Office Web Apps can edit documents only in the XML-based file formats introduced in Office 2007 (if you try to edit a document made in an earlier format, you get a prompt to create an XML-based copy)" (Arar, 2010). Therefore, users are somewhat limited when using Web Apps as not all versions of Word are supported. Like Google Docs, Microsoft Web Apps allows for collaboration between users. Users can add e-mail addresses of others they would like to collaborate with on documents. Web apps allows everyone working on the document to see the names of others working in the document. Additionally, document links can be emailed, shared via blogs and websites, and work well through hotmail accounts (Using Office Web Apps in Windows Live SkyDrive, 2011). While Web Apps does not have the rich functionality of Microsoft Desktop applications, it is a functional tool to use. Users can create new Word, Excel, PowerPoint and OneNote documents online and save those files to SkyDrive (Arar, 2010). Creating brand new documents, excel files and spreadsheets is also possible through a user's browser and Windows Live (Using Office Web Apps in Windows Live SkyDrive, 2011).

       Missing from the Web version of Office is support from the desktop revision modes. Revision-mode changes for editing open as view only. In addition, there is no video support (Arar, 2010). One of the concerns with the Microsoft Web Apps was their compatibility with different browsers and operating systems. According to Brooks (2009), the web apps performed as well on a Firefox web browser running on a Ubuntu Lixux system as it did on Internet Explorer on Windows XP and Windows 7 operating system. In addition, the web apps performed well on Google's Chrom browser (Brooks, 2009). Microsoft Web Apps does have some drawbacks. First, there is no mention of compatibility with PDF or HTML files, and like mentioned before, the web apps only work with XML-based copy. Next, is the fact the Web Apps are located in a browser. There is the potential for data to be lost if a browser crashes or if someone has a poor internet connect. Finally, there is the cost issue. While Web Apps is free, to get the full features of the applications, a user has to have one of the lastest versions of Microsoft Office. Since Microsoft Office home and Business is currently going for $279.99, this may hinder some small businesses and organizations from using the software.

Microsoft SharePoint

       Microsoft has another online collaboration tool called Sharepoint. This software is mainly geard towards big businesses and corporations that need this heavy-duty organizational tool. So, what is Microsoft SharePoint? According to aiim.com, SharePoint has the capabilities to perform many different office functions. Checking-in and checking-out documents, email alerts, shared calendar, task menu, workflow, blogs, and wikis are the main components of the Microsoft Sharepoint application (What is SharePoint?, 2010). SharePoint can be accessed through a web browser and is usually owned by one person (site owner), so they can supply a cooperation space for documents, information and thoughts (What is Microsoft Sharepoint?, 2010).   Site administrators can manage site security and organize the content how they want (SharePoint: the backbone of your information architecture., 2009). Projects can be coordinated using the calendar and schedule features, documents can be revised and edited using the document library, and users can share information through the wiki and blog features. "SharePoint sites are dynamic and interactive - members of the site, which you control, can

contribute their own ideas and content as well as comment on or contribute to other people's" (What is Microsoft Sharepoint?, 2010). SharePoint is more than just an intranet or document collaboration tool; it has portal web content management abilities and business intelligence capabilities (SharePoint: the backbone of your information architecture., 2009). SharePoint is geared towards organizations that are looking for a foundation on which to manage organizational, unstructured data. The goal with SharePoint is to create a strategy that will allow users to quickly access the information they need and collaborate successfully with each other (SharePoint: the backbone of your information architecture., 2009).

Integrating Microsoft SharePoint into a business setting can be a difficult task. Companies using Lotus Notes or JD Edward would accrue extra costs to implement SharePoint, and this could deter many companies from adapting. Another downfall is the 64-bit hardware requirements of Microsoft SharePoint 2010. Businesses that are not operating at that level may decide not to proceed with set-up of the application (Akka, 2010). Another downside to SharePoint is its cost. While the Microsoft Office SharePoint Workspace 2010 runs for $126.00 retail, the Microsoft Office SharePoint Server 2010 License will run companies a cool $3,714.00. Other downfalls include the internet connection issues as previously mentioned with both Google Docs and Microsoft Web Apps. Lastly, the management of the server by one owner could be seen as a hindrance to those teams or businesses that have multiple managers operating at a high level. People in management positions might disagree on who should take ownership of the server.

Microsoft does have other collaborative tools that better match up with small business needs. Their Business Productivity Online Standard Suite has a small monthly fee and requires a minimum set up with five accounts. The suite offers users Microsoft Exchange Online, Microsoft SharePoint Online, Microsoft Office Communications Online and Office Live Meeting (Business Productivity Online Standard Suite, 2011). Like Google applications for business, this could be a real, reliable tool for small businesses.

Recommendation

The goal of this paper was to find an online collaboration tool that would allow users to create, edit and revise documents online with multiple other users. Finding a solution that will fit large corporations to small businesses and college students to retirees, is not easy. However, given these requirements, it is the author's suggestion that Google Docs be the featured application for those interested in document sharing and collaboration. My reasons being this: Google docs is affordable, can be used anywhere a person has an internet connection, and it is compatible with a host of different file formats. While Microsoft Web Apps and SharePoint offer their own unique collaboration tools, Google Docs is the only one that offers a wide range of features while still remaining free. It allows for the use of multiple file formats and is easy to use. Collaboration is made easy in Google docs and the ability to share with up to 200 people along with the 50 people collaborating at once is large enough for even big corporations. For those people who have Office 2010, Web Apps is an excellent tool to use, and it is a direct competitor to Google Docs. However, not everyone has purchased the newest version of Microsoft Office and many are still running older versions of the software. Additionally, Web Apps does not have the online features of Google Docs. Microsoft SharePoint is an excellent collaborative tool and team website, but it is expensive and may not be what small organizations and businesses need. SharePoint has more capabilities and offerings than what people need in their day-to-day work.

For small and large businesses that are interested in additional collaborative tools beyond just document sharing, Microsoft and Google both offer excellent business tools. However, for the purpose of this paper and the goal of document sharing, those applications go well above and beyond simple user collaboration. Therefore, my recommendation stays with Google Docs due to its usability, flexibility and its free collaboration ability.

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