

## **Introduction**

Conflict in the work place is a common occurrence and how we as employers, managers and employees deal with work place conflict can have an impact on whether or not our work processes succeed or fail. Holmes 2011 states that one of the five most common types of conflict in the workplace is differences in style (Holmes, 2011) . One common conflict in style that Holmes identifies is in the way each individual goes about completing their daily task. Some of us are task oriented and will focus on getting the task done on time, while others are people oriented and are more focused on team and relationship building as their primary tools to accomplish needed task (Holmes, 2011). Holmes concludes that if we can understand the individual work styles of our team we can then better manage conflict caused by difference in work styles.

Collaborative computing tools can be utilized to solve some of the workplace problems caused by differences in individual work styles. Over the years there have been several definitions of what exactly is collaborative computing. Graham and Raatz (1993) define collaborative computing as technology that lets a group of people share and communicate information in ways that facilitate group review and interaction in accomplishing tasks and achieving consensus (Graham and Raatz, 1993). The Graham and Raatz definition is a general definition that can be used as we evaluate and use modern collaborative computing tools today.

Some Industry analyst and business professional have been looking at collaborative computing tools for well over a decade. Graham and Raatz thought that collaborative computing would become a profit-enhancing competitive tool and those who are able to harness its advantages would be the early beneficiaries (Graham and Raatz, 1993). There could be direct hard dollar savings in implementing collaborative tools that reduce travel cost but other research suggest that profit margins may not be the only tangible benefit of such implementations.

In large or complex projects one individual working along may not have the knowledge and ability to successfully achieve the project goals. Often, businesses need to pull together a team of individuals to achieve a specific goal. The successes of how well the team works together can have an impact on the success of the overall project. Poor team collaboration can indirectly lead to cost over runs, extended schedules and profit losses, while a team that works well together can overcome challenges more efficiently. A high performing team has a greater potential for producing creative ideas while timely and effectively completing all required goals and objectives. A collaborative tool that can assist businesses with managing team dynamics can add value to any organization.

Gomes, Rivera, Willrich, Lima, and Courtiat, (2011) define the subjective characteristic of an integrated collaboration environments (ICEs) as “integration flexibility” that denotes the ease with which this environment can have its functionalities

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customized in response to the users' needs (Gomes et al, 2011). The ICE concept can be utilized as a framework to use when evaluating collaborative computing tools to help determine which ones may be better suited for solving some of the workplace problems caused by differences in individual work styles. Businesses can look for ICE collaboration type tools that will be flexible enough to accommodate individual differences in working styles.

In combination with ICE, Gomes et al 2011 further includes and defines the LEICA model as "loosely coupled environment for integrating collaborative applications (LEICA)." LEICA includes a computer-supported cooperative work system (CSCW) that should be flexible and focus on tailorability that meets the requirements of the team and organization tasks (Gomes et al, 2011). LEICA relies on web services technologies and an event notification system and offers integration flexibility.

As businesses look for tailorable and flexible collaboration tools the LEICA model can help to identify solutions that may be scalable enough to accommodate the customizations needed to implement a CSCW that can truly adapt to different work styles. Gomes et al 2011 found that tailoring can be supported in three different levels: customization, selecting among a set of predefined configuration options; integration, linking together predefined components within or between applications; and extension, improving the implementation by adding new program code (Gomes et al, 2011). Any collaboration tool that could cost effectively fully meet these three requirements would be a significant tool to have in aiding in solving managing different work styles problems in the workplace.

## **Solutions**

It can be difficult to get workers to try new tools and processes and if the new tools do not accommodate their individual work styles, collaboration will be even more difficult to achieve. Improvements in collaboration tool technology over the years has advanced to a level of sophistication where some of the current solutions have features that can potentially levitate some of the problems that arise when collaboration is needed between the task oriented team member and a people oriented team member. A collaboration tool can provide enough separation that task oriented users are able to comfortably complete their task while providing enough interaction that people oriented workers still feel connected to the team.

Three collaborative current solutions available today that fulfill characteristics of ICE, LEICA and CSCW would be Webex Office, Office 365 and Huddle. All three are web based internet type cloud solutions that are scalable enough to support a small business or a large corporation. Each solution provides a good standard set of features and functions at a competitive price point with options to add more options if a business believes that the additional benefits are worth the additional cost. In this paper we will explore these three products and contrasts and compare on how well each product can be

adapted into a CSCW flexible enough to meet the needs of task oriented or people oriented workers.

## **Webex Office**

Webex Office allows users to share documents, coordinate calendars, hold web meetings, manage tasks, build web databases, follow discussions, and make announcements. Businesses can also control access to sensitive files while allowing guests to view public ones and take polls. Screen-sharing, whiteboard, online presentations, document collaboration, Voice Over IP (VoIP) and instant messaging features are also part of the solution.

Some particular features that task oriented team members may prefer: using online calendars to mark milestones and due date; task manager application for managing individual and group task; and create and manage databases. For the people oriented team members they may prefer Web Office tools such as: sharing documents with others; setting up and participating in web meetings; participating in online discussions, posting announcements, email and conducting or participating in opinion polls.

For customization, integration, and extensibility options Web Office offers: the ability for businesses to organize their site by determining what information is on the home page; businesses can customize their site color and logo to meet branding needs; custom database design and management; and integrated web & audio meetings with chat. Businesses can also extend their feature set by adding more storage and back up space, or enhance security by adding Secure Socket Layer (SSL) Encryption.

Webex Office offers integrated collaboration tools that allow workers with different styles to accomplish their individual task while also being able to choose what level of team engagement they want to participate in, this system flexibility can assist with fulfilling the social needs of team oriented people. Managers can have a small set of tools, processes, and guidelines for all team members utilizing Web Office to maintain a cohesive team and effective communication while allowing members to choose and use other features and functions that are best suited for their individual work styles. The level of customization, integration and extensibility in Webex Office can be used to meet the needs of a large corporate enterprise or for small and medium size business needs, in either environment it can be a useful collaboration tool in assisting managers in reducing conflict related to difference in work styles.

## **Office 365**

Office 365 is a Microsoft solution that allows users to: create, store, and edit Microsoft Office documents online; access email and calendars; send instant messages; and participate in web based conferencing. Office 365 is built on SharePoint online technology, Microsoft's collaboration tool for business customers.

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Similar to Webex Office, Office 365 also has some particular features of SharePoint that task oriented team members may prefer: The ability to track key project milestones and schedules with shared-calendars; User can create, edit and conduct Web-based viewing and editing of Word, Excel, PowerPoint, and OneNote files; and use project calendars to track milestones and resource availability. A task list can be used to send email notifications when task ownership is assigned, if a task changes ownership, if a task is overdue, or when a task is completed. Team members can also create a workflow that automatically sends an e-mail message to any team member when they receive an assignment.

For the people oriented team members they may prefer SharePoint tools such as: shared calendars and user profiles with pictures and details that can be shared with others; team sites for sharing files and schedules; instant messaging, PC-to-PC calling; publishing wiki pages; video conferencing; and the ability to share ideas using discussion forums and surveys. Users can select Alert me in a list or in a library to receive an email notification that is based on criteria that they set up on that library or list. Notifications of changes can also be receive with Really Simple Syndication (RSS) feeds.

For customization, integration, and extensibility options Office 365 offers: do-it-yourself website updates and publishing; businesses can apply a unique look and feel to team sites with custom theming and branding; web templates can be used to personalize sites; and personalized company domain names are supported. Mobile integration can be accomplished with international and North American mobile devices such as Windows Phone, iPhone, Android phone, Symbian phone, Nokia S60, and BlackBerry is also supported.

For extensibility needs Notifications of changes as alerts and Really Simple Syndication (RSS). External websites and Antivirus and anti-spam filtering can be accomplished as well as other industry standard security features. SharePoint Online also provides both server and client object models for developers and Microsoft Visual Studio 2010 provides templates for creating additional SharePoint solutions. Further extensibility and integration options may soon be added as Microsoft recently announced that they are planning to integrate Yammer a newly acquired social networking technology into SharePoint Online and Office 365 (Bolton, 2012). Microsoft also announced plans to integrate Microsoft Dynamics a business management tool and Skype video calling software into Office 365 (Bolton, 2012).

Office 365 with SharePoint integration has a familiar set of tools integrated in a collaborative SharePoint environment that can overall allow individuals with different work styles to work in different ways but still stay connected as a team. Team managers can implement templates, notifications and workflows to help keep the team focused on task and requirements critical to obtaining overall goals and objectives while encouraging members to selectively use other tools that are more tailored to their individual work styles.

## **Huddle**

Huddle is a web based tool similar to Office 365 and Webex Office in features and functions. Huddle allows business to create collaboration portals and much like the previous tools discussed Huddle offers: file sharing & document management; notifications via email with the ability to setup automatic replies; workflow approvals and whiteboards can be used; web meetings and phone conferencing can be schedule and integration with desktop calendar applications is also supported.

Huddle also has features that can be useful in managing team members with different work styles. Some particular features of Huddle that task oriented team members may prefer could be the ability to assign task, manage task and milestone progress and the ability to export task to CSV files. For the people oriented team members they may prefer Huddle collaboration tools such as personal dashboards for viewing workspaces, activities and the ability to add widgets and discussion forums for sharing ideas. Each team member also has their own personal profile where they can upload photos, personal descriptions and contact information that can be shared with other team members.

For customization, integration, and extensibility options Huddle offers: custom task fields and menus that can be applied on a per workspace basis. Workspaces are private areas that can be limited to a select group of members for added security or privacy. Users can create personal dashboards for organizing and viewing their workspaces and activities as to meet their individual work styles as well as customize the look and feel of their dash boards by adding additional widgets like calendars, activities, and weather. Huddle integration capabilities consist of a list of application add-ons for products such as MS Office, VMware Zimbra and Google Chrome as well as the ability to sync files with mobile and desktop devices. Huddle also supports integration with other Search Applications, SharePoint, Document, Content and Records Management Systems. Extensibility features include RSS feeds, multiple languages and time zone, Enterprise API integration support, Quickoffice Pro for iPhone and iPad integration, as well as Android and BlackBerry apps for access to Huddle workspaces.

Huddle has a good set of individual customization options with its ability for team members to create their own workspaces and add widgets. For teams with wide gaps in work styles the added personal customization option provided by Huddle may be what is needed for members to further distinguish themselves from others. The collaboration features are extensive enough to support team cohesion and communication while the task management features can assist task oriented team members with efficiently tracking and completing critical task.

## **Recommendation**

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There are many collaborative computing solutions available today for businesses to choose from. This paper is not an exhaustive review of all the products and solutions available but does provide a literary summary of three commonly used business solutions. All three products discussed all have features and functions that would help in solving the issue of workplace problems caused by differences in individual work styles. Neither solution is a one size fits all solution with each having some advantages and disadvantages that will need to be considered and weighed based on organizational priorities. Many businesses still have some concerns in the area of privacy and security around cloud computing solutions these three products do attempt to address some of these concerns with added security features. Webex Office, Office 365 and Huddle all offer security features in the area of user authentication, SSL application security, document and database permissions, network security, intrusion detection, and datacenter security standards in areas of redundancy and physical security. For some institutions an in house solution may be preferred to better maintain extensibility in the areas of security and control. Some organizations may have extensive security needs and can focus their needs in the areas of customization or integration capabilities.

Webex Office, Office 365 and Huddle collaborative computing solutions that are all “loosely coupled environment for integrating collaborative applications” (LEICA) that includes a computer-supported cooperative work system (CSCW) that can be tailored to support the different work styles of task oriented or people oriented team members. My recommendation to business managers would be to evaluate collaborative computing solutions that solve a particular problem or can fulfill a particular business need. Depending on the business needs or requirements for customization, integration, and extensibility certain solutions will be a better fit than others to your organization. By focusing on solutions that characteristically fit into the Gomes et al, 2011 integrated collaboration environments (ICEs) managers can assure that integration, customization, extensibility and scalability will be part of their chosen implementation and will be responsive to the needs of their teams (Gomes et al, 2011). Return on investment (ROI) and cost benefit analysis can further assist in selecting the product and solutions that will add long-term value to any business operation.

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