Carol Cron
DETC 630, Sec. 9040
Technology Scorecard and Report
November 23, 2012

Technology Report

This technology report will evaluate and comment on the new technologies used in DETC 630 for the four hands-on projects by Carol Cron and Francesco Marinucci and the technology suite group project by Carol, Francesco and Leslie Pope. The technologies used in the hands-on projects included:

(1) Wiki/Blog: PM Wiki and Tumblr

(2) Social Media: Facebook

(3) Multimedia – Asynchronous and Synchronous: Audacity and Skype

(4) LMS: Canvas/Instructure

The five technologies used in the technology suite group project included:

(1) Asynchronous: Google Docs

(2) Synchronous: WebEx

(3) Content Development: PBWorks

(4) Assessment: ProProfs

(5) Multimedia: Camtasia. Use of Camtasia for video production was done by Leslie Pope and Francesco Marinucci, so it will not be included on this scorecard.

As suggested in Trochim (2006) a 5 point Likert rating scale was created, with:

5 being excellent (definitely would recommend it/use it again)
4 being very good (would recommend it/use it again)
3 being adequate (might recommend it/use it again, but would look for alternatives)
2 being difficult (likely would not recommend it/use it again)
1 being unsatisfactory (definitely would not recommend it/use it again)

A literature review of various articles and websites, including Georghiou & Roessner (2000), Sun Associates (2012) and The Sloan Consortium (2012) provided ideas for criteria to include in the review, including system requirements, operability/usability, clarity of the audio-video components, learning curve, cost or upgrade cost, workload and time management, support of learning criteria and fun factor. Sun Associates (2012) offers services to help clients develop assessment tools for technology used in education. Assessing Technology Tools (n.d.) suggested incorporating instructional criteria, which included interactivity and learner control, attitudes and achievements.

After reviewing these references as well as DETC 630 conference discussions the following criteria were chosen for this technology evaluation: whether it was easy to access online and/or download and easy to use; whether there was much of a learning curve; whether the technology can be used on a mobile device; if it is free, or whether there is a cost to upgrade to a premium version; and finally, whether there are any privacy issues related to use of the technologies or accessing the documents online created with the technologies. After giving a score to each criteria, for each technology, the formula function in Word was used to average the ratings for each technology based on the ratings of the six categories. This averaging step led to an interesting and accurate overview of the score of each technology, and provided a reasonable baseline score to determine whether a technology would be recommended/used again or not.

Technology Scorecard

5 = excellent 4 = very good 3 = adequate 2 = difficult 1 = unsatisfactory	PM Wiki Wiki	PB Works Wiki*	Tumblr Blog	Facebook Social Media	Audacity Multimedia	Skype Teleconference	Canvas/Instructure LMS	Google Docs Collaboration*	WebEx Virtual Meeting*	ProProfs Quiz Maker*
Easy to access/ download	2	4	3	5	5	5	4	3	3	5
Easy to use	2	4	2	5	4	3	4	3	3	4
Learning curve	2	4	3	4	4	4	3	4	3	5
Mobile device	2	4	4	5	5	4	4	3	3	3
Cost to Upgrade	4	3	4	5	n/a	3	3	4	3	3
Privacy Issues	1	4	2	3	n/a	4	4	3	4	3
Total Average	2.17	3.83	3.00	4.50	4.50	3.83	3.67	3.33	3.17	3.83

*Used in technology suite project

To factor in a wide variety of averages, a range was devised, dividing the scores from 3.0 to 5.0 into three categories.

4.25 – 5.00	Excellent – Would definitely recommend it/use it again
3.50 – 4.24	Very good – Would recommend it/use it again
3.00 – 3.49	Adequate – Might recommend it/use it again, but would look for alternatives
2.00 – 2.99	Difficult – Likely would not recommend it/use it again
1.00 – 1.99	Unsatisfactory – Definitely would not recommend it/use it

Carol Cron
DETC 630, Sec. 9040
Technology Scorecard and Report
November 23, 2012

Discussion of Technologies

   Pm Wiki was the first hands-on project and was handled by group partner Francesco Marinucci. This program proved to be a difficult one to access and install, and it was not easy to use. The PmWiki home page says that the product is easy to use and collaborate with other authors, but if wiki users want to use "a lot of funky HTML in a web page, then PmWiki is not what you should be using to create it" (PmWiki, 2012). One of the biggest problems with this wiki was the requirement to provide a significant amount of personal information in order to set it up fully, which led to a score of 1 on the privacy issues.

PM Wiki	2.17/5.00	Difficult – would not recommend/use it again

   PBWorks was a wiki used in the technology suite project and is included slightly out of order so it could be scored next to the first wiki. This was a satisfactory experiment, and was set up easily using a new and unique e-mail address for our technology suite project. Pages were made to hold our material, documents, links and assessments. Our instructors were added easily as reviewers. This wiki allowed for images and photographs to be uploaded easily. It was free to use, but upgraded versions are available.

PBWorks	3.83/5.00	Very good – would recommend/use it again

   Tumblr was a blog platform used in the first hands-on project. It was relatively easy to set up, with content and a couple of images. Images, in fact, appear to be a highlight of what can be shared on this blog hosting platform. Francesco was able to access the blog, read it and post a response, but it was not easy for him to do. Shaw (2012) notes its lack of flexibility and that it is used primarily for personal blogs rather than public ones. There was also an annoying 30 second advertisement that was nearly impossible to bypass which made the program user unfriendly.

Tumblr	3.00/5.00	Adequate – might recommend/use it again, but would look for alternatives

   Facebook was the social media for the second hands-on project. A class group was created and nine current and former MDE students, and our instructors accepted the invitation to join the group. There were several threaded conversations about features of Facebook. Most people were familiar with Facebook from their own personal use, but most everyone learned at least one new way in which Facebook could be used. This technology scored highest in all criteria except the learning curve, since there are a number of important initial lessons to be learned for best utilization. The score of 3 on privacy issues was because without careful user settings, too much personal and private information can be unintentionally available to the world.

Facebook	4.50/5.00	Excellent – would definitely recommend/use it again

   Audacity was the asynchronous choice the third hands-on experiment. It is a free, digital multimedia technology used for making podcasts directly from a computer or mobile device, without the need for special equipment or a studio. A more "formal" podcast can be made with a headset and mic and a script; or once comfortable with Audacity, an "on the go" podcast can be made using a mobile device, excellent for many research and observational investigations. A factor noted in the testing of Audacity was the need for a platform, such as Podbean, to host the completed podcast in

order for it to be streaming. In this technology review an "n/a" was listed under cost to upgrade since it is a free program and privacy issues since use of Audacity does not require an account or personal information. Accordingly, the 4.25 score was averaged on four criteria, instead of six.

Audacity	4.50/5.00	Excellent – would definitely recommend/use it again

Skype was the synchronous choice for the third hands-on project. It is a VoIP (voice-over Internet Protocol) service that allows Skype account holders to talk without the expense of "land lines" – especially useful for international phone calls. With the use of a webcam users can also do video calls. Desktops can be shared, if the Internet connection is fast, and users are not trying to do too many things. During the experiments, which were truly international as Francesco was in Italy, the connections were lost/dropped many times. Solutions included logging off and back on to Skype a number of times as well as changing browsers. A Skype upgrade is available for a variety of rates, depending on the length of the subscription, which would definitely improve what can be done (such as full video, file sharing, and more). A Skype premium would be useful for educational use, such as groups of students talking to each other around the world, for business, such as virtual video meetings, and for personal use, such as families and friends keeping in touch with each other.

Skype	3.83/5.00	Very good – would recommend/use it again

Canvas by Instructure is a cloud-based learning management system used in both higher education and school systems. It is an open-source system so programs and applications are constantly being written and used by Canvas users. Canvas bases much of its system on the premise of good communication between users (instructors and students) so the large amount of e-mails are replaced with simple notifications that an announcement has been posted/changed, a message has been posted, or grades have been completed/posted. Notifications can be received via e-mail, Facebook or RSS feeds, but users need to set/personalize their notifications so they are notified in their preferred manner and time frame. Multimedia can be included in a Canvas LMS easily, as can material from the Internet. The Canvas content editor allows users to create and mix text, images and hyperlinks easily. Quizzes can be created in Canvas and embedded in the LMS – students can then take the quiz and their scores are uploaded to the gradebook. When including documents or PowerPoint presentations, Canvas works behind the scenes with Scribd to embed a preview of the document so it does not always have to be downloaded to see it. Canvas courses – including the content, can be made public or private with a simple click.

Canvas	3.67/5.00	Very good – would recommend/use it again

Google Docs is a platform that allows for document sharing and creation and both synchronous and asynchronous collaboration, meaning more than one user can have the document open and work on it at the same time. Google Docs can be used for numerous different tasks including spreadsheet development/editing and document creation. Generally, it is freely available, but if there are a large number of users or a great amount of storage space is required, then a business version can be purchased. In using this technology for the group project it was found to be a bit complicated to access due to specific e-mails being needed for the invitation to view/edit and then other access issues, but it was definitely doable.

Google Docs	3.33/5.00	Adequate – might recommend/use it again, but would look for alternatives

Carol Cron
DETC 630, Sec. 9040
Technology Scorecard and Report
November 23, 2012

WebEx is a technology used for virtual meetings – whether for just two or three people, or a dozen or more. This technology was used for class meetings to discuss our technology suite project, where the instructors used screen sharing, as well as meetings for our technology suite group. Generally a headset and mic are needed to easily participate; without this users need to call a toll-free number to connect to the meeting. Meetings can be set up for free, but business accounts can be set up to host multiple users; they must be scheduled and notifications/invitations are sent to participants.

WebEx	3.17/5.00	Adequate – might recommend/use it again, but would look for alternatives

ProProfs is an assessment technology allowing instructors to create quizzes or tests which students can access and complete. Many types of tests can be created, including multiple choice, true/false and essay. Point values can be assigned to each question, and correct answers can be indicated so with a wrong answer, the student is informed of the right answer and the reason. A certificate of completion can be created and embedded in an LMS to show completion and score. This could be visible to classmates; thus a score of 3 was given to privacy issues. An initial version of ProProfs is free, but users are encouraged to purchase an upgrade to utilize additional features.

ProProfs	3.82/5.00	Very good – would recommend/use it again

Conclusion

This assignment, although daunting and a bit confusing at first, provided an accurate and complete overview of ten technologies, many of which were new and unfamiliar – especially the extent of their capabilities. The first hands-on experiment with PM Wiki and Tumblr proved to not be particularly user friendly, and many alternatives are available to this particular wiki and blog. The hands-on experiments improved after the first evaluation. The assignment instructions specifically required a review of how the various technologies can benefit or be used in education, which really caused expanding the knowledge and boundaries of the technologies, especially ones such as Facebook, Skype and Audacity – which otherwise might be used just for "keeping in touch" with friends and family. While the Likert rating scale used was a simple 1 – 5 scale, it could have been expanded if desired to a broader scale; different or more criteria could have been added, based on suggestions in the literature to include system requirements, operability and fun factor; or inclusion of instructional criteria, such as interactivity, learner control, attitudes and achievements. In summary, the technologies that fell into the rating categories were as follows:

4.25 – 5.00	Facebook Audacity	(4.50) (4.50)	Excellent	Would definitely recommend/use it again
3.50 – 4.24	PB Works Skype ProProfs Canvas	(3.83) (3.83) (3.83) (3.67)	Very good	Would recommend/use it again
3.00 – 3.49	Google Docs WebEx Tumblr	(3.33) (3.17) (3.00)	Adequate	Might recommend/use it again, but would look for alternatives
2.00 – 2.99	Pm Wiki	(2.17)	Difficult	Likely would not recommend/use it again
1.00 – 1.99			Unsatisfactory	Definitely would not recommend/use it again

References

Assessing Technology Tools (n.d.). Retrieved from http://www.nsba.org/sbot/toolkit/att.html

Georghiou, L. & Roessner, D. (2000). Research Policy. *Evaluating technology programs: Tools and methods. 29.* 657-678. Retrieved from http://dimetic.dime-eu.org/dimetic_files/ ResPolGeorghiouRoesser.pdf

PmWiki (2012). Home page. http://www.pmwiki.org/

Shaw, A. (2012). Top 5 blogging platforms. Retrieved from http://www.thetechnodaily.com/top-5-blogging- platforms/

Sun Evaluation Services (2012). Retrieved from http://www.sun-associates.com/evaluation.html

The Sloan Consortium (2012). Web 2.0 selection criteria: Save time choosing an appropriate tool. Retrieved from http://sloanconsortium.org/Web_2.0_Selection_Criteria_ Save_ Time_Choosing_an_Appropriate_Tool

Trochim, W. (2006). Research Methods Knowledge Base. *Likert Scaling.* Retrieved from http://www.socialresearchmethods.net/kb/scallik.php