SUMMARY OF
STUDENTS/TRAINEES AND FACULTY LEARNER
PERSPECTIVES ON ELEARNING

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INTRODUCTION

The Faculty of Medicine, Education Vice-Deans, formed an eLearning Task Force that has the responsibility of developing a set of recommendations to help shape the Faculty of Medicine as a global leader in developing, evaluating, and refining eLearning technologies across the medical education continuum. The Task Force sought student/trainee learners' and faculty learners' opinions about issues related to eLearning. The objectives of the consultations were to:

- Explore perceptions and opinions about e-learning, any concerns or perceived challenges about e-learning, and suggestions as to how e-learning might be improved
- Explore suggestions for potential future e-learning opportunities

Ultimately the Faculty of Medicine wishes to provide health professions students with an optimal learning environment. The plan was to inform the development of a survey about eLearning to be administered Fall 2014 to Faculty of Medicine students.

METHODS

SAMPLING/RECRUITMENT

Student/trainee participants were purposively recruited from the following University of Toronto programs: Undergraduate Medical Education, Postgraduate Medical Education, Physician Assistant, Physical Therapy, Radiation Therapy. Faculty learner participants were from: Occupational Science and Occupational Therapy, Physical Therapy, Laboratory Medicine, and Pathobiology and Medicine. Potential participants were contacted by email to obtain an expression of interest to participate.

DATA COLLECTION

Three one-hour stratified focus groups with students and trainees were conducted with members of our purposive sample according to a focus group script (Appendix A – *Moderator's Guide for eLearning Focus Group*). Focus groups were conducted in-person and by phone. All interviews were digitally audio-recorded. The interviewer reviewed the interview process at the time of the interview and answered any questions from the participants. Participants were asked share their personal opinions about e-Learning. Interviews were conducted by a research consultant experienced in qualitative research. Faculty learners completed an online questionnaire (Appendix B – *Adult Learner Questionnaire*)

DATA ANALYSIS

All focus groups were transcribed. Transcripts were then uploaded into NVivo 10 for data organization. Questionnaire data was also imported to NVivo for organization. Data were coded based on questions of interest and a coding scheme that was organized around this. Data were analyzed iteratively using constant comparison.

FINDINGS

PARTICIPANT DESCRIPTION

Participants were a combination of active and more passive or minimal/less experienced users. Participants are described in the tables below:

Table 1. Focus Group 1: Undergraduate Medical Education students

Student	Sex	Year	Campus
CS	F	1T5	St. George
LD	F	1T5	St. George
PG	F	1T6	St. George
AM	M	1T6	1T6 MAM
RH	M	1T6	1T6 MAM
AM	F	1T6	1T6 MAM

Table 2. Focus Group 2: Postgraduate Medical Education Residents

Resident	Sex	Year	Program
TM	M	PGY1	Pediatrics
SH	M	PGY1	Family Medicine
SB	F	PGY1	Family Medicine
DT	M	PGY4	Cardiac Surgery

Table 3. Focus Group 3: Physician Assistant, Physical Therapy, Radiation Therapy students

Student	Sex	Year	Dept. /Program
ST	F	1	PA Program
KC	M	2	PA Program
EP	F	1	Rehab (Physical Therapy)
JA	F	?	Radiation Therapy

Table 4. Participant Description - Faculty learners

Faculty/Adult Learner Participant	Sex	Department
AD	F	Occupational Science and Occupational Therapy
DH	F	Occupational Science and Occupational Therapy
HM	F	Medicine
NI	F	Laboratory Medicine and Pathobiology
RM	M	Physical Therapy
SM	F	Physical Therapy

SUMMARY

There was representation of active vs. passive and minimal/no users and pro-technology vs. less-tech savvy users in each of the student groups and among the faculty learners. Some programs use eLearning almost completely (Physician Assistant, Radiation Therapy). The other programs use it to a much lesser extent (Undergraduate Medical Education, Postgraduate Medical Education, Physical Therapy). Detailed findings are contained in Appendix C (*Detailed Findings – Students and Faculty Learners*).

TAKE HOME MESSAGES

There was general acceptance that eLearning is the way of the future. Learners valued eLearning that functioned, was accessible, and improved their learning. There did not appear to be a real passion for eLearning, nor any major resistance. For students/trainees, there seemed to be a tacit acceptance that this pedagogical technique was helpful when done well (purposefully, effectively), from each learners' notion of what is important to them (relevance). This meant providing high quality and well-organized offerings, with incremental change for content that fits an eLearning approach. eLearning seemed to be most firmly embraced by those students whose programs are primarily taught using an eLearning approach. eLearning modalities were considered to have educational value while social media was viewed as having a communication and entertainment purpose, especially in one's personal life.

There was agreement among students and faculty that accessibility of eLearning was necessary (i.e., providing for personalized learning to optimize relevance of content). For students, this meant customizing by learning style and providing content on various platforms. In the faculty learner group, accessibility was raised in the context of providing templates and low cost options, and accommodating the range of skill levels (e.g., Community of Practice for new users; advanced skills development for those more comfortable using eLearning).

Students/trainees recommended providing training and resources for both students and faculty/ instructors on what is available and how to use it properly, as a way to assist with standardization across the curriculum. Faculty learners similarly acknowledged the value of support and assistance (i.e., related to use, maintenance, development, research).

The idea of a repository was identified by both students and faculty learner respondents as a means of knowledge acquisition and as a central access point. Students spoke of an online repository of resident and staff lectures, as well as a compilation of high quality and up-to-date resources (i.e., chapters, videos, reference articles). The physician assistant, physical therapy and radiation therapy student group discussed a single access point for all information required for their course. One faculty learner referred to a repository of resources for general (clinical) CEPD eLearning offerings, as well as for eLearning educational opportunities to learn how to create eLearning.

Other messages highlighted by students/trainees were: consider learning from other industries about what works; expand (increase) eLearning in classroom-based programs, and recognize and address the importance of privacy. One faculty learner noted that eLearning should be enjoyable.

EDUCATIONAL AND PERSONAL USE OF eLEARNING MODALITIES AND SOCIAL MEDIA IN PROFESSIONALLY AND PERSONALLY

Students seemed to blur the distinction between what types of technology were social media tools versus those that were eLearning modalities. This ambiguity gave rise to a general sense that social media had a more personal purpose (i.e., communication and entertainment), while eLearning modalities had a greater educational role to play. Students did not seem to reach consensus regarding how or why the use of social media in medical education might be important. These tensions related to potential utility may stem more from confusion about how one would use social media in the context of eLearning (i.e., the terminology). However, in both groups there was evidence of overlap in use, with some technology serving dual purposes, being used both professionally and personally (e.g., Skype).

Student learners' apparent reluctance, or uncertainty, regarding use of social media as a learning tool may explain the desire for standardization and boundaries on which tools were to be used, how and when, in a particular program or course. Faculty learners also spoke of standardization in relation to templates for faculty use.

Most faculty respondents reported using social media for educational purposes. However, it was unclear whether faculty learners have the same conviction (as students) regarding social media's primary purpose being personal. It was also not possible to know from the data, the extent to which it is being used in medical education or personally.

Students seemed to be more varied than faculty learners in the types of eLearning modalities they use, although all have used eLearning management systems, like Blackboard (a staple technology for U of T). For social media, these two groups of learners similarly identified Facebook, Twitter, LinkedIn and Youtube as types having been used professionally. For personal purposes, students seemed to be more varied in their use of social media than faculty learners, identifying many options.

Students in programs that have fully adopted eLearning (i.e., Physician Assistant Program, Physical, Radiation Therapy) seemed to particularly like the eLearning approach. That said, this group of students (Physician Assistant, Physical Therapy, Radiation Therapy) was acutely aware of the disruptions to learning that resulted when technology failed (e.g., maintenance disruptions for Blackboard – although seen as being necessary to maintain high quality education).

Accessibility was a key theme across all learners, including cross-machine/platform use, low cost options, and availability of multiple methods. A range of users and user abilities was said to be important to consider. No single type of social media or eLearning modality was said to be exclusively effective among the two groups of learners. Smartphones, iPad and tablets seem to be popular among students (for their portability).

Educating faculty (as well as training students) about how to use technology was discussed by both students/ trainees and faculty learners. The students' message about faculty needing to be up to speed and consistent in their use of eLearning across a program may be less relevant for those with minimal exposure or expectations to use eLearning in their program.

A range of perceived disadvantages were highlighted. Barriers or challenges to eLearning identified by both students/trainees and faculty learners were: cost, acceptance (comfort, interest), technology limitations, and poorly designed (validity, reliability) eLearning methods. For social media, common concerns were: privacy (and professionalism), design issues (e.g., effectiveness), accessibility for non-technology users and user engagement in general, and tailoring technology use.

SUPPORTING ADOPTION OF ELEARNING

There was a general recognition that eLearning is the way of the future even if participants were unclear how this would play out. Both students and faculty learners noted training on how to use technology as one way the Faculty of Medicine could support them. Students also identified standardization, communication about technology requirements, and provision of high quality eLearning. Faculty learners additionally identified supporting eLearning research and development, providing technological assistance, tailoring eLearning, building a repository, and making it enjoyable, accessible and as inexpensive as possible.

Ongoing support and training, attention to privacy issues, and accessibility were cited by both groups as being important considerations when selecting eLearning modalities. Students also discussed professionalism and social media, paying attention to content and context to ensure eLearning is the right delivery method. Faculty learners raised being user-friendly and interactivity and assessment as important considerations.

SUMMARY TABLES

STUDENTS/TRAINEES

TAKE HOME MESSAGES

Please briefly summarize the key take-home messages and recommendations you would like to share to improve our programming.		
UME Students	**Residents**	**Other Health Professional Students**
Accessibility - introduce more than one option for learning, including two-way information exchange (discussion) and taking various learning preferences into account	Incremental change for content that fits the eLearning modality	Expand (increase) eLearning in classroom-based programs
Training of faculty and standardization across the curriculum	Accessibility - providing on various platforms	Accessibility – Provide personalized learning
Importance of privacy	Learning from other industries about what works	Training and resources for students and faculty/instructor, on what is available, how to use it properly, and what is needed
	High quality and well-organized	
	Accessibility - Personalized learning - Customize by learning style and specialty	

CURRENT USE AND IMPACT OF ELEARNING IN PROFESSIONAL TRAINING

Types of eLearning modalities used		
What types of eLearning modalities have you used to contribute to your professional training? E.g., Blackboard, Moodle, Basecamp, Digital media, Stand-alone videos, Webinars, Podcasts, Avatars, Virtual patients or characters, Tablets, Smart phones, Interactive white boards, QR codes, Augmented Reality formats (e.g. Aurasma), Course tools (e.g. wikis, blogs, mash ups, journals, discussion boards), Listserv; *Conferencing tools* are used to facilitate the sharing of information in an interactive way; Communication tools are used to send messages, files, data, or documents between people and hence facilitate the sharing of information.		
UME Students	**Residents**	**Other Health Professional Students**
eLearning modalities used for professional training identified are: • Virtual patient cases (Mr. GB) • Simulation • Online modules (e.g., biostatistics, prescription) • Recorded lectures • ASCM YouTube videos • Blackboard forum • Electronic devices • Smartphone • Tablets (iPad) • Videos uploaded on portal • Apps • Library of online resources (e.g., electronic journals) • Journal websites • UpToDate • Laptops • Desktop • Dropbox • Google Drive • Evernote	eLearning modalities used for professional training identified are: • E-conferencing and sometimes teleconferencing (satellite facilities) • eLearning platforms • Blackboard (synchronous lectures with lecture slides; recorded lectures and also ancillary resources for recorded lectures) • e-modules (e.g., PG core ED modules with video clips and text and quiz at end of each module) • e-textbooks • Discussion boards (medical student, resident) • Educational podcasts • Online repository of resident lectures and staff lectures • Repository of resources (chapters, videos, reference articles) • Smart boards that incorporate other multimedia, like videos from YouTube and images	It was noted that Blackboard was the predominant modality and the proportion of time using other things is relatively small. One program uses eLearning modalities very little (mostly uses face-to-face classroom based learning), while the other two use it as the primary way to deliver their programs. eLearning modalities used for professional training identified are: • Self-study units (lectures with slides and an audio component and animations on the slides) • Video • Asynchronous and synchronous Blackboard activities (for classes; courses and lecture notes are posted; wikis) • Blackboard Collaborate for meetings • Blackboard Collaborate posts and discussion boards • Tablets (iPad) • Online courses (during rotations) • Online meetings (guest speaker lectures, student presentations)

• Notability • GoodReader as my main app, • Evernote app • Toronto Notes (note package) • Medscape • Email	• Telederm and Ontario Teleconferencing Network (OTN) • Internet • Mobile-based apps • Smart phones • Text messaging	• Email • Smartphones (iPhone) • Face Time • Discussion boards / forums • Virtual Patient • Dell computer desktop • Apps (including Blackboard Collaborate) • Laptops (Mac, MacBook) • Skype • Google Docs

How used

How these eLearning modalities are used in professional training

UME Students	Residents	Other Health Professional Students
Knowledge acquisition – Learning medical facts and clinical skills Includes the following modalities: virtual patient cases, recorded lectures, videos	Knowledge acquisition – Learning medical facts and clinical skills Includes the following modalities: Blackboard, e-conferencing, recorded lectures, videos, apps	Knowledge acquisition – Learning medical facts and clinical skills Includes the following modalities: Blackboard, virtual patients, recorded lectures, videos
To fill in missing information (gaps in notes)	Knowledge acquisition – Staying current/up-to-date	Obtaining feedback and interactive group discussions (in class, study groups, virtual patients)
Taking notes (tablet) and uploading to other technology	Two-way communication and interactive discussions	Collaborative work and contributing to group assignments
Using technology off-site to learn "on the go"	Using technology off-site to learn "on the go"	Flexibility to use technology when desired, including off-site to learning "on the go"
Interactive group discussions and group sessions		Academic content vs. communication and information sharing

Most effective and why

Which (eLearning) modalities have been the most effective for teaching and learning? Why are these eLearning modalities most effective? (e.g., greater interaction between students and faculty; makes learning more interesting; ability to tailor teaching to suit students' training needs)?

Note that this section there is overlap between the reasons why eLearning modalities are effective and how students use them (previous section).

UME Students	Residents	Other Health Professional Students
Ability to upload and transfer data to other modalities	Context specific - Depends on purpose	Facilitates/increases participation by students
Ease of use/ Comfort using/ Central location of information	Convenience and portability – virtual learning	Convenience and portability – virtual learning
Convenience and portability – virtual learning	Engaging in discussions and facilitating interaction	Ease of use/ Comfort using/ Central location of information
Timeliness of information acquisition	Ease of use/ Comfort using/ Central location of information	Engaging in discussions and facilitating interaction
Cost factor	Timeliness of information acquisition	Knowledge acquisition (clinical, practical)
Knowledge acquisition (clinical, practical)	Knowledge acquisition (clinical, practical)	Learning at one's own pace
To obtain missing information	Up-to-date	
	Relevance	

Barriers/challenges

What are the barriers or challenges to their (eLearning modalities) use?

UME Students	Residents	Other Health Professional Students
Learning curve for non-technology users and initial reluctance/hesitation/concerns to engage in technology use	Suitability of eLearning as a format to teach specific content (is another pedagogy more appropriate?)	Technical issues, including ease of use
Cost factor	Not as dynamic as in-person	Lack of interaction (less personal)
Technical issues, including ease of use	Lack of interaction (less personal)	Lack of standardization

Validity, reliability and suitability of eLearning modalities (value of information from a 'scientific' or truth point of view; options are not one-size fits all; up-to-date)	Validity and reliability of eLearning modalities (value of information from a 'scientific' or truth point of view; question of quality; up-to-date)	Suitability of eLearning as a format to teach specific content (is another pedagogy more appropriate?)
Lack of understanding of the functionality of an eLearning modality	Knowledge transfer may be questionable or variable	Learning curve for non-technology users and initial reluctance
	Content is not relevant	
	Technical issues, including ease of use	

Improvement

How can their (eLearning modalities) use be improved?

UME Students	Residents	Other Health Professional Students
Provide guidance on what eLearning options are available and what to use	Have resources available to supplement eLearning (when technology fails)	Activate the discussion board feature in Blackboard
Evaluate the suitability of eLearning as a format to teach specific content (is another pedagogy more appropriate? What is the optimal delivery method/platform?) and having options available	Manage expectations (preparation for learning)	Find ways to minimize disruptions due to maintenance of technology
Ensure resources are up-to-date	Ensure resources are up-to-date, high quality and relevant	Integrate aspects of social media (i.e., Facebook) into Blackboard platform
	Provide guidance on what eLearning options are available and what to use	Provide guidance on what eLearning options are available and what to use (and how to use it)
	Evaluate the suitability of eLearning as a format to teach specific content (is another pedagogy more appropriate? What is the optimal delivery method/platform?)	Train faculty/instructors

Inclusion in learning

What types of eLearning methods would you like to see as part of your learning?

UME Students	Residents	Other Health Professional Students
Case-based learning	Email distribution list to provide supplemental information (Or is there value in this method to provide core information?)	Interactive tool (like Skype)
Animation	Repository of resources	Improved use of Blackboard (increased use/incorporation of the features)
Range of resources	U of T resident discussion board	
	Apps to help study for exams and that provide guidelines (may already exist so no need to duplicate if this is the case)	

CURRENT USE AND IMPACT OF SOCIAL MEDIA IN PROFESSIONAL TRAINING

Types of social media used

What types of social media have you used to contribute to your professional training? Examples are: Facebook, LinkedIn, Microblogging (e.g., Twitter), Blog Comments and Forums, Bookmarking Sites (e.g., Delicious and StumblesUpon), Social News (e.g., Digg and Reddit), Media sharing (e.g., YouTube, Flickr)

UME Students	Residents	Other Health Professional Students
• Twitter • YouTube videos • LinkedIn • Premed101 forum • Blogs • HealthyDebate and other websites	• Twitter • YouTube videos • LinkedIn • Tailored news feeds • Internet • Facebook	• Facebook • Skype • iPhone group

How used

How are social media used in your professional training?

UME Students	Residents	Other Health Professional Students
Knowledge acquisition (clinical, practical)	Knowledge acquisition (clinical, practical)	Communication - Interactive discussions and sharing information
Knowledge acquisition – Staying current/up-to-date	Knowledge acquisition – Staying current/up-to-date	Networking
Communication - Interactive discussions and sharing information with fellow students	Communication - Interactive discussions and sharing information	
Communication - Interactive discussions and sharing information with instructors	Networking	
Networking		

Most effective and why

Which have been the most effective for teaching and learning? Why are these social media most effective? (e.g., greater interaction between students and faculty; makes learning more interesting; ability to tailor teaching to suit students' training needs)?

Participants generally viewed the effectiveness and utility of social media as being limited primarily to communication and information sharing. On its own it was not considered to be effective for teaching and learning or had limitations (as discussed in the "barriers/challenges" section. This section overlaps with the previous section on uses of social media in learning.

UME Students	Residents	Other Health Professional Students
Facilitates Interactive discussions and information sharing	Facilitates Interactive discussions and information sharing	Facilitates Interactive discussions and information sharing
Knowledge acquisition (clinical, practical)	Knowledge acquisition (clinical, practical)	
Staying current and obtaining up-to-date information	Staying current and obtaining up-to-date information	

Barriers/challenges

What are the barriers or challenges to their (social media) use?

UME Students	Residents	Other Health Professional Students
Concerns related to professionalism, ethical issues and privacy	Concerns related to professionalism, ethical issues and privacy	Concerns related to professionalism, ethical issues and privacy
Accessibility for non-technology users and concerns to engage in technology use	Knowledge transfer may be questionable or variable	Accessibility for non-technology users and concerns to engage in technology use
Validity and reliability (value of information from a 'scientific' or truth point of view)	Validity and reliability (value of information from a 'scientific' or truth point of view; options are not one-size fits all; up-to-date)	
	Technical issues	

Improvement

How can their (social media) use be improved?

UME Students	Residents	Other Health Professional Students
Accessibility – tailoring to and providing options for learners	No need to improve - This group thought that social media has more of a role to play in their personal lives and questioned the value of increasing its scope in medical education	Improve accessibility by incorporating social media into eLearning modalities (e.g., Blackboard)
Teaching students how to use (e.g., guidance on how to use social media in a professional manner, options available)		

Inclusion in learning

What types of social media would you like to see as part of your learning?

Overall, participants suggested that there is no or a limited role for social media in education – mainly for information sharing and facilitate interactive discussion.

UME Students	Residents	Other Health Professional Students
Discussion forum	Limited/No need to incorporate - Reluctance to use/integrate social media (i.e., social media not a mainstay of eLearning; balancing the personal side with professional aspect)	Limited need to incorporate - Reluctance to incorporate/integrate social media (i.e., not comfortable using; social media not a mainstay of eLearning; balancing the personal side with professional aspect)
Twitter feeds	Twitter feeds / Complementary - option to use (or not)	Lack of awareness of the possibilities/options
YouTube videos		
No need to incorporate - Reluctance to use/integrate social media (i.e., has nothing to do with eLearning; balancing the personal side with professional aspect)		
Complementary - option to use (or not)		

PERSONAL USE OF ELEARNING MODALITIES AND SOCIAL MEDIA

Types of eLearning modalities and social media used

What types of eLearning modalities and social media do you use outside your training?

For the most part, participants did not identify eLearning modalities as being used in their personal lives; rather, they identified social medial tools that they use to varying degrees.

UME Students	Residents	Other Health Professional Students
eLearning modalities and social media used for personal use are: • Instagram • Facebook • WhatsApp • Smartphone • Viber • Skype • Flicker • Pinterest • Yelp	eLearning modalities and social media used for personal use are: • Instagram • LinkedIn • Twitter • Basic communication technologies • Facebook • Smartphone for texting and emails • Snapchat • ONE Mail (Ontario-wide secure email system) • Hospital mail • Smart phones (Blackberries)	eLearning modalities and social media used for personal use are: • Pinterest • Facebook • subscription to an ECG group • Instagram • iPad • Apps that you can download for iPad

How used

How do you use these eLearning modalities and social media tools outside your training (e.g., for entertainment and communication)?

UME Students	Residents	Other Health Professional Students
Photos	Information sharing and discussions	Cataloguing information (e.g., organizing recipes, bookmarks)
		Information gathering, information sharing and discussions

Inclusion in future learning		
How might these tools be used in your education in the future?		
UME Students	**Residents**	**Other Health Professional Students**
Meetings and group discussions	Information sharing and discussions	Information sharing with a network of people

SUPPORTING ADOPTION OF ELEARNING

Faculty of Medicine support of students and faculty		
How can the Faculty of Medicine support students and faculty to use eLearning methods most effectively?		
UME Students	**Residents**	**Other Health Professional Students**
Provide consistency across the curriculum – continuous use	Providing high quality e-modules	Educating students about the technology that is available for use
Standardization - Define what role it's going to play (Is it something that you're going to be responsible for, or is it an optional "nice-to-have" that augments the standard curriculum students have to learn), and it needs to complement what students learn	Systematic determination of which content can be delivered by eLearning and customized by specialty	Standardization - training faculty and organizing materials (standardized approach in how the instructors post things and students use them)
Training around how to specifically use the technology		Communication about technology requirements

Considerations when selecting eLearning modalities

What should the most important considerations be when selecting eLearning modalities for health professions training?

UME Students	Residents	Other Health Professional Students
Professionalism and social media	Context-specific (eLearning modality or social media tool best applied based on educational purpose e.g., internet for just-in-time-learning; video on YouTube of a procedure for up-to-date information, a repository or resources for studying for exams)	Standardization to make it easy to access information
Accessibility – tailoring to and providing options for learners	Content-specific (some content is more amenable to an eLearning format – knowledge vs. skills)	Accessibility - Usability across platforms and reliability (works consistently)
Importance of privacy	eLearning modalities for time optimization (using eLearning for didactic content to free up group/classroom time for deeper discussion and to learn and practice skills)	Training for faculty/instructors

FACULTY LEARNERS

Take home messages

What is/are the key take-home message(s) and recommendations related to eLearning you would like to share with the Faculty of Medicine to improve the CFD and FD programming?
Accessibility (e.g., templates, low cost)
eLearning is the future
Personalized learning that accommodates new and more experienced learners - Education and Community of Practice for new users; advance skills development for those more comfortable using eLearning
Repository of resources for general (clinical) CEPD eLearning offerings AND for eLearning educational opportunities to learn how to create eLearning
Support and assistance (e.g., use, maintenance, development, research)
eLearning should be fun

CURRENT USE AND IMPACT OF ELEARNING IN PROFESSIONAL TRAINING

Types of eLearning modalities used
Have you used the following modalities for continuing professional development (CPD) and/or faculty development (FD) purposes, or personal purposes? Are there other eLearning modalities you have experience with as an adult learner in CPD and/or FD?
All have used Learning management system (e.g. Blackboard, Moodle) for CPD Most have used standalone videos for CPD Most have used webinars for CPD Most have used file sharing software (e.g. Basecamp, Dropbox) Virtual patients moderately popular for CPD Mobile learning on smart phones or tablets moderately popular for CPD Two-way videoconferencing moderately popular for CPD Podcasts not popular for CPD No participants have used Avatars for CPD
The following eLearning modalities have been used: • Learning management system (e.g. Blackboard, Moodle) • Standalone videos • Virtual patients • Webinars • Podcasts • Two-way videoconferencing • Mobile learning on smart phones or tablets • File sharing software (e.g. Basecamp, Dropbox) • Videoconferencing as a guest speaker and in inservices across sites. • Synchronous case building • Asynchronous discussion boards (e.g., Pepper) • "Webquests" • infoPOEMS (email) • Articulate • Camptasia

Most effective and why
Which modalities have been the most effective for your learning in the context of CPD and/or FD?
Responses varied; no single modality was viewed as most effective.
Most effective design involves multiple modalities with reinforcement, feedback and interactivity
Video conferencing
Webinars
File sharing (e.g., Dropbox)
Mobile learning
Simulation
Learning Management System (e.g., Blackboard)
Articulate
Barriers/challenges
What are the barriers or challenges to their use in the context of CPD and/or FD? How can their use be improved?
Cost
Limited expertise for training and educational support
Acceptance by faculty, including comfort level and interest
Technology limitations
Privacy concerns
Poorly designed eLearning
Assessment

CURRENT USE AND IMPACT OF SOCIAL MEDIA IN PROFESSIONAL TRAINING

Types of social media used
What types of social media have you used for educational purposes in the context of CPD and/or FD? Check all that apply.
Social media - blogs and discussion forums - most popular - used by most Facebook and Twitter not used by many LinkedIn used by some Social news sites (e.g. Digg, Reddit) not used by any respondents Media sharing sites (e.g. YouTube, Flickr, Vimeo) used by some
The following social media have been used: • Facebook • LinkedIn • Twitter • Blogs and Discussion forums • Media sharing sites (e.g. YouTube, Flickr, Vimeo) • Ted Talks
Most effective and why
Which modalities have been the most effective for your learning in the context of CPD and/or FD? Responses varied, and no one modality dominated Used to emphasize a point of learning, for marketing/communication
Blogs and discussion forums Videos Learning Management System (e.g., Blackboard) (identified by one participant, although this is not social media) Youtube TedTalks
Barriers/challenges
What are the barriers or challenges to their use in the context of CPD and/or FD? How can their use be improved? These were not dissimilar to the barriers cited for eLearning modalities
Acceptance by faculty, including comfort level and interest Privacy issues and intellectual property concerns Limited expertise for training and educational support Time commitment to fully participate Poorly designed eLearning Accessibility – tailoring to learners Not as effective for discussions as face-to-face learning

PERSONAL USE OF ELEARNING MODALITIES

Types of eLearning modalities used
Have you used the following modalities for personal purposes?
More participants used a learning management system (e.g. Blackboard, Moodle) for CPD; only a couple used for personal purposes
Most have used webinars for CPD and for personal use; webinars seemed to be the most popular modality for this dual purpose
File sharing software used by most; more using it for CPD than for personal use
Two-way videoconferencing moderately popular, more so for personal use than CPD Smartphones moderately popular, with equal numbers using for CPD and for personal use
Podcasts less popular
Participants identified: • Learning management system (e.g. Blackboard, Moodle) • Standalone videos • Webinars • Podcasts • Two-way videoconferencing • Mobile learning on smart phones or tablets • File sharing software (e.g. Basecamp, Dropbox) • Mobile learning on smart phones or tablets • Skype Use for professional purposes: • Sharing large amounts of info for grant writing • Teaching in the classroom • Information gathering • Data sharing
Personal Reasons - How used
When you use these modalities for personal reasons, what do you use them for (e.g. entertainment and communication)?
The main reasons participants have used these modalities personally are for communication and entertainment
Entertainment Communication Information gathering Reading (newspaper, journals)

Inclusion in future learning
What types of eLearning methods and/or social media would you like to see as part of your learning in Continuing Professional Development (CPD) and/or Faculty Development (FD) and how might these tools be used in in the future?
Participants identified: • Learning management system (e.g. Blackboard, Moodle) • Standalone videos • Webinars • Podcasts • Two-way videoconferencing • Mobile learning on smart phones or tablets • File sharing software (e.g. Basecamp, Dropbox) • Mobile learning on smart phones or tablets • Apps • Blogs • Twitter • Facebook • Youtube Interactive training support Variety Systematic and organized Up-to-date/Current

SUPPORTING ADOPTION OF ELEARNING

Faculty of Medicine support of students and faculty
How can the Faculty of Medicine support you in your CPD and/or FD to use eLearning methods most effectively?
Provide technological support Provide training on how to use and support Build a repository Offer personalized/tailored eLearning Make it fun Support eLearning research and development
Considerations when selecting eLearning modalities
What should the most important considerations be when selecting eLearning modalities for CPD and/or FD?
User-friendly Ongoing support and training in use Interactivity Privacy Assessment Avoid duplication in modalities, while striving for flexibility in offerings (accessibility)