Digital Learning Exchange: A Case Study in Transformative Communities of Practice

CNIE Virtual Conference

Diane P. Janes, PhD, TRU

James Beres, M.Ed, SAIT

SOUTHERN ALBERTA INSTITUTE OF TECHNOLGY
THOMPSON RIVERS UNIVERSITY | May 2-4 2022

TERRITORIAL ACKNOWLEDGEMENT

TRU's Kamloops campus is situated on the traditional lands of the Tk'emlúps te Secwépemc within Secwépemc'ulucw, the traditional territory of the Secwépemc people.

SAIT is situated on the traditional territories of the Blackfoot Confederacy which, today encompasses the Indigenous people of the Treaty 7 region in Southern Alberta: the Siksika, the Piikani, the Kainai, the Tsuut'ina, the Stoney Nakoda First Nations, the Northwest Métis Homeland – Region 3.

Background of the Study

- On March 14, 2020, the Southern Alberta Institute of Technology (SAIT) suspended all face-to-face classes and announced that online classes would begin on March 19 (SAIT Now, 2020).
- While those who had previously adopted technology-enhanced strategies were better prepared than others, because many SAIT programs are applied and include apprenticeships, all delivery options were considered in relation to program requirements (SAIT Now, 2020).
- Although departments did their best, messages were frequently mixed, and faculty were often unsure about how to proceed. This was SAIT's first fully online term in its 104-year history.
- peer-to-peer supports were required; there were too many teachers needing assistance for the educational development team to provide individualized coaching (Janes & Carter, 2020, p. 265)

With a big problem to solve, educational leaders established a virtual community of practice (CoP). This virtual form of Wenger's (1998) CoP leveraged the capabilities of Microsoft Teams, and enabled faculty to experience professional resiliency (Graham, 2016) and discover practical solutions to the challenges facing them.

Communities of Practice (CoP)

- "**Communities of practice [CoP]** are self-organizing and self-governing groups of people who share a passion for the common domain of what they do and strive to become better practitioners. They create value for their members and stakeholders through developing and spreading new knowledge, productive capabilities, and fostering innovation." (Por & van Bekkum, 2004, p. 8)

- Communities of practice (CoP) have been linked to other learning theories emphasizing story telling which was borne out in the SAIT experience (Brown, & Peck, 2018; Farnsworth, Kleanthous, & Wenger-Trayner, 2016).

- Since the SAIT Faculty were working from home, this virtual CoP became an important part of their support system.

- According to Garfield (2018), communities of practice function best when they are independent of overarching organizational structures; when membership is voluntary but there is a critical mass of members; and when there is nurturing.

- Duguid (2005) suggested, CoPs assist faculty in the space between knowing "what" and knowing "how." [and] "If we want to understand individuals' capacities and motives for sharing knowledge, we need to look not just at the knowledge, but at the communities in which their knowing how was shaped" (Duguid, 2005, p. 114).

Transformative Communities of Practice (TCoP)

- "A **transformative community of practice (TCoP)** is a group of transformative agents who share a passion for vertical development at all scales (from individual and team, to community, organization, and larger social systems) as their domain of practice. They interact regularly to learn together how to become better at vertical development." (Por, 2017, para. 11)

- Their practice includes the pursuit of a shared learning agenda and the development and spreading of new knowledge and capabilities related to the domain of vertical development of themselves and their organizations. (Por, 2017, para. 12)

- They cherish and cultivate the web of mutually supportive (and challenging) relationships that form the basis of their community. (Por, 2017, para. 13)

- Transformative Communities of Practice embody the same three dimensions (domain, community, practice) that a traditional CoP does, but at a new, higher turn of the spiral, due to vertical development being at their center. (Por, 2017, para. 14)

# Digital Communities of Practice (vCoPs)

- A vCoP is a CoP that utilizes web-based technology to facilitate communication and engagement (Dube, Bourhis, & Jacob, 2005).
- vCoPs can provide access to a larger community with which to share knowledge, build relationships, and foster innovation (Thoma, Brazil Spurr, Palaganas, Eppich, Grant, et al, 2018)
- vCoPs can expand one's resources for collaboration independent of geography or time zones (Li, Grinshaw, Nielsen, Judd, Coyte, and Graham, 2009; Gottlieb, Fant, King, Messman, Robinson, Carmelli, et al., 2017)
- vCoPs can create opportunities for shared learning (Yarris, Chan, Gottlieb, Miller Juve, 2019).
- vCoP uses web-based resources, such as Twitter or Instagram. However, newer approaches can also include closed platforms (eg, Slack, Basecamp, WhatsApp, or Facebook groups). (Chan, Gottlieb, Sherbino, Cooney, Boysen-Osborn, Swaminathan, et al 2018)

The virtual Teams platform introduced [SAIT faculty] not only to a tool they could use as part of their classroom, but also to a way of engaging that was <u>not time or place specific</u> (Janes & Carter, 2020a, para. 7)

- no matter when they needed support or assistance, the DLE and its members were available
  - For example, peer to peer consultation on specific issues (e.g., a technology or teaching problem) often resulted in discussion and brainstorming on how to resolve the issue (Janes & Carter, 2020a, para 7).
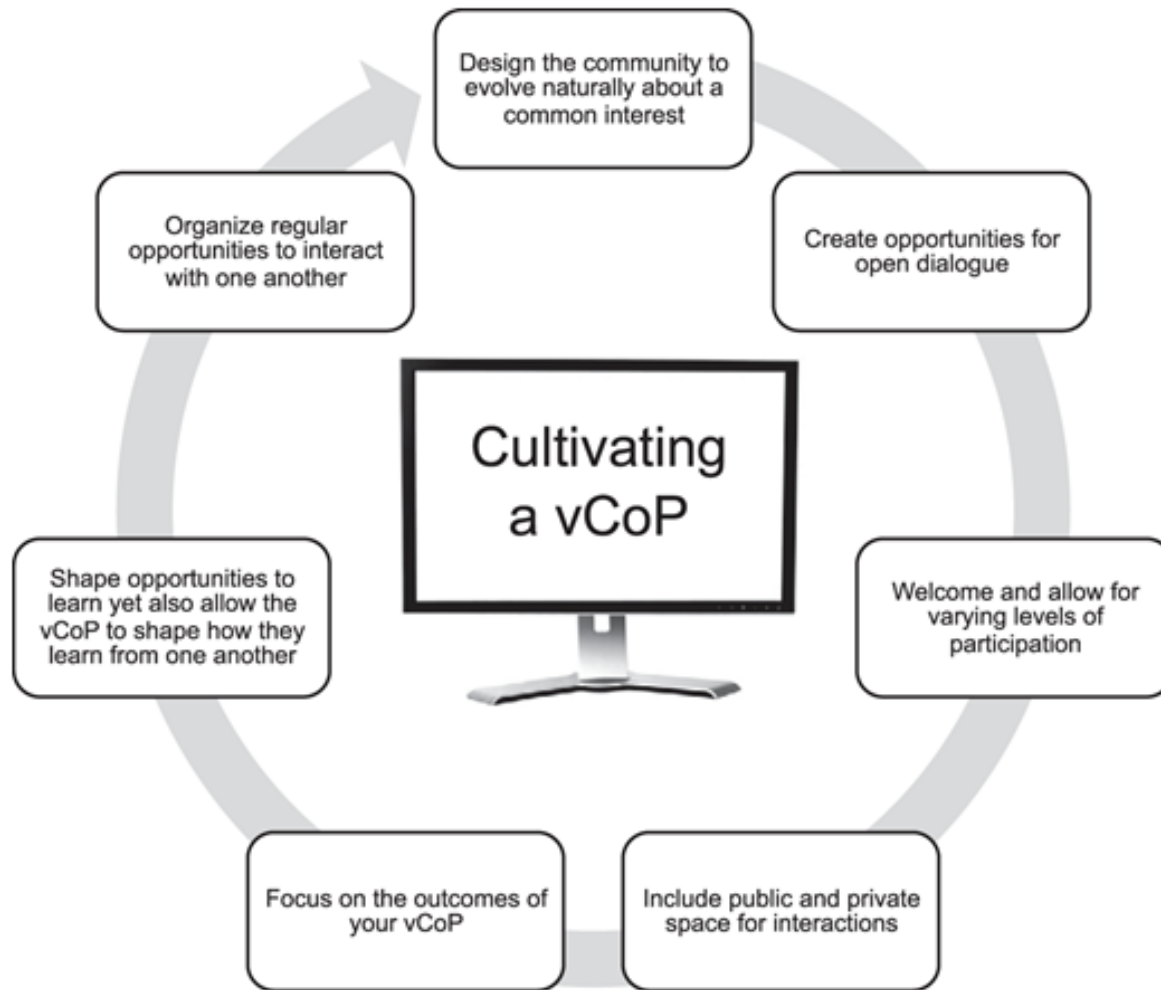
Figure 1 Creating a vCoP

Yarris, Chan, Gottlieb, Miller Juve, 2019

Design of the DigEx

The DigEx …[is] a place for peer-to-peer sharing (in real time; and over time) /crowd sourcing Q&A/resources/upcoming PD opportunities; and for instructional expertise (in real time) to direct faculty, staff and leaders to … other resources as needed; it is also (over time) a place where faculty, staff and leaders can connect with Educational Developers and each other, to work to improve and implement ideas for teaching in a digital space – presence, engagement, inclusion, assessments, and beyond. (Janes & Carter, 2020, p. 266)

- Set up in March 2020
- Used Teams as best collaborative option at the time (everyone had access) and need to model teams use in online delivery to SAIT learners
- Originally set up 4 channels (General, Ask a question, share resources, workshops/events)
- Other channels added by other departments (Copyright, Testing Centre) over time
- Monitored and maintained by one Educational Developer who was supported by the Ed Dev team.
- Original programming included supporting answers to questions (tried to keep to a 24-hour turnaround); one-hour café style video chats with an educational developer; presentations by faculty for faculty; posting of current information for faculty; posting of SAIT specific video created by faculty.
- As the new-to-online (and experienced) instructors acquired new knowledge and strategies, they assisted others (Janes & Carter, 2020a, para. 3)

The DigEx

Research Question/Methodology

Research question:

How has the digital learning exchange (DigEx) impacted faculty during the global pandemic?

- Secondary questions:
    - How likely are faculty to continue to use the digital exchange post-Covid?;
    - What improvements to the digital exchange would faculty like to see going forward?

Research Methodology:

This study will be a mixed methods study. Using Booth and Woollacott (2018) as a framework, the methodology will consist of documentation analysis, Teams usage analytics, an anonymous survey (via MS forms) to the Digital Exchange membership, and an open invitation to meet virtually with current members (with consent) to discuss the future of the Digital Exchange (postsurvey end).

Study Goal, Timelines

Research Goal

The purpose of this study is to look at the efficacy of the Digital Learning Exchange, a digital community of practice created in response to the global pandemic that impacted SAIT in early March 2020; with specific focus on the support of faculty.

Research Timelines

- Ethics applied for late Summer, 2021; Approved January 2022
- Data Collection (Teams) Spring/Summer, 2022
    - Survey to members
    - Follow up random stratified individual interviews
    - Open virtual invitations to talk about the future of the DigEx in the DigEx
- Data Analysis, Summer, 2022
- Write up, Fall/Winter, 2022
- Dissemination, Winter/Spring, 2023

Preliminary Analysis from Teams

Numerical engagement (Teams analytics)

- Site created March 17, 2020
- By June 16, 2020 (early pandemic) **320** members
  - 253+ posts; 405 replies; 246 mentions and 186 reactions with **318** active users
- By January 23, 2021 (early 2nd term mid pandemic) **685** members
  - 123+ posts; 225 replies; 88 mentions and 112 reactions with **512** active users
- By February 12, 2022 (early 2nd term 2nd year of pandemic) **685** members;
  - 20+ posts; 53 replies; 20 mentions; 55 reactions and **525** active users
- By April 9, 2022 (early year 3 pandemic), **713 members**; 43 posts; 53 replies; 17 mentions; 86 reactions and **560 active users**

Initial thoughts

- Maintained membership levels (varies between 685-700 depending on the time of the semester) – some folks drop in and out (some not familiar with muting notifications we found in the past)
- Active users remain steady, but posts are slowing
  - We discovered early on that some folks enter and leave finding what they need but don't leave any footprint of their engagement – something to ask about in the survey and follow up interviews – are they going in and finding an answer posted in the past so not needing to ask again in the present? Impact of sifts in Educational Developer staffing?
- Once the DigEx took off, other schools and departments set up their own – what was the impact of a focused CoP over a more institutional wide CoP?
- Partial return to Campus May 2021 – August 2021; full return in September 2021 – Impact? New variants?

Preliminary Analysis from Content

Content Analysis

- Currently 11 Channels
  - General (used for announcements)
  - Ask a question of the DLE community
  - Copyright (run by the Copyright Office)
  - Exams Testing Q and A (run by the Testing Centre)
  - Learning Assessments
  - Network of Innovative Teachers
  - Resource Sharing
  - SAIT Scholars
  - Showcasing Promising Practice
  - Terms of Reference
  - Workshops, Webinars and time sensitive events

Initial thoughts

- Possible CA themes that may surface:
  - *Storytelling* emerged as a particularly valuable way of generating techno-resiliency and professional confidence. Does this observation hold from the survey and teams content analysis
  - since the SAIT teachers were working from home, this virtual CoP became an important part of their *support system*. Does this hold as the faculty slowly move back to a F2F classroom-based teaching?
  - CoP is about *social construction of knowledge* and bringing theory to life [and] Participants *shared a common interest*, and worked to fulfill personal and collective goals (Duguid, 2005)
  - The SAIT experience emphasized that remote teaching is an *interprofessional team experience*

Preliminary Thoughts from Faculty

The Digital Exchange has had an unexpected benefit for me. I'm connecting to colleagues from across different schools and faculties. This has really allowed me to think outside the box and consider how technologies can be applied to different areas of instruction. Based upon my schedule, it has also allowed me to lend a hand to others via my new YouTube channel, and that has led to me forming a global community outside of SAIT. I've connected with colleagues in Europe, Asia, Australia, US, South America—everywhere!

It is a great way to feel connected with other colleagues in our institution . . . It allows us to communicate with individuals we usually would not have the opportunity to meet; and to exchange information in a positive forum.

I really appreciate having a go-to place where I can get answers! Even if there isn't an answer, I always get input and ideas to consider from my colleagues. I never leave the Exchange empty handed!

(Quotes from Janes & Carter, 2020a, para 9-12).

The Digital Learning Exchange has provided an opportunity for support services like the Library to continue to directly interact with faculty despite the shift to primarily online instruction at SAIT. Having these open communication channels on the DLE allows us to better identify and provide the services and resources they need for their courses and find new opportunities for collaboration. Aside from these new opportunities to maintain and build new faculty partnerships, librarians are avid participants in the Exchange. I often had questions about online learning at SAIT as I prepared for the fall semester, and I usually found my answers in the exchange.

SAIT

THOMPSON RIVERS UNIVERSITY

Next Steps

Ethics was granted January 2022

Literature review continues

Survey released May 2, 2022, to DigEx members

Awaiting survey data

Anticipated end survey – May 30, 2022

Open Discussion in DigEx and Interviews

Full Data Analysis

Question Period

✓ Thanks for your joining us today

✓ Reach out to us if you have additional questions

- Diane Janes, PhD – djanes@tru.ca

- James Beres, MEd – james.beres@sait.ca

References

- Booth, S. & Woollacott, L.C. (2018). On the constitution of SoTL: Its domains and contexts. High Educ, 75, 537–551

- Brown, M., & Peck. C. (2018). Expanding the landscape: Developing knowledge ability through communities of practice. International Journal for Academic Development,23(3), 232-243.

- Chan, T.M., Gottlieb, M., Sherbino, J., Cooney, R., Boysen-Osborn, M., Swaminathan, A., et al. (2018). The ALiEM faculty incubator: a novel online approach to faculty development in education scholarship. *Acad Med., 93*(10), p. 1497–1502. doi:https://doi.org/10.1097/ACM.0000000000002309.

- Dubé, L., Bourhis, A., & Jacob, R. (2005). The impact of structuring characteristics on the launching of virtual communities of practice. *J Organ Change Manag.*, 18(2), p. 145–166. doi:https://doi.org/10.1108/09534810510589570.

- Duguid, P. (2005). 'The art of knowing': Social and tacit dimensions of knowledge and the limits of the community of practice. The Information Society, 21(2), 109-118. doi:10.1080/01972240590925311

- Farnsworth, V., Kleanthous, I., & Wenger-Trayner, E. (2016). Communities of practice as a social theory of learning: A conversation with Etienne Wenger. British Journal of Education Studies, 64(2), 139-160.

- Garfield, S. (2018). Communities manifesto. Eds. J., & J. Girard. Knowledge management matters: Words of wisdom from leading practitioners. Sagology: Macon,GA.

- Gottlieb, M., Fant, A., King, A., Messman, A., Robinson, D., Carmelli, G., et al. (2017). One click away: Digital mentorship in the modern era. *Cureus.,9*(11). e1838. doi:https://doi.org/10.7759/cureus.1838.

- Graham, R. (2016). Techno-resiliency in education: A new approach for understanding technology in education. Springer International Publishing: Switzerland.

- Janes, D. P., & Carter, L. M. (2020). Empowering techno-resiliency and practical learning among teachers: Leveraging a community of practice model using Microsoft Teams. In R. E. Ferdig, E. Baumgartner, R. Hartshorne, R. Kaplan-Rakowski, & C. Mouza (Eds.). Teaching, technology, and teacher education during the COVID-19 pandemic: Stories from the field (pp. 265-273). Association for the Advancement of Computing in Education. https://www.learntechlib.org/p/216903

References

- Janes, D.P. & Carter, L.M. (2020a). Beyond the Pandemic: Community of Practice and Techno-Resiliency. *League for Innovation in the Community College, (15)*12. https://www.league.org/innovation-showcase/beyond-pandemic-community-practice-and-techno-resiliency

- Lave, J., & Wenger, E. (1991). Situated learning: Legitimate peripheral participation. Cambridge, Cambridge University Press.

- Li, L.C., Grimshaw, J.M., Nielsen, C., Judd, M., Coyte, P.C., Graham, I.D. (2009). Use of communities of practice in business and health care sectors: Aa systematic review. *Implement Sci., 4*(27). doi:https://doi.org/10.1186/1748-5908-4-27.

- Por, G. (2017). What is next? Transformative communities of practice. [blog Enlivening Edge]. https://enliveningedge.org/columns/what-is-next-transformative-communities-practice/

- Por, G. & van Bekkum, E. (2004). Liberating the innovation value of communities of practice. Amsterdam: CommunityIntelligence Ltd. https://www.academia.edu/507270/Liberating_the_innovation_value_of_communities_of_practice

- SAIT Now (2020). Covid Winter 2020 - March 14, 2020, Update. Southern Alberta Institute of Technology [internal document].

- Thoma, B., Brazil, V., Spurr, J., Palaganas, J., Eppich, W., Grant, V., et al. (2018). Establishing a virtual community of practice in simulation: The value of social media. *Simul Healthc.,13(2*), p. 124–130. doi:https://doi.org/10.1097/SIH.0000000000000284.

- Wenger, E. (1998). Communities of practice: Learning, meaning and identity. Cambridge: Cambridge University Press.

- Yarris, L.M., Chan, T.M., Gottlieb, M., Miller Juve, A. (2019). Finding your people in the digital age: Virtual communities of practice to promote education scholarship. *J Grad Med Educ., 11*(1), p. 1–5. doi: https://doi.org/10.4300/JGME-D-18-01093.1