Small TLEF Project – Final Report

Report Completion Date: (YYYY/MM/DD)

1. PROJECT OVERVIEW

1.1. General Information

Project Title:	**Your Professional Identity: Case Studies from the Digital Tattoo Project**
Principal Investigator:	**Alexandra Kuskowski, Learning Services Librarian, IKBLC (TLEF Grant 2019-2020)**
	Julie Mitchell, Associate University Librarian (TLEF Grant 2017-2018)
Report Submitted By:	**Alexandra Kuskowski, Learning Services Librarian, IKBLC**
	Lucas Wright, Senior Educational Consultant; Strategic Co-lead, Digital Tattoo Project, Centre for Teaching, Learning, and technology, UBC
	Kathleen Scheaffer, Learning and Research Librarian, ICCIT, UTM
Project Initiation Date:	**May 1, 2017**	**Project Completion Date:**	**May 1 2020**

1.2. Project Summary

The Digital Tattoo Project is a collaboration between students and the UBC Library, UBC's Centre for Teaching, Learning, and Technology, and the Institute of Communication, Culture, Information and Technology (ICCIT), University of Toronto. Our goal is to provide resources that support students in making informed decisions about their digital identities and data ownership. Initially developed with a TLEF grant (in 2009), the project is currently sustained with funding from the I. K. Barber Learning Centre and in-kind support from our collaborators.

This project extended the reach and impact of these resources through the development of case studies for students in professional programs, where they are widely used as a learning resource. Over 3 years, this pilot has been leveraged to develop a collection of open case studies to support students in Education and Health Sciences.

The outcomes described for this project provided direct benefits to an important area of professional preparation relevant to students who are about to embark on practicum experiences, internships or careers that require public trust.

1.3. Team Members – *(Please fill in the following table and include **students**, undergraduate or graduate, who participated in your project).*

Name	Title/Affiliation	Responsibilities/Roles
Alex Kuskowski	**Title:** Learning Services Librarian, University of British Columbia – Vancouver **Affiliation:** Strategic Co-lead, Digital Tattoo Project,	− Supervise Digital Tattoo Graduate Assistants − Instructional learning design support/guidance − Co-ordinate Digital Tattoo Advisory Group − Implement pre and post workshop survey − Workshop facilitator − Promote content to academic community through presentations at conferences

	Principal Investigator 2019-2020 (TLEF Grant 2017-2018) (TLEF Grant 2019-2020)	
Kathleen Scheaffer	**Title:** Librarian, Learning and Research Librarian, ICCIT, UTM **Affiliation:** Strategic Co-lead, Digital Tattoo Project (TLEF Grant 2017-2018) (TLEF Grant 2019-2020)	− Instructional learning design support/guidance including − Research and identify aspects of self-confidence to target on pre and post workshop survey evaluation − Digital Tattoo Advisory Group Member − Workshop facilitator − Promote content to academic community through presentations at conferences − Supervised contributors
Julie Mitchell	**Title:** Associate University Librarian, University of British Columbia – Vancouver **Affiliation:** Strategic Co-lead, Digital Tattoo Project, Principal Investigator 2017-2018 (TLEF Grant 2017-2018) (TLEF Grant 2019-2020)	− Digital Tattoo Advisory Group Member − Original Principal Investigator for 2017-2018 application
Cindy Underhill	**Title:** Strategist: Learning Resource Design; Centre for Teaching, Learning, and Technology, University of British Columbia – Vancouver **Affiliation:** Strategic Co-lead, Digital Tattoo Project (TLEF Grant 2017-2018)	− Supervise Digital Tattoo Graduate Assistant − Instructional learning design support/guidance − Digital Tattoo Advisory Group Member
Emily Fornwald	**Title/Affiliation:** Digital Tattoo Graduate Research Assistant (TLEF Grant 2017-2018)	− Research − Development of case studies − Creation of assessment tools- pre and post workshop survey − Document information on Wiki − Digital Tattoo Advisory Group Member providing feedback on content and research

John Yamamoto	**Title:** Program Coordinator - Practicum & Field Experience (Secondary); Teacher Education Office; Faculty of Education, University of British Columbia – Vancouver **Affiliation:** TLEF Faculty Advisor (TLEF Grant 2017-2018)	− Faculty Liaison − Implemented case studies in course curriculum − Instructional learning design support/guidance regarding Education context − Digital Tattoo Advisory Group Member − Promote content to academic Education community through presentations at conferences
Rod Brown	**Title:** Program Coordinator - Practicum & Field Experience (Elementary & Middle Years); Teacher Education Office; Faculty of Education, University of British Columbia – Vancouver **Affiliation:** TLEF Faculty Advisor (TLEF Grant 2017-2018)	− Faculty Liaison − Implemented case studies in course curriculum − Instructional learning design support/guidance regarding Education context − Digital Tattoo Advisory Group Member − Promote content to academic Education community through presentations at conferences
Lucas Wright	**Title:** Senior Educational Consultant, Centre for Teaching, Learning, and technology, UBC-V **Affiliation:** Strategic Co-lead, Digital Tattoo Project (TLEF Grant 2019-2020)	− Supervise Digital Tattoo Graduate Assistant − Instructional learning design support/guidance − Digital Tattoo Advisory Group Member − Workshop facilitator − Promote content to academic community through presentations at conferences
Wendy Traas	**Title:** Education Librarian, University of British Columbia – Vancouver **Affiliation:** Library Advisor (TLEF Grant 2017-2018)	− Digital Tattoo Advisory Group Member − Provided discipline specific research support
Salma Abumeeiz	**Title/Affiliation:** Digital Tattoo Graduate Research Assistant (TLEF Grant 2019-2020)	− Research − Development of case studies − Creation of assessment tools- pre and post workshop survey − Document information on Wiki − Digital Tattoo Advisory Group Member providing feedback on content and research

Michelle Ng	**Title/Affiliation:** Digital Tattoo Graduate Research Assistant (TLEF Grant 2019-2020)	- Research - Development of case studies - Creation of assessment tools- pre and post workshop survey - Document information on Wiki - Digital Tattoo Advisory Group Member providing feedback on content and research
Laura Atiyeh	**Title/Affiliation:** Digital Tattoo Pharmacy (PharmD) Student (TLEF Grant 2019-2020)	- Research - Student and Faculty Survey facilitator - Development of case studies - Digital Tattoo Advisory Group Member providing feedback on content and research
Ese Ojo	**Title/Affiliation:** Digital Tattoo Student Coordinator (TLEF Grant 2019-2020)	Digital Tattoo Advisory Group Member providing feedback on content and research
Patricia Gerber	**Title:** Associate Professor and Director Degree Programs for Pharmacists **Affiliation:** TLEF Faculty Advisor (TLEF Grant 2019-2020)	- Faculty Liaison - Implemented case studies in course curriculum - Instructional learning design support/guidance regarding Pharmacy context - Digital Tattoo Advisory Group Member - Promote content to academic Pharmacy community through presentations at conferences - Workshop facilitator
Ursula Ellis	**Title:** Librarian, University of British Columbia – Vancouver **Affiliation:** Library Advisor (TLEF Grant 2017-2018)	- Digital Tattoo Advisory Group Member - Provided discipline specific research support

1.4. Courses Reached – *Please fill in the following table with __past__, __current__, and __future__ courses and sections (e.g. HIST 101, 002, 2017/2018, Sep) that have been/will be reached by your project, including courses not included in your original proposal (you may adapt this section to the context of your project as necessary).*

Course	Section	Academic Year	Term (Summer/Fall/Winter)
EDUC 315	101, 102, 104, 105 , 106, 107, 108,109, 110, 111, 112, 113, 114, 115,117, 118, 120, 301	2017-2018	Fall

EDUC 315	101, 102, 104, 105 , 106, 107, 108,109, 110, 111, 112, 113, 114, 115,117, 118, 120, 301	2018-2019	Fall
EDUC 452	305, 306,307, 309, 311, 312, 320, S14, S17, S18, S19, S21, S22, S23	2018-2019	Fall
EDUC 315	101, 102, 104, 105 , 106, 107, 108,109, 110, 111, 112, 113, 114, 115,117, 118, 120, 301	2019-2020	Fall
EDUC 315	101, 102, 104, 105 , 106, 107, 108,109, 110, 111, 112, 113, 114, 115,117, 118, 120, 301	2019-2020	Fall
PHARM 100	--	2019-2020	Winter
EDUC 315	101, 102, 104, 105 , 106, 107, 108,109, 110, 111, 112, 113, 114, 115,117, 118, 120, 301	2020-2021	Fall
EDUC 451	305, 306,307, 309, 311, 312, 320, S14, S17, S18, S19, S21, S22, S23	2020-2021	Winter
PHARM 100	--	2021-2022	Winter
UNIVERSITY OF TORONTO CCT 273H5S	LEC9101	2021-2022	Winter
UNIVERSITY OF TORONTO CCT/WRI 410H5	LEC9101	2021-2022	Summer

Future Presentations:

Future presentations are listed above until 2022 however, we expect the possibility to continue presentations beyond that time as outlined below.

Digital Tattoo Workshop presentations using the TLEF case study materials are expected to continue for the foreseeable future with the Education Faculty courses EDUC 315, representing all the UBC Vancouver student teacher candidate cohorts each year. We expanded to present to EDUC 451, the rural teacher candidate cohort, in in 2018 and hope to continue this expansion in an ongoing capacity.

We hope return to presenting yearly with the Pharmaceutical Sciences Program in 2021-2020, COVID educational needs and feasibility of in-person instruction permitting.

2. **OUTPUTS AND/OR PRODUCTS**

   2.1. *Please __list__ project outputs and/or products (e.g. resources, infrastructure, new courses/programs). Indicate the current location of such products and provide a URL if applicable.*

Product(s)/Achievement(s):	Location:
Student produced OER for publication and access via the UBC Wiki targeted to student teachers, which includes: *6 case studies/scenarios; question sets to surface issues and promote critical thinking/reflection/discussion; accompanying resources and links to relevant professional standards to assist decision making relevant to the case studies.*	* 6 case studies on themes related to digital identity targeted to student teachers* : Each scenario also includes: • instructions for discussion • discussion questions • links to key cases, school district policies and resources • additional resources links/references for further study *Case studies shared as OERs: • licensed for attribution: CC-BY 4.0 • published on the UBC Wiki to allow for public access. • shared/contributed to the Open Case Studies collection at UBC. *The case studies were accessed on UBC wiki **7,149 times** since publication. In addition to the resources above, this project developed a Facilitator's Guide for the Digital Tattoo Workshop piloted to the student teacher candidates in 2017 and 2018, published as an OER on the UBC Wiki. This guide includes workshop slides, a description of the overview, structure, assessment description, detailed notes for presenting the workshop. The guide is

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intended to allow a broader community to use and implement the resources developed

Links
Case Studies for Teacher Candidates:
https://wiki.ubc.ca/Documentation:Digital_Tattoo_Curriculum/Case_Studies_for_Student_Teachers

Facilitators Guide:
https://wiki.ubc.ca/Documentation:Digital_Tattoo_Case_Studies_Project/Facilitator%27s_Guide

Post Workshop Resource Collection:
https://wiki.ubc.ca/Documentation:Digital_Tattoo_Case_Studies_Project/Post-Workshop_Resources

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Student produced OER for publication and access via the UBC Wiki targeted to pharmacy students, which includes:

4 case studies/scenarios; question sets to surface issues and promote critical thinking/reflection/discussion; accompanying resources and links to relevant professional standards to assist decision making relevant to the case studies.

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* *4 case studies on themes related to digital identity targeted to pharmacy students* : Each scenario also includes:

- instructions for discussion
- discussion questions
- links to key cases, school district policies and resources
- additional resources links/references for further study

*Case studies shared as OERs:

- licensed for attribution: CC-BY 4.0
- published on the UBC Wiki to allow for public access.

*The case studies were accessed **365 times** since publication.

In addition to the resources above, this project developed a Facilitator's Guide for the Digital Tattoo Workshop, published as an OER on the UBC Wiki. This guide includes workshop slides, a description of the overview, structure, assessment description, detailed notes for presenting the workshop. The guide is intended to allow a broader community to use and implement the resources developed

Links
Case Studies for Pharmacy Students:
https://wiki.ubc.ca/Documentation:Digital_Tattoo_Curriculum/Pharmacy/Case_Studies

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	Facilitators Guide: https://wiki.ubc.ca/Documentation:Digital_Tattoo_ Case_Studies_Project/Pharmacy/Piloted_Case_S tudies/Facilitator%27s_Page Post Workshop Resource Collection: https://wiki.ubc.ca/Documentation:Digital_Tattoo_ Curriculum/Pharmacy/Case_Studies/Resources

2.2. Item(s) Not Met – *Please list intended project outputs and/or products that were not attained and the reason(s) for this.*

Item(s) Not Met:	Reason:
N/A	N/A

3. PROJECT IMPACT

3.1. What were you hoping to change or where were you hoping to see an impact with this project? – *Please list the intended benefits of the project for students, TAs, instructors and/or community members.*

The outcomes described for this project provide direct benefits to an important area of professional preparation relevant to students who are about to embark on practicum experiences, internships or careers in areas concerned with public trust. The open educational resources developed here will contribute to the wider community and serve to promote guided reflection, discussion and learning about digital identity and data ownership in the professional, personal, private, and public spheres.

Direct benefits to students include:
- Deeper awareness of the considerations involved in decision making related to digital presence and data ownership leading to an increased perception of self-efficacy and preparedness for handling the complexities involved in such decisions.
- Enriched educational experiences for the students hired on the project. Project GRA students and Pharmacy Student Advisor developed competencies related to research, writing, assessment and open education resource development and evaluation. Students involved with the Pharmacy TLEF extension also had the opportunity to be involved and present on the resources developed at academic conferences.
- Enriched educational development and collaborative experience for students hired to the Digital Tattoo Project. Digital Tattoo Student Collaborators developed their assessment and feedback skills as part of the larger Digital Tattoo TLEF Committee, providing further student perspectives on the resources developed. Two the students in this role have assisted with data evaluation. In addition, two of the students in this role were able to expand their skills in presentation, assisting with the workshop presentation aspects of this TLEF.
- Richer, targeted learning resources to support Entry-to-Practice PharmD program and Education Programs. This directly benefited 225 students in the Pharmacy Program in 2020. This also directly benefited teacher candidate Faculty of Education students in 2017, 2018, 2019, and 2020, reaching 1,400+ students for four years of presentations.

Sustained benefits over time:

- Expanded collaborative partnerships between the Digital Tattoo Project and Faculty of Education as well as the Digital Tattoo Project and Faculty of Pharmaceutical Sciences. With connections to students, liaison librarians, and faculty, we are rooted in a deeper and broader base of expertise from which to explore issues of digital identity and online networking themes and issues relevant to students transitioning to careers as public professionals. It is anticipated that Digital Tattoo workshops will continue to be embedded within Faculty of Education as well as the Faculty of Pharmaceutical Sciences courses.
- Content relevant to student program needs as well as alignment with course and program requirements. Our GRA students hired for each grant worked directly with targeted contacts in each discipline to ensure subject-specific case studies were aligned with curriculum and include incorporation appropriate continuing education resources online and within the faculty. In addition, our GRA student in the Pharmacy grant worked directly with a Pharmacy Student Advisor to further align the case studies with students' social media practices and the professional standards of pharmacists.
- The open education resources (OERs) developed, including all of the workshop case studies and workshop content that has been developed as a result of TLEF funding, have broad application for students in professional programs across the province and beyond and will bring new audiences (and potential collaborators) to the Digital Tattoo project and UBC in general and vice versa. Content is openly available through our wiki and UBC Open Case Studies so that others may remix and reuse the content we have developed. We currently have 22,000 + annual visitors to Digital Tattoo website, with engagement increasing +2,000 each year for the past 3 years. Our site will continue to drive traffic to these resources, just as we hope these resources will continue to build connections for our project.
- Our resource repository offers on-going opportunities for new departments and faculty to facilitate discourse on the digital practices of students, and compare their standards against the standards associated with other professions that require trust from the public. By leveraging and remixing the content developed for the UBC Faculty of Education and Faculty of Pharmaceutical Sciences, we have also expanded our reach to communication, culture, information, and technology undergraduate students at U of T, thus laying the groundwork for us to continue to identify opportunities for cross-collaboration between institutions and disciplines as we learn about what types of resources best support student learning in this area.

3.2. Were these changes/impacts achieved? How do you know they occurred? – *To what extent were intended benefits achieved or not achieved? What evaluation strategies were used? How was data collected and analyzed? You are encouraged to include copies of data collection tools (e.g. surveys and interview protocols) as well as graphical representations of data and/or scenarios or quotes to represent and illustrate key themes.*

Our aim was to evaluate the change in beliefs about decision making relative to social media and data ownership practices. We did this through a pre/post self-evaluation during our workshops with teacher candidates and entry-to-practice Pharm D students using the construct of self-efficacy to frame question design. We considered the case studies as an effective learning resource if there was a reported shift to greater self-efficacy among our pilot group of teacher candidates. We enlisted the research support of our U of T partners and the evaluation support provided by CTLT in developing the survey.

Rationale for self-efficacy as a measure of success:

Professions involving issues of public trust are particularly vulnerable to public judgement. Students entering such professions are often judged on their public online presences and many feel either powerless in managing their online identities or overconfident in their knowledge of the social applications

they use to communicate. Students' beliefs in their abilities to make effective decisions (in this case - related to social media) can be accessed through a construct called self-efficacy (Bandura, 1997; Zimmerman, 2000.) Self-efficacy influences effort, perseverance, and resilience, and is one of the strongest predictors of motivation and behavior (Schunk, 1996).

Self-efficacy is associated with self-control and confidence in problem-solving. Self-efficacious individuals make better use of their cognitive resources and make better decisions, especially in the face of challenges and setbacks (Cervone, Jiwani, & Wood, 1991). Self-efficacy is also an important component of self-regulation, which may be an important factor in decisions about social media use.

Example questions for self-efficacy include:
"I am confident in my ability to [insert task or skill]"
"I believe I have some control over [situation]"

Implementation:

We used the same 9 questions in both the pre and post surveys to examine changes in participants reported self-efficacy. We also included a final question (Question 10) in the post survey asking students to quantify their perceived confidence changes after completing the workshop. This question was followed by an open question where participants could explain why or why not it had changed.

In 2019 we adapted these questions for the context of the Faculty of Pharmacy. The changes we made included:

- Changing specific questions to speak to the Pharmacy rather than the Teacher Education Standards of practice;
- Changing the some of the survey response language from True and False to Agree/Disagree. This change was made in order to reduce some of the ambiguity around how the questions were answered.

Survey Questions Education
- Pre-Workshop Survey Questions
- Post Workshop Survey Questions

Survey Questions Pharmacy
- Pre-Workshop Survey Questions
- Post Workshop Survey Questions

Data Analysis

We conducted the workshop pre and post survey in six separate workshops for Education and the modified survey twice. We conducted the survey once for the Faculty of Pharmacy. For each of the workshops we compared pre-survey responses to post survey responses. We looked at the aggregate responses and compared overall percentage change for each question between the pre and post survey. We also looked at question 10, and the optional open respond feedback that was only asked for in the Post session survey and themed the written responses.

Overall Results

Overall, we noted that for each workshop there was a reported shift to greater self-efficacy among the students, making our stated goal a success. The results of the survey varied for each workshop, however; the following themes emerged in all of the workshop survey evaluations:

- Students reported in **all** workshops that they felt more confident in making informed decisions as an emerging professional after completing the workshop. The percentage of students answering Agree or True for this question ranged from 83-90% across the different workshop offerings.
- In **all** workshops there was an increased percentage of students who indicated they were confident understanding the term digital identity between the pre and post surveys. The percentage difference between pre and post surveys ranged between 30 – 35%

Sample Comments Student Teachers

In 2018 and 2019 we themed the student comments for their response to following question. We have described the themes in more detail in the specific evaluation reports below. One theme that emerged each year was that students better understood the some of the impacts of social media and the higher standard that they are held to as teaching professionals.

"After reading and discussing the case studies today, I feel more confident making informed decisions about my digital identity as a teacher candidate."

"There's always something to learn even though I consider myself to be quite digitally literate and aware of what I post online. The session was very useful in learning more about how to behave online in a professional manner especially with regards to teaching and how I appear online to my future students."

"The case studies were very relevant and it was great to discuss it with my classmates so we can collaborate ways we would resolve the situation if it had happened to us."

Sample Comments Pharmacy Students

In the 2019 Pharmacy workshop we themed student comments and like the Teacher Education workshops one of the key themes that emerged was that students reported better understanding the impact of digital identity on their professional identity.

"After this session I feel more confident in what is professional and what is inappropriate behaviour online. In the future I'll use the tools I learned here."

"Being exposed to the cases helped me understand what exactly digital identity is and how it can impact pharmacists. This helped me understand and recognize what to do in situations involving digital identity."

"I believe that studying scenarios helps prepare our minds for what is potentially on the horizon and better equips us to react appropriately if such events ever present themselves as well as how we can appropriately manage our social media to prevent such events."

Evaluation Reports

For each workshop we compared pre and post responses. We have shared the compared post and pre survey responses.

- Teacher Candidate Survey Results 2017
    o [Pre survey results](#)
    o [Post survey results](#)
- [Teacher Candidate Survey Results 2018](#)
- [Teacher Candidate Survey Results 2019](#)
- [Teacher Candidate Survey Results 2020](#)
- [Pharmacy Survey Results 2020](#)

Survey Text Responses

3.3. Dissemination – *Please provide a list of __past__ and __upcoming__ scholarly activities (e.g. publications, presentations, invited talks, etc.) in which you or anyone from your team have shared information regarding this project.*

Conferences (in descending order)

Western Canadian Association for Student Teaching (WestCAST), Winnipeg, Manitoba, February 2018

- Presentation: "What's Your Digital Tattoo? Informing and Empowering Teacher Candidates",
- Presenters: Alex Kuskowski, Kathleen Scheaffer, and John Yamamoto
- https://umanitoba.ca/faculties/education/media/WestCAST_2018_Detailed_Program_V4a.pdf

WestCAST, February 2020

- Presentation: "The Digital Tattoo at 10 Years: Helping Teacher Candidates Make Informed Decisions about their Digital Identity"
- Presenters: Lucas Wright, Rod Brown, Alex Kuskowski, and John Yamamoto
- https://westcast2020.sched.com/

The Association of Faculties of Pharmacy of Canada (AFPC), May 2020

- Presentation: Helping pharmacy students use social media platforms professionally: The Pharmacy Digital Tattoo Project (ACCEPTED, BUT CONFERENCE POSTPONED TO 2021 DUE TO COVID). Re-scheduled for June 3, 2021 (virtual).
- Presenters: Patricia Gerber, Alex Kuskowski, Kathleen Scheaffer, Lucas Wright, Salma Abumeeiz, Laura Atiyeh, Emily Fornwald, Ursula Ellis, and Eseohe Ojo
- https://afpc.info/content/conference-overview

Canadian Conference on Medical Education, June 2020

- Presentation: Digital Tattoo - A Workshop to Support Student Understanding of the Impact of Social Media Platforms
- Authors: Patricia Gerber, Alex Kuskowski, Kathleen Scheaffer, Lucas Wright, Salma Abumeeiz, Laura Atiyeh, Emily Fornwald, Ursula Ellis, and Eseohe Ojo
- https://mededconference.ca

UBC Workshops/Presentations

Student workshop (optional), November 2017

- Presentation: "Digital Tattoo Think Before You Ink. Your Digital Footprint: Sharpening Your Professional Identity as a Teacher."
- Presenters: Alex Kuskowski and Rob Kim
- UBC Faculty of Education Continuing Education Session

Faculty presentation, August 2018

- Presentation: "What's Your Digital Tattoo?: Building Capacity Among Teacher Candidates Using a Case Study Approach"
- Presenters: Alex Kuskowski and John Yamamoto
- Audience: UBC Teacher Education Faculty

Case-study workshops requested outside of UBC

Faculty workshop, August 2018

- "What's Your Digital Tattoo?: Building Capacity Among Teacher Candidates Using a Case Study Approach",
- Presenter: Alex Kuskowski, John Yamamoto, and Emily Fornwald
- Audience: SFU Teacher Education Faculty

Student workshop, February 2019

- Presentation: "What's Your Digital Tattoo? : Think before You Ink"
- Presenters: Alex Kuskowski and Lucas Wright
- Audience: SFU teacher education students

4. **TEACHING PRACTICES** – *Please indicate if **your** teaching practices or those of **others** have changed as a result of your project. If so, in what ways? Do you see these changes as sustainable over time? Why or why not?*

One of the main goals of this TLEF was to create opportunities at UBC and beyond to embed new types teaching practices including the use of OER, case studies, and the students as partner model. Teaching using these models demands ongoing change and engagement with the resources. The practices of the Digital Tattoo Project Team and our partners for the past four years have shown this content to be sustainable over time.

The effectiveness of using OER teaching resources has been demonstrated not only by the numbers of folks accessing our wiki pages through our sessions, but also by those accessing our OER facilitator resources. OER has allowed us to

share and use these resources beyond UBC. In particular we have implemented the resources at SFU and shared these resources with other educators in various fields, to positive feedback. The facilitator resources allow others beyond our reach to adapt and use our content for their own contexts, and while we have no way of knowing how many times our content has been implemented, our facilitator resources have been accessed 120+ times.

The use of the embedded case studies model has been instrumental in the efficacy of Digital Tattoo's teaching. Case studies allow students to engage with abstract ideas in concrete ways, while embedding them allows for increased s

student and instructor buy-in to engaging with the content. This model also allows the Digital Tattoo Project Team to easily check in with our faculty partners and add new studies that grapple with new topics as they arise without changing all of the content. The effectiveness of teaching with an iterative model like case studies is visible through our survey data and student feedback, presented above, which changes in response to our updates.

Using the students-as-partners model to develop and update this content, the Digital Tattoo Project Team also saw participant feedback validate the content applicability from the outset. In addition, after each presentation of the workshop, when participant feedback indicated content was no longer applicable, having students update the content helped the project to stay true to the original mission.

Our teaching partners have allowed us to use this content to create ongoing impacts. In the Education model, the content has been shown to be sustainably embedded for several years. The Digital Tattoo Workshop content is presented at the outset of each Teacher Candidate cohort induction. Follow up discussions are expected for the candidates in their small learning groups as part of ongoing education throughout the semester. This partnership was able to continue, adapt, and even expand in the online context during the pandemic. In addition to giving virtual workshops for the typical Education cohort in September, our team was invited to present to the Rural Teacher Education Candidates, in 2021, a group which had not added our sessions in the past. In the Pharmacy model, we were able to have one successful year embedding this content into course content, with our second year interrupted by the COVID pandemic demands. We hope to continue this partnership in the future. The success of this project in two very different faculties at UBC demonstrates the effectiveness of both the content and the teaching practices involved.

5. **PROJECT SUSTAINMENT** – *Please describe the sustainment strategy for the project components. How will this be sustained and potentially expanded (e.g. over the next five years). What challenges do you foresee for achieving the expected long-term impacts listed above?*

The sustainment strategy for this project includes the following:

- Updating case studies to keep up with trends and enhance applicability of content
    o We have used, and intend to continue using, pre and post surveys to assess how the content is being interpreted by students and make changes based on the responses.
    o We have already seen a challenge in keeping the case studies up to date with current trends. To combat this, we have already begun creating new case studies with student and instructor feedback.

Our new case study, for Education in 2019-2020 year, addressed changing needs expressed by Education faculty and feedback from student surveys. We intend to continue to use the model to update and rework the case studies.

- Maintain contact with Pharmacy and Education
    o We have and intend to continue the embedded instructional workshops with the Faculties of Pharmaceutical Sciences and Education.
    o For Education, we have implemented workshops every year from 2017-2021, with plans to continue. During COVID, we overcame the challenge of remote engagement, updating these case studies to be presented on Zoom.
    o For Pharmaceutical Sciences, we hope to recommit to this project when space becomes available in the curriculum. During COVID, the faculty did not permit presentations from outside partners, unless they were wellness related.
- Continue to promote and share content for widespread access and use
    o We have presented out content through workshops and subject specific conference presentations. We believe that by sharing our content in partnership with our faculty educators, more widespread use and buy-in will be possible.
    o Using OER to share content
        ▪ We will continue to use the UBC wiki to publish our OER content.
        ▪ We will continue to share this content widely on UBC Open Case Studies and on our Digital Tattoo Project website
        ▪ We will encourage others to use our content with creative commons licensing.
- Student facilitate with the team – students as partners
    o The students-as-partners model allows for students, and Digital Tattoo student staff to develop research, writing, and critical engagement skills.
    o Student partners ensure the case studies are up to date and reflect the interests and lives of today's students.