The Open Page Project: Putting Digital Learning Principles Into Practice for Pre-Service Educators

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Abstract

This paper overviews an open educational resource (OER) project aimed at developing digital literacies and open educational practice within a Faculty of Education. The project, titled *The Open Page*, modelled and enacted three core digital learning principles—*produsage*, presence, and authentic audiences—for a broad audience of faculty and educators through the creation of videos and podcasts about educational technology tools.

Designed to enable Bachelor of Education students to work towards authentic assignments and open practice, while leading professional development for faculty and practicing teachers, The Open Page also developed student literacies in assessing and evaluating educational technology platforms. The project's video and podcast outputs, showcased on the official University of Windsor Faculty of Education website, reflect intensive student research into the classroom uses, data implications, and differentiated learning possibilities of digital classroom tools.

The paper will introduce readers to the principles and pedagogy that shaped the design of The Open Page and examine its efforts to create a common conversation about digital learning between educators at all levels..

Introduction

The story of *The Open Page* project is a story of trying to bring the worlds of digital practice and teaching together. It reflects an attempt to model and enact digital learning principles for students in an initial teacher education (ITE) program, and to extend that model to practicing educators on campus and in the broader teaching community through OER.
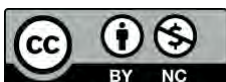
The online world of knowledge abundance (Weller, 2011) and open educational practice enables scholars and educators to learn from colleagues around the globe via educational blogs and Twitter networks. Introducing Bachelor of Education (BEd) students to that world, however, in accessible, legible, and safe ways, can be challenging. Learning management system (LMS) platforms like D2L, Moodle, and Blackboard form the backbone of most institutional digital infrastructures within contemporary higher education, but don't help students engage with the read-write principles of Web 2.0 (O'Reilly, 2005) or build the personal and professional learning networks (PLNs) that are at the core of many educators' networked practice. Neither do students have an implicit understanding of social media infrastructures as sites for education (Krutka, Nowell, & McMahon Whitlock, 2017). As Rheingold (2008) noted,

> Although a willingness to learn new media through point-and-click exploration might come naturally to today's student cohort, there is nothing innate about knowing how to apply those acquired skills to the processes of civil society, scientific or scholarly innovation, or economic production. (p. 26)

Additionally, social media and the open web have become increasingly weaponized over the past five years (Singer & Brooking, 2018; Stewart, 2015; Tufekci, 2017), to the extent that educators often have reasonable concerns regarding privacy, safety, and reputation when engaging on social media (Nagle, 2018; Tang & Hew, 2017). Social media platforms have long made the pluralist tension in professional education visible (Fenwick, 2014), but the rising risk of having one's casual contributions circulated outside their intended contexts and audiences (Carpenter, Kimmons, Short, Clements, & Staples, 2019; Stewart, 2016) is one many professional and ITE programs— mine included—actively warn students about. Teaching is a reputational profession, and while a carefully-curated digital presence can advantage an educational job seeker, intentional absence from open digital publics can also be a legitimate and prudent personal decision for new educators.

As a digital educator of future teachers, I need to navigate this tension actively, foregrounding respect and critical reflection in my pedagogical approach to digital learning. I also need to make visible to students an additional reality of digital platforms and educational technology apps: most collect significant personal data on users, sometimes with grave privacy implications (Regan & Steeves, 2019; Williamson, 2017). While my students tend to be less concerned about privacy than they are about digital presence and its implications, my belief is that as educators they have a responsibility to their own future students to be cognizant of the data surveillance risks posed by digital tools (Lupton & Williamson, 2017). These complex realities form the backdrop against which I try to design effective digital learning and digital literacies development for pre-service educators.

The Open Page project emerged from all these complexities, and from a specific classroom project in my Winter 2019 Digital Technologies class in the University of Windsor Faculty of Education's ITE program. The project asked groups of BEd students to critically evaluate various educational technology platforms and present their findings to classmates in an in-class "Tool Parade." In the same sense that Graves (1994) and Kixmiller (2004) argue for the value of authentic audiences for writing instruction, my work is based on the premise that authentic audiences matter for pre-service teacher engagement with digital practices. I approach digital learning as open by default, rather than closed: students seldom submit work solely for my eyes, but share it with each other or with public audiences online. It is important to me that student assignments offer students opportunities to crowdsource and learn from each other, and—sometimes, in carefully-scaffolded ways—to contribute to knowledge abundance via the web. Through formative and peer feedback

and critical analysis of digital platforms and their data implications, I try to expose pre-service teachers to the community of open educator practice so that they can make informed—and safe—decisions about their digital presence in future.

Since a great deal of work went into the class Tool Parade projects, I wanted to record some of the short presentations to use as exemplars for future classes, extending students' authentic audiences over time. When students suggested that their associate teachers in local schools might benefit from seeing the presentations too, the idea of an open, online showcase of tools—by educators, for educators—began to develop.

Methods

This paper intersperses the first-person reflections of the project's designer and principal investigator with comparative intake and exit reflections completed by the four student research assistants (RAs) who were hired for The Open Page Tool Parade. The paper is intended as a short treatise outlining the ways in which the project instantiated particular digital learning principles and used them (a) to extend a class assignment to future audiences of students and educators by creating a collection of OER videos, podcasts, and resources that evaluate educational technology platforms; and (b) to teach and model digital literacies and open education practices to pre-services teachers—and some faculty—through engagement in the creation process as active learners and leaders. The project was conceived as a means of using digital learning principles to engage educators in reflective digital practice, with real audiences for their shared work, and the treatise is intended to both report and reflect on its successes.

REB approval for secondary use of data was sought and granted in relation to the intake surveys on digital literacies, digital learning, and open education knowledge that the four student RAs completed upon hiring, and under that REB approval, exit surveys exploring their shifting understanding of those topics due to the project were completed at the end of their contracts.

The Project

The initial goal of the project was to create an online Tool Parade of short 3- to 5-minute videos critically overviewing a variety of digital classroom technologies. The videos were designed to be captioned for accessibility and openly licensed via Creative Commons licensing so other educators could use them as needed. My dean agreed to create a new Faculty of Education "Open Page" linked from the main page of the faculty website, to create a space for OER within the faculty and to encourage the visibility of the resources both among students and also fellow faculty. One premise of the project was that faculty, practicing teachers, and pre-service teachers alike are all bombarded with the same abundance of digital tools and educational technology platforms and promises, and thus a common resource site offering brief overviews of tools from a pedagogical perspective could serve all educators on this shared digital learning curve.

The Tool Parade was the focus of two separate, stand-alone grant applications—one specifically to research and create videos with a small team of second-year BEd students, the other to develop pedagogical how-tos and professional and faculty development opportunities focused on those OER videos, in order to foster an audience and usage of the resources. As the project emerged, so did a third element of the initiative: I was offered the opportunity to lead a service learning course for my faculty focused on Online Pedagogy and Workplace Learning—my formal title. I decided to build the course around The Open Page Tool Parade, with digital learning

principles such as produsage, presence, and authentic audience underpinning its approach, the videos as its textbook, and participatory public contribution to The Open Page site as its core learning outcome.

Overall, the combined elements of the project culminated in the production of a collection of 14 OER videos (one still unreleased due to COVID-19 pandemic restrictions on office access) and 11 OER podcasts, each of which comes with its own linked pedagogical overview. A team of four second-year BEd students hired as RAs worked closely with me and with the Office of Open Learning at our institution, one of our grant funders, to research, film, and produce the videos. The podcasts were produced by groups of first-year BEd service learning students, again with significant support from the University of Windsor's Office of Open Learning.

It was important to me that participation in the project helped the RAs and service learning students build a visible professional presence as digital learning leaders, both in the community and online to the extent they chose. The Open Page resources were promoted by students on the open web through a dedicated Twitter account and hashtag (@UWinToolParade & #UWinToolParade) and in the local public school board through professional development sessions for educational staff. These professional development sessions were led by myself, the student RA team, and an Office of Open Learning staff member. Long-term plans for the service learning students to engage in active workplace learning and professional development for senior educators through showcase of The Open Page Tool Parade resources is intended for the second year of their course, but currently uncertain due to COVID-19 closures. The student RA team, Office of Open Learning representatives, and I together presented the project at three separate academic conferences and were accepted at a fourth.

The initial nine videos showcased the student RA team as presenters, and assessed the classroom uses, data implications, and differentiated learning possibilities of eleven different educational technology tools. Five more videos were researched and coordinated by the RA team but filmed by faculty partners. Faculty were invited into the project through a Faculty Council presentation led by myself and two of the students: seven faculty members initially expressed interest, six went through a consultation and scripting process regarding tool choice, and five filmed videos. The RA team led the faculty contributors through the research, scripting, and filming process. The service learning student groups researched, scripted, and recorded their own podcasts.

The Open Page project has brought student work to an audience beyond the classroom walls, and its student-led professional development sessions increase recognition and understanding of OER within local educational communities while also giving pre-service educators visibility and credit for their burgeoning digital expertise. The Open Page site showcases videos by faculty and student presenters together, attempting to establish the area of digital learning and digital literacies as a shared learning curve for all educators. The project is searchable on the web and promoted on Twitter and Instagram by students and myself. Overall, The Open Page project and #UWinToolParade serve as an exemplar and resource for digital learning, while emphasizing critical digital literacy development for all educators.

Produsage & Participatory Contribution

At the core of the architecture of the internet is the idea of the participatory read/write web, a knowledge space that people can contribute to as well as consume. In the early-mid 2000s when Web 2.0 was touted as the next big thing in education, this *produsage* (Bruns, 2007) cycle of

creation and consumption promised real shifts in the power structures of learning. The produsage cycle operates by creating reciprocal audiences as a byproduct of networked digital practice:

> Produsage relies on networks to collapse notions of production and consumption. The exchange is, on the surface, simple. I write posts, you read them, and vice versa. You make a YouTube video, I click the link on Twitter and leave a comment. You announce your start-up venture, consolidating information I think might be useful, and I share that with 1400 followers. Or twelve…The size of individuals' networks matters less than their interconnectedness, their capacity to intersect and create reciprocal audiences…at least until a user's popularity reaches a scale where one-to-one communications become impossible, timewise. (Stewart, 2012)

But little of what produsage promised for digital learning has come true. Digital learning environments have become pervasive, but also increasingly top-down. Many educational technologies are simply not designed to enable the participatory and reciprocal peer engagement capacity that the web itself is designed on. Instead, many contemporary educational technologies' core function is extraction-focused rather than contribution-focused, as students' learning traces are re-framed as behavioural data within surveillance capitalism (Zuboff, 2015).

At the time that The Open Page project got underway, I was researching educator data literacies (Raffaghelli & Stewart, 2020), and realizing that one important digital learning goal the project could support would be to increase educator awareness of the data implications of educational technology platforms. When RAs were polled early in the project about their experiences with educational technologies during their practicum placements, one noted that she'd been surprised by how casually permissions were given by school supervisors: "they did not know of the tools I was using but they did not seem concerned about how they were managed—they were not asking about the data collection or requirements for the tools before giving the go ahead" (Intake Survey, 2019). The project's OER videos and podcasts were therefore all designed to offer a brief, critical overview of the data and terms of service (TOS) implications that the tools and platforms we reviewed posed for students and teachers.

In spite of the surveillance and data issues that are pervasive in online engagement, the message that the web's participatory infrastructure can still be engaged with was another key digital learning principle and goal behind the project. My own background as a scholar is in participatory adult education as well as online learning, and that participatory ethos inclines me to make produsage and reciprocal networked learning a foundational element of any digital learning I design. This participatory focus also draws links between learning and the kinds of social media practices that students are already literate in. According to the casual introductory scan of practices that I do at the opening of my courses, the pre-service teachers involved in The Open Page as RAs and as service learning students generally saw themselves as digitally literate at the start of our courses together. Yet they had, for the most part, very limited prior experience with the concept of a participatory web, particularly in educational contexts.

Illustratively, when the RAs were asked in their formal project intake surveys what kind of educational technology tools were most used/supported/promoted in their own schooling and pre-service placement experiences, all four named quiz tools such as Kahoot and Quizlet as the dominant platforms they'd seen in use. These types of platforms were some of the tools eventually covered and evaluated by The Open Page, but they are not tools that allow learners to leave visible traces of their own learning on the web for others to explore or engage with.

In order to try to encourage teacher candidates to see the participatory structure of the web as a potential educational space, the design of the project and the service learning course therefore strongly emphasized participatory and reciprocal student contributions. The service learning course utilized the RA's available early Tool Parade videos as its core text, and encouraged contribution to The Open Page as the primary learning outcome for Year 1 of the course. I chose to have the service learning students work in groups toward podcast contributions, rather than videos, both because podcasts' learning curve in terms of production is lower and because student podcasting and knowledge-sharing has been shown to support transitions and engagement in higher education (Edirisingha, Cane, Cane, & Jiang, 2018). The RA team served as mentors within the course, with two visiting the class in person to present key tips for researching tools and creating digital engagement through OER, and all four providing feedback to groups on their podcast scripts. The RAs built on their own knowledge and experience gleaned from producing the first set of videos and then shared both the videos and their learning with the first-year service learning students. The first-year students engaged with the videos not just as content to learn from, but as models for their own learning and production of eventual OER in the form of podcasts. They embarked on research, analysis, synthesis, and creation—covering many of the higher order skills in Bloom's (1956) taxonomy—and then shared the OER podcasts they created and produced with their mentorship team of RAs as well as on the open web, with the education community there. This was participatory work, contributing to the knowledge abundance available on the web while learning the digital literacies of doing so in legible ways.

It was also reciprocal work, in the sense that the service learning students gave each other extensive peer feedback not just on scripts but on reflections and other contributions throughout the course, exchanging comments, critiques, and encouragement. This served as important practice in offering formative feedback, a required skill for pre-service educators, while also scaffolding meaningful digital learning practices and experiences. I used Wray's (2011) RISE (Reflect / Inquire / Suggest / Elevate) model as a guide for peer comments, as it offers a structure within which students could engage critically yet supportively with each other's work while avoiding surface-level "nice post" kind of feedback.

When I surveyed the RA group of four at the close of their contracts, they all spoke to the participation and produsage elements of their work—particularly the offering of formative feedback to the service learning class—as foundational digital learning opportunities that the project provided. One noted, "I learned the value of providing specific, transparent and productive comments that acknowledge strengths, identify areas of improvement and provide strategies for adjustments" (Exit Survey, 2019). While the ethos of participation and produsage does not always align entirely with the institutionalized traditions and operations of formal schooling, whether in K-12 or higher education, in The Open Page project it served to break down the distinction between text and assignment, and to encourage students to see the web as a genuine educational space.

Presence

Because all the students involved in The Open Page project were expected to create digital artifacts for open, public distribution, the digital learning principle of *presence* was also central to the project. The term presence can be used broadly and interchangeably with terms like digital identity and digital footprint to frame the traces that individuals leave behind on the web during the produsage process: certainly, that factor of identification and visible, traceable presence was one that had to be navigated with students throughout the project.

One of the requirements for the RAs' work on the project was that they appear visibly in the videos and be identified in the credits for their work, in addition to actively engaging in professional development and academic dissemination related to the project. Anonymity under these conditions was likely to be difficult to maintain, so in my initial call for RAs I made clear that students interested in building an active and combined digital, social media, and academic presence under their own names and identities would likely be the best fit for the project. I did take it as my responsibility to ensure that the project served to help those students build a positive long-term digital presence as educators, showcasing their work with respect and enthusiasm within my own open practice, and ensuring that they were producing OER that they'd be proud to have future employers find in a Google search.

While the four RAs were expected to be visibly identifiable as part of the project, the service learning students—a much larger group of over fifty—had significantly more agential choice around visibility and digital presence in relation to the project. In Year 1 of the service learning course, students' core assignments were group production of podcasts about digital technologies, and preparation of draft professional development plans—akin to lesson plans—for presenting The Open Page and Tool Parade to schools and parent communities in Year 2. However, the podcasts were group assignments, so students who didn't want to be on mic had the opportunity to negotiate different roles within their groups. A variety of options about how to navigate identity and presence were explored in class, along with discussion of the positive and negative potential ramifications of different presence choices. This was important digital learning that provided a foundation for students to make decisions related to their own practice and identity. Groups ultimately chose the images that represented their podcasts on The Open Page: some shared identifying photos of the group while other shared "shoe pics" and still others chose cartoon representations. All groups did choose to represent their contributing group members by name, in a searchable fashion.

In terms of digital presence, the service learning students were not necessarily required to have a social media presence or identity in relation to the course. However, I recognized – both through conversation with the classes and through cross-registration in other courses both of mine and that of other faculty that some did have professionally-focused educational Twitter accounts, in addition to personal social media identities that they might be willing to utilize to promote the #UWinToolParade hashtag and their own and others' podcasts. In class, I actively emphasized hashtags, links, images, and engaging *hook* statements as good practices for sharing online resources on social media; I also encouraged each group to use the social media accounts that members already possessed to showcase their work on the open web. This was meant as a way of encouraging an understanding of digital presence and contribution without requiring it from every individual.

Personal digital identities, however, were not the only form of presence that we explored via the project. In the field of online learning, the community of inquiry (CoI) model (Garrison, Anderson, & Archer, 2001) has long encouraged three kinds of presence in online courses: cognitive presence, teaching presence, and social presence. That third concept of social presence was also central to The Open Page and the digital learning principles it attempted to enact.

Online spaces are sometimes dismissed in educational circles as devoid of the important social learning benefits and sense of togetherness that face-to-face classrooms are presumed to offer. In the CoI model, however, it has been shown that sociality in learning spaces can be a function of pedagogy rather than mere modality, and that digital learning can and should be social. In digital spaces, specific care can be taken to scaffold the opportunities and literacies by which social and emotional cues can be shared and read. In our service learning course, for instance,

initial discussion board questions were intentionally designed to encourage personal reflection, humour, and self-disclosure, which Rourke, Anderson, Garrison, and Archer (2001) note as means by which affect has long been demonstrated in computer-conferencing or digital learning settings. I also tend to use emoticons when responding to students in these informal contexts. My experience has been that when I model affective communication literacies and treat opportunities for social presence between students as valuable, I am also encouraging the kind of reciprocity that underpins produsage. At least one of the RAs had also approached their own student teaching from a parallel perspective:

> From prior experience, my students enjoyed when I engaged in social media aspects like Twitter, Snapchat and Instagram. If done appropriately, this can create professional relationships that help encourage classroom discussions and informed responses. I believe this allows for students to feel more "connected" both to their teacher and their environment. (Intake Survey, 2019)

I recognize that educators' capacity and comfort with building social presence in digital environments remains unevenly distributed. Many faculty members do not have in-depth experience with participatory online communities (Goktas, Yildirim, & Yildirim, 2009; Hall, 2018). Nor do faculty always have time or motivation to engage in learning experiences focused on building participatory literacies (Borthwick & Hansen, 2017; Foulger, Wetzel, & Buss, 2019). But my hope with The Open Page project was that engaging in presence-focused participatory digital learning practices and sharing the project with faculty and K-12 educators would begin to seed the idea that presence—in terms of both footprint and affective engagement—is both possible and potentially positive.

Authentic Audiences

The final digital learning principle that The Open Page aimed to put into practice for its RAs and service learning students was that of *authentic audience*. My own exposure to the idea of authentic audience came out of my early career in writing instruction, but has influenced my pedagogical perspective ever since, and I believe that students will generally do better and more meaningful work if they are doing for eyes beyond my own. Mcleod and Graber (2018) claim authentic work as a key element in creating successful digital learning, and my own prior research had indicated that having authentic networked audiences on Twitter was a predictor of greater participatory engagement among participants in an open online course (Montero-Colbert, Delia Deckard, Stewart, Richard, & Nanan, 2019). Digital work that is only intended for a teacher's eyes or judgement is subject to false scarcity: in digital spaces, the gatekeeping aspects of print publishing are removed by the Web 2.0 capacity to share, and it takes an intentional act of power to re-assert them. In digital learning, the capacity to create work for authentic audiences is always present.

That doesn't mean learners are automatically ready for prime-time public audiences for everything they produce, nor that they should have to wear the consequences of their learning curves publicly, particularly in professional programs where the possibility of being Googled before being hired is thought to be high. This is where the concepts of feedback and iteration became central to both the video production cycle of The Open Page, and the service learning course that built on it.

The four RAs who worked on the project all went through intensive feedback cycles with me related to their various responsibilities: while hired to be TOS researchers or scriptwriters or

professional development (PD) coordinators or video producers, they were all on various learning curves with regard to the set of skills required, and we were collaboratively creating real, professional outputs that would have all our names on them. Neither were my own skills and capacity to articulate them fully-fledged across all areas of the project, and we were working without a direct exemplar or model to copy. As a result, I tried to frame "we're probably going to do this more than once" as an expectation from the outset, in hopes that the intensive feedback and iteration process that I anticipated—and enacted—would not be taken personally. This was successful to an extent, and perhaps more successful as the RAs themselves embarked on peer feedback with each other and with the service learning students. One RA reported at the conclusion of the project:

> I learned that feedback is an extremely important part of any project but especially one like this with multiple moving parts and a number of collaborators. It is important to listen to the opinions and ideas of others when trying to get a vision together. Ultimately however, one of the best pieces of advice we received was that perfection is the enemy of completion so there comes a point when the product needs to be done. (Exit Survey, 2019)

As the RA above notes, even when demanding iteration and producing public work for authentic audiences, timelines are important and real. No final product is ever perfect, and the project gave me an opportunity to revisit the expectations that I bring to student work in graded contexts: being involved reputationally and time-wise in the production of The Open Page outputs reminded me that the human constraints that led to saying "good enough" are always present in anyone's work, and that grading should not occur against Platonic ideals that fail to factor that reality. I tried hard to model the kind of supportive, specific formative feedback that I wanted the RAs to use with the service learning students, and that I hope all of them will take to their own classrooms as part of their eventual teaching practice.

> Being able to have frequent and timely feedback helped foster a growth mindset in helping develop the project. The feedback that I received along the way has helped me reflect on my personal practices and make adjustments moving forward. I really liked how the feedback that was given was always positive in the sense that there was always a "highlight" of strength acknowledgement, followed by some potential pointers for improvement. (Exit Survey, 2019)

Once we finalized our outputs, the next goal for the The Open Page team was to get them seen. Just putting things on the web does not an authentic audience make: digital audiences require cultivation and development. People won't know your work is out there unless you find a way to communicated with them. We used social media and the #UWinToolParade hashtag to promote and preview The Open Page as we worked towards releasing videos. Ultimately, the project has produced and released 13 captioned OER videos, with one final faculty video that will be released post-return to campus. It also released 11 OER podcasts, each of which has a short pedagogical overview linked to it, outlining potential classroom uses across the curriculum. In addition to being housed on the The Open Page site itself, the outputs have all been shared on Twitter, and in some cases featured in a local newspaper article about the project at the outset of the pandemic. The service learning students' podcasts were specifically featured on *VoicEd Radio*, a premier educational podcast for Canada. One of the videos currently has over 600 views on YouTube, which is by no means viral, but certainly indicates interest and value.

However, while one core goal of The Open Page was to produce OER to contribute to the knowledge abundance available on the open web, the digital audience was not the only authentic audience I had in mind for the Tool Parade. Many educators are online, certainly, but many are not. To really get word out about digital platforms and data implications and differentiation possibilities, the project needed focused opportunities to showcase the OER outputs and the ideas behind them. Effective digital learning projects cannot always be fully digital if they are to be successful in engaging broader audiences in digital learning. As a result, I designed professional development for real audiences of practicing educators—to be piloted first by the RA team and later led by Year 2 service learning students—as central to the project. We presented at an academic conference early on in the project and then once some of the videos were released, the four RAs, with myself and another professional development leader affiliated with the Office of Open Learning, designed and led the initial pilot PD sessions at two local high schools. In the PD sessions, we overviewed the data and digital literacy elements of The Open Page and showcased the videos as quick go-to supports for educators. The sessions were well-received and the opportunity to present in front of practicing teachers and potential future employers was genuinely valued by the RAs: three of the four noted it as the part of the project that brought the greatest satisfaction for them, which in turn made me feel that I'd succeeded in offering them meaningful learning opportunities.

> I think one of the greatest satisfactions for me came from leading PD. To hear feedback from other educators saying they wanted to try what we were showing, or that they were interested in more, was awesome. I am always afraid with PD that educators won't want to listen or will think that their day is being wasted…but I loved getting to share our project. (Exit Survey, 2019)

Key elements of the project still to be fully enacted when COVID-19 restrictions are lifted include additional professional development and parent engagement sessions about The Open Page both in schools and on campus, as well as further academic conference dissemination.

Conclusion

Overall, The Open Page project has been an effort to instantiate and model digital learning principles in a Faculty of Education setting, while creating OER that can serve both instructors and pre-service teachers in the faculty as well as broader online and offline audiences. The project is premised in the idea that all educators are on a shared learning curve when it comes to learning about new digital tools and educational technologies, and that short, engaging, open resources can serve to build digital and data literacies for multiple audiences at once. The project's pedagogy has been grounded in the adult and digital learning principles of participatory engagement and reciprocal produsage, and in an appreciation for the value that digital presence and authentic audiences can bring to education.

The project has met most of its goals in terms of formal outputs, but its pedagogical and professional development goals have really just begun. The current pandemic and ensuing pivot to emergency digital learning mean that some of its intended professional development sessions and conversations are on hold for the moment, but also that other circumstances are emerging in which the model that the project tried to create—of produsage, presence, and authentic audiences, with a message of critical data literacies—may be of broader value than even originally envisioned.

Acknowledgements

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