Online Learning Can Be Engaging and Effective

Online learning, done right, can be a delight — and achieve learning objectives. It appears that teaching online by necessity rather than aspiration has led to a many online attempts at learning that have fallen short of the mark, leaving those who were forced into it unsatisfied with the outcome and sometimes outright hostile to the whole idea.

Many students and teachers who were forced by pandemic circumstances to meet only online found their experience to be less than ideal. Some students and teachers hated it. Although online learning is not for everyone, I strongly suspect that online learning done badly is often the reason for negative outcomes. Teachers aren't to blame. Untrained in the use of digital, networked media, educators at all levels around the world found themselves attempting to shoehorn their traditional curriculum into Zoom sessions. I hope backlash against these emergency online classrooms doesn't diminish the prospects for informed, well-designed and well-conducted online learning. Here are some tips from my own experiences with both physical and virtual learning environments. (Disclaimer: My experience has been with college students and adult online learners — I claim no expertise regarding K-12.)

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I taught blended learning courses for ten years at UC Berkeley and Stanford — three hour face-to-face meetings each week, with forum, blog, and wiki learning activities spread over the week between classroom sessions. I came to learn that, combined with a co-learner-centric pedagogy, the use of synchronous (videoconference) and asynchronous (forums, blogs, collaborative documents, collaborative highlighting) media between classroom meetings can amplify and vivify the traditional college course. For eight years, I also taught my own online courses at what I called "Rheingold U." In March, 2020, when Covid-29 led to the sudden, massive, unplanned advent of online classes, I published some advice about teaching and learning online. Now, a year and a half later, after hearing so many less-than-encouraging reports of online failures, I have more to say about how to make the learning experience more engaging and fulfilling — with more successful learning outcomes. I have included some of my 2020 piece in this present essay — and expanded upon it.

Learners first, pedagogy second, media third.

In a cohort that is explicitly dedicated to learning together as a co-learning community, online media can be a tremendous amplifier — but I hasten to state at the beginning that similar results

can be accomplished face to face, with traditional materials. Encouraging more active construction of their learning activities and peer-to-peer projects, explicitly asking learners to take more responsibility for their learning in exchange for more freedom to shape how they learn, learning along with and from my students, came to be the foundation of my pedagogy. I told my co-learners on the first day of classes that although I am confident in my mastery of the subject matter, I am still learning how to teach it with an online component; I welcomed co-learner participation in how to approach and present the syllabus in online contexts — encouraging candid conversations at the end of every class session about what worked and ideas about what might work better.

Although this approach is built on the foundation of decades of educators such as Dewey, the educators of Reggio Emilia and others going back more than a century, the recent advent of widespread networked digital media has enabled the emergence of what Douglas Thomas and John Seely Brown call "A New Culture of Learning." Characteristics of this culture include: it is learner-centered, social and peer-to-peer, inquiry based, collaborative, cooperative, playful, networked. Institutions and educators who are pioneering this approach have begun to call these ideas and practices "Connected Learning."

I challenged myself as well as my learners to build a co-learning community in the 8 or 15 weeks we had together. Before students could be admitted to my college classes, I asked them to read about how our course would be somewhat different from what they were accustomed to and write a letter of application in which they commit to active participation. Co-learning required us to be clear from the beginning about what we planned to achieve, and why and how we could do it better together. In addition to the "content" of the course — the subject-specific knowledge, skills, and arguments — I emphasized the metaskills of co-learning, blended learning, and informed use of social media. Since social-media issues and social media literacies were the subjects of my university courses, it only made sense to use the media we were learning about:

Students who successfully complete this course will be on the way to mastering the 21st century meta-skill of knowing how to learn to use new social media, to assess a new social medium's potential cognitive, social, and political impact, and to tune or relinquish use of the medium for their own purposes. In addition, students will have practiced mindful self-observation of the ways they use their own attention. Increased facility at inquiry and collaboration are other meta-skills dedicated students should expect to gain: the methodology of collaborative inquiry used in this course generalizes beyond the classroom.

I acknowledge that I had the privilege of working with cohorts of 15–30 students, each of whom came into my class with basic technology and media skills. I know that Michael Wesch has brilliantly applied connected pedagogy with class sizes in the hundreds. And I understand that online or blended learning is not for every learner, teacher, or subject. Nevertheless, digital media and networks provide a powerful toolkit for connected educators and those who would like to try it.

Teaching online is more work

Assuming a cohort of 25 learners, you will want to encourage participation and dialogue asynchronously by responding to each of their blog early blog posts with a brief, inviting comment — you aren't testing learners, you are drawing them into conversation about the course material . If you do it right, you will prime the pump and students will comment on each other's posts, as well. It's not as intense as grading 25 papers, but it involves your active participation as well as your judgement about learners' efforts. In my experience, the advantages of personally commenting on blogs are significant: You invite and prompt discussion rather than rote answer-recitation; you model the behavior of co-learning dialog; you initiate and build upon a personal learning conversation with each student. If you ask for two blog posts each week, that's 50 comments. Then there is the forum, where you want to facilitate, prompt, catalyze conversation about your texts — but want to avoid dominating the conversation. So in addition to preparing lectures (which for blended courses you can record and post as asynchronous video, or in the case of purely online courses present in real-time in short segments during a live videoconference session), you will be commenting and facilitating online conversation. When you practice enough to become skilled, it can be a real pleasure as well as a way to consume hours of your evenings. When you plan your curriculum, you will want to account for your own lecture time, online synchronous discussion time, and asynchronous commenting time.

Class size

If you have 300 students, the canned lecture is more practical than the interactive live lecture (although great in-person lecturers do exist). But when it comes to the discursive part of learning the material in lectures and texts, for online classes you will need to break out into online discussion groups of 15–25 (at least 15 to have a critical mass of conversation, but no more than 25 or 30, max, if you or your teaching assistants intend to engage in and facilitate blogging and forum posts.) Not every teaching assistant is an ideal facilitator of online conversation — but you can be sure that at least some of your students have social media skills.

Co-teaching

Although it is not always appropriate or practical, student co-teaching teams can be effective. Again, my experience has been limited to cohorts of 15–30, although the idea emerged in a cohort of 50. I worked with student co-teachers in blended courses. Before the first class meeting, I did two things: I made sure the chairs were stacked, and I wrote the themes of each week at intervals on the whiteboards around the room: for example, "community," "public sphere," "social capital" were weekly themes for the social media issues course.

When students entered, I greeted them and encouraged them to put their chairs wherever they wanted. Invariably, they set them up in rows. And if I didn't intervene, they would set them up the same way the second time we met, and would probably sit in the same seating position they selected the first time. At the second class meeting, introducing the ways power relations can be embedded in the architecture of media — in this case, the classic classroom with the teacher standing at the front and the students arrayed, usually in rows, all facing the teacher — I suggested moving our chairs in a circle. It's something I stumbled upon and certainly not something I invented. Indeed it doesn't take long to come across Harrison Owen when looking into the power of conversation circles. In his guide to the "Open Space" meeting method, Owen claims:" The **circle** is the fundamental geometry of open human communication." (Obviously,

this is an activity that is exclusive to the physical classroom; it is also a way to manipulate the power relations of technological architectures — a method that can be applicable to online media.)

After setting up their chairs, I asked the students, who I started to call "learners," to look at the themes on the whiteboard and to stand in front of the one they are most interested in exploring — and to self-organize into roughly equal groups. Then I asked them to engage one of the most effective break-the-ice tools I've used; I've asked audiences of thousands before I started a keynote to engage in a quicker version that only takes three minutes , and I know it has been used in K-12 schools. It's called "Think-Pair-Share" and it can be done with index cards. Each learner in my first classroom meeting was given two minutes to list three of the most important questions to pursue in regard to their chosen theme. Then the groups took 5 minutes for each learner to share their list with the others who were interested in that theme and briefly explain their reasons. At the end of the 5 minutes, each group was tasked with whittling down all their questions to the three most important; finally, each group made a one minute report. At that point, I informed them that each group would be a co-teaching team, to be responsible for 40 minutes of our three hour class meeting.

The idea of co-teaching emerged from one of my early Berkeley classes. I first asked students to sign up for one of the slots for reading and reporting on one of the alternate (not required) texts about that week's subject. Mid-semester, when we took time to talk about how it was going, the consensus was that there was nothing experimental about book reports. So we started trying co-teaching teams. A three hour class is long! It requires pacing and breaks. Teams were not asked to present anything exhaustive about the week's texts, but to choose a theme or several that engaged them most strongly, and invite engagement from other learners through learning activities. I encouraged experimentation. One team presented from another building, via Second Life, a graphical virtual world that thrived circa 2005. Another team created roles for each other learner ("middle aged man pretending to be a teenage girl," "troll," "scholar," and set them all up with AOL instant messenger (also popular in the mid-2000s)

With 7–12 weekly themes (depending on whether the course was on a quarter or semester system), ideal size co-teaching teams of three or four would confer with me asynchronously through a dedicated thread in our online forum; co-teaching team members sketched out a plan in collaborative documents — in the beginning, a wiki was the medium, and eventually learners preferred Google Docs. A week before their co-teaching session teams would meet with me face to face in my campus office. In addition to their 40 minutes of learning activities, co-teaching teams were charged with taking the lead in the collaborative lexicon, identifying words in terms in our texts, my lectures, our online and in-person conversations, and entering them on a wiki page for that week's theme. During the week, all of us, including me, were responsible for filling out definitions, adding links, for the terms. I adopted this activity as one of roles for online learners during videoconference sessions. At the end of the term, the co-learning community has created a formidable lexicon. In addition to the lexicon, the co-teaching team had 15 minutes at the beginning of the next class meeting to present their mind map of the previous week — what they learned about the theme through texts, lectures, conversations online and in person, forums, blogs.

(students at whiteboards first class meet, think-pair-share sketch out plan online, meet in person, present and stir up activities, mindmap, lexicon, propose forum topics)

Synchronous Media

In 2005, when I started teaching online, the term "social media" had not been invented, and inexpensive videoconferencing for groups had not been invented. The advent of free video publishing made the "flipped classroom" possible. Why sit with three hundred people in a specific time and place to watch a lecture, when you can do it on your own schedule — and the time that had been used for lectures could be used for face-to-face discourse, inquiry, and problem-solving. The emergence of video added an all-important dimension to online learning, which had been text-only since before the Web; although critics point out correctly that video lacks a great deal of the interpersonal cues afforded by physical co-presence, it is also true that video adds those same cues to an environment in which words on screens have been the dominant medium. Because my co-learners told me that our collaborative conversations worked better when I scaffolded them with mini-lectures, I broke up one hour videoconference sessions into three 10-minute lectures followed by 10-minute discussions. One of these sessions was composed and delivered by learners who signed up in advance to make brief presentations on texts on our recommended (i.e., not required) reading list.

Each one-hour videoconference mini-lecture and discussion, including brief learner lectures, frames the theme for the ensuing week. I briefly contextualize and explain why I chose each of the following week's texts, answer questions, and point in general terms toward what can be taken away from each text. In the first live video session, I present a very condensed overview of the topic after each of the participants makes a one minute introduction (one of the reasons why 25–30 is the ideal sized cohort). Videoconferences are structured for involvement by all participants, as I detailed previously: learners have roles, and the roles add up to a set of collective notes for each session. Chat is a backchannel and a medium for collective construction of knowledge.

On the shared whiteboard, learners propose and sign up for different roles during the session. Searchers find online resources relevant to the lectures and class discussions, and put the URLs in the text chat; contextualizers download the chat and write three sentence descriptions of each URL then sent the contextualized resources to the wikimasters who compile a web page for each live session, including URLs, link to a recording of the session, link to transcript of text chat, link to the lexicon; lexicon team enter words and phrases from videoconference lectures, discussions, texts, on a collaboratively editable page (wiki, Gdoc, etc) — during the week until the next live session, all learners flesh out the lexicon entries, Wikipedia-style. Others mindmap or make a graphic recording. The point is to make live sessions collaborative and participative, even with brief lectures. And co-learners were encourage to carry on parallel dialog in the text chat. From time to time, I would respond to something from the text chat, or ask someone who made a chat entry to tell us more via audio-video.

Chat and collective note-taking can parallel audio and video. Some learners are more comfortable with one or the other medium — realtime audio-video or realtime text. As a

backchannel, chat enables learner conversations in parallel with mini-lectures — and provides a canvas for collecting supporting materials (e.g. synchronous online searchers sharing their finds in chat).

Asynchronous Media

The forum (or discussion board) The purpose of a forum is to provide a place for *the voice of the group*, a conversation in which each participant can choose when to participate, and in which the group decides with teacher guidance what to converse about — and can become a place for community formation: because it is asynchronous, people all over the world can participate in the discourse on their own time; because it is structured, large groups can have multiple conversations about multiple topics over longer periods of time (and all good forums keep track of what each individual has read and presents on each login only the posts and threads that have happened since the last login); and because the goal of the forum, scaffolded by the way it is presented and facilitated, is to cultivate a culture of conversation. These days, those conversations can include multimedia, with graphics and videos embedded in posts. I wrote about why and how to use forums (and why Facebook groups suck for that purpose) in a previous post. (For a detailed look at how discussion boards can be used in higher education, see this article on "Shaping a Culture of Conversation." You will have to scroll down the page in that link.)

I have used a web-based forum (aka discussion board), Caucus. It still exists, is configurable, and is Free & Open Source. Today, discourse.org, (also FOSS) is also a good choice for a web forum. And many are using Slack as a kind of forum — the advantage of Slack is that many are familiar with it, although it doesn't have all the affordances of Discourse. A few tips on how to set up conversations in a forum: Start with a thread about how it all works and what the rules are, another thread for asking questions, a thread for introductions, a thread for discussion of what other threads we wanted to start. Then let the threads grow slowly. At first, limit creation of new threads to those agreed upon by the group: Until the community learns how it all works, limit the technical creation of new threads to the convener/facilitator. This prevents a confusing proliferation of threads, and it also concretely demonstrates the participatory nature of the conversation by talking about what the group most wants to discuss).

Blogging

Just as forums are a container for the voice of the group, blogs are containers for *the voice of individual participants*. It is possible to give each participant who wants one a blog that is syndicated to a common page. A WordPress site can be the hub for an online conference, with links to all the main components — I used a WP site for the hub of one of my courses, with links and pulldown menus for all the components of the course, and a stream of syndicated posts from students down the center. It is possible to link to a forum or other space without requiring additional sign-ons. Participants can broadcast their own views, reflect on their conference experience, stir up discourse via comment threads. The course home page had all the information found on an online syllabus: menus had links to learning goals, expected outcomes, grading

policy. Down the center of the page was a continually updated stream of syndicated posts from individual learner blogs. In the left margin were links to individual learner blogs. In the right margin were links to latest comments. Some years, the bulk of our online conversations happened in the forum; other years, comment threads were the locus of discourse. Learners were given wide latitude in how often they blogged beyond the required one post a week, and what they blogged about was up to them as long as they could make a credible connection to the theme of the course or week.

Social Bookmarks and Tagging

With the advent of the first online social bookmarking service delicious.com and Diigo, the terms tagging, folksonomy, and social media entered the lexicon. Social knowledge media are another instance of a way to grow valuable public goods from the aggregate self-interested actions of many people; the kind of self-interest that adds up to more for everyone, as manifested by Wikipedia or Open Source and Free software, is enabled when digital networks lower a barrier to collective action: Html lowered the barriers to widespread participation in the Internet and allowed millions of individuals to create their own webpages; their linked pages added up to the Web. Blogging software lowered the barrier to frequent web publishing; millions of blogs added up to the blogosphere. Wikis lowered the barrier to group authorship and Wikipedia emerged. Social bookmarking and phototagging lowered the barrier to participation in creating knowledge together, and in something most people didn't think about before they had the power to participate: classification. When you go to the library, specialists have already classified the arrangement of books for you. Most classification systems for large, complex collections of objects are hierarchical: Humans are a subspecies of primates, within the category of mammals, which is subsumed under the category of animals. All of these methods of finding, aggregating, and connecting knowledge are extensions of classic methods of scholarship and research, but are super-powered by access to the Web and trillions of individual entries.

Tagging eliminates both the specialists and the classification hierarchies: when you bookmark a page with a social bookmarking service such as Diigo, you design your own classifications — "tags" — of any name, and in any number, you'd like. You could bookmark the page you are reading now and assign any or all of the following tags: participatory_media, learning, tagging, social.bookmarking, diigo, knowledge, information, miscellaneous. Although tagging can be done privately, the great new added affordance of social media is the ability to share tags with a designated group or with everybody. Together, the aggregated tags of a sufficiently large population become a valuable public resource with virtually no provisioning cost — we all go about our daily browsing, marking the websites and photos we want to remember, and adding annotations. That's a kind of knowledge bookkeeping that we each engage in for our own individual purposes. When we expose our decisions to others, and they reciprocate, the aggregation of our decisions creates a new resource. When you multiply that act sufficiently, each tag becomes a repository of collective judgement about what is worth noting in relation to the tag. If you want to know more than you already know about tagging, see what everyone else things is worth marking: the diigo tag for tagging, for example, https://www.diigo.com/tag/tagging , constitutes a rich resource for anyone who wants to quickly browse existing sites that relate to tagging.

With both my online and blended learners, we used the group bookmarking features of Diigo: each member of the group can add a group tag to their tags for their bookmarks; each member of the group can see and comment upon other learners' bookmarks. Diigo's highlighting feature made it possible for each learner to highlight and comment upon specific phrases and passages in online texts, to share their highlights, and to discuss them as a group. A very good resource for using social bookmarking in education is Social Bookmarking and Annotation.

Social Annotation

More recent than my experiments with social bookmarking is the emergence of practices that are called social annotation. One free and open source tool, hypothes.is has a strong educational focus and is available to help educators who are interested in using it.

What Media to Use and How

…is up to you and your co-learners. By explicitly framing the use of online media as an experiment and welcoming, prompting, encouraging frank discussion of the effectiveness of each medium, you as educator are both learning and empowering your learners. I'm an enthusiast of using a mix of synchronous and asynchronous media; I think of the different media involved in a course as convergent lenses that enable us to approach analysis and discourse about the subject matter in different ways. Different lenses, different viewpoints, and continual discussion of what they reveal, are scaffolds for the collaborative discovery and construction of knowledge.

Some Resources:

My 20 minute video about my pedagogy and use of social media.

Detailed instructions on setting up WordPress as a course site, syndicating student blogs, using them to encourage a co-learning community.

Cathy Davidson: Transforming on the Fly: One Model for Easy Synchronous Community in an Online Class

Crowdsourcing: Teaching Online With Care from many experts, organized by Mia Zamora (@MiaZamoraPhD) and Maha Bali (@Bali_Maha) with input by many other practitioners. A great community effort by savvy educators.

"The Art of Hosting Good Online Conversations" by Howard Rheingold, circa 1998, but still useful for facilitators.

From Sean Michael Morris (@slamteacher): "If you suddenly find yourself teaching online as part of your school's response to COVID-19, here are some helpful ideas (a thread):"

An all around resource on “Critical Digital Pedagogy”

From Jesse Stommel (@jessifer)”If you’re being asked to “move a class online,” models may be even more useful than “tips.” Here’s a link to a course site for my fully online class last semester. It’s a simple approach with very little “tech.” Feel free to borrow any of the ideas here.” dgst101.com

Covid19 Teaching Tips (video) by J. Gregory Mcverry (@jgmac1106) and a Twitter thread on planning online teaching by the same (expert) practitioner.