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The eLearning Literacy for Suddenly Online - Voices from the Field

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Leveraging Sociomaterial Practices to Build eLearning Literacy in "Suddenly Online" Professional Development

Article Info

Abstract

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Keywords: Digital Literacy, Instructional Design, Instructional Technology, Online Learning, Professional Development Despite many studies of faculty development for online teaching and instructional technology use, significant challenges confront those seeking to develop faculty with the digital literacy needed to function effectively and efficiently as online instructors, let alone "suddenly online" instructors. Much technology training involves staff teaching faculty, but faculty often use informal peer networks and choose technologies independently in ways that may hinder eLearning literacy. A "suddenly online" course design institute during the COVID-19 pandemic provided a valuable opportunity to explore how thoughtfully designed, responsive professional development incorporating peer support can foster faculty eLearning literacy. Quantitative and qualitative data from faculty participants in the "suddenly online" institute clarifies factors that impacted faculty online learning, their awareness of and ability to use technologies for eLearning, and the value of their "suddenly online" learning experience for supporting learners in a similar situation. Synthesizing participants' insights with the designer-facilitator's observations and secondary literature highlights the importance of peer support, integration of technology with design principles, and reflective activities in this "suddenly online" professional development. While affirming selected findings of previous studies, this article reconfigures sociomaterial practices such as peer learning as assets in a holistic view of eLearning literacy. Treating skills, habits of mind, and situated practices as all essential to eLearning literacy, this article demonstrates that faculty preferences such as peer learning need not be considered hindrances but rather can be viewed as resources to be leveraged through thoughtful, responsive design to build organizational capacity to support effective online or "suddenly online" learning.

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Despite many studies of faculty development for online teaching and instructional technology use, significant challenges confront those seeking to develop faculty with the digital literacy needed to function effectively and efficiently as online instructors, let alone "suddenly online" instructors. These include time, expectations that instructors change their paradigm of teaching, a shift in faculty role to being a facilitator of learning, and effective technology skills (Henning, 2012). In the case of technology skills, faculty reliance on independent problem solving and informal peer networks may hinder their digital literacy (Herckis, 2018). At the heart of this technological challenge are persistent contradictions. Much technology training involves staff teaching faculty (Belt & Lowenthal, 2020), but faculty often want peer-to-peer learning to share ideas and experiences on topics like using mobile technology in instruction (Hauptman, 2015). Yet in rejecting available formal training and seeking insight from informal peer networks of trusted colleagues rather than technology experts, faculty may pursue technology choices more independently and, as Herckis cautions, not develop digital literacy. Commenting on faculty as adopters of eLearning tools, Herckis explains, "prioritization of independent problem solving, paired with the tendency to leverage informal support networks, means that would-be adopters and their support networks lack crucial digital literacy" (Herckis, 2018, p. 33).

"Suddenly online" professional development illustrates how these contradictions can be effectively addressed

to develop faculty eLearning literacy. Amid the additional challenges presented by the COVID-19 pandemic, an innovative course design institute at a small master's level university (Lohman, 2019) became triply "suddenly online"-the author, as the institute's designer-facilitator, rapidly shifted this professional development from in-person to online delivery, faculty participants became "suddenly online" learners, and, just as the institute began, both were notified of the need to prepare fall oncampus classes to use online learning. As all but one of the faculty participants had applied for the in-person course design institute to focus on designing or redesigning a specific face-to-face course, these "suddenly online" shifts had significant impacts on the design, development, and delivery of the institute and participants' experiences in it.

To explore the factors contributing to faculty eLearning literacy in this "suddenly online" context, this article synthesizes insights from the designer-facilitator, participants, and literature spanning digital literacy and faculty development. Following a review of relevant themes in literature on faculty development for instructional technology and online learning, this article outlines the designer-facilitator's decisions in designing the original institute and redesigning and developing it for online delivery during the COVID-19 pandemic. Quantitative and qualitative data gathered from participants regarding their learning experience clarifies factors impacting faculty learning in an online environment, their awareness of and ability to use relevant technologies for eLearning, and the impact

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of their experience as "suddenly online" learners on their ability to support learners in a similar situation. Synthesizing participants' insights with the designerfacilitator's observations and secondary literature highlights the importance of peer support, integrating technology with design principles, and reflective activities in this "suddenly online" professional development. This article demonstrates that faculty preferences such as peer learning need not be considered hindrances but rather can be viewed as resources to be leveraged through thoughtful, responsive design to build organizational capacity to support effective online or "suddenly online" learning.

Literature Review

Literature on faculty development in instructional technology and online learning provides important context for understanding how the "suddenly online" institute sought to support faculty members' development of eLearning literacy. Particularly relevant are large-scale reviews of faculty development for instructional technology and online teaching during the past decade, research on barriers to faculty adoption of instructional technology, and multiple perspectives on digital literacy.

There are three noteworthy contrasts between common practices in faculty development for online teaching and instructional technology during the past decade and recommendations made in other, related research. First, while reviews of faculty development note a longstanding

reliance on in-person support for both online learning and instructional technology (Belt & Lowenthal, 2020; Meyer & Murrell, 2014), researchers have stressed the value of providing faculty development in the same modality in which faculty will be teaching. Online professional development can model sound practices and provide faculty valuable experiences as online learners. As Borup and Evmenova (2019) explained of their professional online multi-week development course on online teaching, "the course content and assignments proved effective at increasing faculty members' knowledge and skills, but it was the course delivery and the opportunity to learn as an online student that appeared to most impact faculty members' attitudes and perceptions of what was possible in online learning environments" (p. 16).

Second, while Belt and Lowenthal (2020) noted a common use of staff to teach faculty about instructional technology, many researchers have advocated for greater use of peer learning in faculty development on instructional technology and online learning. As faculty interviewed by researchers value learning from other faculty, researchers have recommended peer-support formats such as learning communities (Belt & Lowenthal, 2020; Hauptman, 2015; Reilly et al., 2012; Richardson et al., 2020; Terosky & Heasley, 2014). Learning from faculty peers is often described positively by both faculty and researchers as a source of community, collegiality, and collaboration that can support faculty development for online teaching and faculty experimentation with instructional technology (Belt & Lowenthal, 2020; Terosky & Heasley, 2014). More

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specifically, peer modeling of technology use and online teaching is often praised for its ability to promote self-efficacy through social learning, change how participants perceive online learning, and illustrate the learner-learner interaction sought in online learning more generally (Barton & Dexter, 2020; Borup & Evmenova, 2019; Gummess, 2019; Saleh, 2008). Online learning communities or cohort programs can provide these opportunities in the same modality as the instruction targeted for improvement (Reilly et al., 2012; Sullivan et al., 2018).

Third, while Meyer (2013) noted that faculty development for online teaching shifted from focusing on technology tools to pedagogy and instructional design, research on the competencies and roles in online teaching suggests that faculty members' ability to fulfill a technologist role and use technological skills in carrying out other roles remains important (Goodyear et al., 2001; Martin et al., 2019). Meanwhile, common emphases during professional development for online teaching have included assessment, creating community, and the learning management system (LMS) (Meyer & Murrell, 2014). De-emphasizing a range of technology tools in professional development may encourage faculty to seek such knowledge through the informal peer networks that Herckis suggests work against developing their eLearning literacy.

Even with such recommendations, significant challenges remain for those developing faculty members' eLearning literacy. These include many barriers to faculty adoption of instructional technology.

First-order barriers—barriers external to faculty—include insufficient time, limited access to technology, unreliable technology, limited access to professional development or advice, insufficient incentives, and institutional control. Second-order barriers—barriers internal to faculty include attitudes towards technology, technology anxiety, low digital literacy, difficulty maintaining technological currency, beliefs about teaching and learning, attitudes toward change, and selfefficacy (Belt & Lowenthal, 2020; Borup & Evmenova, 2019; Faulkner, 2015; Fleagle, 2012; Gachago et al., 2017; Hauptman, 2015; Johnson et al., 2012).

Valuable in overcoming these challenges is a holistic view of digital literacy that encompasses technology skills, habits of mind, and socioculturally situated practices (see Figure 1) (Meyers et al., 2013). This holistic view draws out how specific contexts shape learners' digital literacy development and contrasts with studies focused on abstract learners' skills and competencies (Digby & Bey, 2014; Koonce, 2017; McGrail et al., 2018). In the latter, an influential model has been Sharpe and Beetham's (2010) model of digital literacy development in which learners progress from digital awareness and access, to digital skills, then to digital practices, and finally, identities. Gourley and Oliver (2016) stress that we cannot understand digital literacy fully through an account of learners divorced from a sociocultural context. Instead, we must also attend to "the material and social networks in which practices are enacted" (p. 77). A holistic view of digital literacy facilitates attention to elements of

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eLearning literacy such as metacognition, self-directed learning, communication, collaboration, use of the eLearning environment, and engagement in cultural practices as established in that environment. All are relevant to "suddenly online"

professional development, an extended "digital literacy event" that Gourlay and Oliver suggest can help us understand sociomaterial practices integral to developing digital literacy.

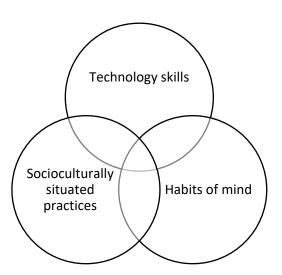


Figure 1. A holistic view of digital literacy.

Design Decisions

The designer-facilitator's decisions were critical to the "suddenly online" institute as a digital literacy event. These include decisions made when designing the original institute, redeveloping it for online delivery, and designing two weeks of new content under university-level guidance during the COVID-19 pandemic.

The institute was originally designed as a month-long learning experience that fused approaches to course design often

segregated in professional development led by faculty developers and other learning specialists (Lohman, 2019). One basic premise was that faculty can use sophisticated instructional design techniques, such as component skill analysis, drawn from an instructional systems design text (Dick et al., 2015). Another basic premise was responsiveness to the organizational context, including the influence of Fink's (2013) taxonomy of significant learning on the curriculum and emphasis on reflection and metacognition. Content was sequenced and presented to

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help faculty develop design skills applicable to any modality. Between the four, weekly, six-hour in-person sessions, participants completed application exercises and shared deliverables in a collaborative digital notebook. Each participant focused on designing or redesigning one target course discussed in the application for the institute.

This institute became "suddenly online" professional development as the university campus was closed to employees during the spring 2020 phase of the COVID-19 pandemic and state and county stay-athome orders were issued. Faculty registered for an in-person institute—thirteen full-time and adjunct faculty in disciplines spanning humanities, natural sciences, social sciences, arts, and health—became "suddenly online" learners. The designer-facilitator rapidly redeveloped the institute for online delivery using the web-based eLearning authoring app Rise, the asynchronous video discussion platform Flipgrid, the Zoom-based videoconferencing tool RingCentral Meetings, and collaborative, cloud-based Microsoft Word and PowerPoint files. The institute was redeveloped as a largely asynchronous learning experience complemented by videoconferencing in response to local faculty preferences for face-to-face, synchronous peer learning. Participants joined one to two hours of group video conferencing sessions per week; these were scheduled to coincide with participants' progress on Rise lessons addressing complex concepts and their application of these concepts to their target courses. Redeveloping the institute outside the LMS in this way gave faculty a safe space to share their application of and ideas

about design techniques and technological tools; reinforcing this safe space, participants were asked not to share cohort members' materials with those outside the cohort. The creation of a trust-building "safe space" was consistent with other faculty development (Gummess, 2019; Sullivan et al., 2018).

As the pandemic unfolded, the "suddenly online" institute became an opportunity to model online instruction. Just as the institute began, academic administration directed faculty to prepare fall classes to include online learning and those providing summer professional development to support faculty in this effort. Funding for a new mobile-friendly Learning Management System (LMS) was announced, but implementation timing remained unclear until after the institute ended. Accordingly, the designer-facilitator redesigned the content in the second half of the institute to emphasize other mobilefriendly technologies that could support diverse learners in fluid and challenging pandemic conditions regardless of the LMS used (see Table 1). In the third week, technologies and workflows were curated for participants using criteria in the (LEAPS) framework for selecting instructional technology (a mnemonic for learner analysis, engagement, accessibility, purpose of instruction, and sustainability) (Lohman, 2019; Lohman, in press). From these, faculty selected technologies suited to their courses based on design principles from the previous two weeks, including alignment with learning outcomes and objectives and a five-part instructional strategy (Dick et al., 2015). The final week

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included new content on making accessible materials, job aids, building community online, and fostering social presence online. Overall, the "suddenly online" institute's emphasis shifted in the second half to the broad applicability of decision-making tools and techniques rather than their sustained

application to the design of one course. This shift was consistent with administrative guidance given to faculty and the designer-facilitator's conception of participants as likely mentors of colleagues preparing their fall courses for pandemic conditions later in the summer.

Table 1. Learner-facing learning objectives by week in the "suddenly online" institute

Week 1	Week 2	Week 3	Week 4
 Understand how a backwards design process differs from a typical faculty process for creating a course Analyze the context in which learning will occur in your course Analyze your learners' characteristics Clarify how your course will foster significant learning (learning outcomes) Articulate a major "end of course" performance to assess that learning Conduct a goal analysis based on that performance 	 Conduct a component skills analysis Identify differences in how novices and experts perform the same task Write component skill objectives Revise course-level learning outcomes to be observable Select appropriate "tests" from four common types. Outline a five-part motivational, instructional strategy for a component skill objective Evaluate alignment between skills, objectives, and instructional strategy 	 Sequence instruction effectively. based on your major summative assessment *Identify traditional course content that can be removed or modified *Chunk instruction into logical multiweek units or modules *Select appropriate digital technologies for use in face-to-face and online learning environments *Adapt course design to the learning context (e.g., COVID,19 physical distancing) Incorporate support for student metacognition as appropriate to your course learning outcomes 	 Select varied instructional materials suitable to the learners and context *Understand the value of job aids in current university instruction *Understand key principles and resources for creating accessible instructional materials *Create an accessible syllabus that supports instructional continuity. *Understand how to build community and social presence in an online environment

^{*} indicate new learning objectives added to address administrative guidance to faculty for fall 2020 courses and COVID-19 conditions.

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Methods

Participants in the "suddenly online" institute were invited to share their perspectives in a program evaluation survey that also produced research data with Institutional Review Board (IRB) approval. Of the 13 participants, eight consented to participate in the research study and three of those also volunteered to participate in a follow-up interview. Quantitative and qualitative data was gathered through an online anonymous survey completed within three days after the conclusion of the institute (see Appendix). The author qualitatively coded responses to open-ended questions in NVivo. Coding included preset codes (e.g., awareness, access, skills, practices, identity, social network, materials), emergent descriptive codes, and some in vivo coding. Reflecting the focuses of questions 2 through 7, the next section shares participants' insights regarding sociomaterial factors impacting their learning in an online environment, their awareness of and ability to use relevant technologies to provide eLearning, and the impact of their experience as "suddenly online" learners on their ability to support learners in a similar situation.

Results

Sociomaterial Factors

Faculty responses illustrate the importance of a holistic perspective of

eLearning literacy that includes ample attention to sociomaterial practices. Among 14 factors highlighted through closed-ended survey questions, 50% to 100% of respondents reported that individual social and material aspects of the professional development had significant positive impacts on their learning. These include feedback from facilitator and peers, feeling like part of a community, dedicated digital space for cohort members to share ideas, cohort-based schedule (as opposed to independent learning), feeling accountable for making progress in front of peers and facilitator, organization of the institute materials, and opportunity to revisit materials as needed (see Figure 2).

When responding to open-ended survey questions, participants reinforced the importance of materials and a social network to their learning online. Several respondents stressed the organization of the materials. One noted that the effective organization both mitigated the potential of the extensive materials to be overwhelming and facilitated learners' revisiting materials to deepen their understanding. Another elaborated, "I found it so useful to be able to return to the same material multiple times over the course of the week, and during the subsequent ones, to review the material. Each time I got something new or different from it that I had not gotten during the previous viewing." Commenting on the importance of peer and facilitator feedback, one participant explained, "I learned so much from every participant and was grateful for the time commitment and level of engagement from

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the facilitator and my peers." Post-survey interviewing clarified that participants valued peer learning, peer feedback, peer modeling, and community as integral contributors to their learning in the institute. As their explanations made clear, social

networks and characteristics of materials can support learner motivation and comprehension of complex new material when integrated in purposefully designed digital literacy events.

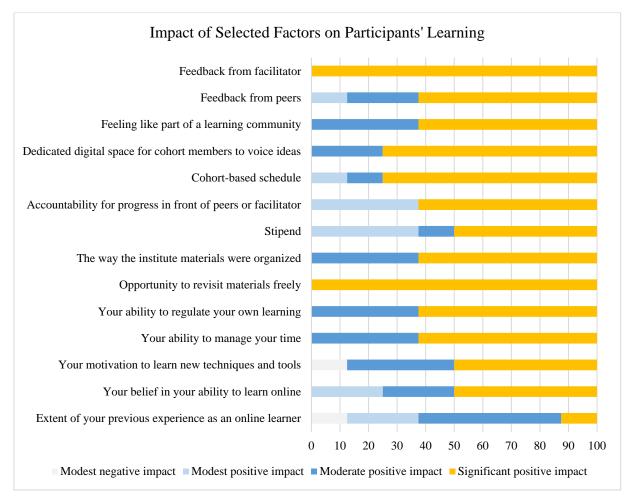


Figure 2. Percentage of respondents indicating degree and direction of the impact of selected social, material, and personal factors on their learning during the "suddenly online" institute. No respondents indicated that any factor had moderate negative or significant negative impact on their learning.

As these explanations suggest, participants' own characteristics were

integral to learning in the institute. Over half of respondents also identified their own

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abilities, namely time management and self-regulated learning, as factors that had significant positive impacts on their learning. Such responses to self-regulated learning were likely shaped in part by the prominence of metacognition and reflection in university discourse on teaching and learning. Factors less often noted as having significant positive impacts on their learning included financial incentives, motivation to learn new techniques and tools, the extent of prior experience as an online learner, and belief in their ability to learn online.

Using Technologies for eLearning as Instructors

"Suddenly online" participants reported greater awareness of and ability to use relevant technologies for eLearning as instructors. Such development is seen in respondents' comments on a change in their "feeling" in relation to technology. One reported gaining "lots of new ideas, both on technologies and on how to use them effectively. I feel much better prepared to face my classes next fall having taken this course design institute." Another elaborated, "Exponential growth! Definitely feel more comfortable in using." A third responded, "Yes! I learned so many new tools and strategies that I am excited to implement in my classes." Participants' enthusiasm for their learning about technology is remarkable given the challenging circumstances of a summer felt to provide no normal break from teaching responsibilities due to the complex preparation required for fall courses. In this trying context, the safe space provided in the institute was an asset; one participant

explained that "Learning new tools in a riskfree environment allowed me to learn in a stress-free way."

Respondents' comments aligned with three of the four levels in Sharpe and Beetham's (2010) developmental model of digital literacy. Influenced by Maslow's hierarchy of needs, this pyramid model has a foundational layer composed of access to and awareness of digital technologies, above which three successive layers represent digital skills, practices, and identities or attributes rooted in the creative appropriation of digital technologies. Three participants commented on increased access or awareness, two commented on skills they had gained, and two commented on how their practices had changed. As one participant explained, "I learned about so many technology tools about which I knew nothing, or very little. We have access to so many more options than I anticipated." Among the skills cited, one participant highlighted having "more tools for assessing appropriate tools," an implicit reference to learning a criteria-based process for selecting technology with the LEAPS framework. Moreover, participants reported expanding and deepening their knowledge of familiar technologies. As one attested, "I felt pretty comfortable with online tools prior to this course, but I have learned a vast amount about the functionality and accessibility of tools I already use."

Impact of Being a "Suddenly Online" Learner

Faculty participants reported several ways that their experience as "suddenly online" learners gave them valuable insights

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they could use to support students in such a situation. One respondent volunteered this connection when explaining the tension between their interest in technology and their capacity to learn it, writing, "I would love to try all sorts of new technologies, but I only have the capacity to learn and be patient with myself as I learn so many new technologies right now. I imagine my students feel similarly" (emphasis added). When directly asked, respondents elaborated on general insights they gained to support "suddenly online" learners. One explained, "Being a student in this unanticipated environment helped me to see how students might experience my course. This made me become much more thoughtful in my approach to my Fall courses."

Several participants shared new realizations about the temporal dimension of online learning and how their design choices impact students' interactions with course materials in time. One noted new awareness of how much time is spent looking at a screen, while another explained that the institute "helped me understand the time commitment and distractions that contribute to online learning." Another, after connecting their own overloaded feeling to their students' sense of overload, stressed the importance of helping students address time management. One faculty member noted greater awareness of online students' challenges in "balancing several classes in the modality." The faculty member highlighted a newfound ability to "consider which tools are best to use that ease the burden around learning," including consideration of asynchronous and synchronous schedules when designing

courses for "suddenly online" conditions. Another participant's new appreciation of students' having "flexibility in when to watch" instructional materials echoed other colleagues' thoughtfulness about how students interact with materials in time. Such realizations were critical for faculty members' eLearning literacy following an institutional and national shift to synchronous online instruction in immediate response to the COVID-19 pandemic in March 2020.

Several participants stressed their insights about how they can give "suddenly online" learners support. Three emphasized clarity and communication. As one explained, "It definitely reminded me that clear, simple, explanations for the work they need to do is key to preventing online fatigue and frustration." One noted gaining new insights into their "suddenly online" learners' "emotional bandwidth." Another elaborated, "It really just reiterated to me that we need to be supportive, empathetic, and willing to go above and beyond for our students. They need a lot of support right now, and it was very helpful to be reminded of what that is like as a learner as well as a professor." A takeaway of needing to "go above and beyond" is noteworthy given the challenging unknowns that participants faced regarding course modality, LMS, classroom usage, and campus access for fall instruction. In addition to representing institute participants' learning experiences, this takeaway reflects the university's motto of serving others and how faculty put that motto into practice.

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Discussion

While participants' insights clarify what elements contributed to their learning and how they grew through the institute, synthesizing their insights with designerfacilitator observations and secondary literature can further explain why they reported these impacts. This synthesis clarifies how faculty preferences such as peer learning need not be considered hindrances but rather can be viewed as valuable resources in a thoughtful, responsively designed learning event to build organizational capacity to support effective online or "suddenly online" learning. In redeveloping the institute for online delivery and redesigning portions in response to instructional needs in the ongoing pandemic, the designer-facilitator leveraged three major factors noted during analysis of the institute's learner population and the context in which learning would occur: faculty valuing of peer learning, faculty expectations of autonomy in decision-making, and local valuing of reflection as part of the learning process. All three elements were leveraged in the "suddenly online" institute as socioculturally situated assets to develop participants' eLearning literacy in preparation for fall instruction.

Well-Designed Peer Support

The "suddenly online" institute was designed to satisfy and take advantage of local faculty members' strong valuing of opportunities to learn from other faculty. The impactful peer support can be traced to two critical elements. The first was a series of specific prompts for participants to share their application of design techniques and

technology selections with other participants. These prompts were carefully aligned with learning objectives and suited to participants' experience level as instructors for both sharing ideas and providing one another feedback. The second was choosing supportive technologies that responded to local faculty preference for real-time, in-person interaction: an asynchronous video platform, rather than a text-based discussion tool, and videoconferencing. These enabled discussion, peer feedback, peer exchanges of ideas, and peer modeling of the use of these technologies. One participant reflected, "FlipGrid and the opportunities for peerpeer evaluation really helped to build community, and helped me to think through ideas well." Some participants were particularly responsive and attentive in posting substantive video replies as their colleagues shared how they applied design techniques and would use technology tools in fall courses. As another participant stressed, such cohort-based peer support "allows you to gain insight into the perspectives and best practices of other instructors. This fosters growth." The combination of asynchronous video discussions, collaborative files for selected learning activities, and videoconferencing spurred social connections and community building reported as lacking in other online professional development (Wynants & Dennis, 2018).

How did peer learning help faculty in this triply "suddenly online" learning? Among the challenges it assisted with were second-order barriers such as attitudes towards change. Borup and Evmenova

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(2019) suggested that these barriers may be harder to overcome than first-order barriers and may not be recognized by instructors. A noteworthy example occurred in the third week when participants helped one another recognize how an unacknowledged sense of loss was holding some of them back in fully embracing technologies to teach effectively online. By then, well-established habits of peer support within the cohort enabled their expression of loss and grief over the possibility of having little or no face-to-face instructional time with students in fall, a significant cause of concern at an institution known for its employees' strong personal relationships with individual students. Fundamental to this expression was a sense of belonging already established in a trustbuilding safe space, shared efforts of meaning-making communicated through peer feedback, and commitment to deepening understanding as members of a cohort (Peacock & Cowan, 2019; Terosky & Heasley, 2014). Collegial opportunities to discuss how to uphold shared values of supporting students amid uncertain and unfamiliar instructional conditions helped participants make sense of strong emotions that struck at the heart of their self-concept as learning professionals.

Integration of Curated Technologies with Design Principles

Faculty expectation of autonomy in decision-making was also leveraged as an asset in developing participants' understanding of how to integrate technology selection with instructional design principles. The careful curation of selected technologies in reinforcement of fundamental instructional design principles

proved valuable in challenging, stressful, and frustrating "suddenly online" circumstances. After learning key instructional design techniques and principles, the faculty were given details about curated technologies and workflows and a criteria-based process for selecting technology. Then they were asked to make technology selections for fall instruction amid the continuing pandemic, including both low and high bandwidth tools (Stanford, 2020). While Herckis (2018) noted that technology tools for which workshops are required to understand their implementation can present a perceived threat to faculty members' autonomy in the classroom, post-institute interviewing clarified that preparing faculty to make informed choices from curated tools preserved faculty autonomy. Simultaneously, this approach gave them a process for selection applicable to other situations in the future. This approach reinforced the importance of faculty choice found in other research (Gummess, 2019) and leveraged the powerful culturally situated practice of autonomy as an asset to engage faculty in learning about technology rather than an impediment.

Integrating technology selection with participants' application of instructional design principles had several benefits.

Curation of technology tools and articulation of their relationship to the instructional design principles through the LEAPS framework helped faculty focus on selecting useful tools for responding to a complex fall teaching situation, rather than focusing on the tools as ends in themselves (Meyers, et al., p. 362). Integrating learning about technology with instructional design principles helped center discussion on how

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and why it made sense to use a particular technology in a particular course in a particular way. Amid the challenging conditions, the curation of technologies in a way that preserved faculty choice and autonomy enhanced motivation. As one participant explained, "I was also really motivated to learn new technologies since the likelihood I will be relying on these in fall and future semesters is pretty high." While other researchers have observed that faculty may lack confidence and experience technology anxiety when they are asked to experiment with new technologies (Johnson et al., 2012), participants reported their learning about technology enthusiastically, and one noted that the institute "improved my confidence to work in this uncertain environment." In addition, the inclusion of tools such as Flipgrid both in the institute's delivery and among those curated for faculty selection for their fall courses helped address second-order barriers to participants' technology use, particularly concerns about limited face-to-face interaction with students (Reilly et al., 2012, p. 100). Finally, with respect to participants' development of digital competencies as conceived across industries, this approach enabled them to demonstrate a wider range of competencies, including learning with and about technology, and informed decision making about technology (Janssen et al., 2013).

Reflective Activities

The design of the "suddenly online" institute also leveraged the socioculturally situated practice of reflection as an asset in

developing faculty participants' eLearning literacy. Reflection was already a prominent element of daily discourse among faculty and part of the university curriculum through programmatic learning outcomes influenced by Fink's (2013) taxonomy of significant learning. Including opportunities for participants to reflect both individually and as members of a cohort helped faculty overcome common barriers to technology adoption as essential to providing online instruction. Reflection was incorporated by the designer-facilitator through synchronous discussion and asynchronous individual activities, consistent with general guidance on reflective learning in online environments (Chang, 2019; Lai & Land, 2009).

Individual reflection activities included short closed- and open-ended prompts about the participants' approaches to the institute as online learners. These were framed as illustrations of metacognitive prompts that faculty could use to help their "suddenly online" learners recognize how they could change their approaches to note-taking or time management. But these prompts also explicitly guided faculty to reflect on choices they had made as learners that impacted their own learning in the institute. Other individual reflective activities were built into the program evaluation survey. A noteworthy example was participants' reflections on their experience of time as a "suddenly online" learner, which enhanced their awareness of ways they could deliberately support their own "suddenly online" learners through their course design. Through such reflective questions, a

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commonly noted second-order barrier to faculty technology adoption—time—became an asset in developing instructors' abilities to support students through eLearning.

The "suddenly online" institute's social practices also included group reflection, particularly during videoconferencing. One example was when several participants noted their sense of loss of in-person instructional time with students in fall. The designer-facilitator prompted group reflection on a key moment when a member had expressed not feeling part of the community and other participants had responded in various ways to address their colleague's concern. By highlighting a weakness in the "suddenly online" institute itself, the designer-facilitator involved participants in this reflective activity and gave them an opportunity to learn from a design error they had responded to as learners. Reflecting on this error equipped them to proactively foster community from the outset of their fall courses. Such reflective activities were part of the "habits of mind" that were both situated in local practices and essential to the holistic view of eLearning literacy adopted to prepare faculty participants for challenging teaching and learning conditions.

Conclusion

In several respects, participants' reported experiences in the "suddenly online" course design institute affirm key findings of previous studies. Their insights underscored faculty preference for peer learning, the value of same-modality

support, and the importance of safe spaces for promoting learning about new technologies, skills, and strategies. In other respects, the institute demonstrated that faculty preferences previously conceived as hindrances to digital literacy and even common barriers to technology adoption can be turned into sociomaterial assets for fostering eLearning literacy through thoughtful design of digital learning events. In particular, Herckis (2018) noted that faculty reliance on independent problem solving and peer networks may hinder their digital literacy, and other researchers have noted recurring barriers to faculty adoption of instructional technology. Through responsive design based on careful analysis of learners and the context in which they would be learning, faculty preferences for peer learning and sociomaterial practices such as autonomy could be used as resources to build organizational capacity for delivering "suddenly online" learning. The institute demonstrated that faculty preferences for peer support, expectation of autonomy, and local practices of reflection can be leveraged through well-designed professional development to foster meaningful learning consistent with a holistic view of digital literacy.

Read within the immediate implications of the COVID-19 pandemic, the "suddenly online" institute and the responses of its participants underscore the abilities of faculty as course designers (Bennett et al., 2017). Built on the fundamental premise that faculty are capable of using sophisticated instructional design techniques, the institute gave faculty participants valuable decision-making tools

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for selecting suitable technologies in conjunction with instructional design principles. Participants' enthusiasm for developing eLearning literacy in such challenging conditions is noteworthy amid industry-wide discourse regarding the future of instruction and inevitable organizational decisions about workforce planning. While institutions may be tempted to assume that team-based course design by instructional designers, multimedia specialists, faculty subject matter experts, learning experience designers, and instructional technologists is the only feasible way to create learning opportunities in the post-COVID era, faculty capacities for rising to meet complex design challenges and building necessary eLearning literacy should not be underestimated. Instead, they should be cultivated through responsive, well-designed professional development.

Postscript

The four months since the writing of this article in June have generated widespread and varied institutional responses to help faculty develop the digital literacy needed to teach in new, often complex, course modalities. The need for faculty eLearning literacy only increased

with institutions' delivery of individual courses with flexible options for students to engage in synchronous online, asynchronous online, and in-person learning to accommodate physical distancing, reduced classroom density, international travel limitations, and community health protocols. Notable examples of faculty support have drawn on organizational strengths consonant with calls for an ecological approach to professional development and have affirmed the social and material foundations of eLearning literacy (Johnson et al., 2020). Some institutions have used faculty peer feedback to complement required asynchronous online training designed by digital learning staff. Others have foregrounded faculty peer learning, using faculty learning communities supported by institutional staff to reach 90% of faculty (Kita, 2020; Walker, 2020). Attention to faculty preferences for peer learning exemplifies fundamental principles of instructional design, including learner analysis and analysis of the learning context. Such professional development also affirms how faculty preferences previously conceived as hindrances to digital literacy can be harnessed as sociomaterial assets in thoughtfully designed digital learning events.

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Appendix Program Evaluation and Research Survey								
1. Please rate	the institute on each dim	ens	sion below:					
		Un	acceptable	Poor	Average	e Go	ood Ex	cellent
Overall qual	ity		0	0	0	С)	0
Technology	used		0	0	0	С		0
Quality of in	struction		0	0	0	С		0
Quality of in resources	formation and		0	0	0	С		0
2. How did these factors impact your learning in a fully online learning environment during the institute?								
			Significant negative impact on your learning	Moderate	negative		positive	Significant positive impact on your learning
The way the organized	institute materials were		0	0	0	0	0	0
Opportunity freely	to revisit materials		0	0	0	0	0	0
Stipend			0	0	0	0	0	0
_	ountable for progress in s or facilitator		0	0	0	0	0	0

Having a dedicated digital space for cohort members to voice ideas	0	0	0	0	0	0
Feedback from peers	0	0	0	0	0	0
Feedback from facilitator	0	0	0	0	0	0
Cohort-based schedule	0	0	0	0	0	0
3. Please elaborate on how one of the fac4. How did these factors impact your lear institute?				_	ment duri	ing the
	Significant negative impact on your learning		negative		Moderate positive	Significant positive impact on your learning
Your motivation to learn new techniques and tools	0	0	0	0	0	0
Your belief in your ability to learn online	0	0	0	0	0	0
Your ability to regulate your own learning	0	0	0	0	0	0
Your ability to manage your time	0	0	0	0	0	0
The extent of your previous experience as an online learner	0	0	0	0	0	0
The extent to which you felt like part of a learning community	0	0	0	0	0	0

- 5. Please elaborate on how one of the factors above impacted your learning:
- 6. We were unexpectedly thrust into an online learning environment much like our students this year. How has your experience as a learner in this situation given you insights you can use to support students in such a situation?
- 7. How has your awareness of or ability to use technology tools for instruction changed as a result of participating in this institute?
- 8. Today, what are your 3 most prominent takeaways from this institute?
- 9. What suggestions do you have for retaining or altering features of this institute when it is offered in the future?

in the future?
10. Please use this space to share any other feedback not specifically addressed above.
11. I consent to participate in the research study and have my responses included in the research
study.
° Yes
○ No
12. If you are willing to participate in the brief follow-up interview, please let the facilitator of the institute know separately after submitting this form so your answers remain anonymous.