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1 Designing for Culture, Learning, and Community

We live in a single constricted space resonant with tribal drums.
—Marshall McLuhan (2011, p. 36)

Time and space no longer limit how we interact with one another. Technologies, particularly the Internet, have connected humanity across countries and cultures with profound implications on how we think, communicate, and learn. The impact on education is unmistakable. People around the world are coming together in virtual communities to exchange ideas, learn new skills, and solve some of society's most pressing problems. They're joining MOOCs—massive open online courses—and participating in small group seminars. They're enrolling in fully online graduate degrees and enlisting in professional communities of practice. Along the way, they're learning with peers who might be across town or on the other side of the world. Education, formal or otherwise, has never been so accessible.

Those who stand to benefit from online education and training represent a more diverse group than those designing the technologies, content, and pedagogies that compose digital learning. Effective learning communities must be designed, and efforts to capitalize on the strengths of diverse groups must be planned. Without proper deliberation, online learning experiences in both formal and informal settings will unduly reflect the cultural biases and limitations of their architects. Careful planning also leads to meaningful collaboration among members of a learning community.

This book will show you how to create culturally inclusive online learning communities. It's written for instructional designers, teachers, trainers, teaching assistants, graduate students, and others interested in helping learners from diverse backgrounds work together to solve real-world problems in a variety of disciplines. The methods we'll present apply to science, education, business, communication, and many other fields. We'll also cover concepts that work in different formats. Whether you're preparing a one-day workshop or a semester-long course, you'll discover new ways to facilitate interactions, encourage critical thinking, and build community.

The methods we'll explore draw on proven teaching and learning principles. We base our ideas mainly on the pioneering work of Lev Vygotsky, the Russian educator and philosopher whose sociocultural theory underpins our work. Vygotsky's theory holds that learning transpires in three realms: via the cultural frameworks

in which we live, through interactions in our homes and communities, and within our minds (Karpov, 2014). The instructional design framework we'll introduce, Wisdom Communities, provides guidance for encouraging learning experiences across these domains.

Vygotsky (1978) observed that people make sense of the world by absorbing ideas conveyed through both direct communication and indirect cultural influences. Connections between outward social interactions and inward thought processes form the basis of learning, according to sociocultural theory. Several qualities define such learning. First, it's *distributed*. Learning can happen in a number of venues and time periods. Second, it's *interactive*. Learners grow by engaging with one another through reflective dialogue, both one-on-one and in small and large groups. Third, it's *contextual*. The learning that happens depends on who's part of the experience, when it happens, and what transpires before and after.

Accounting for Culture

Much has been written about the value of sociocultural theory and how to put it into practice (e.g., Haakedal, 2012; Kung, 2017; Sun, 2011). Our goal is to extend these ideas into a new but increasingly important realm: online classes and other virtual learning communities comprised of students from diverse backgrounds. We're particularly concerned with differences rooted in culture because of its unique role in how people think and communicate. Our cultural groups influence what we believe and value. They shape our behaviors and, as Vygotsky found, represent one of the main conduits to learning. The challenge for instructional designers is to create inclusive experiences that benefit all learners, regardless of beliefs, values, and backgrounds. That's a formidable task, especially in cases where the cultural makeup of a learning cohort is multifaceted or difficult to predict.

The solution begins with tackling several misconceptions about culture. First, symbols and rituals matter, to be sure, but not nearly as much as the values and preferences that govern how we think and communicate. For example, many cultures ascribe particular meanings to colors, resulting in associations that are, at times, at odds. Black represents death and mourning in many cultures. But, in some Eastern cultures, white also carries these connotations. Focusing on these symbols distracts from deeper differences and underestimates the ways globalization has deemphasized the significance of overt cues, such as color, hand gestures, and shapes. Second, cultural sensitivity isn't enough. Discussions about culture sometimes revolve around how not to offend. Respect is important, but awareness and understanding matter more than accommodation in the instructional design process. In practice, that sometimes means challenging culturally rooted beliefs. Third, culture is about more than country or region. Geography plays an important role in our cultural makeup, but each of us belongs to many overlapping cultures based on a wide range of affiliations and demographics. In some societies, colonialism and neocolonialism have resulted in complex layers of beliefs and customs. Reducing culture to someone's place of origin oversimplifies their perceptions and motivations.

In addressing these assumptions, we find that culture is neither static nor simple. Some cultural beliefs are beneficial; others are harmful. Though most ideas rooted

in culture endure, some change over time. Since culture can affect how we learn, sometimes in surprising ways, educators must embrace this complexity. That's why it's vital to reflect on cultural values throughout the design process. Instructional designers can't help but be influenced by their own culturally derived values and beliefs. With increasing awareness of those influences, however, they can take steps to ensure that learners with different preferences have the best possible experience. Doing so requires communicating expectations clearly and shifting some control of both the instruction and its design to the participants.

Defining Culture

We define culture as a collection of shared perceptions of the world and our place in it. These values and beliefs affect both identity formation and societal roles. Each of us belongs to many tribes, and these memberships overlap, sometimes in unexpected ways. Cultural affiliation can be narrow or broad. National cultures can include hundreds of millions of people. But cultures can also exist at regional, communal, organizational, and familial levels. At times, the values and beliefs at the heart of these cohorts complement one another. Other times, they're at odds.

The widespread adoption of the Internet—a distributed, interactive, contextualized medium—further complicates our cultural makeups (Noble & Tynes, 2016; Porter, 1997; Zittrain, 2014). Online cultures can be just as real as their analog counterparts, but they allow ideas to traverse spatial and temporal barriers in ways that generate novel values and beliefs. This cross-pollination of ideas continually generates new cultural norms.

Cultures persist by way of interaction. Unmediated interactions occur within familial and communal cultures. Parents, teachers, and community leaders tell us about how the world works and help us understand what our place in it might be. They tell us these things directly, but also indirectly, such as via modeling. As we grow up, we come in contact with beliefs and values within national and global cultures. Media play a big role in our exposure to these broader cultures, and, because of society's increasing reliance on technology, we first connect with mass media at increasingly younger ages (Lemish, 2015; Rasmussen, 2017). Beyond just exposing us to new cultures, media can transmit culture to local communities around the world. Over time, we also encounter organizational cultures, which endure through both direct and mediated communication via formal and informal channels, whether engrained in company policies or told through stories to new hires (Martin, 2013). These cultural standards, enshrined in plaques and embedded in jokes coworkers tell one another, have been studied in relation to performance, leadership styles, and the prevalence of workplace bullying and harassment (Hertzog, Wright, & Beat, 2008; Rajalakshmi & Gomathi, 2016; Quick & McFadyen, 2017).

In the end, no two people share the same set of cultural beliefs and values. Each of us has a unique "cultural DNA"—the distinct mix of values and beliefs that we've accumulated through the many social cohorts to which we've belonged. We always share aspects of our cultural identities with others, but their aggregate is ours alone. In this way, culture contributes both to our connections with others and our uniqueness as individuals.

Culture and Learning

Researchers (e.g., Edmundson, 2007; Trompenaars & Hampden-Turner, 1998) have identified several ways that culture shapes learning by informing how we think and communicate. One such dimension concerns the philosophy of learning and teaching that undergirds a course—what Edmundson (2007) called the *pedagogical paradigm*. This philosophy guides all decision making in the instructional design process and the ultimate trajectory of the learning experience. Other elements concern the expectations that learners, instructors, and designers bring to the learning process. According to Edmundson, attitudes toward each of these dimensions range somewhere on a continuum between two opposing values:

- **Origin of Motivation:** Learners find motivation from an extrinsic source, such as a desire to benefit financially or meet another's expectations, or learners find motivation from an intrinsic source, such as a desire for personal growth.
- **Learner Control:** Learners encounter inflexible, predetermined paths, or learners make choices that shape their experiences.
- **Teachers' Roles:** Teachers assume the role of experts, or teachers assume the role of facilitators.
- **Value of Errors:** Learners seek to minimize mistakes whenever possible, or learners embrace errors as opportunities to grow.
- **User Activity:** Learners engage in activities that revolve around accessing content, or learners engage in activities that revolve around solving problems.
- **Experiential Value:** Learners gain insights into theories and models, or learners focus on real-world application.
- **Accommodation of Individual Differences:** Learners receive a predetermined experience, or learners customize their experiences.
- **Collaborative Learning:** Learning happens independently, or learning happens collaboratively.

Instruction that promotes learning across cultures seeks to accommodate diverse perspectives and preferences by following the principles of universal design for learning (UDL) rather than anticipate individual learner differences upfront. These principles emphasize flexibility and learner choice.

UDL extends the ideals of universal design—an important movement in the fields of architecture and software development. According to universal design, spaces, products, and experiences should permit the greatest degree of involvement by the most people (Barajas & Higbee, 2003). Elias (2011) identified eight universal design principles that are particularly useful in the context of distance education: equitable use, flexible use, simple and intuitive, perceptible information, tolerance for error, low physical and technical effort, community of learners and support, and instructional climate. Applied to learning, universal design underscores the value of active participation. Instruction becomes most accessible when learners choose how they receive content, submit assignments, and communicate. By prioritizing student choice, UDL also helps designers account for cultural factors that shape learning, without the need to localize or adapt the

teaching (Eberle & Childress, 2006; Rose & Meyer, 2000). Al-Azawei, Parslow, and Lundqvist (2017) found that designing online courses in accordance with UDL principles has a direct, positive impact student perceptions and receptiveness to online learning.

Shifting control to learners helps meet their needs and increase their investment in the experience. Thomas, Mitchell, and Joseph (2002) provided a roadmap for doing this when they proposed accounting for three cultural dimensions in the instructional design process. These dimensions—introspection, intention, and interaction—align with the principles of universal design for learning by encouraging more inclusive experiences. The first dimension, *introspection*, involves reflecting on culture, including one's own cultural values and beliefs, and encouraging similar reflection among learners. The second dimension, *intention*, calls for embedding cultural perspectives into a course rather than attempting to eliminate them. This entails examining how culture might influence course content, structure, and communication. The third dimension, *interaction*, prioritizes learner involvement via different forms of communication and by welcoming divergent viewpoints.

Marinetti and Dunn (2002) considered culture from a different standpoint: the steps needed to adapt a course for cohorts from different cultural backgrounds. They focused on regional and national cultures while identifying four levels of adaptation: translation, localization, modularization, and origination. The best kind of adaptation, they found, depends on the course content and its instructional goals. At the first level, a course is *translated* into a new language. Translation works well for straightforward content in well-established subject areas. At the second level, designers adapt content for a new local, regional, or national audience. Like translation, *localization* is most appropriate for straightforward concepts. Examples of localization include updating units of measurement, removing idioms and obscure references, and replacing irrelevant examples. The third level, *modularization*, involves targeted customizations. Adaptations at this level work well for courses focused on complex knowledge, communication, and other soft skills. Modularizing a course involves writing new content and developing new learning activities. The final level, *origination*, entails extensive redevelopment with involvement from representatives of the target culture. This kind of adaptation is best for complex topics that require problem-solving and critical thinking. Carr-Chellman (2005) argued that making a single course for global audiences is efficient but culturally bankrupt; however, "in order to make something truly marketable globally, it is necessary to homogenize it" (p. 9). The goal with these adaptations is to find ways, large and small, to make a course or training experience relevant in a local cultural context by including adaptations.

We can also consider culture and learning in terms of how well instructional design models account for learners' diverse experiences, values, and beliefs. In reviewing dozens of models, we identified four distinct levels of cultural competency (Frechette, Layne, & Gunawardena, 2014). Level 1 encompasses most instructional design models, which reflect the cultural values of their creators but do not otherwise intentionally or explicitly address cultural values. Level 2 models cater to a specific cultural context. Level 3 models accommodate multiple cultural perspectives, but not within a single course. Level 4 models encourage learning across cultures in a single educational experience. The framework that we introduce in

the next section most closely aligns with origination-style adaptations and Level 4 design models.

The Online Wisdom Communities Framework

In the early 2000s, we began work on a new instructional design framework focused on diverse learning cohorts that cultivate wisdom by solving complex problems. This framework, Online Wisdom Communities, or WisCom, has been refined over the years and used to develop online instruction in a variety of contexts around the world. This book represents the most complete presentation of the framework to date and provides a range of tools, techniques, and strategies to cultivate wisdom communities.

The crux of the framework lies in the attainment of transformative learning through collaboration, reflection, and exploration. The framework incorporates several core elements; these components guide the structure of this book. The

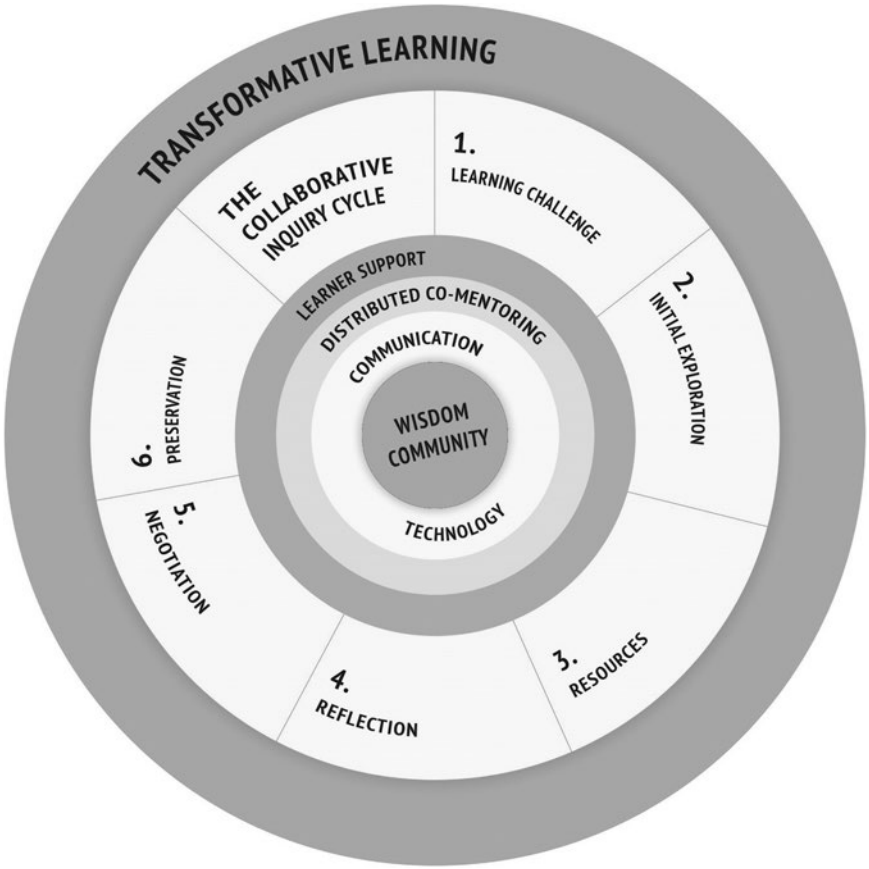

Figure 1.1 WisCom Framework
Source: Created by Casey Frechette for this volume

chapters that follow will prepare you to design an online wisdom community by exploring seven integral ingredients: community, wisdom, communication, technology, distributed co-mentoring, learner support, problem-solving and the collaborative inquiry cycle (CIC), and transformative learning. Before exploring the components in depth, we present a theoretical framework to understand learning in online communities and how culture relates to wisdom. An introduction to each ingredient follows.

Wisdom

Wise individuals possess unusual insight into how the world works. Every culture defines wisdom differently, but all highlight wise people's practical knowledge and sound judgment. Many cultures regard wisdom as a gift and highlight the importance of giving back (Romero, 1994). The truly wise share their gift with others in their communities through storytelling, mentoring, and leadership. We view wisdom as a personal quality that can be cultivated to enhance a community; a wisdom community honors the gifts its members bring and promotes imparting those gifts to others.

While everyone has something to contribute to a community, not everyone can be considered wise. Wisdom emerges from a rare mix of skills and values: humility, inclusiveness, kindness, generosity, and reflectiveness. Wise people listen before speaking and consider collective benefits before individual gains. Wisdom often appears alongside another core element: transformative learning. Wise people engender transformative learning in themselves and others, while transformative learning increases wisdom.

Community

We define a learning community as any group formed to acquire knowledge, deepen understanding, or develop skills. Online college classes, MOOCs, group seminars, and informal cohorts of like-minded professionals are a few examples. The learning experience could run for several weeks or many months. It could be offered via a college or university, an organization, or an individual. The learners could be earning college credit, a certificate, a badge, or something less tangible, such as a new skillset. They could come from around the world or a single community. The experience could be tightly structured or informally organized, with wide-ranging numbers of learners.

Communication

Communication is the lifeblood of an online wisdom community. Through effective communication, a community forms an identity and strengthens its bonds. Good communication sets the stage for transformative learning by providing clarity of purpose and motivation. Ineffective communication generates confusion and a range of negative emotions, such as apathy and hostility, in both facilitators and participants. Effective communication, on the other hand, builds trust, enhances social presence, and increases motivation. The most effective

communication is often the most authentic, helping to forge a community despite the inherent limitations of online learning. Authentic communication overcomes spatial and temporal barriers, thereby increasing participants' investment in their experience.

Technology

In one way or another, technology mediates all experiences in an online wisdom community. Learning management systems (LMSs) provide a virtual space in which learners receive lessons, upload assignments, and interact. Multimedia materials power the instructional content delivered. Tools to find, filter, and record information shape learners' interactions. Accounting for technology when designing a wisdom community leads to better learning. Because cultural biases often shape the design of digital tools, reflecting on how to implement technology results in more inclusive experiences. The principal challenge that designers often face is the use of technologies not of their choosing. Designers and instructors seldom have control over the tools that shape learners' experiences, from the LMS to the applications for real-time collaboration. That makes understanding how to work within the limitations of a particular technology especially important.

The WisCom framework provides guidance on how to use available technologies in a given learning context, along with how to select tools when the opportunity to do so arises. The guidelines we suggest in Chapter 5 incorporate technology design and delivery principles. Some of these principles concern the technology itself. For example, cultural biases inevitably creep into the design of hardware and software, and every technology makes certain tasks easier or more difficult to complete. Other principles focus on how learners use technology. For instance, technical learning curves can engender anxiety and fear in some learners. Moreover, it's difficult to predict exactly how learners will connect to a course. Often, they'll use devices you haven't tested in ways you haven't anticipated. Another set of principles focuses on the community. Nontechnical tools and activities can add value to a wisdom community, which benefits from technologies that impact how learners communicate with one another.

Distributed Co-Mentoring

Co-mentors are collaborators who construct knowledge together. Within the WisCom framework, co-mentoring permits the formation and sustention of a culturally inclusive community by encouraging individuals to support one another (Bona, Rinehart, & Volbrecht, 1995). Co-mentoring emerges within collaborative learning; both concepts reflect a social, participatory approach to interaction that reflects participants' diverse backgrounds, talents, and learning preferences.

Mentoring relationships traditionally involve an expert who imparts knowledge and delivers support to a novice. Our emphasis on co-mentoring challenges the utility of these roles. The more distributed, equitable nature of the online environment underscores collaborative learning and relationship networks. By eschewing

inflexible mentor-mentee roles in favor of more fluid, contextual relationships, WisCom promotes cultural inclusivity and allows for the sharing of mentorship responsibilities. Co-mentoring can involve all individuals in the group, including facilitators, peers, and community members who may be situated locally, nationally, or internationally.

Learner Support

Every learner experiences a unique set of circumstances, some of which may impede progress toward learning goals. Learner support provides the scaffolding and encouragement needed to overcome barriers and meet with success. In an online wisdom community, learner support encompasses an array of resources that promotes success. An effective learner support system in WisCom reflects the diversity of learners' experiences, including differences in age, gender, cultural background, education, language, socioeconomic status, family and employment commitments, goals, objectives, needs, desires, and access to technology.

The composite of each learner's circumstances produces a unique mix of barriers to learning. Learner support offers workarounds by accounting for diverse learners, contexts, socioeconomic systems, and programs of study. In WisCom, learner support hinges on the assistance needed to negotiate cultural spaces within each of five levels of online learning: transactional, pedagogical, technological, temporal, and physical. In Chapter 8, we provide guidelines for developing a learner support system and show examples of such systems in different cultural contexts.

Problem-Solving and the Collaborative Inquiry Cycle (CIC)

The CIC is a process for designing structured experiences in which learners work alone and together to explore a well-defined problem or scenario. Based on this initial instructional prompt, learners research, write, discuss, reflect, synthesize, evaluate, and summarize, working with greater autonomy as the process unfolds. When the cycle concludes, the community captures the insights that have been gleaned. Sometimes, a single cycle composes an entire course. Other times, learners receive a new prompt after completing the CIC, and the cycle repeats itself.

The CIC incorporates each building block of online wisdom communities—technology, communication, wisdom, and learner support—to form an interactive, experiential process. The power of the cycle is the way it helps learners build both domain-specific expertise and generalizable 21st-century skills, including judgment and information literacy, patience and reflection, the ability to recognize patterns and trends, and the flexibility to find cross-cultural, interdisciplinary solutions (Lombardi, 2007). When the cycle is successful, learners emerge with deeper knowledge, better problem-solving abilities, and more effective communication skills.

Transformative Learning

The most important outcome of a wisdom community is transformative learning, which includes three interlocking ingredients: intention, knowledge, and action (Rowley, 2006). Intention signals a shift in attitudes toward an idea, person, or

group. Knowledge involves the acquisition of information. Action entails new behaviors and skillsets. These elements emphasize the holistic nature of transformative learning, which requires concurrent changes in attitude, cognition, and behavior. Transformative learning differs from typical learning outcomes in both its expansiveness and longevity; the change must be permanent to qualify as transformative.

Transformative learning amounts to personal growth; wisdom communities create the conditions in which it is likely to occur by promoting insight, flexibility, and humility (Gunawardena et al., 2006). However, to grow, learners must gain new perspectives of themselves and their worlds.

Often, this means challenging a previously, perhaps deeply, held belief. For transformative learning to occur, learners must first experience a period of cognitive dissonance in which shifting perspectives result in contradictory viewpoints and associated discomfort. Because cognitive dissonance can be such a deterrent to change, transformative learning isn't guaranteed. Appropriate structures must be present in the learning community, ranging from learner support and mentoring to communication and technology resources.

Assessing, Evaluating, and Researching Learning in Wisdom Communities

The third part of the book focuses on topics related to assessment, evaluation, and research. We begin with a chapter on assessing collaborative inquiry-based learning. We then discuss visualizing knowledge generation and innovation through concept mapping. Finally, we consider how to research the social construction of knowledge and group dynamics.

A Process for Designing Wisdom Communities

We conclude this book by describing how to implement the wisdom communities instructional design framework, from conception to assessment. This section begins with suggestions on conducting a needs assessment and infrastructure analysis. Determining learner readiness is an important part of any instructional intervention, but particularly so when wisdom communities are involved. We discuss how to promote inclusion through a needs assessment process and present instruments geared toward the components of the WisCom framework. Next, we describe how to design, develop, and implement an online wisdom community. Case studies demonstrate how concepts from the WisCom framework transpire in courses for learners in Mexico, Sri Lanka, Venezuela, and the United States. Through these examples, we hope to jumpstart ideas on implementing WisCom in a myriad of other contexts.

A discussion of assessment strategies follows in a chapter that offers guidance on assessing the process of collaborative learning within learning communities. Because wisdom communities emphasize processes over products, measuring growth requires a tailored approach that deviates from traditional online classes.

In the final part of the book, we make some predictions about what the future of wisdom communities and online learning holds, and we outline what an LMS designed in accordance with wisdom community principles might look like. Such a system, we suggest, would emphasize collaboration and exploration while incorporating a variety of robust communication tools.

The Value of Designing for Wisdom

As technologies continue to envelop the world and more tasks become automated, the value of interpersonal skills will only increase. The need for teamwork, communication, empathy, global perspectives, and emotional intelligence will grow. These are the same skills that learners have a chance to practice and refine in online wisdom communities. As they develop these skills, they will learn to approach their cross-cultural encounters with humility, recognizing there is always more to learn. Designing an online wisdom community takes careful planning and a willingness to relinquish control of both the learning experience and the design itself. The wisest communities are shaped by each of its members. The results can be powerful, even transformational.

Accounting for Culture, Designing for Community

Technology and globalization have changed how we need to think about designing learning. Access and democratization mean more people from around the world can learn with and from one another. This is an unequivocally positive development, but it is not without its challenges. We now have learning cohorts with great diversity in learning preferences, abilities, communication preferences, and expectations.

Faced with this complex diversity of learners, instructional designers have a few options. We could attempt to anticipate cultural differences, but this well-meaning approach takes times and can prove difficult. From our perspective, it overemphasizes symbols, such as what certain colors or hand gestures mean. It also makes us more prone to let our own biases or assumptions inadvertently dictate how students will learn, rather than including them in the process.

As we see it, a far better approach is to apply the principles of UDL to develop a deeply collaborative learning experience. The most accessible learning experiences are the ones that provide the most flexibility. To encourage input and involvement, designers should give learners control. To promote the most participation, designers should provide different ways to communicate, create multiple learning paths, and emphasize diverse viewpoints.

Technology continuously changes. The tools we use today will certainly morph in just a few months' time. Individual tools will splinter off and become more sophisticated, while categories of tools will likely persist. The most significant category is the LMS and related platforms for delivering instruction. It's with this tool that learners will have the most direct exposure.

Communication, too, needs to be considered. Communication lies at the heart of the most important aspects of online wisdom communities: collaboration, feedback-based assessment, and creating learning exercises. That makes its facilitation incredibly important for the instructional designer.

Summary

The Wisdom Communities framework, or simply WisCom, which we discuss throughout this book, provides an organized structure for each of the factors discussed previously. In the next chapter, we'll look at the value in building such

communities. Will the techniques we'll discuss work with learning cohorts of similar cultural backgrounds? We believe so, but we also offer a word of caution: Culture encompasses a spectrum of beliefs and ideas. It's easy to focus on the most obvious factors of difference, such as where someone's from, and, as a result, possibly overlook something significant that's not as visible, such as a learning disability. Indeed, it's all too easy to make assumptions that might not hold up. That's why we warn against attempting to anticipate the cultural norms, or standards, of the cohort for whom instruction is designed and focus instead on the principles of universal learning design. That means providing alternatives, making the experience accessible, and assessing learners' preparedness, hopes, and goals.

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