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Introduction

SHERRIE TUCKER AND RAY MIZUMURA-PENCE

In one of her last interviews, composer, musician, humanitarian, and electronic music innovator Pauline Oliveros (1932–2016) discussed a lesser-known project, a computer and iPad application called Adaptive Use Musical Instruments, or more commonly, Instrument (henceforth “AUMI”).¹ AUMI’s purpose is to support music makers of all abilities. It does so by making sound when the player moves, however the player moves, thus supporting what Pauline liked to call “improvising across abilities.”

Pauline’s interviewer that day was Ted Krueger (henceforth “Ted”), architecture professor at Rensselaer Polytechnic Institute (RPI). Ted introduced his colleague as “an innovator over a lifetime of practice” with “an important place in experimental music.” At eighty-four, her creative advances continued: in composition, performance, technological innovation, and philosophy of listening. He then turned to AUMI, which he described as a computer interface “that provides an opportunity for children with a limited capacity for movement to participate in social music making.” He asked, “Can you talk about how that project [AUMI] develops out of and takes its place within your artistic practice?” (Oliveros and Krueger 2016, 282).

Pauline responded with a summary of sixty years of creative exploration, emphasizing interconnections across all aspects of her practice. She described specific projects to illustrate her holistic approach to composition, performance, technology, environment, inclusivity, and listening. Innovations in making music with oscillators and reel-to-reel tape machines in the late 1950s and 1960s, for example, characterize her life-

long interest in using technology to expand her listening. Technology allowed her to explore sound “beyond the range of hearing.” It expanded how her body could create and perceive surprising sounds. This continued through her Expanded Instrument System (EIS) of the early 1980s, and a later digitized version. Playing live with the continuously evolving EIS allowed Pauline to expand her awareness “of the intermingling of past and future sound” in the present (283).

She defined listening as a “lifelong practice that depends on accumulated experiences with sound” (284). To illustrate, she told of a transformative listening experience of improvising with others in 1988 in a cistern fourteen feet underground with a forty-five-second reverberation. She and her fellow musicians realized “we had to learn to listen in a new way, significantly we realized that the cistern was playing with us.” The environment was “another player.”

This she linked with the importance of listening to and playing with people with different kinds of musical backgrounds. She enjoyed composing for “untrained musicians,” who, she found, tended to be less “prejudiced about what they were doing” (284). This, too, carried through the span of her life’s work, beginning in the 1960s and 1970s with the “sonic meditations” she wrote for “people who were not necessarily trained musicians.” She concluded: “I have always valued working with those who are not trained and are not experts. Music should not be imprisoned by expertise!” In this formulation, “expertise” means foreclosure of curiosity, openness, and learning that can result from thinking of oneself as an expert. Music, like consciousness, needed room to expand.

In her lengthy answer to a direct question, Pauline never mentioned AUMI! But Ted, an excellent listener with a long, shared history with his interviewee, understood this was not due to lack of focus. Everything in Pauline’s answer directly pertained to the AUMI Project. His next question highlights the connections for the rest of us.

“So these three elements of your practice, listening, technology, and an interest in the untrained musician combine in the AUMI project. How did it start?”

Pauline answered with a story, one that is retold from various perspectives throughout this book. A friend brought her a problem and she got to work. Leaf Miller, an occupational therapist (OT) and drummer, led an inclusive drum circle at a school for children and young adults with disabilities. But it wasn’t inclusive enough. It excluded students who could not grip a stick with their fingers or pat a drum with their hands.

Pauline assembled a team of colleagues and students to cocreate an instrument. The team included the three students in the drum circle with the least autonomous movement. In 2009, she added three fellow members of the “Improvisation, Gender, and the Body” (IGB) area of the multisited research initiative Improvisation, Community, and Social Practice (ICASP). For nearly ten years, under Pauline’s collaborative leadership, the growing AUMI Research Group used, developed, and studied AUMI.

Even in telling the “AUMI Story,” Pauline situated it within her life’s work using technology to expand listening—her own and that of others—to expand the listening circle, and to respect difference. In other words, this is not the interview genre where the Great Artist expounds on their goodwill side project. Pauline talked about AUMI as part of her lifelong practice of listening, learning, and making new music.

Throughout the interview, Ted asked grounded questions about AUMI. *Is it software? Is it political? Is it therapeutic?* To which Pauline answered directly, then expanded on what she meant and how it was not *only* that.

Is it software? Yes . . . “and you can get it for free!” and “everyone who uses it is a researcher.”

Is it political? Not in the usual sense, but yes, because it is “politics when you’re enabling something to happen. Then it’s a political act and it becomes part of the body politic.”

Is it therapeutic? “It is *musical*,” replied Pauline, which might sound like a “no,” until she adds, “I think that being able to participate in a community through making music improves the quality of one’s life.”

This interview is important, partly because it is one of Pauline’s last and partly because it offers a glimpse into a time when disability moved to the forefront of her conceptions of inclusivity. Throughout her life, Pauline considered inclusivity an ongoing practice of expanding awareness. Like *listening*, like *consciousness*, inclusivity is never complete. AUMI was a significant player in Pauline’s expansion of inclusive awareness in the last decade of her life, along with conferences and performances focused on musicians of all abilities. (See Tomaz, chapter 3, and Braasch, chapter 12.) She premiered a composition for Deaf and hearing audiences in an empty swimming pool in Norway shortly before she died.² Her RPI students from 2007 to 2016 remember exuberant guest visits by Leaf Miller, who demonstrated AUMI, and Pauline’s assignment to create and perform AUMI duets in class.³

It is also important because most interviews with Pauline in the last

decade of her life skipped AUMI, and those that focus *on AUMI* skipped over the vast scope of her artistic life.⁴ And yet, in Pauline's own value system, AUMI never played second fiddle to any other project. Nor was it separate from her deep inquiry into listening, creating new music, fostering more inclusive and mutually perceptive relationships, and engaging technology in a full-bodied way to expand what we know, perceive, and do. It is a fitting interview, in other words, with which to open this book.

Pauline continually reminded her team, "It isn't the AUMI software that is important, it's what people do with it." This refrain and her insistence that "everyone who uses the AUMI is a researcher" echo throughout this book. *Improvising Across Abilities* is written by many people, touched by AUMI in different ways: creatively, socially, politically, pedagogically, therapeutically, and musically. Authors share some of what they have done with this unusual instrument. Why do we play it? What does AUMI improvisation do for us? What do we wish it would do? What are the challenges? What do we want for its future?

What Is AUMI?

AUMI is easy to use but difficult to describe. Librarian, artist, photographer Tami Albin has created a series of AUMI portraits involving miniature Lego figures ("mini-figs") that demystify what it is like to play, or witness others playing, AUMI.

In figure 1, Batgirl approaches an iPad clamped to a mic stand. We won't guess her preferred sounds (fluttering bat wings, superhero theme songs?) but let's presume she has already selected them. A cursor on her mirror image on the screen moves when she moves her forearm, activating different sounds that are "planted" in different parts of the screen.

In figure 2, another music maker has approached the iPad in her wheelchair, selected her own preferred sounds and screen setup, and is playing those sounds using subtle hand movements. In this environment, the use of adjustable mounts supports positioning of iPads to many heights and angles. Each iPad is connected to a small speaker. This is optimal, but not necessary. AUMI can also be played on an open laptop, an iPad leaning against a box, without external speakers, etc. Myriad creative ways of using AUMI are shared in this book.

How AUMI Works

A detailed technology history of AUMI is relayed in Section II. In short, AUMI takes cues from cameras, long available as plug-ins, and now a



Figure 0.1. "Batgirl Playing AUMI." Tami Albin.



Figure 0.2. "Playing AUMI with Hand Movements." Tami Albin.

prevalent built-in feature of computers, iPads, etc. When the AUMI player *moves*, the camera follows whatever it is focusing on (a nose, chin, finger, chest), thus eliciting sounds. Camera settings are adaptable, allowing AUMI's motion tracker⁵ to follow specified kinds of body movements—up, down, wide, narrow, fast, slow—triggering sounds from hundreds of possibilities, or even more for advanced users who load their own sounds. Hasi Eldib's film about musician Jesse Stewart's many uses of AUMI is an excellent introduction (<https://doi.org/10.3998/mpub.11969438>).

The player opens the AUMI app, then faces the device (a computer, iPad, or iPhone). A cursor that looks like a ball appears on the screen. It may take some “getting to know you” time, but if all goes well, the ball finds something about the player's body on which to focus. When that focal point moves, so does the ball. And when the ball moves to different places on the screen, it activates different preset sounds. In the case of *Batgirl*, the ball follows her forearm. You can “set” AUMI to follow a particular feature by clicking on (or touching on a touchscreen) the screen image of the body part the player wishes to move. You can play it alone, as dancer Jessie Huggett demonstrates (<https://doi.org/10.3998/mpub.11969438.cmp.41>) and with others, such as *Propeller Dance* (<https://doi.org/10.3998/mpub.11969438.cmp.40>) or *AUMI Dream Ensemble of Kansas* (<https://doi.org/10.3998/mpub.11969438.cmp.52>).

AUMI is not precise. It is not like you wiggle a finger and AUMI immediately plays the note you wanted. Like the cistern, it behaves like another player. Sounds respond to information detected by the camera—in this case, motion—and the camera follows what the camera follows. Sometimes, that might be a cat peering into the screen, an elbow instead of a hand, or a light flickering above. For players accustomed to more conventional methods of instrumental music making, AUMI's imprecision can take getting used to. But the same qualities that frustrate some players can prove refreshing for others, particularly those who seldom, if ever, encounter an instrument that responds to their available movement.

AUMI sustains Pauline's penchant for technology and music that engage the body in real time and leave room for surprise. Writes Jonas Braasch (chapter 12), Pauline was a forerunner in “human/computer interaction” before the field (HCI) existed. While working with her on computerization of her EIS, developer Nikhil Deshpande worked hard to understand what “Pauline was chasing after” until he realized that

it was less about “precision” than “the ability of a technical system to really push her own music forward. She cares about a bigger picture.”⁶ Similarly for many AUMI players, the flexible body-instrument-sound relationship, or what Garth Paine (2009), following Trevor Wishart, refers to as “dynamic morphology” (229), is one of its improvisational delights, something that adds to rather than detracts from its musicality (see also Lázaro-Moreno 2017).

Admittedly, AUMI is not so great for those wishing to develop more reliable levels of control over its output or perform existing repertoires, though some users have found ways of doing both. Control is an important concept for teachers, therapists, and anyone whose goals include increased independence in cause-and-effect relations, autonomy, agency, expression, and intentionality. AUMI resists control, which may prove a mismatch for some goals. It is *not* a great “Twinkle Twinkle Little Star” instrument, as AUMI trainer Jackie Heyen often said. It isn’t good at reproducing a tune (unless you load a recording of that tune as a sample and then trigger it with a dip of the elbow). AUMI presented obstacles for musicians in Thunder Bay who wanted to play familiar songs (Oddy/Vaugeois, chapter 13). Sometimes obstacles lead to new relationships, sounds, and discoveries. Sometimes not so much.

Control means different things to different people. AUMI can diversify our understanding of those different meanings. Control often implies hierarchies of power that disadvantage people with disabilities and other marginalized people. Control also means autonomy. When people with different relationships to control gather to play AUMI, they can explore these differences, learn new ways of listening and interacting, and suggest technological adjustments. Many AUMI improvements have arisen because of challenges and weaknesses identified by people using the instrument. Other challenges remain on the “to-do” list in this ongoing improvisational collaboration among users and the technology team.

AUMI is aspirational. There is no digital instrument solution everyone can use independently. For many AUMI users, distributed creativity is a fact of everyday life; many rely on assistants for basic functions of life. For many, assistance is required to set up the instrument. An unapologetic work-in-progress since 2007, AUMI resonates with the work of disability justice scholars who identify “independence” as a normative ideal and posit alternate theories of interdependency and what Akemi Nishida (2017) calls “affective relationality.” The dialectic of utopia and obstacles is a familiar one for anyone with sustained engagement in social jus-

tice and transformation. Writes Ray Mizumura-Pence (chapter 20), “If I sound utopian, it is because I am grateful for witnessing how AUMI-based activities dilute the dystopian.”

AUMI rejects the notion of an ideal body that determines who possesses and who lacks autonomy. It isn’t sight-dependent (many sighted AUMI users prefer not to look at camera images of themselves as they play). Deaf and hearing-impaired players have used subwoofers and haptic plug-ins such as vibrating vests and cushions with AUMI. For people who want to improvise together across physical, sensory, intellectual, musical, cognitive, and neurological differences, AUMI is at its “dystopia-diluting” best.

Who Wrote This Book?

Improvising Across Abilities: Pauline Oliveros and the Adaptive Use Musical Instrument is shaped by its contributors, much as AUMI improvisation is shaped by movements of *every* body of every person who plays it. Some authors are members of communities of disability by kinship, friendship, activism, or profession; some are not. Some identify as people with disabilities (PWD) or as disabled.⁷ Some self-identify in their essays and bios. Some do not. Some do not live with disabilities or as disabled. All have some relationship with communities of disability. Some authors were drawn to AUMI through their knowledge of Pauline. Others came to AUMI without knowledge of Pauline or her music; as AUMI users, however, Pauline would consider us all fellow researchers.

Many authors and editorial collective members not only *knew of* Pauline, but knew her personally. Many know one another through participation in dispersed local and virtual networks Pauline cultivated. Building community was an important value for Pauline. She made no effort to hide evidence of genuine relationships in her vast orbit of collaborators. We honor the palpable traces of this aspect of her work.

In fact, Pauline coplanned this book up until the time of her passing. In 2015, Sherrie Tucker, just beginning to embrace her identity as a proud ADHD writer, had completed an exhausting fourteen-year project, the last sole-authored book she needed for her academic career. In its wake, she sought a meaningful, collaborative, interactive writing project. She pitched a collaborative volume to Pauline, who loved the idea of a book written by AUMI users of many disciplines, occupations, and abilities. They discussed the book throughout 2015 and 2016. Pauline invited Sherrie to spend her sabbatical semester (Fall 2017) as visiting researcher



Figure 0.3. “Happy AUMI-versary 2007–2017.” Tami Albin

at RPI to work on the book, in conjunction with a public celebration of AUMI’s tenth anniversary. When Pauline passed on November 24, 2016, the devastated members of the AUMI Research Project had to decide what to do. Tomie Hahn renewed Sherrie’s invitation to pursue her “Pauline sabbatical” without her host’s physical presence; she accepted. Leaf Miller, original AUMI instigator, insisted the AUMI-versary must go on (see figure 3).

In 2017, Sherrie, along with Jonas Braasch, Ted Kreuger, and David Whalen, planned the AUMI celebration as a day-long feature of the International Symposium of Assistive Technology in Music and Art (ISATMA; see Braasch, chapter 12). The symposium included presentations by AUMI Research Project members, many of whom had founded AUMI research sites as part of the AUMI Research Consortium. A workshop by Leaf Miller and Jesse Stewart offered opportunities to play AUMI. The next day, AUMI researchers met to discuss the future, including how to sustain AUMI (an agenda item for every meeting, before and after Pauline’s passing) and whether to continue with this book.

The consensus was to go forward with a volume shaped by an editorial collective composed of people with varied connections to AUMI. Many would come from the AUMI Research Project. Others would join through affiliations with AUMI Research Consortia sites supported by ICASP and a subsequent research initiative, IICSI. (See “Current and Former Members of the AUMI Research Consortium”). Over time, the AUMI Editorial Collective came to include: Thomas Ciufo, Abbey Dvorak, Kip Haaheim, Jennifer Hurst, IONE, Grace Shih-en Leu, Leaf Miller, Ray Mizumura-Pence, Nicola Oddy, Jesse Stewart, John Sullivan, Sherrie Tucker, Ellen Waterman, and Ranita Wilks. Sherrie agreed to continue as facilitator for continuity and to support flexibility of time

commitments for other collective members, thus ensuring broad participation among busy people of many occupations and limited writing time. We envisioned something other than a conventional edited volume—something mixed-genre—animating the uniquely adaptive process of the AUMI Project.

A nonstandard book project calls for a nonstandard editorial process. In early meetings, the editorial collective brainstormed parameters that could support a process that was intentionally collaborative and inclusive across communities where AUMI is important. Throughout the decade of Oliveros's leadership, AUMI researchers communicated in bimonthly Skype meetings across a broad invitation list. After her passing, we met semiregularly. This provided the model for editorial collective dialogues, which yielded an improvisational process of one-month commitments of "editorial relay teams" of three to five people representing different kinds of relationships to AUMI. Breaking down time commitments and tasks, we created a methodology of engaged collaboration and broad involvement across time constraints, backgrounds, and daily routines.

In March 2018, we crafted and distributed a call for "chapters-of-all-shapes-and-sizes." We received twenty-nine proposals, some from people in Pauline's expansive orbit and some whose varied AUMI activities surprised and delighted longtime members of the AUMI Research Project. The first editorial relay team consisted of Ranita Wilks, at the time a peer counselor at an independent living center (CIL) in Kansas; John Sullivan, then a graduate student and AUMI technology team member at McGill University (Montreal); and Leaf Miller.

Team #1 began by asking "what is vetting in an inclusive volume?," then considered each proposal with the goal of accepting as many as possible. Next they worked with authors on revisions, geared toward broadly communicating their ideas, and inquired what each author needed to complete their contribution. For those who had much to say but little time to write, Team #1 paired the proposal author with a coauthor or someone to interview them so they could work with the transcription.

The second relay team intercepted the "baton" of accepted abstracts and notes from Team #1 and from these developed a vision for a book, including a conceptual framework for sections and titles. Team #2 included disability studies scholar Ray Mizumura-Pence; musician/composer/humanitarian Jesse Stewart; sound artist/composer/improviser and music technologist Thomas Ciufu; and author/playwright/director and improvising text/sound artist, IONE, Pauline's longtime collaborator and spouse. Once they established a flexible structure and feel for

the book, they passed their resources to Team #3. And so forth. Each relay team carried work of previous teams to the next task, with clearly bounded time commitments to make participation opportunities as inclusive as possible.

Because of this process, this book has many voices, styles, and perspectives, bearing contributions from authors with broad and varied skills, knowledge, and experience. The “we” who writes this book is a multiple “we” of many differences, working to communicate beyond our immediate circles. We wanted to create a book that, like AUMI, anticipates new communities. Not everyone will read all chapters, and we think this is okay. Those who read across specializations will likely encounter rhetorical dissonance. This, too, is consistent with the AUMI model of “improvising across abilities.” By juxtaposing varied specializations—fair housing and disability justice activism, music therapy, inclusive multimedia performance in music, dance, and choral groups, etc.—we hope to facilitate unusual connections.

In combining chapters that draw from (and critique) the social model of disability studies with those situated in clinical research and practice, *Improvising Across Abilities* contributes to critical destabilizing of silo models within disability studies. Thus the book speaks to issues addressed by Katie Ellis, Rosemary Garland Thompson, Mike Kent, and Rachel Robertson in *Manifestos for the Future of Critical Disability Studies: Volume I* (2018). It also reinforces increasing attention to disability studies scholarship within music therapy, signaled by the special issue of *Voices: A World Forum for Music Therapy* 14, no. 3 (2014). Observes Mizumura-Pence, although “Occupational Therapy has a history of being associated with rehabilitation and the medical model of disability,” the contributions of Miller as editor, author, researcher, and the person who imagined the AUMI before it was created, “gives me/us opportunities to think about how this book contributes to new thinking and action in relation to disability models” (see Mizumura-Pence, chapter 20). Our methodology follows AUMI to its users and uses and back out to readers, who may also consider new connections across fields, disciplines, practices, ideas, and sounds.

In *Just Vibrations: The Purpose of Sounding Good* (2016), William Cheng’s guiding axioms could easily describe Pauline and the AUMI Project. In theorizing, creating, and refining AUMI for use with people of all abilities, Pauline extended her lifelong practice of presuming, like Cheng, that “each of us has the potential to resonate molecularly, socially, and ethically with others” (14), and that it is only by “attending to how our

convictions, relations, and actions ripple through public spaces” that we “achieve a sense of how we matter and what matters most” (15). Pauline encouraged collaborators to bring AUMI to their own communities. Many chapters in this book report back from these ripple effects of Pauline’s cocreative leadership.

How to Read This Book

Improvising Across Abilities is a book of many styles and expressive forms: poetry, first-person narrative, interviews, essays, and companion text linkages to media (video and audio). We are grateful to the University of Michigan Press for providing a media platform on Fulcrum where readers may easily access captioned audio and video of various AUMI projects. Some media illustrate points within specific chapters. Some accompany one or more chapters while making a different kind of sense when experienced individually.

The book is divided into five sections. Most chapters resound across multiple themes and may be read in any order. Readers who choose to travel this volume in the sequence provided will experience its contents in the shape of an arc leading from the dream that prefigured the AUMI Project to dreams for AUMI’s future.

Section I, “Dreaming of AUMI,” opens with the hopes and dreams of the people who initiated the AUMI Project, as well as contributions from people whose dreams (for inclusive expression, for models for social justice) led them to AUMI in its early stages.

Section II, “Software for All People: Improvising AUMI’s Development,” compiles technological history and context. AUMI’s development is driven by input from the diverse group of stakeholders within the AUMI community, including researchers, practitioners, teachers, and end users. We removed technical specifics from later chapters to avoid repetition. This is the go-to section for those seeking vocabulary such as “Max/MSP” and “Jitter.” Just remember: AUMI technology continuously changes under unpredictable funding streams. Consult the website <https://aumiapp.com> for up-to-date information and downloads.

Sections III and IV focus on Pauline’s interest in “*what people do with it.*” In Section III, we untidily group some chapters under “AUMI Communities” (part 1) and others under “AUMI Performance” (part 2). Both concepts reverberate throughout, as do keywords of social justice and disability justice. Here, we define “Community” and “Performance”

as interrelated and often coconstitutive AUMI-facilitated practices, the distinction being one of focus. Attention to “Community” foregrounds ways that people have used AUMI to create more inclusive modes of human interaction. This often happens through AUMI performance practice. “Performance” attends to uses of AUMI to expand the ways in which all people may experience creative expression, an essential goal for Pauline. Such performance practices involve listening to others and the environment and working to create more responsive community practice.

Section IV (parts I and 2) continues with the “what people do with it” theme, this time focusing on how teachers and music therapists have incorporated AUMI in their practices. Part 1, “AUMI Classrooms” addresses some ways teachers have used AUMI in different kinds of learning environments. What has worked? What are the challenges? What do teachers recommend? In Part 2, “AUMI and Music Therapy: Supporting Independent Musicking,” we hear from music therapists who have used AUMI in different kinds of clinical practice, and who offer insights, techniques, and recommendations.

In Part V, “Dreaming AUMI’s Future,” we gesture to dreams for multiple surprising AUMI futures. What will people do with it? Where will that take us?

Pauline comes and goes throughout the book. She plays a leading role in some chapters, remains backstage in others, but is always present. We hope this introduction makes clear why this is so. There are other adaptive and assistive musical instruments (see Leu, chapter 8), but AUMI is the only such instrument (or, more accurately, set of *instruments*) to emerge and grow as part of the life’s work of Pauline Oliveros. She encouraged cocreative approaches to its development and was pleased when players invented new uses and suggested improvements.

The AUMI Project beautifully carries forward goals of her *Sonic Meditations* [1971/75], in which “no special skills [are] necessary,” where all participants, regardless of musical training or experience, are equally valued, and where anticipated benefits of group practice included gaining “greater awareness and sensitivity to each other.” The radical conclusion—that “Music is a welcome by-product of this activity”—drives the AUMI Research Project. What is the potential of all-ability sounding and listening in AUMI improvisation to transform social relations and discover new modes of inclusive community practice? What does that *sound* like? The work continues. We invite you to join us.

Notes

1. For more on the Instruments/Instrument distinction, see Sullivan, chapter 10.
2. This is one of the few interviews where Pauline discusses collaborating with Tarek Atoui and RPI students to create new instruments for Deaf and hard-of-hearing musicians and audiences. Students from that seminar recall Pauline discussing in class her own hearing loss. Michelle Temple, interview with Sherrie Tucker, AUMI Oral History Project, January 5, 2022.
3. Sam Chabot, interview with Sherrie Tucker, AUMI Oral History Project, December 11, 2017; Jonathan Mathews interview with Sherrie Tucker, AUMI Oral History Project, December 17, 2017).
4. One notable exception is Daniel Weintraub's wonderful documentary, circulating as we go to press: "Deep Listening: The Story of Pauline Oliveros" (Capone Productions, in association with IONE and the Ministry of Maât, 2022).
5. Newer versions of AUMI for iOS include several tracking options, but "motion tracker" is the earliest and most commonly used (see Lowengard, chapter 11).
6. Nikhil Deshpande, interview with Sherrie Tucker, oral history, January 8, 2018.
7. "People-first" language (PWD) is born out of the disability rights movement of the 1980s and 1990s. More recently, the disability pride and disability justice movements advocated for "identity-first" language that highlights disability as crucial to a person's identity. This choice was left to each author, since neither term fulfills its purpose when applied to someone who does not identify with it.