International Journal of Educational Technology in Higher Education

# **RESEARCH ARTICLE**

# **Open Access**

# Who speaks for the university? Social fiction as a lens for reimagining higher education futures

Punya Mishra<sup>1\*</sup>, Nicole Oster<sup>1</sup> and Phoebe Wagner<sup>2</sup>

\*Correspondence: Punya Mishra punya.mishra@asu.edu <sup>1</sup>Mary Lou Fulton Teachers College, Arizona State University, Tempe, USA <sup>2</sup>Lycoming College, Williamsport, USA

# Abstract

This paper combines social fiction and academic analysis to envision hopeful futures for higher education. At the heart of the exploration is Phoebe Wagner's speculative fiction piece, *University, Speaking*, which personifies a university grappling with environmental, political, and social change. Phoebe Wagner's first-person narrative highlights the power of collective voice, the importance of centering community, and the urgent need to cultivate resilience and adaptability. Through analysis of key themes, this paper connects Phoebe Wagner's fictional vision to contemporary research on the multi-faceted and complex challenges facing universities today. By integrating artistic and academic perspectives, this paper discusses new possibilities for universities navigating disruption and change.

**Keywords** Higher education, University, Social fiction, Futures, Voice, Community, Adaptability, Resilience, Climate change

The universe is made of stories, not atoms—Muriel Rukeyzer

Systems thinking is a discipline for seeing wholes. It is a framework for seeing interrelationships rather than things, for seeing 'patterns of change' rather than 'static snapshots.—Peter Senge

# Introduction

The word University includes within itself the word "uni-verse," in other words meaning "turned into one" (Harper, 2023b). Its linguistic evolution offers insights into higher education's development and evolution over time, *and, maybe more importantly*, its potential for further transformation. In the Medieval period, this space for higher learning was referred to in Latin as "studium generale," a place where anyone could study any subject (Harper, 2023a). Originating from "studiare," meaning "to study, apply oneself," it emphasized individual action (Harper, 2023a). The term "university" later emerged from "universitas magistrorum et scholarium," meaning "community of masters and scholars" (Harper, 2023c). This etymological shift speaks to a progression from the individual



© The Author(s) 2024. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativecommons.org/licenses/by/4.0/.

focus to collective unity embodying the ideal of an inclusive community driven by collective voice and action.

A lot has changed in the past centuries, and universities today play an important role, not just in passing on knowledge to the next generation, and generating new knowledge, but also in bringing people and communities together. That said, in the face of mounting societal challenges, including demographic shifts, technological disruption, climate change, and growing inequality, doubts about the future of higher education have proliferated. While some propose incremental reforms to the status quo, we believe that we need bolder, more imaginative thinking to envision higher education systems fit for an uncertain future.

In this paper, we argue that fiction and storytelling can play a vital role in inspiring hope and new possibilities in times of change, especially when they are combined with academic research. Academic articles or books usually seek to present a factual, discursive narrative that connects theories, observations, and findings, and relates them to the existing literature. The voice is typically in the third person and formal with the goal of making a convincing, evidence-based argument in a neutral tone with an attempt at objectivity. We do not intend to dismiss or undermine the value of such academic research, which can, and has, explored this terrain of uncertain futures in various ways, across a range of disciplines (whether Physics, Geosciences; Political Science, Sociology or Divinity). Rather, we aim to show how fiction can complement and enrich academic research, by offering new perspectives, insights, and methods that are sometimes overlooked or neglected in more conventional forms of inquiry. We believe that at such times of precarity and change, fiction and storytelling can potentially serve as an essential source of inspiration and hope for new possibilities and thus can complement more standard scholarly approaches. As such, this paper takes a relatively unconventional approach, placing at its center a piece of speculative fiction, which then becomes a compelling starting point to reflect on the future of higher education.

This approach fuses artistic intuition with academic insight and thus allows us to open up an imaginative space to rethink the university amid disruption. Ultimately, this paper argues that amid precarity, we need new stories and new voices to inspire hope, restore our sense of community, and guide universities through disruptive change. Our collaboration with an artist seeks to model this creative, visionary approach to scholarship on higher education futures (Janssen, 2023).

Given this case, the structure of the paper is somewhat unconventional. We begin by providing a rationale for why fiction has an important role to play, connecting it with literature on "social fiction." We follow this introduction with a piece of solar-punk fiction by author Dr. Phoebe Wagner, titled *University, Speaking*, that provides a creative first-person account of a university. In the sections that follow, we explore the critical themes highlighted by the story and their implications for the future of the university. We connect these artistically rendered themes to extant research and ideas that both identify the challenges that universities today face and also opportunities and possibilities that may offer universities hope for the future. Coming full circle, we end with a response to our (more academic piece) by Dr. Phoebe Wagner, speaking to her motivation in writing the story in the first place, and more importantly, with an urgent call to action.

### Social fiction and its additive role to academic scholarship

Medawar (1963) once remarked that the scientific paper is a "fraud," critiquing the posthoc orderliness imposed on scientific writing, ignoring in the process the messy process of how ideas come to be (Howitt & Wilson, 2014). In essence, he was arguing against the historical circumstances that have forced academic papers to strive for neutrality and objectivity, standing outside the phenomena they describe, focusing on the bigger idea, the abstraction. This is not to argue that abstraction is not important, nor to suggest that science sacrifices the particular in getting to the abstraction. Clearly, it is only through an attention to the particular, the matrix of data carefully collected and curated, that science can progress. This is what allows science to go beyond the data, to derive conceptual abstractions and broader theories. What is missing in the scientific paper, however, is twofold. The first is in the representation of this process of scholarship, the human element, the missed opportunities, the blind spots, the wrong paths followed, the companionship and the competition between scientists and more. Second, missing from standard academic narratives are the broader systems (and we would argue systems within systems) that scaffold this enterprise. While the former has been addressed in some sociological work on science and scientists (Merton, 1973), the latter has not received the same level of attention. We believe stories are a powerful technique to address this gap and to see this alternative view.

This is not surprising, since humans have always told stories; it is a significant way we learn and grow. We recall our past through origin stories, define our identities and values through epics and superhero comics, theorize through science fiction, and anticipate future atrocities through dystopias. Stories weave together historical contexts and significant events, encapsulating both favorable and unfavorable outcomes, as well as anticipated and unforeseen twists. They underscore the idea that life is a tapestry of interrelated elements, that can be provided meaning by crafting into a narrative.

Storytelling offers valuable insights and a counterpoint to researchers, helping us interpret the complex web of interactions that guide and provide meaning to our relationship with each other and the world. Fiction has an emotional power; it bridges disciplines and audiences, cultivating empathy (Bal & Veltkamp, 2013) and motivating action. George Eliot asserted that "appeals founded on generalizations and statistics require a sympathy ready-made," whereas fiction "surprises even the trivial and the selfish into that attention to what is apart from themselves" (as cited in Oatly, 2005). In this way, while scholarly research and writing can convey valuable information and interpretation, it does so from a distance. Fiction, on the other hand, can compel us to care and act upon that information. By speaking to the entire human experience, including its subjective and emotional truths, stories allow us to develop deeper understandings (Gee, 2017, p. 10) and, through that, potentially, spark social change.

At the same time, stories are also complex, open to multiple interpretations based on culture and context. As in all texts, the meaning of a piece of fiction is a transaction (Rosenblatt, 1982) between the text and the reader and what they bring to the act of reading. In that sense, stories can serve as a simulacrum of life itself, containing multitudes, fraught with ambiguity and open to different readings. Thus, the experience of fiction is not necessarily universally shared, entangled as they are with underlying systemic and individual patterns and histories. We believe that engaging with these multiplicities is also a powerful way to explore futures and their impacts on us.

In other words, fiction adds additional lenses or perspectives to the academic enterprise, enabling us to engage with philosophical themes behind tangible evidence, offering an accessible language that expresses ideas that cross disciplinary boundaries. Fiction also nurtures a creative mindset vital for transformative research, particularly when our goal is not just to reflect the world but also to forge a path forward. The creativity found in fiction can inspire researchers to operate with an innovative mindset, inspiring hope and thus help us envision an optimistic future, even when faced with seemingly insurmountable obstacles and crises.

Given this, in this paper, we explore a special genre of academic writing that has typically been described as "social science fiction"—a form of speculative fiction that "inspire[s] the sociological imagination" by telling "inexistent' tales" related to sociological themes and ideas (Gerlach & Hamilton, 2003, p.156). This aligns with C. Wright Mills' (2000) view that sociological sensibilities exist in fiction as much as in academic research. Social science fiction uses storytelling as an approach towards understanding the social or the sociological.

In most standard experiments with this genre, the idea is to create a form of speculative fiction that would draw upon social science theories and research to imagine plausible future societies. The goal is to inspire the sociological imagination and critical reflection on contemporary social issues, through a future-focused lens. Social science fiction has its roots in standard science fiction where authors have often grappled with contemporary issues by extrapolating them into the future-exploring future societies and technologies (Theall, 1975). Other antecedents of this sub-genre exist within education futures research, which has long used speculative scenarios (Facer, 2011) and critical technology futures. The objective is cognitive estrangement to spark debate, not objective predictions. This can range from issues as digital futures, explored by cyberpunk literature and futures (Burrows, 1997) to more fantastic explorations, such as the TV show Games of Thrones, as well as more realistic visions such as The Wire (Penfold-Mounce et al., 2011; Tufekci, 2019). A show like The Wire, for instance, with its deeply observed and detailed pictures of social structures and entanglements, conveys "truths" and forms of experience that academic writing would find hard to capture and convey. In summary, social science fiction speculatively explores sociological themes using storytelling to inspire sociological imagination regarding social issues like education and technology.

# Introducing University, Speaking and Phoebe Wagner

At the heart of this paper is a story by Dr. Phoebe Wagner titled, *University, Speaking*. Dr. Wagner is an assistant professor of creative writing at Lycoming College in Pennsylvania. She is a renowned speculative fiction author and editor whose work lies at the intersection of speculative fiction and environmentalism. Appropriate to this paper is the fact that her fictional explorations and their scholarship focuses on how the unintended future scenarios depicted in speculative fiction can motivate innovative adaptation and change methods during times of crisis. They mostly work in the solarpunk genre and have edited three solarpunk anthologies, including *Sunvault: Stories of Solarpunk & Eco-Speculation*. Solarpunk has been described as a movement that intertwines aesthetics, philosophy, and activism. It originated primarily in Brazil around the early 2010s as a response to the prevailing dystopian narratives in creative fields. Born from the realms of science fiction literature, solarpunk envisions speculative worlds where social ecology, renewable energies like solar, wind, and tidal, and democratic technology form the foundation of future societies. Solarpunk draws inspiration from the likes of Cyberpunk, Steampunk, and Dieselpunk, shedding light on the intricate relationship between technology, society, and nature, reimagining their bonds and fostering collaborative processes of imagination and collective action (Reina-Rozo, 2021). *University, Speaking* was first published in *Us in Flux* (Phoebe Wagner, n.d.) as a part of their *Us in Flux* series, in collaboration with the *Center for Science and the Imagination* at *Arizona State University* (and is included with permission).

# University, Speaking by Phoebe Wagner

First, we found someone to listen. We whispered to new hires and emeritus faculty, firstyear students and graduate TAs, deans and presidents. And we failed. Yes, new housing towers joined the city skyline. A baseball field cut down too many trees. An Old Town revitalization project promised condos, windowed storefronts reflecting our spires, a rooftop bar. These places made a bad translation of what we wanted. Not a wider, taller, more decorative wrought-iron fence. We wanted no fence.

In all our whispering, we weren't listening. We had a vision, our architectural imagination of ourselves, entwining with the city for what we thought would be better. But someone was already speaking to us.

The gardener had worked our grounds so her kids wouldn't have to take out so many student loans. Two bright and beautiful boys had studied late in our library, played frisbee on our lawns, posed for graduation pictures beneath our elms. Still the gardener tended our mulch beds, brought us flowering pots to hide our crumbling corners, moved our inside plants outside for some afternoon sun, kept our sidewalks clean and weeded. She pruned our rose bushes and taught the wisteria how to climb the new trellis. In our hazy summer slowness, when our lights dimmed early and our lawns stretched lonely, she hummed the latest piece from the civic choir.

We followed her into the city through our grass clippings and flower petals. On Wednesdays, she met her wife for beers. On Thursdays, choir practice, still in her work boots that thudded clumps of us across the stage. On Fridays, she rode her motorcycle to work and went for a riverside ride afterward, sending pieces of us drifting across the city's veins.

We fell into the trap of our fences. How would a gardener convince a dean, a president, a board of trustees? No, we needed a professor, a student at the very least. But as the years went, and she planted sunflowers in the back beds only eager summer interns and wrung-out research assistants walked by, as she prepared green spaces for winter, we began speaking to her.

She knew our ghosts and cobwebs, the corners where students tucked away their folded-paper fears, which bushes the cigarette stubs blew under. Even so, she came back, long after her grown children needed her job. She shoveled our sidewalks, returned frisbees from behind our hedges, smiled at the creaking of our elms. Sometimes, she'd sit back on her heels and sigh at our emptiness, our flowers and shade and paths left unappreciated for the best summer months. Our imaginings were just another whistling wind to enjoy.

One spring, as she mulched the bed lining the backlot—what the president had recently renamed Tower Lawn, after a trustee—we whispered plans for a community garden. In the summers, nobody used this quad. Even in the fall term, when the intramural teams played volleyball here, they only used half the lawn. The grassy space faced downtown, and professors, deans, students walked through the decorative, pillared gate to go to lunches or coffee or the bar, but nobody came from the city. We could change that.

All summer, the gardener watched the grass unused, shorn down over and over by the mower. We whispered about how the birds would love it, how the butterflies and bees would be fed so much better by a community garden than a barren lawn.

The gardener started talking. Her wife agreed something better than grass could be imagined. The head groundskeeper liked the idea because he didn't have enough space at his home for a garden (and he hated mowing). The math professor always eating lunch on the bench outside when the gardener watered the roses thought it would be good for the students to learn about food systems. The regular Wednesday bartender said they would take a plot since their apartment was only a few blocks away. The alto to her right wondered if the local library might run a kids' program to teach gardening basics. The alto on her left had never been to campus.

The provost said no.

Gardens are messy. How would security keep track of who came onto campus and what they did? The Buildings and Grounds crew was already too busy; now they wanted a community garden to tend. Who would come to this garden, anyway?

This was why the gardener didn't talk to the provost except at the holiday party. If this river were to run its course, then we needed a crack in the dam.

When the gardener told her summer student workers what happened, one asked if he could organize the community garden for his capstone research project. He'd grown up in the city and wondered why campus, the only large green space downtown, needed a fence around it.

The student received a grant from the city, and the local library ran a kids' program about food systems, and the Riverside Apartments held a garden potluck, and people ate their lunch on benches the gardener's wife built, and the gardener pulled weeds beside her Wednesday bartender, and students spread blankets on the remaining grass during orientation, and they tried to catch the last of the cherry tomatoes in their mouths.

These new gardeners carried more and more of us into the city, where we swirled in the roadside eddies or collected against churches. We trailed fingertips across the city. We wanted more, and so did the city. We had one crack, where we pressed against each other. One crack could grow.

When the summer storms came, we dropped our dead branches onto the tall fence. We leaned our tired trunks against the wrought iron. We battered away at the spiked posts. The gardener asked for the fence to be removed around the quad as the community garden became more popular. A professor who studied national borders helped a student group write a proposal for removing the fence and investing the saved maintenance funds in Little Free Libraries and miniature food pantries around town. The wilderness education students volunteered to build new walking paths with permeable materials once the fence fell, opening campus to dogwalkers and commuters. We rubbed against the city. Our fingers entwined. Parents pushed strollers between our flower beds. Longboarders glided along our curves. Children sledded down our hills. Joggers passed between us. We traced the lines of each other's palms, but we still wanted more.

When our flourishing environmental science program needed a bigger building, we whispered about buying a place by the waterfront and grumbled against the big, bright windowed building design that would never be sustainable amidst the rising heat, the worsening storms. The city hummed that meant more bus lines to make sure the students could access the waterfront building.

The board of trustees grumbled. The deans questioned. The president hemmed and hawed. The college experience they were charged with marketing required a quiet, private campus—nothing to fear. What would the parents say when they came to visit? A manicured border, a fence that no longer existed except in their minds—what might the students learn out in the city?

The city swirled through the mayor's office, ruffling campaign posters and building plans, whirled into councils, rumbling about tax breaks, free marketing, economic revitalization, beautification pledges. Butterflies to flowers, we began to pollinate.

We whispered to the college's wilderness program to propose more bike lanes. The city made a walking path from the environmental science building to the Riverwalk. And once the students could bus to the river and wander through the grass onto the sidewalk off the campus, as we cuddled up with the city, our fingers in each other's hair, the students proposed a fall music series, and another community garden, and they protested campus security driving people away from napping on benches. Professors held classes in the new coffee shops, and the groundskeepers had their morning planning meetings at the bagel shop across the street, and the city created a free audit system for locals to take classes, and the STEM programs partnered with the local hospital for a weeklong science festival, and the gardener's Wednesday bartender opened their own brewery where the gardener met her wife every Friday after her motorcycle ride.

The provost who said no, who'd continued saying no, retired, warning on the way out the door that students would stop coming. As fewer and fewer students attended traditional colleges, they would choose the big, endlessly sprawling campuses or the small, spired closed campuses. Nobody went to college spread over a town. Either the town belonged entirely to the college, or the campus kept itself separate from the city.

But our city held us tight when the storms came. Sometimes with thunder, sometimes with recessions. The city hummed to not be afraid when students couldn't come to us because of sickness or flooding or money. The city always had its own children who wanted to learn. The children who had pulled weeds in our community gardens, had sledded down our hills, had played catch beneath our oaks, they sat in our libraries, classrooms, labs and heard us whispering.

These children helped the homesick students call our grounds, our city home. They showed them the best spots to sit by the river and think, the fastest bike path to the movie theater, the cafe that gave free coffee to students studying late, the restaurants where nobody would stare no matter how loud they laughed, the park with the best fall colors, the park with the best spring blossoms. The students stuck together, and even the provost could not have dismissed their numbers. The gardener retired, and we gave our best blooms that summer. She still came to sit on the benches when the summer flowers flourished, watching the bees at work. She helped with organizing the community gardens for planting and harvesting, until it made her short of breath and her back sore. She still brought out a chair, even though the other gardeners didn't know her anymore, but they called her the Gardening Grandma and asked how to store seeds or how to prune the tomatoes.

When the tornados took out whole towns, when floods washed away homes, when heat threatened families—the students left us, for a while, carrying pieces of us to their own towns. We knew what to do. We whispered of connections across time and space to our new deans and new professors, just as bits of our dirt and grass and roots clung to clothes and books and blankets.

Students talked of different classes like civic engagement, community organizing, disaster preparedness, practical activism. They asked to organize a better creditexchange system with the community college at the other end of the city so they could take welding and construction courses. Students and professors organized for online classes when they needed to stay home for a semester to rebuild their towns.

And when the storming and flooding finally split our walls, collapsed our roofs, washed our basements, the city caught us up. The local library, the diners, the coffee shops, the community center, the churches, the hospitals, the parks became classrooms, were remembered for the classrooms they always had been.

The city held us tight until we forget we were ever separated. Tattoos on skin, we became.

Our students come to us for the classrooms. Writers meet in the bookstore and the library; artists in the tattoo parlor and the museum; biologists in the hospital and the field station; sociologists in the mutual aid center and the clinic; psychologists in the counseling hub and the lab. Now, we stretch our arms wider as the citizens see what needs doing and lead the students to new projects. We grow.

The gardener lost her home in one of the floods, so she and her wife live above the brewery, where her bartender's grandchildren ferment all types of things. They teach classes, and the gardener likes to open her upstairs window and listen, just as she'd pause on campus while pulling weeds, on those sunny days when the professors would take their students outside.

### On listening to University, Speaking

Wagner's poetic and eloquent work of social science fiction provokes those of us who are interested in the future or universities to wrestle with an uncertain and precarious future, by providing a unique, positive perspective that is a strength of fiction. The story invites us to see the university as a complex system, an ecological community of interdependent actors, relationships and ways of knowing. By foregrounding the university itself as an entity, the story challenges us to envision more pluralistic, socially just futures.

While its title centers the act of speaking, Wagner's piece begins and ends with the idea of listening. First, the university "found someone to listen," and, at the story's end, we are left with the imagery that "the gardener likes to open her upstairs window and listen, just as she'd pause on campus while pulling weeds, on those sunny days when the professors would take their students outside" (Wagner, n.d.). This process of listening allows us to recognize and acknowledge that historically, higher education has done

harm through its selective listening. Namely, "Westernized approaches to research have dictated how people in the world could be divided, written about, scrutinized, deceived, and exploited" (Boveda & Bhattacharya, 2019, p. 21). At the same time, we share Wagner's hope that listening to diverse voices from an inclusive higher education community can nurture resilience and "inform the paths of possibilities" (Boveda & Bhattacharya, 2019, p. 21) in our shared future. Thus, even though the story is written by one person, it values and emphasizes the importance of listening to others—to diverse voices and perspectives, all of whom have a stake in the future of the institution.

We believe that *University, Speaking's* subjective narration (and its emphasis on listening) provides us with ways and approaches as to how universities can respond and adapt to dramatic disruptions to the status quo, ranging from the climate crisis and political conflicts to pandemics and emerging technologies. We were thus inspired by Wagner's imaginative speculation to dig deeper into the complex web of global and local challenges faced by universities as they seek to remain connected and relevant in the future. We did this by identifying key themes in the story and using that as a springboard to explore in greater detail the relevant academic literature around these themes. First, we were moved by the compelling voice of Wagner's university to examine *the power of collective voice as a transformative and agentic force*. Additionally, struck by the centrality of community in *University, Speaking*, we explored the idea of *centering community* through the development of inclusive and community-based knowledge and curricula. Finally, as institutions of higher education face an uncertain future, we were compelled to learn about actions that might *cultivate qualities of adaptability and resilience*.

In the following sections, we explore in greater depth these three themes: the power of collective voice, the idea of centering community, and the importance of cultivating adaptability and resilience.

# The power of collective voice

In University, Speaking, Wagner employs first-person plural narration to reveal the collective voice of a university. In addition, the distinctive and lyrical style of writing is a compelling rhetorical move with significant implications for how we think about institutions, such as the story's university and city. We humans design these institutions (buildings, policies, roles, rules, and more) and they take on a life of their own, driven to survive and thrive. These elements define, collectively, what it means to be an organization. "Narrative fiction," according to Bekhta (2017, p. 165), "constitutes one of the sites of expression of human collectives and, in particular, a place where collective subjectivities can be imagined, constructed, and endowed with a collective voice." The idea of the collective is reinforced through the selection of a first-person plural narrative, hinting, as it does, at the multitudes that make up the university. It acknowledges that what we regard as "the" university contains many voices, perspectives, and viewpoints. Through its imaginative prose, University, Speaking illustrates how the collective agency of individuals, buildings, gardens, cities, spaces and more can emerge from its central values, philosophies, culture, and architecture. For instance, Wagner writes, "We wanted no fence," where the university voices its desire for transformational inclusivity, prompting us to consider the principles and places that structure our own institutions (n.d.).

At the same time, the collective voice of the university transcends an expressly human point of view. As societies respond to climate crises, pandemics and other disruptions and witness their destructive impacts on natural systems, we encounter the agency and intelligence of nonhuman entities and systems. For example, in forest communication systems, trees are able to communicate with one another by sending chemical signals through connected underground roots (O'Gieblyn, 2021; Yong, 2016). Ultimately, giving voice to the university's physical, natural, and embodied elements acknowledges the interconnectedness of spaces with their human inhabitants and displays humanity's role in our expansive ecosystems.

Moreover, first-person plural narration can be an "ideal fictional voice to examine the complexities and contradictions of contemporary America" (Maxey, 2015), and, even more so, our global community. However, the first-person plural narration of Wagner's university is more than a literary device: it also represents the power of collective voice in transforming real institutions. To harness the power of collective voices, universities can take a participatory approach, which "has the potential to both empower students and increase the possibility that teachers will respond to student voices" (Seale, 2009, p. 1011–1012). This act of listening to student voices has the potential to promote deep civic engagement. Accordingly, "students need to learn how to engage different types of people - the capacity to engage, respect, and negotiate the claims of multiple and disparate communities and voices is critical to being civically literate" (Kezar et al., 2015, p. 111). For example, as one recent doctoral student describes, "A public good in our American democracy is that all people have a right to speak. Higher education should encourage this societal good through providing room for students' voices in the classroom" (Quaye, 2015, p. 506).

Responding to faculty voices is likewise important, especially regarding issues requiring expertise and swift action, such as sustainability. There are, for instance, "calls for higher education to be involved in policy making rather than simply implementation," which "have been limited and the full potential of higher education institutions using all opportunities such as being living labs for sustainability has not as yet been realized" (Kohl et al., 2021, p. 218–219). By listening to and amplifying the collective knowledge, wisdom, and voices of scholars, communities can respond to complex challenges and create transformative change.

# **Centering community**

*University, Speaking* emphasizes the central role of community in higher education. The voice of the university calls for a radical shift away from insulated academic institutions towards inclusive community-based learning. By illustrating this transformation, *University, Speaking* depicts a knowledge system that transcends traditional hierarchies and demonstrates how spaces of higher education and community members can value and benefit from one another. Moreover, this narrative presents the potential of higher education to support local communities through complex challenges such as the climate crisis. In fact, the story suggests that these distinctions between the university and the community may truly be false distinctions and that it may be powerful to see them as being one larger collective, breaking through the barriers of us and them. Universities might draw inspiration from Wagner's community-centered narrative by honoring diverse ways of knowing, practicing inclusivity, building community partnerships, and adopting a community-based curriculum.

A foundational component of this effort is for community-centered institutions of higher education to work to better value diverse ways of knowing. Wagner (n.d.) writes, "The local library, the diners, the coffee shops, the community center, the churches, the hospitals, the parks became classrooms, *were remembered for the classrooms they always had been*" (italics added). Beyond this fictional account, a similar remembering is taking place in academic literature. For instance, Onyx argues that given the complexities of our current world, "it is crucial that civil society be recognized as central to understanding the current discourses of government and society" and calls for the development of new knowledge to emerge through "dialogue and collaborative action by all stakeholders" (2008, p. 104).

In addition to valuing the knowledge from various spaces within communities, the story suggests that universities must also work to respect the knowledge from communities whose knowledge they have historically oppressed. Western higher education institutions have "been engaged in epistemicide, or the killing of other knowledge systems" and "are working with a very small part of the extensive and diverse knowledge systems in the world" (Hall & Tandon, 2017, p. 1). To repair this divide, universities can shift towards knowledge democracy (Biesta, 2007; Hall et al., 2013; Hall & Tandon, 2017), community-based participatory research (Hacker, 2013; Hall & Tandon, 2017; Viswanathan et al., 2004; Wallerstein & Duran, 2006), and inclusion of diverse knowledge systems such as "those of Indigenous peoples and excluded racial groups, and those excluded on the basis of gender, class or sexuality" (Hall & Tandon, 2017, p. 1).

In this vein, *University, Speaking* also shines a light on how universities can prioritize inclusivity when building community. In Wagner's narrative, "the students stuck together, and even the provost could not have dismissed their numbers" (n.d.). The inclusivity in this story is largely driven by student action (even while Wagner points to forces and interests that seek to resist such action). At the same time, universities can take action to support student efforts. For example, campus affinity groups can foster constructive intergroup relations, hold space for emerging new identities, and restructure knowledge and curricula (Cortes, 1999, p. 12).

One actionable step universities can take to dismantle hierarchies of knowing and leverage the power of community is cultivating community partnerships. In *University, Speaking,* "the city created a free audit system for locals to take classes, and the STEM programs partnered with the local hospital for a weeklong science festival, and the gardener's Wednesday bartender opened their own brewery" (n.d.). Partnerships in research can also be transformative. Participatory action learning and action research can enhance learning, facilitate the dissemination of learning and knowledge to community members, and "co-create knowledge that is relevant, contextualized and useful, both for meeting community needs and producing research output as required of universities" (Kearney et al., 2020, p. 113).

Additionally, universities can transform their curriculum to include more opportunities for community-based learning. Wagner's university expresses that "students talked of different classes like civic engagement, community organizing, disaster preparedness, practical activism" (n.d.). Such changes in curriculum are timely, if not overdue, given the complex challenges that global and local communities are currently facing. Orr, in their book *Democracy in a Hotter Time*, emphasizes the need to confront these challenges, articulating that "we face two related existential crises: a global crisis of rapid climate change and potentially lethal threats to democracy" (2023, p. 160).

Community-based learning opportunities, such as service-learning programs, have the potential to address these interrelated crises. By earning credits through engaging in organized community service, students not only address community needs but also strengthen their understanding of their coursework, thus broadening and deepening appreciation of the subject, while elevating their sense of civic duty (Bringle & Hatcher, 1996). Service-learning initiatives have the potential to foster democracy and civic engagement (Bringle & Hatcher, 1996). Service learning can also build communities by promoting social justice (Cook & Nation, 2016). Universities can intentionally promote service learning by "targeting marginalized communities and populations" and "using the universities' resources to address disparities in resources and outcomes for those groups" while "building community capacity to address problems through the collective actions of their citizens" (Cook & Nation, 2016, p. 726–728).

Furthermore, service learning can be leveraged for sustainable community development (Fourie, 2003). Service learning can benefit not only university students but also the community as a whole (Fourie, 2003). Such benefits can include social benefits such as empowerment, relationships, and support as well as educational benefits in building knowledge, information, and skills in relevant domains like health and agriculture (Fourie, 2003). Moreover, there are "long term holistic benefits to the community such as becoming a healthy, self-reliant community that is capable of utilizing resources effectively, improving health indicators, changing sexual risk behavior and becoming lifelong partners in health care systems" (Fourie, 2003, p. 36).

Universities can rise to the complex challenges of today by centering community. Higher education institutions can work to dismantle hierarchies of knowledge and repair the divide between Western academic knowledge and community-based knowledge, particularly knowledge from groups that have been traditionally ignored or oppressed. Additionally, universities can intentionally adopt inclusive practices and establish meaningful partnerships, for instance, through participatory action learning and action research. Finally, higher education institutions can incorporate community-based curricula such as service-learning programs to strengthen democracy and co-create knowledge of sustainable practices with communities. Universities might, as Wagner posits, "stretch our arms wider as the citizens see what needs doing and lead the students to new projects. We grow" (n.d.).

## Cultivating adaptability and resilience in higher education

There is an urgent need for adaptability and resilience in higher education, especially in the face of challenges like climate change. *University, Speaking* illustrates what it might look like for a university to be borderless and adaptable in its response to environmental and social challenges. *University, Speaking* reflects that climate change recognizes no boundaries. Its effects will be felt by all of us, though they may not be universally experienced. As feminist, post-structuralist, post-colonial, post-humanist, and radical ecological scholarship has long demonstrated, these impacts are disproportionately distributed, intertwined with issues like poverty, educational access, disempowerment, and privilege. The boundary-breaking nature of climate change, as well as its differential impact on different groups and individuals poses a significant challenge for institutions reliant on insulated borders and often unitary, hierarchical structures that ignore the complexities of human systems and institutions. Higher education institutions can evolve to meet complex challenges, such as the climate crisis, through innovative policies, faculty development, curricula, and technologies. Various literature demonstrates the need and interest for such innovations and their potential for cultivating adaptability and resilience among students, educators, and communities. Higher education leaders and change agents can take meaningful actions during this pivotal moment.

First, universities can reimagine university policies that empower stakeholders to collaborate to address contextualized problems. For instance, they can utilize adaptive governance models, which connect "individuals, organizations, agencies, and institutions at multiple organizational levels" (Folke et al., 2005, p. 441) and allow universities the flexibility to quickly adapt to environmental and social changes (Folke et al., 2005). Additionally, universities can adopt a participatory futures approach, leveraging informed forward-thinking and active participation/engagement to empower climate-vulnerable communities through social learning (Gidley et al., 2009, p. 8).

As Wagner illuminated in her description of a borderless university (n.d.), enacting policies of openness can empower institutions to respond to crises. A powerful example of this is occurring during the Russia-Ukraine war. Librarians across Ukraine utilized a "multifunctional web-oriented ecosystem" (p. 116), including cloud environments and international repositories to communicate and share open educational resources to maintain essential services for students and faculty (Kolesnykova, 2023).

Higher education spaces can also serve as support systems for students and communities. Through "support, community, leadership, and planning," universities can boost student well-being and encourage community participation to promote resilience (Kurniadi et al., 2023, p. 27). Moreover, as the mutually beneficial space of the community garden at the university envisioned by Wagner (n.d.) illustrates, bolstering student wellbeing can be symbiotic with community wellness.

Likewise, universities can foster the development of faculty connections, offering collaborative development opportunities for university faculty that promote resilience and innovation. For instance, in one community of practice, faculty from across engineering, material science, business, and geosciences met monthly via Zoom, which led to the adoption of innovative teaching practices and social-emotional support during the uncertain onset of the Covid-19 pandemic (Mead et al., 2021). As we consider Wagner's visualization of a borderless university, we can also imagine communities of practice that include university faculty and field practitioners.

Moreover, institutions of higher education can transform curricula to be more responsive to upcoming, inevitable disruptions. In the face of severe storms, flooding, and heat, Wagner writes that "students talked of different classes like civic engagement, community organizing, disaster preparedness, practical activism" (n.d.). Focus groups and interviews have revealed that students perceive developing skills in adaptivity and competence in sustainable development in the context of their communities as valuable and necessary (Zoghbi et al., 2019). These findings emphasize the importance of education for sustainable development that is locally, culturally, and economically appropriate and designed to "enhance young people's critical and reflective thinking, holistic worldviews, and collaborations with stakeholders across different disciplines" (Zoghbi et al., 2019, p. 123). Similarly, interviews have demonstrated that students believe adaptability, communication, collaboration, and problem-solving skills are necessary for developing sustainable solutions and attaining economic success (Zahir, 2021). To achieve this, universities can shift curricula towards applied projects, case studies, and experiential learning that emphasize confronting authentic challenges (Zahir, 2021).

Furthermore, institutions of higher education have the potential to implement climate-resilient education effectively (Utomo et al., 2021). For instance, universities can integrate social science and behavioral principles into climatology or hydrometeorology courses and advocate for the application of experiential learning models, including problem-based learning, project-based learning, and discovery-inquiry learning where students can create "direct and long-lasting impacts" (Utomo et al., 2021, p. 306).

Wagner's university proclaims, "We wanted more, and so did the city" (n.d.). Curricula designers can recognize and fulfill this demand for connection and change by facilitating climate-resilient educational practices that integrate transdisciplinary competencies and contextually appropriate opportunities for community impact.

Technologies have a critical role in the enactment of these practices. Wagner's university "whispered of connections across time and space to our new deans and new professors" (n.d.), and technology can afford this connectivity. In addition to helping facilitate the transcendence of borders (Kolesnykova, 2023) and strengthening connections within existing communities (Utomo et al., 2021), it can also preserve them during times of crisis. This potential is exemplified by learning communities' ability to adapt to online and blended learning, which yielded resilience during the unforeseen crisis of the Covid-19 pandemic (Bozkurt, 2022).

Spaces in higher education can draw inspiration from Wagner's borderless university and existing research to cultivate adaptability and resilience in the face of the climate crisis and other complex, global, and local challenges. Reimagining policy, developing faculty and community connections, transforming curricula, and leveraging technology can empower universities as voices of hope and agents of change.

# Conclusion

Phoebe Wagner's speculative and socially insightful *University, Speaking* calls those of us invested in institutions of higher education to promote inclusivity, responsiveness, and resilience in the face of contemporary and upcoming challenges. It invites us to cultivate inclusive communities that amplify voices, particularly those of people who have been historically oppressed. Moreover, it suggests that we can foster community partnerships and socially responsive curricula. Finally, it urges us to create participatory systems and technologies to prepare for rapid response to emerging crises in an effort to promote sustainability and resilience.

What is interesting in the story is the fact that it is the university itself that speaks to us. In this way, Wagner highlights and recognizes that institutions, much like individuals, have complex, intricate narratives woven into their foundations, their walls, and their gardens. It acknowledges that just like individuals, universities have their own histories, challenges, triumphs, and adaptations. And just as every individual has a story to tell, so too do the institutions that have shaped our world.

There is an expansiveness in this view—emphasizing the fact that while humans are transient, institutions stand the test of time, instantiated not only as physical structures

such as buildings and walls, but also as systems of inclusion and exclusion; both an ecosystem in itself as well as part of broader ecologies of the world. At the same time, their longevity and resilience testify to their ability to outlive individual lifespans and changes in the world around them. This resilience becomes all the more important as we navigate rapid technological advancements, climate shifts, pandemics, and a multitude of other challenges. These institutions evolve, anticipate, and respond to this ever-changing landscape, influenced by these changes, even while influencing us and how we engage with them.

By endowing institutions with a voice, even if in a fictional guise, Wagner offers a refreshing and innovative perspective to view the world around us, and the role that universities play in our lives. It's akin to witnessing the persistent harmony of an anthill, even as individual ants come and go. This lens allows us to appreciate the subtle, often overlooked beauty of transformational continuity and the intricate dance of evolving institutional constancy amidst change.

Through its first-person plural narration, "University Speaking" conveys a powerful collective voice and agency that stems from the complexities of human cultures and planetary ecosystems. That said, we must also acknowledge a tension inherent in one author, in one story, making a case for the collective voice or for community. One of the strengths of fiction is specificity of voice, and in this case, even more importantly giving voice to the "university." We must also recognize while this story is one of many that could be told, and our reading (as academics responding to the story) is one of many. This gives us a sense of humility about the conclusions we reach, even while recognizing the importance of the issues at stake here. In all these contexts, but particularly when making an argument for "collective voice" or "community," we need to be sensitive to this aspect of fictional narratives, that they can persuade and guide our thinking in often hidden ways, and playing closer attention to these matters, allows us to both acknowledge how some readings can strengthen as well as undermine, or at the very least, interrogate, the argument being made.

That said, Wagner realizes (and helps us see) that while universities (and by analogy, other institutions) may not literally narrate tales, the very act of visualizing them as storytellers unveils a complex web of interconnected narratives. Embracing this viewpoint not only enriches our understanding of the world but also unveils layers of beauty and meaning that often remain hidden in plain sight.

Stories, we know, are typically centered around us, not surprising, since we are a selfcentered species. By flipping the script, Wagner forces us to acknowledge that it is essential to also spotlight and center these complex, organizational entities, to give voice to their journeys, and to acknowledge the pivotal role they play in our shared histories: past, present, and future. By encouraging universities to listen to diverse voices, come together in community, and develop resilience, Wagner provides us with one story, one narrative and through that invites us to engage in hopeful action in the face of seemingly insurmountable social and environmental adversity. Through this story, it becomes clear that the university is expressing itself through a multitude of perspectives: the voices of students, the community, the building, and gardens and more. It is only by listening and acting on these multiplicities that we can seek to find a way forward, for universities and for ourselves.

#### **Phoebe Wagner's reflection**

I am so often frustrated with the problems of higher education, of the ivory tower and all the implications of that phrase, that I write to remind myself that we can change that institution. It will take a deep uprooting to address the harm such institutions have caused, but we can adapt—indeed, we must. When I approach a positive speculation about the future, as I do in University, Speaking, I try to recognize the harm but also the good that can come from such recognition. When we fully embrace the need for change, especially change that is uncomfortable for those in power, then we can transform and adapt, as Dr. Punya Mishra and Nicole Oster suggest. The university as I see it is in a moment of crisis where it can no longer be the ivory tower and survive, whether that's an economic survival or a population survival or a surviving of climate change. Yet, those ossified in power are often those supported by such a system, as I suggest in University, Speaking. There will be resistance, but we must create the future we need. It's easy to spiral into the precarity of the situation, especially for those in tenuous positions or at smaller institutions, but the university is speaking through so many voices: the students, the staff, the pre-tenure faculty, the non tenure faculty, the administrative coordinators, the buildings and grounds keepers-we cannot continue as before. Mishra and Oster have collected in this article some of the many voices that are dreaming and designing what such institutions could look like in the face of foundational change.

The voice of the university reminds us it is a place-based institution and a complex system, as Mishra and Oster point out. Students return to be married on the grounds. We associate feelings of home—or harm—with certain dormitories, office spaces, classrooms. We work and socialize in the same place. Yet, as the university narrator of the story realizes, we are stratified. As the climate changes, as many in the U.S. and globally strive for equity, as student populations shift, the university is speaking to us to look ahead and transform. Universities have always been a transformative space in order to survive across time. This next transformation will change what many people in power associate with a space of education. We cannot continue with our fenced spaces patrolled by campus security. We cannot continue with little to no accountability for those resisting or outright against DEI initiatives. We cannot continue to canonize whiteness. We cannot continue economic injustice for our students, our non-tenure faculty, our staff. We cannot continue as institutions of settler colonialism. As we support our fellow community members in making these changes, the institution of higher education will, by necessity, become more adaptable and community-focused beyond the campus grounds. The university can be a space for community resilience in the face of climate change, but we must recognize and uproot the harmful aspects of our institution first.

Your university is speaking. Are you willing to listen?

Acknowledgements

Not applicable.

#### Author contributions

Dr. Punya Mishra and Mrs. Nicole Oster co-authored the piece, with equal contributions by both (and their names are presented alphabetically). The central story, around which the paper is based, and a short response at the end were written by Dr. Phoebe Wagner.

#### Funding

Not applicable.

Data availability Not applicable.

## Declarations

Competing interests

There are no competing interests.

Received: 1 November 2023 / Accepted: 20 March 2024

Published online: 08 April 2024

## References

Bal, P. M., & Veltkamp, M. (2013). How does Fiction Reading Influence Empathy? An experimental investigation on the role of emotional transportation. *Plos One*, 8(1), e55341. https://doi.org/10.1371/journal.pone.0055341.

Bekhta, N. (2017). We-Narratives: The distinctiveness of collective narration. Narrative, 25(2), 164–181. https://doi.org/10.1353/ nar.2017.0008.

Biesta, G. (2007). Towards the knowledge democracy? Knowledge production and the civic role of the university. Studies in Philosophy and Education, 26, 467–479.

Boveda, M., & Bhattacharya, K. (2019). Love as de/colonial onto-epistemology: A post-oppositional approach to contextual research ethics. *The Urban Review*, 51, 5–25. https://doi.org/10.1007/s11256-018-00493-z.

Bozkurt, A. (2022). Resilience, adaptability, and sustainability of higher education: A systematic Mapping Study on the impact of the coronavirus (Covid-19) pandemic and the transition to the New Normal. *Journal of Learning for Development, 9*(1), 1–16. https://doi.org/10.56059/jl4d.v9i1.590.

Bringle, R. G., & Hatcher, J. A. (1996). Implementing Service Learning in Higher Education. *The Journal of Higher Education*, 67(2), 221–239.

Burrows, R. (1997). Virtual culture, urban social polarisation and social science fiction. In B. Loader (Ed.), *The governance of cyberspace* (pp. 38–45). Routledge.

Cook, J. R., & Nation, M. (2016). Community engagement: Universities' roles in building communities and strengthening democracy. Community Development, 47(5), 718–731.

Cortes, C. E. (1999). Building Community from communities: Diversity and the future of Higher Education. *Metropolitan Universities*, 9(4), Article 4.

Definition of studium generale. (2023). Merriam Webster. https://www.merriam-webster.com/dictionary/studium+generale. Accessed 30 October 2023.

Facer, K. (2011). Learning futures: Education, technology and social change. Routledge.

Folke, C., Hahn, T., Olsson, P., & Norberg, J. (2005). Adaptive governance of Social-Ecological systems. Annual Review of Environment and Resources, 30(1), 441–473. https://doi.org/10.1146/annurev.energy.30.050504.144511.

Fourie, M. (2003). Beyond the ivory tower: Service-learning for sustainable community development. South African Journal of Higher Education, 17(1).

Gee, J. P. (2017). Teaching, learning, literacy in our high-risk high-tech world: A Framework for becoming human. Teachers College. Gerlach, N., & Hamilton, S. N. (2003). Introduction: A history of social science fiction. Science Fiction Studies, 161–173.

Gidley, J. M., Fien, J., Smith, J. A. M., Thomsen, D. C., & Smith, T. F. (2009). Participatory futures methods: Towards adaptability and resilience in climate-vulnerable communities. *Environmental Policy and Governance*, 19(6), 427–440. https://doi. org/10.1002/eet.524.

Hacker, K. (2013). Community-based participatory research Sage publications.

Hall, B. L., & Tandon, R. (2017). Decolonization of knowledge, epistemicide, participatory research and higher education. *Research for all*, 1(1).

Hall, B. L., Jackson, E. T., Tandon, R., Fontan, J. M., & Lall, N. L. (2013). Knowledge, democracy and action: Community-university research partnerships in global perspectives. Manchester University.

Harper, D. (2023a). Study | Etymology, origin and meaning of study by etymonline. https://www.etymonline.com/word/study. Accessed 16 August 2023.

Harper, D. (2023b). Universe Etymology, origin and meaning of universe by etymonline. Online Etymology Dictionary. https://www.etymonline.com/word/universe. Accessed 16 August 2023.

Harper, D. (2023c). University | Etymology, origin and meaning of university by etymonline. Online Etymology Dictionary. https:// www.etymonline.com/word/university. Accessed 16 August 2023.

Howitt, S. M., & Wilson, A. N. (2014). Revisiting is the scientific paper a fraud? *EMBO Reports*, 15(5), 481–484. https://doi.org/10.1002/embr.201338302.

Janssen, M. (2023). Publishing as a Science and as an Art—An Integrative Approach to Knowledge and Creativity in Research. *IEEE Transactions on Technology and Society*, 4(3), 218–225. https://doi.org/10.1109/TTS.2023.3319560.

Kearney, J., Wood, L., & Zuber-Skerritt, O. (2020). Community-university partnerships: Using participatory action learning and action research (PALAR). Gateways: International Journal of Community Research and Engagement, 6, 113–130. https://doi. org/10.3316/informit.914635103911199.

Kezar, A., Chambers, A. C., & Burkhardt, J. C. (2015). Higher education for the Public Good: Emerging voices from a National Movement. Wiley.

Kohl, K., Hopkins, C., Barth, M., Michelsen, G., Dlouhá, J., Razak, D. A., Abidin, B. S. Z., & Toman, I. (2021). A whole-institution approach towards sustainability: A crucial aspect of higher education's individual and collective engagement with the SDGs and beyond. *International Journal of Sustainability in Higher Education*, 23(2), 218–236. https://doi.org/10.1108/ IJSHE-10-2020-0398.

Kolesnykova, T. (2023). Year of sustainability, openness, and new roles: A Ukrainian university library in wartime. *Problems and Perspectives in Management*. https://doi.org/10.21511/ppm.21(2-si).2023.14.

Kurniadi Kurniadi, L., & Rosyidah Rahmah. (2023). Meiliyandrie, & Digital Mapping of Resilience and Academic Skills in the Perspective of Society 5.0 for Higher Education Level Students. *Qeios*. https://doi.org/10.32388/fo9zgo.

Maxey, R. (2015). The rise of the we narrator in modern American fiction. *European Journal of American Studies*, 10(2). https://doi.org/10.4000/ejas.11068.

Mead, T., Mead, T., Pietsch, C., Matthew, V., Godsay, S., Lipkin-Moore, S., Metzger, E., Avdeev, I., Avdeev, I. V., Nancy, J., & Ruzycki (2021). Leveraging a community of practice to Build Faculty Resilience and Support innovations in Teaching during a time of Crisis. *Sustainability*, *13*(18), 10172. https://doi.org/10.3390/su131810172.

Medawar, P. B. (1963). Is the scientific paper a fraud? The Listener, 70(12), 377–378.

Merton, R. K. (1973). The sociology of science: Theoretical and empirical investigations. University of Chicago Press.

Mills, C. W. (2000). The sociological imagination. Oxford University Press.

- Oatly, K. (2005). A Feeling for Fiction. Greater Good. https://greatergood.berkeley.edu/article/item/a\_feeling\_for\_fiction. Accessed 30 October 2023.
- Onyx, J. (2008). University-Community Engagement: What does it mean? Gateways: International Journal of Community Research and Engagement, 1, 90–106.
- Orr, D. W. (2023). Introduction. In D. W. Orr (Ed.), Democracy in a hotter time. The MIT.
- Penfold-Mounce, R., Beer, D., & Burrows, R. (2011). The Wire as social science-fiction? Sociology, 45(1), 152–167.
- Quaye, S. J. (2015). Let us speak: Including students' voices in the Public Good of Higher Education. *Higher education for the Public Good: Emerging voices from a National Movement.* Wiley.
- Reina-Rozo, J. (2021). Art, energy, and technology: The Solarpunk movement. International Journal of Engineering Social Justice and Peace, 8(1), 47–60. https://doi.org/10.24908/ijesjp.v8i1.14292.

Rosenblatt, L. M. (1982). The literary transaction: Evocation and response. *Theory into Practice*, 21(4), 268–277.
Seale, J. (2009). Doing student voice work in higher education: An exploration of the value of participatory methods. *British Educational Research Journal*, 36(6), 995–1015. https://doi.org/10.1080/01411920903342038.

Theall, D. F. (1975). The art of Social-Science Fiction: The ambiguous utopian dialectics of Ursula K. Le Guin. Science Fiction Studies, 256–264.

Tufekci, Z. (2019). The real reason fans hate the last season of Game of Thrones. https://blogs.scientificamerican.com/observations/the-real-reason-fans-hate-the-last-season-of-game-of-thrones/. Accessed 30 October 2023.

Utomo, D. H., Aliman, M., & Aliman, M. (2021). The Meta-Analysis of Climate Resilience Education in Higher Education for Transformation Based on Experiential Learning Models. 11(2), 302–316. https://doi.org/10.33403/rigeo.754200.

Viswanathan, M., Ammerman, A., Eng, E., Garlehner, G., Lohr, K. N., Griffith, D., & Whitener, L. (2004). Community-based participatory research: Assessing the evidence: Summary. AHRQ evidence report summaries.

Wagner, P. (n.d.) (Ed.). (October 2023). University, Speaking. In Us in Flux: Center for Science and the Imagination, Arizona State University https://csi.asu.edu/projects/usinflux/university-speaking/. Accessed 30.

Wallerstein, N. B., & Duran, B. (2006). Using community-based participatory research to address health disparities. *Health Promo*tion Practice, 7(3), 312–323.

Yong, E. (2016). The Wood Wide Web. The Atlantic. https://www.theatlantic.com/science/archive/2016/04/the-wood-wideweb/478224/. Accessed 30 October 2023.

- Zahir, H. M. (2021). Soft skills valued by Maldivian college students as they prepare for lifelong learning, career success, and citizenship. *International Journal of Social Research and Innovation*. https://doi.org/10.55712/ijsri.v5i1.27.
- Zoghbi, M. B. E., Lambrechts, W. D. B. H. M., Lambrechts, W. D. B. H. M., & Lambrechts, W. (2019). The role of Higher Education Institutions in Preparing Youth to manage a sustainability-oriented future workplace. *The Central European Review of Econmics and Management*, 3(3), 107–128. https://doi.org/10.29015/cerem.692.

## **Publisher's Note**

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

O'Gieblyn, M. (2021). God, Human, Animal, machine: Technology, Metaphor, and the search for meaning. Knopf Doubleday Publishing Group.