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Repositioning SoTL toward the T-shaped Community

ABSTRACT

Amongst a range of changes that have taken place within tertiary education, perhaps the most revolutionary has been a shift to student-centred approaches focused on lifelong learning. Accompanying this approach to holistic higher education (HE) has been a growing interest in, and understanding of, the Scholarship of Teaching and Learning (SoTL). SoTL has, at its core, a deep concern with student learning, and is therefore well-aligned with HE's renewed focus on its students. In this conceptual paper, we examine the impact of the 'Tshaped person' which many tertiary institutions are using as a concept to inform and connect the development of students' deep disciplinary knowledge with non-academic and employment readiness skills (such as communication, problem-solving, teamwork, and critical thinking). Importantly, we argue for a repositioning of SoTL to complement and support this model, with SoTL forming both the fulcrum and the fluid, multiple threads of discourse that are intricately entwined around the structure of the T-shaped model. We encourage our colleagues to strive to be T-shaped practitioners, and we cast a vision of a Tshaped community. Here, all stakeholders within HE connect both their academic knowledge and holistic skills in collaborative ways to produce learners who flourish in modern society. The SoTL community plays a pivotal role in achieving this vision and is well-positioned to expand the current notion of SoTL to allow it to play a more holistic, interconnected, central role in HE.

KEYWORDS

Scholarship of Teaching and Learning (SoTL), student connections, learner centeredness, T-shaped model

INTRODUCTION

Historically, universities have been perceived as bedrocks of constancy and tradition; however, in the past half-century, global higher education (HE) has undergone many complex changes. HE faces a very different landscape, with advancements in technology, variations in student populations, and changing requirements within curricula and institutions (Ren, Zhu, and Warner 2017; Wooley 2013). The recent coronavirus (COVID-19) pandemic of 2020 has also forced our institutions into a state of constant change. David and Naidoo (2018), Van der Zwaan (2017), and Zaida and Rust (2016) propose four categories of change: cultural, structural, technological, and ideological. These changes are in response to worldwide trends that include globalization, technology, demographic shifts,

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environmental sustainability, internationalization, decreased economic funding, and increased legal pressure.

In this era of accountability and quality-assessment practices, HE's public standing and purpose in society has been significantly altered (Finkelstein and Jones 2019; Goldstein and Otte 2016). Structural changes include those of student profile/demographics (aging population, non-traditional students, part-time learners, etc.); the explosion of alternatives to four-year degrees (competencies, badges, certificate programs, etc.); the rapid increase of branch or satellite campuses, particularly in Latin America and the Middle East (Cantini 2016); and increased social stratification worldwide. Ideological changes are seen in the corporatization of HE and the application of business models (Altmann and Ebersberger 2013), increasing expectations and demands along with decreasing funds (Finkelstein and Jones 2019), problems with equity and access (Mountford-Zimdars and Harrison 2017), and issues of sustainability and environment. Obvious technological changes focus on mediums of learning, such as online, blended, and massive open online courses (MOOCs), as well as the growth of new disciplines such as integrated intelligence and digital humanities (Aoun 2017). HE also faces increased legal pressures, such as those related to compliance, harassment guidelines, accommodations, unionizations, and governance models (Meeuwse and Mason 2017). Changing fads (the new, shiny object syndrome) influence universities' constant improvements, including strategic management, technological upgrades, minority leadership development, and business practices, all affecting tertiary education in their wake (Altmann and Ebersberger 2013).

Recent international paradigm shifts toward learner-centeredness are pressuring HE to move away from academic-focussed models toward a holistic and life-long learning model, that would enable continued learning and intellectual flexibility over the student's lifetime (David and Naidoo 2018; Zaida and Rust 2016). This new mandate implies that HE must develop graduates with discipline-specific mastery who are also prepared "in terms of knowledge, capabilities, and personal qualities" (Kuh 2008, 2) to take on real-world challenges, including any combination of economic challenges, personal issues, and political transitions. This approach will enable our graduates to thrive in a fast-changing economy and in "turbulent, highly demanding global, societal, and often personal contexts" (Kuh 2008, 2). These learners will adapt to new environments and recognize, collate, apply, synthesize, and integrate knowledge from different sources to continue learning throughout their lives.

To answer this call, one of the most significant areas of focus in today's tertiary education settings is learner-centerd pedagogies and the concern of fostering both employable and civically prepared graduates. HE must recognize the concept of "the essential integration of personal development and learning" (Keeling 2004, 5) in each discipline. Moreover, Goldstein and Otte (2016) note that change is occurring in pedagogy due to the science of learning research. Current research in learning suggests networks and connections need to be made across contexts and retrieved over time for effective learning (David and Naidoo 2018; Joos and Meijdam 2019). In addition, learners fare better when they believe in their ability to succeed (Dweck 2006).

Considering students holistically lets educators provide them with opportunities to take ownership of their learning, and further develop problem-solving mindsets. HE traditionally is concerned with preparing students from an academic perspective; however, preparing students for life's challenges is an emerging theme. In this paper, we present a model that argues that practitioners' movement toward learner-centeredness in HE creates an opportunity to apply SoTL in a new way.

CURRENT POSITION OF SOTL

In a seminal work published in 1990, Boyer proposed expanding the definition of scholarship beyond that of research and envisioned how teaching must prepare students for life-long learning. Although not explicitly referring to it as the scholarship of teaching and learning, Boyer (1990) nonetheless considered teaching and learning as inextricably linked, describing the scholarship of teaching as "a dynamic endeavour" that "builds bridges between the teacher's understanding and the student's learning" (23). Boyer (1990) challenged how academia conceptualized teaching and learning and attempted to redefine the language of teaching by raising the value of excellence within the academy. He argued that "the work of the professor becomes consequential only as it is understood and applied by others" (Boyer 1990, 23). Whilst it begins with what the teacher knows, teaching must "encourage students to be critical, creative thinkers with the capacity to go on learning after their college days are over" (Boyer 1990, 24). Other scholars followed, such as Hutchings and Shulman (1999), who described the scholarship of teaching as having three central features: "of being public, open to critique and evaluation, and in a form that others can build on" (4). Later, they added a fourth attribute, the involvement of inquiry into and investigation of student learning; by way of example, they explained how Carnegie teaching scholars were expected to undertake projects that "not only studied teacher practice, but the character and depth of student learning resulting from that practice" (Hutchings and Shulman 1999, 13). These works moved beyond simply finding ways of improving teaching practice and toward advancing the teaching profession as a whole.

The value and recognition of SoTL in developing students and graduates is subsumed by an institution's ideological understanding of what a learner is and its cultural practices that express this understanding. Poole (2013) observed that SoTL had taken hold in institutions where it began at the grassroots level, in bottom-up rather than top-down scenarios. In an interview in 2013, Shulman envisioned a future where more and more institutions considered SoTL a cultural norm of the university (Center for Engaged Learning 2014). For SoTL to develop into a robust culture, there must be 'buy-in' and support from faculty (Kreber 2013). Booth and Woollacott (2018) argued for not only support from faculty, but, more profoundly, a mindset change that positions SoTL firmly in a student-development framework.

Notwithstanding the ongoing conversations that position SoTL in a variety of ways, the connections between teaching and learning have long been embedded in the SoTL literature. Trigwell, Martin, Benjamin, and Prosser (2000) and others have envisioned SoTL output as a co-construction of knowledge between teachers and students arising from a learning partnership. Trigwell and Shale (2004) proposed that SoTL should reflect what is valued in teaching and student learning, and thus, should consider students as collaborators and partners in learning.

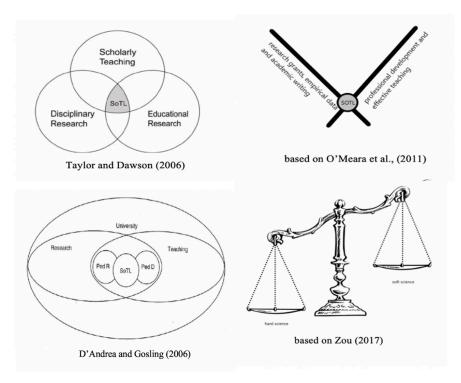
Whilst SoTL has evolved to examine the interrelationships between learning and teaching, there is limited consideration of specific criteria that enable students to develop and flourish holistically within and beyond the academy. Chick, Nowell, and Lenart (2019) conducted a scoping review to assess how SoTL is researched, conceptualized, and portrayed in the literature. The review concluded with the importance of measuring what we know and have, but equally signposting future work toward addressing the real issues within SoTL. Bass (1999) corroborates Chick's views in that his work problematizes SoTL as focused on problem resolution within the classroom. While the classroom

context is important, so too are the developing worlds that students inhabit, and now to which they will need to continue to adapt in the future. The meaning of SoTL varies across subjects, classrooms, institutions, national, and international contexts; however, gaps in the literature remain. Thus, the importance of SoTL in this space between the classroom, the larger university community, and in students' journeys beyond the confines of their degrees still needs to be examined.

SoTL's position and placement in the academic landscape relative to HE research has been the subject of ongoing debate. HE research is defined as "creative and systematic work undertaken in order to increase the stock of knowledge—including knowledge of humankind, culture and society—and to devise new applications of available knowledge" (OECD, section 3).

Some literature describes the difference between HE research and SoTL as the difference between hard and soft science (Zou 2017), therefore completely separating the two ideologies so that they run parallel and never meet. Other researchers have described SoTL as a point of convergence and common purpose between two unique and opposite fields: on the one hand, that of research grants, empirical data, academic writing; and on the other, that of professional scholarship and teaching effectiveness that produce positive outcomes for students (O'Meara, Terosky, and Neumann 2011). There are also suggestions that SoTL and educational research overlap in a variety of contexts; for example, as envisioned by D'Andrea and Gosling (2005) and Taylor and Dawson (2006) (see figure 1).

Figure 1. Various depictions of SoTL vs Educational Research



Here, we propose that learning is a continuum and that SoTL has focused far too long on a particular section of that continuum, narrowly defined by traditional concepts of academic learning.

Eady, Michelle J, Earle Abrahamson, Corinne A. Green, Mayi Arcellana-Panlilio, Lisa J. Hatfield, and Nina Namaste. 2021. "Repositioning SoTL toward the T-shaped Community." *Teaching & Learning Inquiry* 9 no. 1. http://dx.doi.org/10.20343/teachlearningu.9.1.18 Universities worldwide have started to embrace their responsibilities to nourish the whole student (Baxter Magolda 2009; Jayawickreme and Dahill-Brown 2016; Mayes, Cutri, Goslin, and Montero 2016) as well as foster meaningful connections with society (Lehtomäki, Moate, and Posti-Ahokas 2016; Marquis, Guitman, Black, Healey, Matthews, and Dvorakova 2019). Now is the time to question: How might SoTL have systemic power and reach to influence the types of learners and graduates that HE produces and society needs? We urge the field and SoTL community, as agents of change, to better support these renewed, holistic values of tertiary institutions, starting with repositioning themselves in a light of a T-shaped model.

SOTL AND THE T-SHAPED GRADUATE

Synchronous with Boyer's (1990) seminal work, which broadened the definition of scholarship beyond that of research and discovery to include the scholarships of integration, application, and teaching, Guest (1991) coined the term, a "T-shaped person." This term has been used repeatedly in the literature to describe the culmination of academic and non-academic skills in individuals from diverse backgrounds. Since Guest's initial concept was published, there have been many variations of the Tshaped person, including the T-shaped student and the T-shaped graduate. However, what is evident amongst all explanations is the model represented with a vertical stroke denoting discipline knowledge, and a horizontal bar symbolizing cross-domain non-academic skills and attitudes (see figure 2). For instance, T-shaped individuals are well-grounded in theory and practice in their area of study, and they have engaged in reading, completed assignments, practiced their trade, and learned what they need to know about the 'how to' of their field (the vertical stroke). The horizontal bar represents a set of skills that are nuanced by specific expectations yet are non-academic and more personal and social in nature. For the purpose of this paper, we will coin this term 'non-academic life skills.' These include an appreciation for life-skill learning, soft skills such as problem solving, communication, and responsibility (Schulz 2008), transferable skills (that is, those adaptable to more than one context) (Kemp and Seagraves 1995), and generic skills (general, core skills common to most contexts) (Kemp and Seagraves 1995). Vailes (2017) describes these skills as "flourishing," that is, enabling students to recognize their reach and potential. Oliver and Jorre (2019) observe that these skills have more "to do with global citizenship, teamwork and communication, critical thinking and problem solving" (6).

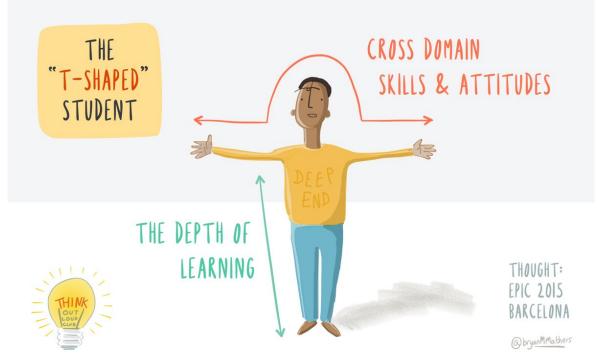


Figure 2. The T-shaped student (Mathers 2015, reproduced with permission)

Regardless of the specific skills, there appears to be consensus in the literature that the T-shaped skills can be learned and developed at the undergraduate level as part of identity development, and that these competencies are critical for preparing graduates for the ever-changing demands of society and the workforce (Conley, Foley, Forman, Denham, and Coleman 2017; Saviano, Polese, Caputo, and Walletzký 2017). For the most part, the responsibility for this development is now being taken up by tertiary institutions (Baik, Larcombe, and Brooker 2019; Cook 2016; Trolian, Archibald, and Jach 2020) and therefore relies on the insitutions' academics and professional staff.

SoTL and the T-shaped practitioner

Conley, Foley, Forman, Denham, and Coleman (2017) emphasize that there must be an open attitude for learning and a stimulating learning environment for a T-shaped curriculum to be developed and a student encouraged to become a T-shaped graduate. This drives tertiary education institutions to be places where students excel academically and non-academically and can communicate, collaborate, problem-solve, and think creatively and critically. Achieving this will require a "change in the kind of knowledge on which education programs should be based" (Saviano, Polese, Caputo, and Walletzký 2017, 9) and the approaches to teaching—and interacting with—students.

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We argue that as institutions recognize the need for developing T-shaped graduates, SoTL plays an increasingly pivotal role in the formation of those graduates, through academic staff members' own orientation toward and development of T-shaped skills, which allow them to, in turn, scaffold and foster their students' T-shaped development (Baik, Larcome, Brooker, Wyn, Allen, Brett, Field, and James 2017; Bell, Giusta, and Fernandez 2015; UOW 2019). An engagement between faculty and students establishes a relationship in which the contribution of each protagonist in the learning process is valued; this could be interpreted as seeing learners as whole beings. SoTL can act as the fulcrum of the 'T,' the epicentre where non-academic life skills and the disciplines in HE converge, at the heart of the matter. Our model (figure 3) illustrates schematically the duality and competing demands that students face within and outside of the learning and learnt environments. SoTL, we argue, is depicted as a fulcrum, with the multiple threads of discourse intricately entwined between the critical components of discipline mastery and non-academic life skills. If positioned correctly, with SoTL in equal parts on the 'T,' it can be used to better understand the personal journeys students travel in developing non-academic life skills while applying themselves academically. Our T-shaped model suggests that instead of SoTL being conceptualized as being distinct from HE research (see figure 1), it is seen as an integral part of developing the T-shaped student (see figure 2).

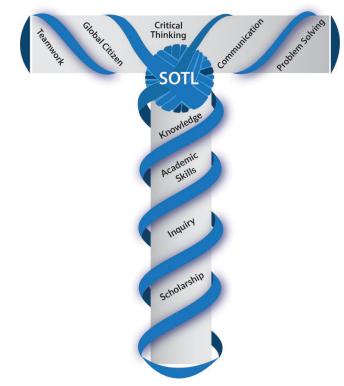


Figure 3. Our proposed repositioning of SoTL with the T-Shaped Model

TOWARD A T-SHAPED COMMUNITY

Up to this point, HE has focused on the learners' disciplinary experiences, the content, the acquisition of knowledge, and mastery (Meeuwse and Mason 2017). If we make developing a T-shaped graduate and fostering T-shaped practitioners to take pride in this work the focus of our work in HE,

then where we situate SoTL changes. With this new position of SoTL, we expand our vision, as suggested by others to equally prioritize the human side of learning (Hogan, Chamorro-Premuzic, and Kaiser 2013; Norman 2018; Tang 2019): the person, their prior and cultural experiences, the social skills needed to be employable, soft skills and attitudes, and understanding the learner as a growing and developing person.

In positioning SoTL as this fulcrum and fluid threads of discourse, we create a differing identity for the value, reach, and impact of SoTL research and practice within and beyond institutional contexts. Historically, for example, wellness centers and counselling services on university campuses have supported the wellbeing of university students, building non-academic life skills for students on a selfnominated basis. We see a role for T-shaped university staff to take action and leadership in advocating for a T-shaped approach to teaching, resulting in cultivation of these skills through SoTL and their integration into teaching and research. Learning spaces thus become venues for their refinement and application. We see SoTL as a means for HE institutions to escape traditional didactic pedagogical practices of filling students' minds with academic knowledge, and to fully realize their vision of developing T-shaped graduates who are ready for an unknown future and who will have the skills to continue to create and strengthen T-shaped communities. In a practical, enacted sense, SoTL provides educators with opportunities to improve their practices, benefit students, and generate evidence and evaluation of practices that are effective in fostering learning – something that is closely aligned with the desires of many contemporary educators. The foundational principles and characteristics that underpin SoTL as a discipline—its person-centred, holistic, and contextualized nature—are the reason why we believe the SoTL community is ready and equipped for this work.

As we argue in this paper, SoTL is represented by a fulcrum that is situated equally between academic and non-academic skills with fluid threads of discourse interweaving the T-shaped model. SoTL seeks to understand student learning, with a broad understanding of both 'student' and 'learning' (Chick, Nowell, and Lenart 2019; Felten 2013). 'Student', for instance, could refer to undergraduate students in a particular cohort, post-graduate researchers, or the faculty members themselves. Students need to be subjects and partners in their learning, as the SoTL literature about student partnerships attests (Healey, Flint, and Harrington 2014). Faculty members must also be subjects and partners in their own learning, and engaging in SoTL research projects can provide an avenue for this (Mercer-Mapstone and Kuchel 2016). SoTL as the fulcrum that allows for the lifelong T-shaped learner to flourish must apply to both students and faculty members. In this way, we become a T-shaped community, with all members of the HE community involved in emulating and working toward both subject mastery in the vertical stroke of the T and the transferable skills of the horizontal bar. Intentionally and authentically expanding the student-centered focus of SoTL poses a unique opportunity, and essential step, in building a T-shaped community.

Student-focused

At the heart of SoTL is a focus on students: student learning, student engagement, students as partners (Felten 2013). As Kreber (2013) writes, "engaging in the Scholarship of Teaching and Learning authentically means to be motivated by a duty and commitment to serve the important interests of students" (p. 7). By engaging in research that is "rooted in particular classroom, disciplinary, institutional and cultural contexts" (Felten 2013, 122–23), SoTL enables faculty to "make recommendations in response to their specific situation that are attuned to the needs of those in that

environment" (Blair 2013, 128–29). The inherent student-centered learning of SoTL work "allows for a more individualized and authentic understanding of individuals" (Blair 2013, 128) and is necessarily highly contextual and concerned with the situations and learners with whom the SoTL researchers are interacting (Blair 2013; Felten 2013). This learner-centered approach is a key strength of SoTL, and central to creating T-shaped learners and building a T-shaped community.

Not only is SoTL work fundamentally concerned with understanding learners and their learning, but it is also committed to working with students to conduct these inquiries. One of Felten's (2013) five principles of good practice in SoTL is that the work is "conducted in partnership with students" (123). Increasingly, students are partnering with faculty members to lead research, guide policy, and enhance teaching and learning experiences (Fanghanel, Pritchard, Potter, and Wisker 2016). As Mercer-Mapstone and Matthews (2017) discuss, students and faculty members are thereby positioned "as co-teachers, co-inquirers, curriculum co-creators, and co-learners across all facets of the educational enterprise" (p. 2). Research indicates that embedding students as partners will lead to increased motivation, self-awareness, and leadership in the learning process for both students and faculty members (Cook-Sather and Abbot 2016; Mercer-Mapstone and Matthews 2017). Importantly, student engagement with this process will promote a greater understanding of the dynamics of learning journeys in and through the corridors of HE (Healey, Flint, and Harrington 2014; Mercer-Mapstone and Kuchel 2016).

Students as partners

The SoTL practice of engaging students as partners in their own learning can have profound impacts on the T-shaped community, and aligns with the goals of modern universities to develop students who are proactive problem-solvers (Cook-Sather and Abbot 2016; Fanghanel et al. 2016). For example, engaging in SoTL with students as partners can promote student engagement and inclusion within HE settings and increase students' agency in and ownership of their own learning experiences (Cook-Sather and Abbot 2016; Fanghanel, Pritchard, Potter, and Wisker 2016). Cook-Sather and Abbot (2016) describe the transformative capacity of working with students as partners in teaching and learning collaborations.

Through the Students as Learners and Teachers (SaLT) program, undergraduate students were employed as consultants to faculty members, observing and providing feedback on their teaching practices. Cook-Sather and Abbot, who themselves participated in the SaLT program as a faculty member and student consultant, respectively, found that the program led students and faculty members to be "more informed... more confident, and more capable of risking and undertaking a wider range of forms of communication and practice" (7). They report that the students involved felt empowered and had an increased sense of ownership of their own learning, while the faculty members became overtly aware of the impact of their pedagogy and teaching practices.

By involving students in SoTL in significant ways, a student-centered approach can be implemented even more authentically and holistically. Furthermore, via a more holistic, inclusive, and intertwined T-shaped SoTL that includes faculty members as learners, everyone can be an active participant in co-creating a more intentionally T-shaped community. 'Learning' encompasses "not only disciplinary knowledge or skill development, but also the cultivation of attitudes or habits that connect to learning" (Felten 2013, 122), including the transferable skills that HE institutions are seeking to develop in their graduates (Fanghanel, Pritchard, Potter, and Wisker 2016; Mercer-Mapstone and

Kuchel 2016). Institutions need to make the most of faculty learning and SoTL as an important path toward T-shaped educators. Currently, our SoTL studies often treat learning as an identifiable, concrete, discrete subject that happens in particular time frames, locations, and spaces; nevertheless, learning does not happen in a vacuum, and constructivist learning theories assert that knowledge is a shared creation (Swan 2005). According to Hutchings, Borin, Keesing-Styles, Martin, Michael, Scharff, Simkins, and Ismail (2013), one of the key principles of SoTL is that "it begins with faculty members' questions about their own students' learning, whether that be in their own classes or in a larger program of study" (38). In so doing, SoTL "promotes a research approach to practice" (Fanghanel, Pritchard, Potter, and Wisker 2016, 6) that can have far-reaching impacts on an educator's pedagogy and practices, and by consequence faculty and student learning and development.

Shaping non-academic life skills

The context-driven nature of SoTL research allows academics to "tell the story of their particular situation" (Blair 2013, 127) while integrating the findings of many scholars to "see the things that are common to many areas of practice" (Blair 2013, 127). For instance, Mercer-Mapstone and Kuchel's (2016) tutorial activities "scaffold the explicit teaching and learning of science communication" (2) skills into an existing science program. By making their SoTL research public, and providing all resources upon request, not only have Mercer-Mapstone and Kuchel helped their own students to develop communication skills, but their publication also enables other educators to learn from their experiences and implement similar approaches with their own student cohorts. Thus, engaging in SoTL research can enable faculty to identify an ongoing and intentional integration of non-academic life skills while also teaching their discipline content.

Professional development

SoTL could, potentially, be a unique faculty-development tool that looks at learning occurring in and out of the classroom, as well as helps faculty develop their own collaborative, cooperative, inclusive, and intercultural skills. For instance, research has shown that faculty members affect students' learning, via particular pedagogies, but it is often assumed, or at least not openly discussed, that as researchers, we cannot be impartial observers of learning (Chick 2013). The field of anthropology has addressed the issue of the assumed or implied unbiased-observer role by developing self-awareness that includes an analysis of the positionality of the researcher (Jackson 2006). SoTL too, would benefit from a more inclusive, expansive, and self-aware writing style (see Behari-Leak 2020; Chng and Mårtensson 2020; Felten, Bagg, Bumbry, Hill, Hornsby, Pratt, and Weller 2013) to produce a deep, broad, and meaningful understanding of the complex learning processes we seek to uncover. To do so, the social science model of "acceptable" (and therefore publishable) SoTL research studies with discrete, rote sections (methods, results, discussion, etc.) must be expanded and, more varied methods, analysis, and even writing styles must be actively invited, as Chick (2013) and others suggest.

Collaborative opportunities

Communities grounded in strong and inclusive collaborative relationships (Smale and Hilbrecht 2016) are vital in SoTL, and the T-shaped community can and should amplify such relationships. As Poole (2013) argues, they enable SoTL researchers to collaborate with scholars outside of their own

fields of expertise in pursuit of a common question regarding teaching and learning, with a "useful sharing of responsibility for research outcomes" (p. 140). Robinson, Gresalfi, Sievert, Kearns, Christensen, and Zolan (2013) discuss the value of multidisciplinarity in SoTL in the context of a graduate student seminar on teaching and learning that brought together students and faculty from four disciplines. Important critiques have been made, including that humanities scholars have had to abandon their disciplinary identities and instead take up social-science approaches to be accepted within the SoTL field (Chick 2013; Potter and Wuetherick 2015). Although, there is a growing recognition of the importance of collaborative research, the notion lingers that systems in place in HE reward the single-authored, solo, cult to individual intellect, particularly in promotion decisions (Finkelstein and Jones 2019). Notwithstanding, individuals can embrace their disciplinary perspectives while also engaging in interdisciplinary projects and cross the present artificial borders and boundaries. For far too long academic work has been confined to disciplinary silos; in contrast, T-shaped practitioners entertain a lifelong, holistic curiosity about how to improve their teaching, research, and practice. The SoTL community has been "founded, and is still largely perceived as, an interdisciplinary and inclusive field of scholarship" (Potter and Wuetherick 2015, 13), and a more T-shaped notion of SoTL can ensure that interdisciplinarity and inclusivity flourish within HE.

Developing the whole student

SoTL, in the era of borderless learning, needs to move beyond the classroom environment and engage others who are also working on developing the whole student. This necessitates a systemic cultural change that intentionally positions classroom learning in an entirely different context, such as that of student life organizations, to create authentic learning experiences. This movement toward a T-shaped community brings the staff who have expertise in transferable skills into the scholarship fold.

Importantly, SoTL can be a reminder of the inherent worthiness of teaching and learning. Educators are constantly tasked to do more with less (resources, time, etc.), burnout and overcommitment are common, and apathy or "I'm too busy" are used as self-defence mechanisms (Finkelstein and Jones 2019). In a profession constantly in flux, demanding frenetic adaptation at a pace to increasing new demands, the T-shaped community that is anchored in and employs SoTL practices has the possibility of offering different solutions. We can reclaim meaning and purpose in what we do, and demonstrate that what we do matters, to both our own and our students' learning. Even as interdisiplinarity continues to present challenges, the SoTL community frequently builds bridges and crosses disciplinary boundaries (Hutchings, Borin, Keesing-Styles, Martin, Michael, Scharff, Simkins, and Ismail 2013; Poole 2013). This approach will be crucial in the complex development of a T-shaped community where the whole student, as well as the whole educator, can develop the depth and breadth of their understanding *and* skillsets.

Opportunities in a T-shaped community

Returning to the cultural, structural, technological, and ideological changes in HE (David and Naidoo 2018; Zaida and Rust 2016), two areas that provide particular opportunities for SoTL in developing a T-shaped community are technology and the ideological movement in accountability. HE has been immersed in both, but the Coronavirus (COVID-19) pandemic of 2020 brought both technology and accountability more to the forefront as institutions quickly moved online, and then

transitioned from emergency remote teaching toward more effective online practices (*Chronicle of Higher Education* 2020).

Technology

To accommodate the needs of a T-shaped student, HE must adapt to the reality of diverse demographics and an internationalized economy, which is indeed a challenge (Støren and Aamodt 2010). HE understands that graduates will be more globally connected than ever (Cantini 2016; Westover 2017). A recent report from the United Kingdom (Allen, Seaman, Roulin, and Staut 2016) reiterated the international trend in HE, as well as increased use of technology, the evolving professoriate, and the changing undergraduate population and curriculum.

As the UK report attests, one of the greatest areas of change in HE in the past three decades has been the use of technology. According to Muller, Gradel, Deane, Forte, McCabe, Pickett, Piokowski, Scalzo, and Sullivan (2019), the number of students registered in online degree programs has been growing steadily, and institutions have been increasing their online course and program offerings. In the northern autumn of 2016, 31.6% of all students at US institutions completed at least one online course, and over 3 million completed all of their courses online (Allen, Seaman, Roulin, and Staut 2016). In a 2015 survey, 77% of chief academic officers at institutions with online offerings agreed that online learning is "a critical component of their long-term strategy" (Allen, Seaman, Roulin, and Staut 2016, 5). In a similar survey of chief academic officers from 2017, 83% of the respondents indicated that they plan to expand online offerings within the next year (Jaschik and Lederman 2018). While online learning is not new, in recent years, it has moved in from the periphery of HE to become a central component of institutional strategies for increasing student enrolment, retention, reach, and completion. In times of crisis, remote learning can become *the* only means by which teaching and learning survive and continue (Coughlan and Goff 2019).

Joos and Meijdam (2019) suggest that the top 13 technology trends affecting HE overlap in three domains: enrichment of teaching and learning, incorporation of flexibility in education, and adaptive learning. Whilst technology in HE has been growing, so has the need to educate students for employment in a technology-rich environment. Aoun (2017), for example, proposes an educational framework that prepares graduates to fill the needs of society that even the most sophisticated computer cannot; that is, to make students "robot-proof." He identifies artificial intelligence as the single most important threat to the white-collar jobs most of our graduates take up. If universities do not embrace lifelong learning and flexibility of thought, if they do not strive to develop those human traits of resilience and cooperation that will always give humans the advantage, then they will have failed in their obligation.

Since Boyer (1990) asked the academy to consider interdisciplinary work, the application of knowledge in authentic contexts, and teaching itself as constituting scholarship, much has changed in the traditional ways learners are taught and what is considered valuable. The importance of authentic contexts is echoed in works by Lane (2015) and Kuh (2008), who argue that HE needs to band together with other stakeholders, including the surrounding social communities, to address concerns that affect peoples' lives. Change, Lane (2015) argues, needs to be collective and adaptive. We concur with Lane, and suggest that SoTL could be the vehicle for this inexorable integration of technology with teaching and learning (see Hubball, Pearson, and Clarke 2013; Cochrane and Narayan 2018).

Accountable teaching and learning practices

The concept of T-shaped academics building a T-shaped community aligns with the rising interest in accountability in the HE sector. Addressing this issue of accountability could potentially rescue the public's erosion of the value of HE. As Hutchings, Borin, Keesing-Styles, Martin, Michael, Scharff, Simkins, and Ismail (2013) suggest, SoTL and accountability measures can be complementary:

SoTL can contribute to what is, or should be, the central goal of accountability: ensuring and improving the quality of student learning. The accountability movement, for its part, can provide a new context for integrating and valuing SoTL as a force for positive change on campuses and beyond (36).

Trigwell's (2013) study found that there is a valid connection between SoTL practices and student learning: "The teachers who adopt scholarly, inquiring, reflecting, peer-reviewing, student-centred approaches to teaching are likely to be achieving the purpose of improving student learning" (p. 102). This repositioning of SoTL collectively and collaboratively can support progress toward creating T-shaped communities.

CONCLUSION

Traditionally, SoTL has examined the learned experiences of students and faculties; therefore, our theoretical framework proposes an expanded notion of T-shaped learner practitioners and a community in which SoTL forms the unifying fluid multiple threads of discourse. We acknowledge that this paper has presented the conceptualization of the framework, and we invite readers to process this discussion and think of what a T-shaped model means for their own process, practice, and implementation. For example, faculty members who teach and analyze reflection skills could reach out to and work with residence-life staff or campus counsellors who lead discussions about identity, inclusivity, etc. that require students to tap into self-awareness and engage in deep, critical reflection. Editors may author an introductory preface section of published papers that describes and analyzes the positionality of the researcher. This work could suggest that academics can function not only to expand their field or discipline, but also to invent or develop tools that allow faculty members to actively apply the skills to be a T-shaped practitioner. In future scholarly publications we will continue the evolution of the framework and present practicalities of integrating the T-shaped SoTL framework into HE.

ACKNOWLEDGMENTS

The authors would like to thank Katherine Forney for her generosity of spirit and work in creating the visual form of our proposed repositioning of SoTL with the T-Shaped Model (figure 3). The authors would like to acknowledge that this paper is the result of an International Collaborative Writing Group (ICWG) organized through the International Society for the Scholarship of Teaching and Learning (ISSOTL). We would like to thank ISSOTL and the ICWG co-facilitators Phillip Motely, Lauren Scharff, and Aysha Divan for their ongoing leadership and support.

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