Seale, J., King, L., Jorgensen, M., Havel, A., Asuncion, J, & Fichten, C. (2020). Engaging ignored stakeholders of higher education accessibility practice: Analysing the experiences of an international network of practitioners and researchers. Journal of Enabling Technologies, 14(1), 15-29. Retrieved from https://doi.org/10.1108/JET-08-2019-0040

Engaging ignored stakeholders of higher education accessibility practice: analysing the experiences of an international network of practitioners and researchers

Jane Seale, Laura King, Mary Jorgensen, Alice Havel, Jennison Asuncion and Catherine Fichten

Abstract

Purpose – The purpose of this paper is to examine and critique current approaches of higher education (*HE*) community concerning stakeholder engagement in the development of information and communications technology (*ICT*) related accessibility practice.

Design/methodology/approach – The approach taken to this examination is to draw on presentations, panel discussions and World Café reflections from an international symposium held in Montreal where researchers and practitioners debated two key questions as follows: have all the relevant stakeholders really been identified? Are there some stakeholders that the HE community has ignored? And what factors influence successfully distributed ownership of the accessibility mission within HE institutions?

Findings – A number of "new" internal and external stakeholders are identified and it is argued that if they are to be successfully engaged, effort needs to be invested in addressing power imbalances and developing opportunities for successful strategic silo-crossing.

Originality/value – The value of this paper is in critiquing the argument that all stakeholders in the development of accessible ICT in HE need to be involved, identifying a gap in the argument with respect to whether all relevant stakeholders have actually been engaged and offering insights into this omission might be rectified.

Keywords Higher education, ICT, Accessibility, Stakeholders, Students, Disabilities **Paper type** Conceptual paper

Introduction

The focus of this paper is students with disabilities, information and communications technology (ICT) and the accessibility practices developed within higher education (HE) institutions to support students with disabilities in their use of ICT. Disability is defined broadly to include physical, sensory, mobility, psychological, medical and cognitive disabilities. It is acknowledged that disabilities show substantial variation in terms of their experiences and abilities. In particular, the focus is on those students with disabilities who meet the regular admissions requirements of HE institutions; these encompass post-secondary technical schools or colleges (that offer certificate programmes) and universities. It is widely agreed that students with disabilities in HE are less likely than students without disabilities to stay enrolled, earn higher degrees within prescribed time and secure employment (Mamiseishvili and Koch, 2012). ICT is defined broadly to include classroom and online learning (both distance and blended learning); assistive

Jane Seale is based at Faculty of Wellness, Education and Language Studies, Open University, Milton Keynes, UK. Laura King is based at Department of Psychology, Adaptech Research Network, Dawson College, Montreal, Canada and Department of Languages, Cégep André-Laurendeau, Montreal, Canada. Mary Jorgensen and Alice Havel are both based at Department of Psychology, Adaptech Research Network, Dawson College, Montreal, Canada. Jennison Asuncion is based at Department of Psychology, Adaptech Research Network, Dawson College, Montreal, Canada and LinkedIn. Catherine Fichten is based at Department of Psychology, Adaptech Research Network, Dawson College, Montreal, Canada and Department of Psychiatry, McGill University, Montreal, Canada.

Received 28 August 2019 Revised 12 January 2020 14 February 2020 Accepted 25 February 2020 technologies such as screen-readers; general use technologies such as tablets; social and networking applications such as Facebook and specific application technologies such as statistics packages.

The research and practice literature generally agrees that while students with disabilities can benefit from ICT, they can also be disadvantaged by ICT in a number of ways. Students with disabilities can experience discrimination when institutions expect them to use inaccessible ICTs as part of their studies or fail to use potentially supportive ICTs (Asuncion *et al.*, 2009; Fichten *et al.*, 2014; Kent *et al.*, 2018). In addition, we know that the majority of university and college websites in the USA and worldwide that are tested for accessibility have many faults and that this inaccessibility persists over time (Seale, 2014; Kimmons, 2017). This is despite the fact that accessibility standards exist and many countries have disability discrimination legislation in place that directly or indirectly requires educational institutions to address how their use of technologies mediates disadvantages for their students with disabilities (Seale, 2006, 2014). Unsurprisingly, this situation has led to repeated calls for HE institutions to improve their ICT accessibility related practices. To respond to such a call, HE institutions need to identify, which staff (stakeholders) need to be responsible for improving accessibility practice.

Several of the authors of this paper are partners in a Leverhulme Trust funded International Network called Ed-ICT. Partners from the USA, Canada, the UK, Germany and Israel have met on five occasions over the past three years to seek ways in which research can inform practice (and vice versa) so that the disadvantages that students with disabilities experience can be reduced or better still, eliminated. A central premise of the Ed-ICT International Network is that the community needs to develop a critical approach to developing accessibility-related practice. Such criticality includes problematizing the current approach to stakeholder engagement in the development of ICT related accessibility practices in HE.

The higher education approach to stakeholder engagement in developing information and communications technology related accessibility practice

There is general agreement in the accessibility community that all stakeholders need to be involved in the development of ICT related accessibility practices within HE institutions (Policy Connect, 2018). For example, German practitioners, Fisseler and Schaten (2010, p. 4046) draw on their own experiences of trying to improve accessibility as sole stakeholders (learning technologists) to conclude that it is not possible to achieve fully accessible learning experiences without the "concerted effort of all stakeholders at universities working together". There is also some agreement as to who all those stakeholders are or should be. In 2006, Seale reviewed accessibility research and practice over the previous decade and concluded that too much focus had been placed on lecturers and their assumed responsibility to respond to accessibility-related legislation and guidelines (e.g. Americans with Disabilities Act and Web content accessibility guidelines). She argued that lecturers did not operate in a vacuum within HE institutions. She, therefore, proposed six main stakeholder groups in her contextualized model of accessibility practice, namely, students with disabilities, lecturers (faculty), learning technologists (e-learning professionals), student support services (e.g. access technologists and disability officers), staff developers and senior managers (e.g. deans and vice-chancellors).

In reviewing the literature that discusses the actual or potential contribution of different stakeholders (Seale, 2006, 2014; Sieben-Schneider and Hamilton-Brodie, 2016; Vermette *et al.*, 2016) a wide range of roles and expertize have been identified. Some of these are stakeholder specific: for example, awareness of assistive technology (student support), teaching and learning services (faculty support) or knowledge of technical specifications (learning technologist). For other roles there is an assumption of joint expertize: for example, awareness of students with disabilities' skills, needs and barriers and

supporting others. Sanchez-Rodriguez and LoGiudice (2018) argue that implementing accessibility-related organizational change is a strenuous process and suggest that when stakeholders work together they can share the burden. The USA based example they give is of a librarian and a director of disability services fostering a "dynamic partnership" through "close professional bonds" to develop a more inclusive library environment for students with disabilities. Taking this further, Bohman (2007) advocated a distributed model of expertize, where not all the stakeholders need to have technical expertize, but noted that key people must be knowledgeable within their area of responsibility to prevent inaccessible practices.

Alongside the argument that stakeholders should have shared or distributed expertize is the claim that there has been a tendency for some stakeholders to rely on others to take responsibility for leading change in accessibility and digital inclusion practices. For example, in a survey of disability service providers faculty and e-learning professionals in Canada, Asuncion *et al.* (2010) found that campus disability service providers were most likely to believe that problems related to the accessibility of e-learning were their responsibility and e-learning professionals were least likely to claim responsibility. Observing the UK practice, JISC (2006) and Mariger (2011) both noted that there had been a tendency to rely on disability officers and support services to take the main responsibility for accessibility. JISC (2006) suggest that this is unhelpful because it fails to recognize the significant contributions that well-informed staff such as tutors, librarians and technicians can make. JISC (2006, p. 2), therefore, concluded that "accessibility needs to be owned by all staff as a part of the mainstream culture".

From the literature presented here, it is clear that the importance of engaging all stakeholders in developing accessibility practices is not a new idea. Researchers have been arguing this for over 10 years. However, given that in 2020 students with disabilities are still experiencing significant accessibility-related disadvantages and that researchers are still claiming that one solution to this is the involvement of all stakeholders, the time is right to critique this position and examine some important questions, such as:

- *Q1.* Have all the relevant stakeholders really been identified? Are there some stakeholders that the HE community has ignored?
- *Q2.* What factors influence successful distributed ownership of the accessibility mission within HE institutions?

These are some of the questions that the second meeting of the Ed-ICT International Network addressed in Montreal in June 2017. A range of stakeholders including students with disabilities, faculty, researchers, ICT companies and AT/access service providers were brought together. This paper will draw on presentations and panel discussions reflections from this symposium to discuss our response to these questions and the implications these answers have for future accessibility research and practice.

Methods

The Ed-ICT International network has held five symposia over the past three years to seek ways in which research can inform practice (and vice versa) in the field so that the disadvantage that disabled learners experience can be reduced or better still eliminated (Table I).

For each symposium a range of stakeholders including disabled students, faculty, researchers, ICT companies and AT/access service providers were invited to participate and contribute. For the purposes of this paper we will present information drawn from the second symposium in Montreal, where the sole focus was stakeholder perspectives (Jorgensen *et al.*, 2018a).

Table I Data collection sites	3	
Date	Location	Theme
14-15th March 2017 30-31st May 2017 13-14th March 2018 16-17th October 2018 11-12th June 2019	Seattle, Washington Montreal, Canada Tel Aviv, Israel Hagen, Germany Milton Keynes, UK	Effective models and frameworks New stakeholder perspectives New designs New Practices for effective transition New solutions

Participants

There were a total of 45 participants at the Montreal symposium, namely, 13 international (the UK, Germany, Israel and the USA) and 32 Canadian. The local Canadian participants were recruited using both purposive (trying to ensure a range of stakeholder roles were represented) and convenience sampling methods (e.g. contacting stakeholders known to either the core network members or the host university). The Canadian stakeholders present at the symposium included: students with disabilities and disability service providers; faculty; faculty with disabilities; access technologists; campus information technology staff; senior institutional managers; researchers; professionals responsible for faculty/staff development; representatives of community organizations; and education lawyers and librarians.

Procedure

During the two-day symposium stakeholder perspectives were identified and discussed through a range of keynote presentations and panel discussions[1]. For the keynote presentations Jennison Asuncion, drew on his experience as a senior engineer at LinkedIn to discuss what HE institutions could learn from industry to make education more digitally accessible. While Alaina Beaver described how her institution had engaged a range of stakeholders to respond to an American department of justice (DOJ) complaint regarding the inaccessibility of information and communication technology. There were three-panel discussions. In the first panel, five international researcher/practitioners representing Canada, The USA, Germany, Israel and the UK gave accounts, from their national perspective; regarding, namely, the challenges faced in engaging stakeholders, stakeholders that are difficult to engage, strategies used to engage stakeholders and the stakeholders they were currently working with. In the second panel, five Canadian practitioners (pedagogical counsellor, technical product manager, faculty, librarian and a coordinator of a non-profit organization) considered the barriers and facilitators to disabled students accessible technology; what they and their colleagues could do to make technology more accessible and what their institutions could do to help them stay involved or become more involved as a stakeholder. In the third panel, six students with disabilities discussed the barriers they had encountered in using technology effectively, which stakeholders had helped them use technology and which stakeholders they thought should be involved in making technology accessible for disabled students. All participants were aware that their presentations and discussions would be summarized, analysed and shared within and outside the network as part of the core aim of the international network to develop new research insights into how practice in this field might be improved.

Data analysis

A two-step process was used to distill key issues and themes from the Montreal symposium presentations and discussions. The first step took place during the symposium and used the World Café technique[2] to engage participants in a reflective analysis of what had been debated during the two days. In this activity, the network leader, drawing on the

presentations that had taken place, produced five position statements that participants were asked to respond to in small group discussions: it is not possible to engage disabled students who choose not to disclose their access needs; all stakeholders are equal, but some are more equal than others; distributed ownership of the accessibility mission is a pipe-dream; and we need to stop complaining about how unresponsive some of our stakeholders are and instead try to empathize with them and walk in their shoes and we need to engage senior managers. Responses to these statements were captured visually on flipcharts and then discussed and recorded in feedback sessions. During feedback sessions, areas of agreement (key themes) were identified. After the symposium, the second step in analysis involved the authors undertaking a connecting analysis (Maxwell and Miller, 2008) to identify relationships that tied the themes identified in the presentations, panel discussions and World Café together into a narrative.

Results and discussion

Our two-stage analysis process revealed the following narrative:

- 1. Not all the relevant stakeholders have been engaged.
- 2. To engage all relevant stakeholders, the community will need to engage in silo-crossing and address differences between stakeholders in power and status.

In this section, we will illuminate this narrative by drawing on presentations, panel discussions and World Café reflections from the Montreal Ed-ICT symposium; linking to relevant international literature and discussing the implications for future accessibility research and practice.

Not all the relevant stakeholders have been engaged

Although not writing in the context of ICT, Bumble et al. (2019, p. 30) argue that:

A cross section of stakeholders from both within and beyond a given campus community could be helpful in identifying the constellation of resources and partnerships needed to translate an initial vision into an actual program [of action].

Analysis of discussions held at the Montreal Ed-ICT symposium suggest that a number of relevant but currently ignored stakeholders, from both outside and inside HE, need to be engaged to ensure successful development of ICT related accessibility practices.

Ignored non higher education stakeholders

All the stakeholders identified, so far, in this paper are internal to HE institutions. There is a lack of acknowledgement, however, that there are a host of stakeholders outside the institution that have an important role to play in ensuring that students with disabilities have access to ICTs. Montreal symposium participants argued that external stakeholders frequently excluded from discussion include: administrators at the state and national levels who make policy and budget decisions; commercial technology companies; commercial assistive technology assessment, provision and training companies; education publishers; legal experts; professionals that support students with disabilities before they transition to HE such as school teachers and support workers; and professionals that support students with disabilities with the transition to employment or further education such as career advisors and employers and, finally, parents.

In his keynote speech, Asuncion (2017) argued that digital vendors in the private sector face the same accessibility challenges as HE institutions, and therefore, HE institutions might benefit from learning together with them how best to develop accessibility practice. Asuncion (2017) offers one example of how HE institutions might collaborate with

commercial technology companies to improve accessibility-related practice – an initiative called technology access, which is a collection of post-HE institutions and technical companies with a common goal to ensure that students have basic information on accessibility when they graduate and pursue a career in product development. Collectives such as these will only work if each party understands the concerns of the other. Asuncion (2017) suggests that to understand the concerns of commercial technology companies (e.g. how to marry accessibility with security or how to ensure accessibility when products are being released at a very rapid rate), staff in HE need to "walk in the shoes" of the digital vendors.

Disabled students at the Montreal symposium reported that prior to entering HE, their parents had been a great support in terms of advocating for them regarding their access needs, sourcing new helpful ICTs and teaching them how to use the ICT (Jorgensen et al., 2018a). Whether parents should be stakeholders once their children with disabilities enter HE is worthy of further discussion and research. For example, to what extent would bringing parents into the stakeholder network deny the independence and agency of students with disabilities or usefully strengthen their "digital social capital" (Seale, 2013) by extending their support network beyond support workers, lecturers and friends. The nature of parental influence and support may vary depending on factors such as geographic or cultural differences. For example, results from a UK study conducted by Seale et al. (2015) suggest that family and parents have a mixed influence on students with disabilities' use of technology within HE. Under half of the students with disabilities in their survey indicated that their family had a very positive attitude to technology and encouraged them to use it (67 out of 153; 43.8 per cent). A third of respondents indicated that their family had a neutral attitude (48 out of 153; 31.4 per cent), while a small percentage reported that their family had a negative influence (4 out of 153; 2.6 per cent). Further, under half of respondents indicated that their family response to technology influenced their own technology use or experience (67 out of 152; 44.1 per cent).

Ignored higher education stakeholders

Montreal symposium participants argued that a range of stakeholders within HE are rarely acknowledged, including procurement services; centralized services that do not interface with students such as legal departments, governing bodies and communication teams; peer experts; students without disabilities; and students who do not disclose their disability and staff with disabilities.

Procurement services. Asuncion (2017) highlights that those working in procurement departments within HE were a "huge potential ally". He suggests that procurement services should hold dedicated accessibility sessions and set up a process by which a list of potential vendors is narrowed down, accessibility issues are addressed with the remaining vendors and then accessibility is stated in the contract. Asuncion (2017) points out that of course price would still be a primary determinant in the deal but this at least brings accessibility to the forefront.

Centralized services. Beaver (2017) from the University of Boulder gives an overview of how her institution responded to an American DOJ complaint regarding the inaccessibility of information and communication technology (Beaver, 2017; Sieben-Schneider and Hamilton-Brodie, 2016). To resolve the investigation and build an infrastructure supportive of the ongoing accessibility of ICT, a number of stakeholders were assembled. In addition to procurement services, other high profile but frequently ignored stakeholders such as the ADA office, general counsel and university communications were engaged in responding to the DOJ. Sieben–Schneider and Hamilton–Brodie contended that each of these departments have a role in ICT service delivery or accessibility and that the inclusion of these stakeholder departments was necessary in responding to the DOJ, the overall remediation efforts and the creation of a system to manage future digital accessibility

needs. It is not unusual for "big gun" stakeholders such as these to be required to put out the fire and react to legal threats such as a DOJ complaint. However, what is more unusual is for them to be proactive and involved in shaping accessibility practice from the start through the governance (policy and legal) structures of their institutions. Some accessibility models have suggested the need for senior management with governance responsibilities to be at the core of a HE institution's accessibility practice. For example, the European based EU4ALL model was extended to include a model of professionalism in accessibility, which could potentially help structure the direction of an organization and offer a way for an institution to benchmark the quality of its approach to accessibility (Montandon *et al.*, 2010; McAndrew *et al.*, 2012). These include the existence of strong legal frameworks and the development of accessibility policies; both activities where an ADA Office, General Counsel or equivalent would probably take the lead.

Beaver (2017) highlights how fundamental stakeholders for the University of Boulder included external partners from other HE institutions who had either dealt with a DOJ investigation or had excelled in the field of accessibility of digital technologies. Beaver calls this a "peer-experts model" and argues that knowledge of the wider accessibility community is of central importance and that perspectives from stakeholders who are not part of the project itself can provide vital feedback. With the increased marketization of HE across the globe, there is an increased competitiveness amongst universities as they vie for greater student enrolments and higher positions in the league tables. The extent to which these drivers might influence institutions to collaborate and share accessibility expertize or to "close the doors" to gain market or public relations advantage, may be worthy of further investigation.

Students without disabilities. While students are an acknowledged stakeholder, this usually refers to students with disabilities, 19, that students without disabilities could also be useful allies and stakeholders. Firstly, because some of their needs overlap with those of students with disabilities and if they added their voices in advocating for change, it might increase the probability of it happening.

Arguing along similar lines, but not in the context of ICT, Everett and Oswald (2018) explore how involving students without disabilities in the design of an inclusive curriculum might improve the learning experience of their peers with disabilities. One ICT related example is a study conducted by the adaptech research network (Jorgensen *et al.*, 2018b) that looked at Canadian students' perceptions of their lecturers' use of PowerPoint. To develop a comprehensive questionnaire, focus groups were held with students, lecturers and student support services (disability support officers, assistive technologist and learning strategists). The majority of student support service providers and students who participated in the focus groups, and the students who answered the questionnaire (n = 284, of whom 75 had disabilities), wanted their lecturers to provide timely online access to their PowerPoints, before the lecture is the ideal time as opposed to afterward. Some also mentioned the need for PowerPoints to be accessible across various platforms, including mobile technologies. These results were equally true for students with and without disabilities.

Secondly, there is evidence to suggest that one of the first sources of support that students with disabilities turn to for ICT relation help is friends from the same course or residence hall-i.e. friends who do not necessarily have a disability (for example, the UK study conducted by Seale *et al.*, 2015). While it was not particularly clear whether they were referring to peers with or without disabilities, students with disabilities at the Montreal Symposium talked about how having students who have used the same technology teach other students is ideal because they can explain from a users' perspective and in less technical terms than a professor or assistive technologist (Jorgensen *et al.*, 2018a).

Students with disabilities who do not disclose their disability. In her opening address to the Montreal symposium, Seale (2017b) argued that students with disabilities who do not

disclose their disability to the HE institution constitute a stakeholder group that needs to be engaged. The literature on disclosure reveals that many students with disabilities feel unable or reluctant to disclose and ask for the accommodations they need, which has implications for their access to ICT. For example, findings show that in Canada over 50 per cent of students with disabilities did not disclose their disability (Fichten et al., 2018). Prominent among those who had not done so were students with non-visible disabilities such as attention deficit hyperactivity disorder, mental illness and chronic medical conditions. One significant reason why students with disabilities choose not to disclose is a fear of being labelled and stigmatized as being different or deficient (Stein, 2013; Nolan et al., 2015; Osborne, 2019). This fear is often borne out of personal experience of negative attitudes towards disability and a lack of understanding of access needs (Ryan, 2007; Denhart, 2008) and can result in students with disabilities not being able to receive the accommodations that they need (Evans, 2014; Nolan et al., 2015). One potential way to encourage students with disabilities to disclose is to support them to develop their selfadvocacy skills. For example, in a US study, Hsiao et al. (2018) describe how a music major student with disabilities collaborated with faculty members, peer tutors and access service specialists to reach joint decisions on accommodations. With support, the student moved from being afraid to disclose her needs for fear of stigmatism to being comfortable speaking up for herself. Seale (2017c), on the other hand, has argued for collective, rather than individual self-advocacy; her proposition being that students with disabilities can be a great help in further mobilizing the grassroots movement. Often, accessibility issues are left on the shoulders of individual students. Instead, there may be value in helping students move forward as a group, creating a coalition to advocate for accessibility. However, in an interview study with 59 US students with disabilities, Kimball et al. (2016) found that their participants tended towards individual rather than collective action. Interestingly they also found that their participants learnt their self-advocacy skills from their parents, thus reinforcing the suggestion that parents are a key stakeholder group. In addition, individual activism took many forms including providing role models for other students with disabilities and encouraging others to self-advocate. Further research into ICT related self-advocacy would help to illuminate why there might be a tendency towards individual rather than collective action and also what are the perspectives of students with disabilities regarding the potential roles they might take. For example, one useful strand of work could be to try and replicate the study of Salaj and Kiš-Glavaš (2017), who used the Q-method with 15 students with disabilities studying at the University of Zagreb in Croatia. Factor analysis revealed three different perspectives or positions that the students took with regard to their role in influencing policy at their institution:

- 1. Silent and passive actors (actors that need to be strengthened and educated for action).
- 2. Influential actors (actors who have the knowledge, advocacy skills, motivation and a certain degree of power to influence others).
- 3. Isolated actors (actors who have lost motivation for action and have little power).

Are students with disabilities who rely on ICT to support their learning likely to adopt one position more than another? Does the sustained and prolonged inaccessibility of ICTs mean that students with disabilities who rely on ICT are more likely to have lost motivation for action?

Notwithstanding differences of opinion regarding individual or collective self-advocacy, we acknowledge that the call for higher-levels of self-advocacy amongst students with disabilities is also likely to divide the disability and ICT community depending on what position they take regarding universal design (Jorgensen *et al.*, 2018a). Like participants of the Montreal Ed-ICT symposium, some members of the community are likely to argue that if universal design is implemented then there should be diminished need for students with

disabilities to have to disclose their disability and self-advocate for their needs to be met. Self-advocacy should not have to replace good practices and support. Others may argue that universal design does not guarantee accessibility and some students might need "customization" to meet their needs. Therefore, if students with disabilities did not self-advocate, they would not get the resources they need to resolve the accessibility issues that they encounter. Interestingly, results from a systematic literature review conducted by Schreffler *et al.* (2019) suggest that implementing universal design can increase levels of self-advocacy for students with a disability (although this is only based on one paper out of four that were included in the review).

Given the potential divergence of views, more research is needed to collect the evidence that self-advocacy initiatives do actually elicit a genuine transformational response from HE institutions. A second priority for research and practice is the need to design, develop and evaluate student voice initiatives that are specifically aimed at engaging students with disabilities in ICT and accessibility policy transformation (Redpath *et al.*, 2013).

Higher education staff with disabilities. At the Montreal symposium, Seale (2017b) also argued that it would seem logical that creating an inclusive environment for students with disabilities would also involve the need to recognize and support staff with disabilities within HE. If staff with disabilities are successfully engaged in the accessibility enterprise of an institution, they might be able to act as role models; to show students with disabilities that it is possible to succeed in HE. Staff with disabilities might also demonstrate best teaching practices to their peers (Anderson, 2006; Higbee and Mitchel, 2009). Furthermore, students with disabilities may be more inclined to use ICTs if they saw more staff with disabilities in their institutions successfully using assistive technology to support their teaching and research activities. Significant barriers to the engagement of staff with disabilities as key stakeholders exist however. Although there is very little research devoted to understanding the experiences of staff with disabilities (including graduate students), their stories tell of difficulties in preserving jobs and having to manage without accommodations (Abram, 2003; Damiani and Harbour, 2015). Furthermore, many staff with disabilities, just like students with disabilities, do not disclose their disability for fear of being treated differently. It would seem, therefore, necessary to investigate this issue in more detail and, in particular, to test the assumption that staff with disabilities can or even want to advocate for students with disabilities.

Factors that influence successful distributed ownership of the accessibility mission within higher education institutions

The Montreal Ed-ICT symposium participants have identified a number of the relevant stakeholders that are currently not engaged or are less engaged, in developing accessibility practice in HE. If they are to be successfully engaged in the accessibility mission, HE institutions will need to be aware of what factors influence the engagement of current stakeholders. In total, two factors that Montreal symposium participants identified as potentially influencing the successful distribution of ownership for the accessibility mission are "silo-crossing" and differences in power and status (National Educational Association for Disabled Students, 2018).

Silo-crossing

In her Montreal symposium key-note speech, Beaver (2017) argued that one key component of a successful model, which ensures accessible ICT is strategic silo-crossing. She defined this as ensuring that the same stakeholders have roles on different executive teams. Beaver argued that this helps foster new relationships among stakeholders, ensuring that stakeholders will have the motivation to work collaboratively. Silo-crossing might also help diffuse the "blame game" because the different stakeholders are aware of

the responsibilities assigned to each stakeholder. In a similar vein, drawing on the community of practice theory (Wenger, 1998), Seale (2006) identified the importance of "brokers" who create connections between different communities or stakeholder groups. The job of brokering is a complex one, involving processes of translation, co-ordination and alignment between perspectives. Brokers need to have legitimacy so that they can influence the development of practice, be able to link practices by facilitating the transaction between them and be secure in living on the boundaries of different stakeholder practices. Within the accessible e-learning community, there are examples of different stakeholder groups taking on an obvious brokerage role. The two most notable examples are that of disability officers (staff working within student support services who have expert knowledge of disability and/or technology such as access technologists) and staff developers (including educational developers). Disability officers are a natural choice for the role of broker in that they have a history of providing a focal point for disability issues by raising awareness throughout an institution; acting as a "broker between the student and the relevant department" and facilitating academic staff to take on board the role of supporting students with disabilities (Seale, 2006).

Some evidence suggests, however, that silo or boundary crossing between different stakeholder groups can be difficult. For example, Behling and Linder (2017) identified difficulties in collaborations between access services and staff developers. These included time and logistics, faculty-related challenges, competing priorities, changing the campus culture, funding issues and limited resources. Examples of competing priorities included "speaking different languages" when it came to privileging "reasonable accommodations" over universal design or vice versa.

Differences in power and status

In the fields of inclusive education and widening participation, there is a generally accepted argument that power structures within HE institutions silence the voices of students with disabilities, deny their experiences of inequalities, and therefore, oppress them (Luna, 2009; Beauchamp-Pryor, 2012). HE institutions use their power to oppress in a variety of ways including:

- "labelling" practices that mark them out as different and deficient, therefore, denying or ignoring any alternative identity that students with disabilities might have claimed for themselves or
- refusing to make reasonable adjustments or change their pedagogical practices so that all students can participate in and benefit from the learning experience (Seale, 2017b).

Issues of power and oppression are, therefore, at the heart of debates around how best to engage one particular stakeholder – students with disabilities. It is rarely acknowledged, however, that other stakeholders might also experience differences in power, and therefore, be oppressed in the sense that they are less able to bring about change. It is, therefore, noteworthy that Montreal symposium participants identified that one significant barrier to collective ownership of the accessibility mission is that in addition to disabled students, other stakeholders also have less status and power than others. These implications for the extent to which they can voice their own views and have a say in the decisions being made; advocate for others (e.g. students with disabilities) and cross silos or stakeholder practice boundaries.

This imbalance in power might be real or it might be perceived. Either way, it can hinder the development of accessibility practice (Jorgensen *et al.*, 2018a). For example, faculty are often claimed to be more powerful than students and service providers. Conversely, administrators tend to be positioned as being more powerful than staff. Seale (2017b)

argued that some student support staff, including assistive or access technologists, experience a lack of perceived power. This means that when they advocate for students with disabilities, they may not be listened to. There may be two reasons for this, namely, one is that their roles are poorly understood, and therefore, they have low visibility, the second is that they may be stigmatized by their association with students with disabilities (Thompson, 2009; Johnson, 2009).

One potential risk of the "power-identification game" is that it might unhelpfully focus attention towards blaming stakeholders for abusing their power to maintain the status quo, rather than illuminating what might need to happen for power to flow across the whole collective of stakeholders.

Conclusion

In this paper, we have argued that the HE community approach to stakeholder engagement in the development of ICT related accessibility practices needs to be critically examined. Drawing on data derived from a two-day symposium held in Montreal we take the first step towards this critical examination.

Our analysis identified a number of ignored or invisible stakeholders and suggested that their involvement might enhance the effectiveness of accessibility practice. One way this might be done is through "strategic silo-crossing". For example, staff in procurement services could potentially broker connections between students, lecturers, legal representatives and technology companies; legal representatives could broker connections between lecturers and managers who have a responsibility for policy development and staff with disabilities could broker connections between faculty and students with disabilities. To institutionalize and legitimize these brokering activities institutional policies and strategies will need to be put in place to ensure that training and resources are available to brokers, regular ways for brokers to interact are established and all accessibility-related professionals have diverse skill sets so that they can understand and communicate effectively with brokers (and other stakeholders).

Bringing these new stakeholders into the HE accessibility community, however, will not necessarily be successful unless existing stakeholders address both current power imbalances and potentially new power imbalances that may be created by engaging new stakeholders. To address such power imbalances it will probably be necessary for the HE institutions to acknowledge and engage in the arguments rehearsed in the disability studies literature that when students with disabilities experience inaccessible ICT, they are experiencing a form of oppression.

Members of the HE accessibility community frequently express a token agreement to the value of engaging *all* stakeholders. This paper contributes to knowledge by suggesting that this commonly identified solution is more complex than those who pay "lip service" care or dare to realize.

Further research is needed with wider representation from the accessibility community to extend our critical examination of stakeholder engagement in the development of accessibility practice in HE. For example, using action research or participatory action research methods, detailed case studies of a range of universities could be undertaken to compare and contrast different approaches taken to engaging stakeholders and the impact of these approaches on the eventual outcome. Within Europe, one potential driver that might persuade institutions to undertake an action research project of the kind we have proposed is the EU's directive on the "accessibility of public websites and mobile applications", which came into effect in September 2018 and which requires public sector organizations such as universities to ensure their websites and mobile apps meet common accessibility standards.

Acknowledgment

This paper is based on a study supported by The Leverhulme Trust (Grant Number IN-2016-018) and by the Social Sciences and Humanities Research Council (Grant # 611-2016-0657). Any opinions, findings and conclusions or recommendations expressed in this material are those of the paper authors and do not necessarily reflect the views of the funders.

Notes

- 1. Full presentations can be accessed from: http://ed-ict.com/workshops/montreal/programme/
- 2. www.theworldcafe.com/key-concepts-resources/world-cafe-method/

References

Abram, S. (2003), "The Americans with disabilities act in higher education: the plight of disabled faculty", *Journal of Law and Education*, Vol. 32, pp. 1-19.

Anderson, R.C. (2006), "Teaching (with) disability: pedagogies of lived experience", *The Review of Education, Pedagogy, and Cultural Studies*, Vol. 28 Nos 3/4, pp. 367-379.

Asuncion, J. (2017), "What can be learned from industry for making post-secondary education more digitally accessible?", Paper presented at the 2nd ED-ICT International Network Symposium, Montreal.

Asuncion, J. Draffan, E.A. Guinance, E.P. and Thompson, T. (2009), "International comparison on accessible technology in higher education", *ATHEN E-Journal*, *4*, available at: https://athenpro.org/node/ 87 (accessed 28th August 2019).

Asuncion, J.V., Fichten, C.S., Chwojka, C., Barile, M., Nguyen, M.N. and Wolforth, J. (2010), "Multiple perspectives on the accessibility of e-learning in Canadian colleges and universities", *Assistive Technology*, Vol. 22 No. 4, pp. 187-199.

Beauchamp-Pryor, K. (2012), "Changes in the political and policy response towards disabled students in the British higher education system: a journey towards inclusion", *Scandinavian Journal of Disability Research*, Vol. 14 No. 3, pp. 254-269.

Beaver, A. (2017), "Creating a culture of sustainable accessibility: stakeholders, models, and methods of change", Paper presented at the 2nd ED-ICT International Network Symposium, Montreal, available at: http://ed-ict.com/workshops/montreal/programme/ (accessed 28th August 2019).

Behling, K. and Linder, K.E. (2017), "Collaborations between centers for teaching and learning and offices of disability services: current partnerships and perceived challenges", *Journal of Postsecondary Education and Disability*, Vol. 30, pp. 5-15.

Bohman, P. (2007), "Cultivating and maintaining web accessibility expertise and institutional support in higher education", *ATHEN E-Journal, 2*, available at: http://athenpro.org/node/55 (accessed 28th August 2019).

Bumble, J.L., Carter, E.W., Bethume, L.K., Day, T. and McMillan, E.D. (2019), "Community conversations on inclusive higher education for students with intellectual disability", *Career Development and Transition for Exceptional Individuals*, Vol. 42 No. 1, pp. 29-42.

Damiani, M.L. and Harbour, W.S. (2015), "Being the wizard behind the curtain: teaching experiences of graduate teaching assistants with disabilities at US universities", *Innovative Higher Education*, Vol. 40 No. 5, pp. 399-413.

Denhart, H. (2008), "Deconstructing barriers: perceptions of students labelled with learning disabilities in higher education", *Journal of Learning Disabilities*, Vol. 41 No. 6, pp. 483-497.

Evans, W. (2014), "'I am not a dyslexic person I'm a person with dyslexia': identity constructions of dyslexia among students in nurse education", *Journal of Advanced Nursing*, Vol. 70 No. 2, pp. 360-372.

Everett, S. and Oswald, G. (2018), "Engaging and training students in the development of inclusive learning materials for their peers", *Teaching in Higher Education*, Vol. 23 No. 7, pp. 802-817.

Fichten, C.S., Asuncion, J. and Scapin, R. (2014), "Digital technology, learning, and postsecondary students with disabilities: where we've been and where we're going?", *Journal of Postsecondary Education and Disability*, Vol. 27, pp. 369-379.

Fichten, C.S., Havel, A., King, L., Jorgensen, M., Budd, J., Asuncion, J., Nguyen, M.N., Amsel, R. and Marcil, E. (2018), "Are you in or out? Students who register for disability-related services in junior/ community colleges versus those who do not", *Journal of Education and Human Development*, Vol. 7, pp. 166-175.

Fisseler, B. and Schaten, M. (2010), "Implementing universal accessibility in faculty's e-learning", *Proceedings of ED-MEDIA 2010 – World Conference on Educational Multimedia, Hypermedia & Telecommunications, Toronto, Canada,* Association for the Advancement of Computing in Education, *Waynesville, NC*, pp. 4040-4047.

Higbee, J.L. and Mitchel, A.A. (Eds) (2009), *Making Good on the Promise: Student Affairs Professionals with Disabilities*, University Press of America, Lanham.

Hsiao, F., Zeiser, S., Nuss, D. and Hatschek, K. (2018), "Developing effective academic accommodations in higher education: A collaborative decision-making", *International Journal of Music Education*, Vol. 36 No. 2, pp. 244-258.

JISC (2006), "TechDis senior management briefing 2: accessibility in the mainstream- roles and responsibilities", available at: www.jisctechdis.ac.uk/assets/Documents/learnersmatter/SMT2.pdf (accessed October 2006).

Johnson, M.J. (2009), "Assistive technologists in higher education", *ATHEN E-Journal*, 4, available at: https://athenpro.org/node/89 (accessed 28th August 2019).

Jorgensen, M. Fichten, C.S. King, L. and Havel, A. (2018a), "Proceedings of the Ed-ICT international network Montreal symposium: stakeholder perspectives", Adaptech Research Network. Montreal. Retrieved from ERIC database. (ED580147).

Jorgensen, M., Havel, A., King, L., Fichten, C., Lussier, A., Harvison, M. and Vo, C. (2018b), "The power of PowerPoint: student, teacher and professional perspectives", *Presentation at 7th Annual Supporting Active Learning and Technological Innovation in the Studies of Education (SALTISE) Conference, Montreal, Québec.*

Kent, M., Ellis, K. and Giles, M. (2018), "Students with disabilities and eLearning in Australia: experiences of accessibility and disclosure at Curtin university", *TechTrends*, Vol. 62 No. 6, pp. 654-663.

Kimball, E.W., Moore, A., Vaccaro, A., Troiano, P.F. and Newman, B.M. (2016), "College students with disabilities redefine activism: self-advocacy, storytelling and collective action", *Journal of Diversity in Higher Education*, Vol. 9 No. 3, pp. 245-260.

Kimmons, R. (2017), "Open to all? Nationwide evaluation of high-priority web accessibility considerations among higher education web-sites", *Journal of Computing in Higher Education*, Vol. 29 No. 3, pp. 434-450.

Luna, L. (2009), "But how can those students make it here?': examining the institutional discourse about what it means to be 'LD' at an ivy league university", *International Journal of Inclusive Education*, Vol. 13 No. 2, pp. 157-178.

McAndrew, P., Farrow, R. and Cooper, M. (2012), "Adapting online learning resources for all: planning for professionalism in accessibility", *Research in Learning Technology*, Vol. 20, pp. 345-361.

Mamiseishvili, K. and Koch, L.C. (2012), "Students with disabilities at 2-year institutions in the United States: factors related to success", *Community College Review*, Vol. 40 No. 4, pp. 20-339.

Mariger, H.A. (2011), "The social validation of institutional indicators to promote system-wide web accessibility in post-secondary institutions", Doctoral dissertation, available at: http://digitalcommons. usu.edu/etd/903 (accessed 28th August 2019).

Maxwell, J.A. and Miller, B.A. (2008), "Categorising and connecting strategies in qualitative data analysis", in Leavy, P. and Hesse-Biber, S.N. (Eds), *Handbook of Emergent Methods*, Guildford Press, New York, NY.

Montandon, L., Arjona, M. and Weiermair, C. (2010), "How to promote the adoption of an open framework to make lifelong learning accessible to all?", *Proceedings of the EADTU Annual Conference 2010: Strategies and Business Models for Lifelong Learning/Networking Conference*, EADTU, Maastricht, pp. 272-290.

National Educational Association for Disabled Students (2018), "Landscape of accessibility and accommodation in HE for students with disabilities", available at: www.neads.ca/en/about/media/ AccessibilityandAccommodation2018-5landscapereport.pdf (accessed 28th August 2019). Nolan, C., Gleeson, C., Treanor, D. and Madigan, S. (2015), "Higher education students registered with disability services and practice educators: issues and concerns for professional placements", *International Journal of Inclusive Education*, Vol. 19 No. 5, pp. 487-502.

Osborne, T. (2019), "Not lazy, not faking: teaching and learning experiences of university students with disabilities", *Disability & Society*, Vol. 34 No. 2, pp. 228-252, doi: 10.1080/09687599.2018.1515724.

Policy Connect (2018), "Accessible virtual learning environments: making the most of the new regulations", available at: www.policyconnect.org.uk/sites/site_pc/files/report/1134/fieldreportdownload/ appgatreport09-18final.pdf (accessed 28th August 2019).

Redpath, J., Kearney, P., Nicholl, P., Mulvenna, M., Wallace, J. and Martin, S. (2013), "A qualitative study of the lived experiences of disabled post-transition students in higher education institutions in Northern Ireland", *Studies in Higher Education*, Vol. 38 No. 9, pp. 1334-1350.

Ryan, J. (2007), "Learning disabilities in Australian universities: hidden, ignored, and unwelcome", *Journal of Learning Disabilities*, Vol. 40 No. 5, pp. 436-442.

Salaj, I. and Kiš-Glavaš, L. (2017), "Perceptions of students with disabilities regarding their role in the implementation of education policy: a Q method study", *Hrvatska Revija za Rehabilitacijska Istraživanja*, Vol. 53, pp. 47-62.

Sanchez-Rodriguez, N.A. and LoGiudice, J. (2018), "Building bridges: fostering dynamic partnerships between the library department and office of student disability services in higher education", *Journal of Access Services*, Vol. 15 No. 4, pp. 142-160.

Schreffler, J., Vasquez, E., Chini, J. and James, W. (2019), "Universal design for learning in postsecondary STEM education for students with disabilities: a systematic literature review", *International Journal of STEM Education*, Vol. 6 No. 1, available at: https://stemeducationjournal.springeropen.com/articles/10.1186/s40594-019-0161-8 (accessed 28th August 2019).

Seale, J. (2006), *E-Learning and Disability in Higher Education: Accessibility Theory and Practice*, 1st ed., Routledge, Oxford.

Seale, J. (2013), "When digital capital is not enough: reconsidering the digital lives of disabled university students", *Learning, Media and Technology*, Vol. 38 No. 3, pp. 256-269.

Seale, J. (2014), *E-Learning and Disability in Higher Education: Accessibility Theory and Practice*, 2nd ed., Routledge, New York, NY.

Seale, J. (2017b), "Issues of stakeholder engagement: who are the stakeholders of disability and ICT related practice in post-secondary education and how can they be effectively engaged?", Unpublished manuscript, available at: http://ed-ict.com/wp-content/uploads/2017/05/Seale_Ed_ICT_paper_Montreal_21052017.pdf (accessed 28th August 2019).

Seale, J. (2017c), "From the voice of a 'socratic gadfly': a call for more academic activism in the researching of disability in post-secondary education", *European Journal of Special Needs Education*, Vol. 32 No. 1, pp. 153-169.

Seale, J., Georgeson, J., Mamas, C. and Swain, J. (2015), "Not the right kind of 'digital capital'? An examination of the complex relationship between students with disabilities, their technologies and higher education institutions", *Computers & Education*, Vol. 82, pp. 118-128.

Sieben-Schneider, J.A. and Hamilton-Brodie, V.A. (2016), "Doing the right thing: one university's approach to digital accessibility", *Journal of Postsecondary Education and Disability*, Vol. 29, pp. 221-230.

Stein, K.F. (2013), "DSS and accommodations in higher education: perceptions of students with psychological difficulties", *Journal of Postsecondary Education and Disability*, Vol. 26, pp. 145-161.

Thompson, T. (2009), "Careers in accessible technology in higher education: salaries; qualifications and responsibilities", *ATHEN E-Journal*, Vol. 4, available at: https://athenpro.org/node/88 (accessed 28 August 2019).

Vermette, L.A., Gruber, J. and Gareau-Wilson, N. (2016), "A proactive post-HE approach to accessibility legislation", *Communiqué*, Vol. 17, pp. 35-36.

Wenger, E. (1998), *Communities of Practice: Learning, Meaning and Identity*, Cambridge University Press, Cambridge.

Further reading

Seale, J. (2017a), "What models, approaches or frameworks exist in the field of disability, ICT and HE; are they successful in transforming the support and delivery of ICT for students with disabilities or do we need new ones?", Presentation at 1st Ed-ICT International Symposium, Seattle, available at: http://ed-ict.com/wp-content/uploads/2017/03/Seale_Ed_ICT_paper_03032017.pdf (accessed 28th August 2019).

Corresponding author

Jane Seale can be contacted at: jane.seale@open.ac.uk

For instructions on how to order reprints of this article, please visit our website: www.emeraldgrouppublishing.com/licensing/reprints.htm Or contact us for further details: permissions@emeraldinsight.com