King, L., Burgstahler, S., Fisseler, B., & Kaspi-Tsahor, D. (2020). New perspectives on stakeholders: Who needs to step up to the plate and how? In J. Seale (Ed.), Improving accessible digital practices in higher education – Challenges and new practices for inclusion (pp. 73-94). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-37125-8

CHAPTER 4

New Perspectives on Stakeholders: Who Needs to Step Up to the Plate and How?

Laura King, Sheryl Burgstahler, Björn Fisseler, and Dana Kaspi-Tsahor

Abstract The focus of this chapter is those practitioners (stakeholders) operating in the field of Information and Communication Technology (ICT), disability and higher education who have a potentially important role to play in developing and implementing ICT-related practices that can facilitate positive learning experiences for students with disabilities in higher education. In order to examine the contribution that these stakeholders can make (both individually and collectively), this chapter will describe two case examples of what is considered to be effective practice in engaging all the relevant stakeholders; identify those stakeholders who tend to avoid engage-

L. King (✉)
Cégep André-Laurendeau and Adaptech Research Network, Montreal, QC, Canada
e-mail: lauraeking@sympatico.ca

S. Burgstahler
University of Washington, Seattle, WA, USA

B. Fisseler
FernUniversität, Hagen, Germany

D. Kaspi-Tsahor
The Open University, Ra'anana, Israel

© The Author(s) 2020

J. Seale (ed.), *Improving Accessible Digital Practices in Higher Education*, https://doi.org/10.1007/978-3-030-37125-8_4

ment; examine how new and existing stakeholders might be effectively engaged in developing effective accessibility and ICT-related practice and discuss the implications for future research and practice.

Keywords ICT • Disability • Higher education • Accessibility • Stakeholders • Organizational learning

An Overarching Framework for Examining Stakeholders' Roles

Influenced by Seale's (2006) argument that metaphors can be useful conceptual tools for exploring the future of accessible e-learning, we will employ a base-ball metaphor to emphasize the points we are making, where the players in a base-ball match are equated with the stakeholders in developing accessible ICT-related practice in higher education (HE). Base-ball is generally played on a grass field and in order to win a game, a base-ball team needs some players who can hit a ball with a bat, some who can run fast around a circuit, some who can catch a ball and some who can throw a ball with accuracy. A team might jeopardize their chances of winning if they don't 'maintain a deep bench' and have players available who possess all of these skills. Furthermore, the players need to be willing to 'step up to the plate' and do their bit for the good of the team. Using this base-ball metaphor the argument that we will develop is that all relevant stakeholders need to be identified and engaged (getting everyone on the field, so that there is more than one player capable of holding the ball), but at the moment this is not happening because not all stakeholders are taking responsibility for accessibility issues (they are dropping the ball). Successful engagement of all stakeholders will require maintaining a deep bench through: proactive targeting of key stakeholders; engaging ignored stakeholders and creating new stakeholder roles.

Getting Everyone on the Field: More Than One Player Needs to Hold the Ball

Many stakeholders need to use their unique positions to promote the procurement, development and use of accessible Information Technologies (IT) on their campuses in order to achieve systematic change in these areas

(Burgstahler, 2015). Unfortunately, some people in powerful stakeholder positions actually inhibit progress by dropping the ball in this area. For example, administrators and policy makers have the power to set policy and allocate funds toward practices that improve the availability of accessible ICT, but may not understand or do not put the same high priority on accessibility as they do on security and other IT issues.

As beneficiaries, individuals with disabilities can push for access to assistive technology (AT) and accessibly designed mainstream technology but most do not self-identify as disabled and therefore do not push. As for those who do self-identify, many do not ask for accessible IT because of limited awareness or lack of self-advocacy skills (to see how this situation might be improved, see Chap. 6, for a case study of how the Disabilities, Opportunities, Internetworking and Technology (DO-IT) Center at the University of Washington (UW) prepares high school and college students for this type of advocacy for themselves and others).

Disability services staff may embrace helping students with disabilities registered in their office to gain access to AT and remediated ICT, such as videos and documents. However, many tend to rely on an accommodation approach, resulting in little infrastructure change with respect to the accessibility of mainstream technology. One reason for such reliance is that they have not achieved effective collaborative relationships with the appropriate staff in the central ICT unit.

Technology staff have high technical skills that could be used to make accessible IT available to more people and may also have access to a large pool of funds. Despite this, they may not view accessibility to be their job and can be difficult to convince that they must change their workflow to address accessibility at each stage.

Procurement personnel may be in a position to encourage units to build accessibility into contracts with vendors, but are not necessarily enthusiastic to add more rules. In addition, if they are on a campus where ICT decisions are made within campus units, they do not know what is purchased by these campus units. Even if they did, they may not be versed on how to evaluate products for accessibility or how to establish a collaborative relationship with the campus ICT unit which has this expertise.

Faculty have a high level of interest in student success overall but many do not feel it is their job to handle issues related to the accessibility of ICT, even when it comes to the inaccessibility of the videos and documents they create. Instead, many feel that it is up to the disability services to take care of accessibility issues, thus promoting the accommodations model for delivering services. Some professors also do not have the expertise or the

time to implement accessibility practices regarding the procurement or development of the digital technology they include in their teaching.

Finally, the technology industry could make the work of HE institutions easier if they sold and licensed products that were designed to be accessible to individuals with disabilities. For most IT companies though, this is not the case because they are unaware of accessibility requirements at educational institutions, they consider the market too small to be concerned about, they do not know how to design accessible products and/or they do not receive enough complaints from institutions who buy their products.

What Might Be Considered To Be Effective Practice in Engaging All the Relevant Stakeholders?

One example, that we suggest represents effective practice in engaging all the relevant stakeholders (getting all the players on the field), is that provided by the University of Boulder, who in response to legal claims of discrimination, approached digital accessibility for those with disabilities using a project management model (Sieben-Schneider & Hamilton-Brodie, 2016). Both internal and external stakeholders participated in a process that included identifying clear objectives and measurable outcomes, as well as effective communication practices such as having the same stakeholder hold roles on several different committees. Three components were identified as being key to ensuring the accessibility of digital technologies within an institution: having a chief digital accessibility officer, ensuring representation on governance, policy and standard committees, and creating new positions within the offices of communication and technology to allow for validation and testing. Lessons learned included the importance of commitment from senior managers, active engagement of individuals with disabilities, transparent communication, as well as a help line (accessible by phone or in person) to report issues and get help. In the end, it was determined that to achieve success, stakeholders needed to recognize that, although they each had a clear sense of their responsibilities, they needed to work within a sustainable system (e.g., create a plan for digital accessibility which includes short-term goals, leadership and an opportunity for institution growth), they also had to work together (Sieben-Schneider & Hamilton-Brodie, 2016).

A second example is that provided by the University of Washington in Seattle. It has engaged in accessible IT efforts since 1984. That year, they

began to officially offer central consulting services dedicated to the support of faculty, students and staff who use desktop computers; this group embraced disability-related accessibility issues and made it part of their consulting responsibility. Over many years, the group has developed a model for policies and practices in this regard that engage key stakeholder groups (University of Washington, n.d.). Key stakeholders that play a leadership role within the organizational structure include: The IT Accessibility Coordinator, an Accessible IT Task Force, an IT Accessibility Team and IT Accessibility Liaisons.

The IT Accessibility Coordinator, who is also the director of Accessible Technology Services (ATS) within the central IT unit at the University, leads IT accessibility efforts. The Accessible IT Task Force includes representatives from key stakeholder groups that, besides Accessible Technology Services, include disability support services, Americans with Disabilities Act (ADA) compliance, procurement services, online learning and IT staff who maintain UW's central online resources and templates. Members meet monthly to discuss campus-wide efforts currently taking place, determine others that they or colleagues can implement and make recommendations to high level administrators within annual reports. Finally, more than 100 IT Accessibility Liaisons who are volunteer staff, faculty and students have agreed to the following: promoting accessible IT in their units, learning more about accessible IT through training (most notably that Information Services (IS) offered at three half-day liaison meetings per year) and engaging in an online community of practice.

Practices that result from these stakeholder engagement and leadership initiatives include training on the development of accessible videos, documents and websites as well as accessibility training integrated within existing IT courses and consulting. There are also presentations to departments and other units on campus, negotiation of contracts for a web accessibility checker, software to convert documents to more accessible formats, an add-on to our learning management system that offers guidance to faculty teaching online and that captions videos. There is a showroom of AT and ergonomic furniture for testing and use and consultation services for the following areas: disability support services, procurement, the teaching and learning center, and other units with respect to IT. In addition, ATS offers incentives that promote the use of accessible IT. For example, ATS has a pool of funds to which faculty and staff can apply for free captioning of high impact videos: they address an important need, they are usually public-facing and they are viewed by many people. Finally, they also rec-

ognize units for work well done with IT Accessibility Capacity Building Awards.

Lessons learned at the UW that might benefit other campuses who seek to promote the procurement, development and use of accessible IT include: creating a leadership structure; engaging key stakeholders; undertaking both top-down and bottom-up efforts; crafting clear policies and procedures that rest on the vision and values of the institution. Other key lessons include ensuring a broad commitment to inclusive practices in all campus offerings, supporting a core highly skilled group that energizes others to promote the cause, providing a rich set of resources online, delivering training and support tailored to different audiences and refusing to buy, or at least complain to, the companies that develop products that are not accessible to people with disabilities.

Finally, the DO-IT Centre at UW has created a model that presents examples of how stakeholder groups can contribute to the success of students with disabilities. Presented in Fig. 4.1, aspects of this model have been applied in many DO-IT projects.

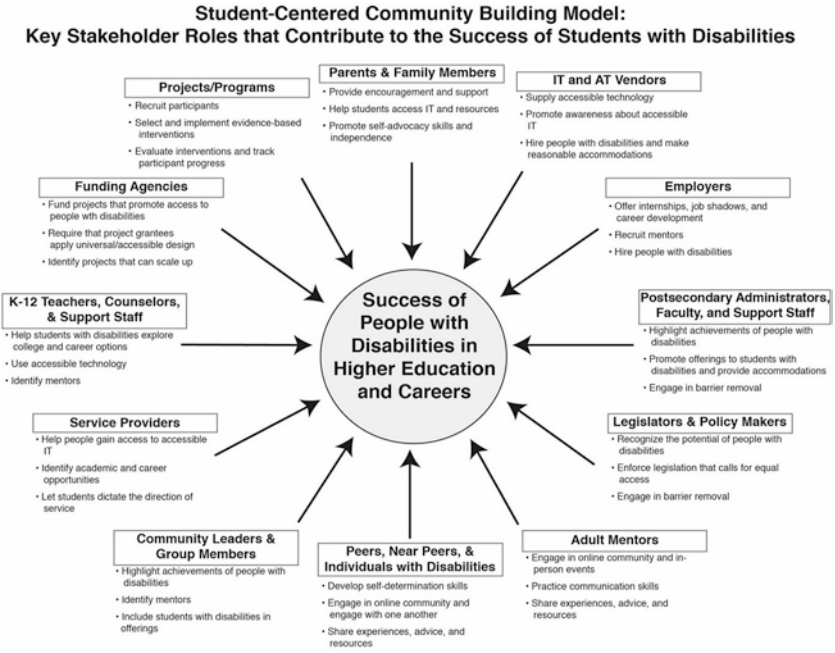

Fig. 4.1 University of Washington Stakeholder engagement model

Identifying Everyone Who Needs To Be on the Field: Maintaining a Deep Bench

In this section, we will illuminate our claim for the importance of maintaining a deep bench by discussing the need to: target key stakeholders, engage ignored stakeholders and bring in new stakeholders.

Targeting Key Stakeholders

Four primary issues need to be addressed by multiple stakeholders in order to ensure the procurement, development and use of accessible IT on a HE campus: procurement, development, remediation and use.

Targeting procurement staff as key players in enhancing the accessibility of ICT, including e-learning tools, is essential for future practices in this field. One approach for gaining their support is to use data. A recent study by Fichten et al. 2016, found that 16% of the students in the sampled higher education institutions in Canada have a disability. In a school of 50,000 students this equals 8000 students, of whom fewer than half are registered for disability-related services. One way to reach all of them is by having procurement officers purchase accessible campus technology. One of the challenges in creating accessible courses is that the disabled population is not a homogenous group; it is helpful for procurement staff to understand that these students include, in order of the most common to the least common type of disability, students with learning disabilities and/or Attention Deficit and HyperActivity Disorder (ADHD), mental illness, chronic health problems as well as sensory and mobility impairments (Fichten et al., 2016). Fichten, King, Havel, Jorgensen and Lussier (2017) during the International Ed-ICT Symposium on Stakeholders, advised being proactive rather than reactive when it comes to technology purchases such as the services of a school web page designer, course management systems' licenses, technology for campus labs and courses, as well as the technology for students to complete their exams and assignments.

A final way to bring procurement officers on board, as well as senior managers and government officials, is to provide them with information on socially responsible public procurement. In a comparative analysis of the United States, Canada and the EU, Cravero (2017), explains that public procurement policy has moved beyond economic concerns toward another consideration, that of social linkage. Examples of social linkages in public procurement include affirmative action programs in the United

States for individuals with disabilities and in Canada for the development of Aboriginal businesses. In Israel, there is a legal requirement to employ a defined percentage of workers with disabilities within public institutions such as schools (extension order to encourage and increase the employment of people with disabilities, 2014). In Germany, not only public institutions, but also business and companies of a certain size must employ a certain quota of people with disabilities. Targeting the social use for public procurement can positively impact both employment and education by offering opportunities to populations that encounter accessibility barriers. Recently institutions in the EU which previously only valued full and open competition, have taken frameworks with set asides as a way of providing economic opportunities to disadvantaged groups (Cravero, 2017). Given this new but increasingly common trend, educational institutions can also consider embracing this model when procuring their technology.

Targeting IT staff as key players in the development of accessible ICT and remediating inaccessible ICT is also essential for future practices in the field. How many times have disability-service, technician, teacher and student stakeholders been frustrated by accessibility issues with their institution's ICTs, including e-learning tools? Of course some of these problems can be resolved; however, solutions may take time and can be costly. Sometimes, there is no solution and stakeholders are 'stuck' with the technology, as this is what the department has purchased. Indeed, Martiniello et al., 2012, presented findings from two cross-Canadian studies in which participants were all students at the post-compulsory level and self-identified as either being blind or having low vision. Both studies indicate that ICT products used to deliver e-learning tools, including PDF documents, videos and websites, have accessibility issues. Many times faculty who create these materials do not know how to design them to be accessible to students with disabilities. Ideally, IT personnel are made available to help faculty make their digital materials accessible; for instance, workshops such as 'Making Your PowerPoints and Course Packs Accessible' or 'How to Give Digital Exams that Require Extended Time' should be offered. Besides increasing faculty awareness, to remediate this problem for ICT procured by the institution, a recommendation was in the area of procurement: institutions must evaluate the accessibility of their ICTs and e-learning tools before and during the purchasing process. An institution could design checklists to make the process of the procurement of accessible ICT easier and by including the following: information that may include ensuring that the technology producers know how to apply the

principles of universal design to products and the accessibility needs of students with various types of disabilities. Questions to vendors could include 'Has the product been tested for accessibility by end users?', 'Does the product comply with established accessibility guidelines?', 'Does the product include textual alternatives for graphics, images and other non-text content?' and 'Does web and document content use meaningful and semantic 'markup' like headings, lists and tables? If knowledgeable stakeholders intervene before and during the procurement process by targeting accessibility via user-friendly checklists (content inspired by Martiniello et al., 2012), accessibility problems could be eliminated or reduced. It is also important to target IT personnel who work with the institution's technology and to guarantee the accessibility of all of the HE institution's web presence, including websites and course management systems. They too need training tailored to their specific roles. Ideally, a campus can hire an access technologist or assign the task of learning accessibility content to an existing staff member. If this is not practical for a small HE institution, perhaps partnership with other small schools could make gaining access to this expertise feasible.

Access issues exist regarding ICT that is not procured or developed by the institution but are simply used by staff and faculty. For example, online instructors may refer students in their courses to websites, documents or videos that are not fully accessible to students with disabilities and even use online tools that are not designed in an accessible manner. Staff members from campus units like Student Services might also link to web resources that are not accessible. To reduce this problem, faculty and staff need basic instruction and resources regarding how to determine if ICT products are accessible to individuals with disabilities. Such instruction might be provided by staff development units within a HE institution, IT staff or access technologists.

Engaging Ignored Stakeholders

At the Ed-ICT Symposium held in Montreal in May 2017, the role of stakeholders in ensuring the accessibility of technology for students with disabilities in HE institutions was debated. (Jorgensen, Fichten, King, & Havel, 2018). There were four themes: identifying barriers to preventing stakeholders from being engaged (1), facilitating accessibility for students with disabilities (2), finding invisible stakeholders (3), identifying future research and practice which will engage more diverse stakeholders (4). To

address theme 1 regarding barriers, Jane Seale, principal investigator for Ed-ICT international network emphasized the following: ICT related practice in HE for students with disabilities requires the engagement of stakeholders and yet, there are key stakeholders who are not typically engaged in improving practice because they are either silent or silenced (Seale, 2017). This silencing may be caused by a lack of disability awareness and negative attitudes toward disability. Remediation of this problem requires education and training, but it also requires self-advocacy, group advocacy and inclusive research. As for theme 3, examples of stakeholders who have not been traditionally identified include those who are external to the institution such as book publishers and family members of students with disabilities, as well as some who are within the institution such as librarians and students with disabilities who do not self-disclose. Indeed, the latter represent as much as 66% of the population (Fichten et al., 2018). Often identified traditional stakeholders include students with disabilities, faculty, senior managers, disability support officers and learning technologists; however, it is important to also include the institution's web masters, support staff, instructional designers, laboratory technicians, e-learning professionals and assistive technologists.

Bringing in New Stakeholders

In order to highlight the value that 'new' stakeholders can add to institutional accessibility efforts we will present a case study from Israel. The context for the case study is the bringing of new disability legislation. This new legislation brought about the creation of two new stakeholders: a Licensed Service Accessibility Expert and a Licensed Buildings, Infrastructure and Environment Accessibility Expert.

No one disputes the critical role that legislators play in achieving greater accessibility for diverse populations. In fact, the Disability Rights Movement led to a change that anchored equal rights and social integration for people with disabilities. These acquired rights are reflected in regulations such as the Americans with Disabilities Act in the United States, the Disability Discrimination Act (DDA) in the United Kingdom and The General Act on Equal Treatment (AGG) in Germany (Bundesamt für Justiz, 2006). In Canada, legislators have created federal acts like the Canadian Human Rights Act (CHRA) and at the provincial level, for example, the Accessibility for Ontarians with Disabilities Act (AODA).

These positive developments, now part of the legislation in four countries, can also be seen in the country of Israel.

The Equal Rights Act for People with Disabilities Act, which came into effect in Israel in 1998, constitutes a framework for regulating accessibility for people with disabilities in all public buildings and services. Up until then, accessibility was dependent on the good will of companies and employers. The prevailing view was the "paternalistic perception", based on the medical model, that people with disabilities are entitled to medical treatment and rehabilitation but not much more. They were paid disability funds and were not expected to work, let alone attend higher education institutions. The social and legal arrangements established for them were determined by "normal" people without disabilities. As a result, people with disabilities were excluded from social life, public buildings and public services (Admon, 2007). Improvements to the 1998 legislation were instituted in the 2005 "Equal Rights for Persons with Disabilities Law Amendment No 2". It defined accessibility as the ability to get to a place, move and find one's way in it, enjoy and make use of the service and information provided in it, use the facilities or participate in the activities there, in an egalitarian, respectful, independent and safe way. It was not until 2011 that the regulations for HE institutions were first drafted by two powerful stakeholders: the Minister of Education, Culture and Sports and the Minister of Industry, Trade and Labor. These legislators set out provisions such as required accessibility accommodations, in order to provide a person with disabilities reasonable accessibility to HE campuses, and the learning services provided by these institutions, including the installation of auxiliary devices and auxiliary services (Sachs & Schreuer, 2011). In 2013, detailed regulations were finally published. The document was arranged by chapters and sub-articles that included almost all aspects of life. HE was one of the final areas to be addressed and thus the special regulations related to it were almost the last to come into effect. Until then, those stakeholders who were responsible for making HE accessible, had worked according to the General Accessibility regulations. Once the HE regulations were published, all universities and colleges were required to be fully accessible by November 2017. This of course moved the accessibility of ICTs for HE students to the forefront of Israel's campuses. The HE regulations are more stringent than the General Accessibility regulations, and include special service areas for universities and colleges. These HE regulations oblige every school to establish a support center for students with disabilities which must have personal and professional accom-

paniment, learning-skill development and accommodation training, including the use ICTs. The support center also accompanies and instructs the teaching and administration staff regarding these adaptations and how to support these students in general. The regulations also require accessibility in the following areas: parking spots, routes to classrooms, restrooms, signage, cafeterias, telephone assistance, websites and software applications. Further, the HE institutions have to hire employees who are trained to provide accessible service such as librarians. HE institutions are required to provide personal wireless systems to enhance hearing in laboratories and exercise rooms as well as two accessible desks for students who require it and two seats for supporting personnel in all lecture halls. Finally, every institution must appoint an accessibility coordinator (see Accessibility Adjustments for Higher Education Institutions and Higher Education Services (2016), for a complete detailing of the regulations).

HE institutions are not entitled to an exemption from accessibility, as are some other public bodies. A person who is obliged to implement accessibility accommodations shall be exempt from the implementation of a specific accessibility accommodation, if one of the following applies: (1) The accessibility accommodation is impossible to implement due to engineering circumstances and a Licensed Buildings, Infrastructure and Environment Accessibility Expert has confirmed this; (2) The accessibility accommodation causes an undue financial burden. The new regulations brought into play two new stakeholder groups whose supervision, confirmation and signature are necessary for any process of accessibility. The first group are "Licensed Buildings, Infrastructure and Environment Accessibility Experts" who are required to have an academic degree in structural engineering or in architecture. Their task is to make sure that every building constructed after 2009 is built according to accessibility regulations, and that every building that was built earlier, will undergo a renovation to allow accessibility. No confirmation of occupancy for new buildings is available without their signature. The second new stakeholder group in Israel is the "Service Accessibility Expert" whose role is to ensure that all services provided in public places are accessible—for example, accessible furniture, ICTs, study materials and websites. These experts are required to have an academic degree in an area related to the health professions: social workers, psychologists, occupational therapists, nurses, and so on. After meeting the requirement that the Minister of Industry, Trade and Labor has established, including practical training, 200 hours of advanced studies and certification exams, they are issued a license. Today

it is not possible to conduct HE courses or other multi-participant events without the signature of a Service Accessibility Expert.

In Israel there are 9 universities and 57 colleges. As with any organization of 25 employees or more, legally, all HE institutes must appoint an important stakeholder: an "Accessibility Coordinator". This person is responsible for recruiting stakeholders and promoting the process of accessibility and raising awareness among the employees in general and the academic staff in particular. The Accessibility Coordinator also addresses student complaints regarding inaccessibility. Contrary to many other campuses in the world, there is meaningful cooperation between the Accessibility Coordinator and other stakeholders responsible for students with disabilities in HE, with the goal of learning from each other and promoting the field together.

Prior to powerful stakeholder legislators making changes to the law, accessibility in Israel's HE institutions was a choice. Given a model of a civil rights law without specific regulations such as the American Disabilities Act in the United States, implementation of the law is subject to interpretation by each institution. With no explicit regulations, the accessibility of services is sometimes changed due to precedent-setting claims by people with disabilities who feel that they have been discriminated against by not receiving adequate services. In the past decade, there has been significant development regarding the integration of people with disabilities into HE, a trend that signifies many advantages for individuals and society (Ganim, 2014). The introduction of two new stakeholders to this process has brought nothing but progress to this area. However if key players drop the ball then the winning combination is lost. One example of players dropping the ball is Professors. One study found that a fundamental factor in the success of students with disabilities was raising the awareness of teaching staff in HE in order to make adjustments to their teaching methods (Ankeny & Lehaman, 2010).

Implications for Future Research and Practice

In this chapter we have offered examples of what might be considered to be effective practice in engaging all the relevant stakeholders; identified those stakeholders who tend to avoid engagement and examined how new and existing stakeholders might be effectively engaged in developing effective accessibility and ICT-related practice. In this section, we will discuss the implications for practice by examining what new practices might

be needed in order to effectively engage all stakeholders. We will also discuss the implications for research by examining how it might further our understanding of how to bring about change in stakeholder practice.

Creating New Practices

In order to effectively engage all stakeholders, we suggest that two new practices will be required: combining bottom-up and top-down approaches and silo-crossing.

Approaches that rely solely on external drivers such as legislation to bring about change have been labeled as 'top down'. This is largely because the passing of new legislation tends to mobilize senior administrators within a HE institution who then issue edicts to those that they manage, mandating some kind of response. In the absence of key drivers such as legislation and mandates from senior managers, another approach to accessibility is that of attempting to bring about change at the local level—often called a 'bottom-up' approach. Many HE institutions in Canada do not have digital accessibility as one of their priorities (Thomson, 2018). Both Canada and Germany have used a bottom-up approach to help make accessibility a priority, and in most cases, we would suggest, they have eventually reached the ceiling. For Israel, the opposite is the case. Accessibility defined by regulations and implemented in educational institutions has been an ongoing process of top-down implementation since 2013. The legislation requires schools to appoint an accessibility coordinator and establish a support center for students with all types of disabilities. This process would be more effective though, if it were accompanied by a parallel process that included a grassroots movement (D. Kaspi-Tsahor, personal communication, March, 2019). In the United States, relevant legislation is at the federal level (Section 504 of The Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 and its 2008 Amendments). However, some states have relevant accessible IT laws and policies which come from state government entities (the top down). For example, in Washington state, Policy #188 (Washington State, 2017) reinforces the requirements under Section 504 and the ADA and presents additional requirements for public HE institutions such as to have an IT accessibility coordinator, adopt a policy for the procurement of accessibility IT, apply WCAG 2.0 Level AA as a standard (Web Accessibility Initiative, n.d.) as well as offer training. This policy resulted in added attention to IT accessibility efforts on the part of IT organizations state-

wide and led to the establishment of a state-wide online community of practice and annual collaborative meetings. In the United States, grassroots initiatives at some institutions have resulted in more inclusive practices but many campus accessibility IT personnel report lack of high-level support. Combining bottom-up and top-down efforts has greater potential to initiate changes in practices that may lead to the procurement, development and use of accessible ICT (Jorgensen et al., 2018).

It is our observation that many professionals are experts in their own field but often have limited understanding of others' expertise. For example, disability-focused service providers often have a profound understanding of disability issues but may have little knowledge of ICT, while IT staff master mainstream technology issues but rarely those related to accessibility. According to A. Havel, more people who understand both perspectives are required as well as cross-training initiatives (personal communication, March, 2019). Although it is still relatively rare, in recent years, some experts have been undergoing dual training of the kind that Alice Havel calls for.[1] Encouraging this trend and augmenting the number of experts with a broad view of the field may contribute to a holistic understanding of all aspects of accessibility. We labeled this as an example of silo-crossing (see Glesson & Rozo, 2013); another related term is boundary-crossing. Whatever the label, the outcome is cross-fertilization of ideas and practices between two or more groups of stakeholders. Other examples of silo-crossing include working cooperatively as illustrated by the Israeli case study where two separate types of stakeholders (for physical accessibility and for service accessibility) are required to work cooperatively (see Equal Rights for Persons with Disabilities Regulations: Accessibility Adjustments for Service, 2013). In the United States, disability services often take responsibility for providing disability-related accommodations for students with disabilities, for example, remediating the problem of inaccessible documents, and captioning videos. However, the IT organization does not always take responsibility for their part in the procurement, development and use of accessible ICT. Similarly, the libraries have responsibilities for library database software purchases and use, but may not take responsibility for ensuring that they are accessible to students with disabilities. To institutionalize accessible practices that can lead to a paradigm shift toward a more inclusive campus, leaders need to establish the responsibilities of each stakeholder group, ensure that training and resources are available to them, adequately support staff in these efforts, and establish regular ways for them to interact. A combined-efforts

framework and cross-training initiatives can both serve to remediate this tunnel-vision concern; for example, professionals can be required to have diverse skill sets so they can understand and communicate effectively with other stakeholders. Their managers can support them in their efforts to be open and willing to deal with topics that are not related to their field of expertise. These criteria suggest the need for new approaches in institutionalizing accessibility, which we will discuss in the next section.

Developing a Game Plan for Institutional Change

Making changes in HE institutions is not an easy task which is reflected in the literature where discussions over the last 20 years have focused on a variety of topics to make change easier such as New Managerialism, New Public Management, and the university as a learning organization and organizational learning as a management approach (Deem, 1998). As mentioned in the previous sections, new stakeholders have to be effectively engaged to make ICT in HE more accessible and inclusive to students with disabilities. Therefore, we would argue that future research can make a valuable contribution by analyzing effective international practices in order to identify ways of engaging stakeholders responsible for improving the accessibility of ICT. Doing so will require researchers to theorize stakeholder practice and theorize institutional practice, something we are calling organizational learning.

Firstly, with regard to the need to theorize stakeholder practice, in the field of accessibility and ICT, the concept of stakeholders is often used without defining what is actually meant by this. Stakeholders are frequently mentioned in the context of the Community of Practice Theory as well as the Activity Theory (Seale, 2014, p. 56). In contrast to these is the stakeholder theory (Freeman, Harrison, Wicks, Parmar, & de Colle, 2010), originally developed in economics as a theory of organizational management and business ethics, but it is becoming more popular in HE research (Fowler & Gilfillan, 2003; Kettunen, 2015; Logermann & Leišytė, 2015). Thus, when arguing that we need to engage more or different stakeholders in order to make ICT accessible, future research in this area should pay more attention to stakeholder theory.

When talking about stakeholders, we must start to ask who or what a stakeholder really is? In the context of ICT and accessibility, is a stakeholder simply anyone who is interested in the topic? This is a rather vague definition and leaves much room for interpretation, hence the observed

missing or disengaged stakeholders. The stakeholder theory itself says that a stakeholder is an individual or group without whose support the business would no longer be possible (Freeman et al., 2010, p. 26). Another definition is even broader, stating that "a stakeholder is any group or individual that can affect or be affected by the realization of an organization's purpose" (Ibid.). But then again, what is "the business" or "organization's purpose" in our case? Is it accessibility per se, academic access and inclusion, study success? These would be other interesting questions for future research to address.

Stakeholder theory offers normative and instrumental grounding for the inclusion of stakeholders into managerial decision making; it provides a framework to recognize relevant stakeholders and concepts so as to integrate and prioritize their interests into the institution's decision making (Freeman et al., 2010; Mitchell, Agle, & Wood, 1997). Another question for future research could be to identify stakeholders using a variety of different frameworks. Traditional ways to identify stakeholders are as follows (Crane & Ruebottom, 2011, p. 79):

- Instrumental: A stakeholder is any person, community or group who has a relationship with the organization.
- Normative: Stakeholders are all those that participate in the cooperative effort. As this approach of stakeholder identification is very close to the instrumental approach, main stakeholders, identified based on a relationship with the organization, are accompanied by a secondary group called "community" or "activities groups", which are not specifically identified.
- Descriptive: This approach tries to identify the stakeholders that are currently managed in practice. For HE, this means that the university itself defines these in its mission statements. In addition to this, there are often secondary stakeholders that have a relationship with the organization because of the emergence of specific issues or claims staked. These stakeholders are often difficult to identify.
- Integrative: This approach combines several attributes to identify stakeholders relevant for an organization. Perhaps one of the best known is Mitchell et al.'s (1997) concept of stakeholder salience. It identifies and describes stakeholders using the attributes power, legitimacy and urgency.
- Social identity: All the former approaches share the deficit of focusing on economic roles and relationships, ignoring the fact that many

groups interact with organizations based on their shared social identities. Therefore, Crane and Ruebottom (2011) developed a model of stakeholder identification based on specific social identities, for example, age, ethnicity, disability or role. They link these identities with traditional stakeholder roles to develop a new stakeholder theory which decenters the organization and replaces it with a network of societal relationships.

Another question for future research on stakeholders in the context of ICT and accessibility would be to identify all stakeholders that have to step up to the plate. This immediately leads to the next question of how to identify the stakeholders? Existing lists of stakeholders involved in ICT and accessibility often list the same stakeholders (e.g., lecturers, students with disabilities, managers, IT staff), but what happens when we compare these stakeholders using the approaches mentioned above? Perhaps we will discover that they substantially differ, and this difference might help explain different levels of engagement or stakeholders' views on the issue of ICT accessibility.

Finally using the stakeholder theory hopefully helps to not only identify stakeholders but also provide a richer description of these individuals, groups and organizations. Inspired by the questions Freeman et al. (2010) ask, the following questions could guide future research in this field:

1. What are the effective practices that illustrate stakeholder engagement in HE institutions? Can we build a theory (s) around these practices?
2. Do all stakeholders have to be engaged all the time or not?
3. What are the key elements of stakeholder relationship and how do we qualify and quantify them?
4. What framework should be used to identify and assess stakeholders in HE institutions?
5. What is in it for the stakeholders, what is the value for the organization?
6. What is in the focus of such a description? Is it about accessibility, the HE institution as an organization, or something more abstract like study success?
7. What are the views of the different stakeholder groups on the issue of ICT and accessibility? While we know relatively a lot about students with disabilities and their views, as well as the lecturers' per-

spective, not much is known about the other stakeholder groups, for example, senior management and external stakeholders.

Research on stakeholder theory in the context of ICT and accessibility should be accompanied by research on the question of how to change HE institutions. These two topics are interconnected, as stakeholders are often those groups who have the power, will or idea to change organizations (Jongbloed, Enders, & Salerno, 2008; Örtenblad & Koris, 2014). As many countries are still facing the problem that HE and especially ICT in colleges and universities is often not accessible to all students, despite all the guidelines, rules, legislation and recommendations, it is worth considering different approaches to these problems. At the same time, there are projects such as the Accessible Technology Initiative of the California State University (California State University, 2004) or the Accessible Technology and Information Committee of Pennsylvania State University (The Pennsylvania State University, 2014) which seem to have successfully transformed educational institutions into more accessibly minded places which are open toward a diverse student body. Given that many HE institutions have not achieved this goal, it is important to reflect upon the following: how did they do this, in what ways were these projects successful and what can we learn from such examples?

With regard to the need to theorize institutional practice, we suggest that the concept of organizational learning (Smith & Parker, 2005) is potentially helpful and that future research should explore this further. Organizational learning represents an alternative approach to the "projectitis" (Shireman, 2003) that many universities have a tendency toward for a variety of different reasons, such as their supposed manageability or their strong focus on results. In contrast to this, organizational learning is defined as asking "whether thoughtful people mindful of the institutional context and using relevant and available information can facilitate needed change" (Smith & Parker, 2005, pp. 115–116). It is based on empirical research on the questions of whether, how and under what conditions organizations are learning (Kezar, 2005, p. 10). Issues of accessibility can also be tackled as a goal for organizational learning, as this approach combines easily with the stakeholder theory in HE institutions mentioned above (Örtenblad & Koris, 2014).

Following the approach of organization learning, a lack of accessibility can be described as a non-reduction of inequalities and as a learning problem for stakeholders involved, just like Bensimon (2005) explains for the

unequal educational outcomes for minority groups in HE. In terms of the topic of accessibility, this means that universities and other HE institutions should use organizational learning to bring about change among the stakeholders such as changing their beliefs, expectations, values and practices, which create or maintain the current accessibility problems. Organizational learning focuses on the process of the effort and tries to ensure that changes and corrections are made when necessary (Smith & Parker, 2005, p. 116). Central concepts of organizational learning are single-loop and double-loop learning, inquiry and action and theories-in-use. Single-looped learning happens when an organization detects errors in its alignment with the environment. This learning process results in incremental changes, as the organization reacts in accordance with existing assumptions and values. When applied to the topic of accessibility, this could mean, for example, that the university provides a reasonable accommodation to students who complain about an accessibility problem. In comparison to the above, a double-loop learning questions existing assumptions and beliefs: it changes the institutions to align it with the environment which requires transformational change (Kezar, 2005, p. 11). In the context of accessibility, this would mean, for instance, that a university must provide resources, for example, for captioning videos and at the same time, a working group would begin to develop a policy for accessible learning materials.

An additional key question for future research is how organizational learning can help to change the accessibility of ICTs. One possible approach could be to generate more data on currently observable practice, like the above-mentioned accessible technology initiatives at the California State University and the Pennsylvania State University. Using a case study approach, such examples for the successful implementation of accessibility of ICTs in HE institutions can help to identify not only learning processes, communities and theories-in-use but also stakeholders.

Another example comes from Sieben-Schneider and Hamilton-Brodie (2016), who describe one university's approach to digital accessibility. After students with disabilities filed a complaint with the Department of Justice (DOJ), this university addressed the problematic areas as well as fostered a culture of accessibility and inclusivity. The university created a project structure with three levels of teams: an executive team, a steering team and four working group teams, where each team consisted of different stakeholders from different departments. The executive team and the steering team were the leadership which is an integral part of organiza-

tional learning. The working group teams were communities of practice, where individuals participate in a situational learning process. The learning process forms a double-loop process, as the goal is not only to directly address the problematic areas but also to change the way the university as a system operates. As the outcome, the authors describe that the project "resulted in significant changes to the daily operations of the university and organizational adjustments" (Sieben-Schneider & Hamilton-Brodie, 2016, p. 223). This university's approach to digital accessibility the authors describe has all the characteristics that Smith and Parker (2005, p. 121 ff) set out for organizational learning in the field of diversity: an institutional framework is developed and established, data is used to monitor the progress, leadership at many levels is engaged to ensure the success of the institutional efforts, and the work of all the different teams is linked to the mission and culture of the organization. Nevertheless, the authors do not describe these measures as organizational learning. Therefore, it would be of interest for future research in the field of accessibility to leave behind the focus on the single individual and turn instead toward concepts that see the organization as a whole where stakeholders are important and interconnected individuals.

Finally, a combination of the two lenses of stakeholder theory and organizational learning can help to improve research and practice on accessibility and ICT in HE institutions. Both stakeholder theory and organizational learning are lenses that are increasingly used in current research on HE (Fowler & Gilfillan, 2003; Kettunen, 2015; Örtenblad & Koris, 2014). Using these lenses to analyze and research accessibility in the context of HE could make this research more compatible with research on HE as well as additional areas of research. This could attract the interest of other researchers, who might have ignored accessibility because it was too technology focused, or too practical minded. Our hope is that we do not only research how to make other stakeholders step up to the plate, but also to make other researchers step up to the plate too.

Conclusion

In this chapter we have examined the potential contribution that a range of stakeholders can make to the development of effective accessibility and ICT-related practice and how new and existing stakeholders might be effectively engaged in developing such practice. As part of this examination we have argued that new practices need to be developed, but that in

order to develop such practices that might succeed across a whole organization and all its stakeholders, we need a better understanding of stakeholders and how the organizations they work in learn to change.

Note

1. http://cambriancollege-public.courseleaf.com/ldgc/

References

Accessibility for Ontarians with Disabilities Act. https://www.aoda.ca/a-lengthy-14-months-after-finally-promising-to-develop-an-education-accessibility-standard-under-ontarios-disabilities-act-the-wynne-government-finally-convenes-the-first-meetings-of-the-promised/. Accessed 26 Sep 2019.

Admon, Z. (2007). The right to access in Israeli legislation and legislation worldwide. In D. Feldman, Y. Danieli Lahav, & S. Haimovitz (Eds.), *The accessibility of Israeli society to people with disabilities at the beginning of the 21st century* (pp. 177–222). Jerusalem, Israel: Ministry of Justice.

Ankeny, E. M., & Lehaman, J. P. (2010). The transition lynchpin: The voices of individuals with disabilities who attended a community college transition program. *Community College Journal of Research and Practice, 34*(6), 477–496. https://doi.org/10.1080/10668920701382773.

Bensimon, E. M. (2005). Closing the achievement gap in higher education: An organizational learning perspective. *New Directions for Higher Education, 131*, 99–111. https://doi.org/10.1002/he.190.

Bundesamt für Justiz. (2006). General Act on Equal Treatment of 14 August 2006 (Federal Law Gazette I p. 1897), as last amended by Article 8 of the SEPA Accompanying Act of 3 April 2013 (Federal Law Gazette I p. 610). Resource document, Bundesamt für Justiz. http://www.gesetze-im-internet.de/englisch_agg/

Burgstahler, S. (2015). Promoters and inhibitors of universal design in higher education. In S. E. Burgstahler (Ed.), *Universal design in higher education: From principles to practice* (2nd ed., pp. 287–296). Cambridge, MA: Harvard Education Press.

California State University. (2004). *Executive Order 926 – The California State University Policy on Disability Support and Accommodations.* Resource document. CSU. http://www.calstate.edu/eo/EO-926.html

Crane, A., & Ruebottom, T. (2011). Stakeholder theory and social identity: Rethinking stakeholder identification. *Journal of Business Ethics, 102*(1), 77–87. https://doi.org/10.1007/s10551-011-1191-4.