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Building capacity in institutional research: collaboration and complementarity?

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Abstract
Institutional Research associations across the world are re-imagining and redesigning their professional development and capacity building activities. This paper outlines the professional development activities of the Association for Institutional Research (AIR) in the United States (est. 1966), the European Association for Institutional Research (EAIR) (est. 1978), the Southern African Association for Institutional Research (SAAIR) (est. 1994) and the United Kingdom and Ireland Higher Education Institutional Research Network (HEIR) (est. 2008) and argues that a more sophisticated approach to IR is needed, informed by systems thinking, aimed at proactive engagement with policy-makers and managers, organisational learning, direct links to institutional strategy ('a seat at the table'), and the analysis and use of larger volumes of data.

Keywords Management · Planning · Institutional research · Professional development

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Introduction

Robust, relevant and timely institutional research (IR) is perhaps more vital to higher education institutions (HEIs) today than ever before. Contemporary higher education (HE) is characterised by growing student enrolments, increasing competition, the impact of globalisation and fast-changing technology. Huge amounts of data are being collected in response to such trends but it is not always clear whether or how such data is being used to inform HE policy development and to support effective institutional decision-making (HEC 2016; Gagliardi et al., 2018).

The nature, development and focus of IR practice has evolved in response to particular national and regional contexts. Activities identified as IR in one context might be described as analysis, business intelligence, evaluation, or audit, elsewhere. Furthermore, the engagement of different academic and professional functions in IR is often complex, resulting in different needs and foci for networking, training and support for IR practitioners. This paper seeks to identify, describe and evaluate ways in which IR professional development and capacity-building activities are being re-imagined and redesigned in response to global and local exigencies. We focus on the work of IR associations in four different parts of the world, namely, the Association for Institutional Research (AIR) in the United States (US) (est. 1966), the European Association for Institutional Research (EAIR) (est. 1978), the United Kingdom (UK) and Ireland Higher Education Institutional Research Network (HEIR) (est. 2008) and the Southern African Association for Institutional Research (SAAIR) (est. 1994). Due to space limitations herein, we do not include consideration of recent developments in IR in other parts of the world, e.g. in East Asian countries such as Japan, China, Korea and Taiwan (see Lin et al., 2018) and in the Middle East and North Africa (see Cinali, 2018) but note that advances in IR are taking place in these regions as well.

Although decision-making and planning in HEIs have always, arguably, been based on some form of information collection and analysis, the concept of IR is relatively new, being identified in the US in the 1930s and coming to prominence in the 1970s. In the US, IR practice has primarily focused on providing information to support institutional improvement and effectiveness, usually through specialised research based on the application of data, issues of data management, or analytic work completed to resolve a specific administrative challenge, often with a focus on one specific institution. In Europe, IR has been connected more closely to research on HE which focuses on the practice of institutional management and improving professional and academic support services as well as a broader focus on system and regional-level HE policies (Shin and Teichler 2014; Borden & Webber, 2015; Kehm, 2015, Huisman et al., 2015). However, in the UK, IR-type activities are not (always) considered to be 'research' in strict disciplinary terms because of its focus on an institution or on policy *versus* a focus on the development of HE studies as an academic field (Woodfield, 2015). In Southern Africa, IR is characterised by a hybrid of these traditions, with significant inputs from IR work in national policy development processes, as well as detailed institution-specific work (Chetty & Muller, 2018).

Institutional research: defined

The depth and breadth of IR and decision support, and the nature of IR practice, depend on both the institutional environment and the external operating environment in which it must operate (Webber & Calderon, 2015). In many educational systems, the central role of IR has been embedded through legislated requirements for institutions to provide information as evidence of effectiveness. For example, in the US, the work of several notable academic scholars in the 1940s, 1950s and 1960s, including Burton Clark, Clark Kerr, C. Robert Pace, Kenneth Feldman, and Alexander Astin was instrumental in the development of IR as a professional practice in that country. Later on, works by Fincher (1985), Peterson (1974, 1985) and Volkwein (1999) further described the roles, functions, and organizational location of IR, while Patrick Terenzini (1993) discussed the evolution of skills and duties that lead to effective IR within a HE organization. More recent studies illustrated the influence of the American developments on IR in other parts of the world (Chirikov, 2013), including in Ireland (Woodfield, 2015) and Southern Africa (Visser & Barnes, 2016). Pioneering work has been done since the 1970s and 1980s in Europe by scholars such as Ulrich Teichler, Peter Maassen, Frans van Vucht, and Guy Neave to develop and promote evidence-based studies of HE systems and institutions (see Kehm & Musselin, 2013, Cloete et al., 2016).

Having access to information, and developing robust data tools and methods for analysis, have provided a sound basis for IR practitioners to undertake a range of studies to better understand institutional performance and provide the foundation for institutional repositioning and setting strategic directions. Over time, and increasingly so in recent years, many of these activities have developed common threads that define the practice of IR and planning, although the name 'Institutional Research' is not always used.

Recently, the Association for Institutional Research in the US articulated five duties and functions for IR in the US, namely, to (a) identify information needs; (b) collect, analyse, interpret, and report data and information; (c) plan and evaluate; (d) serve as stewards of data and information; and (e) educate information producers, users, and consumers (Coughlin, Archie, Ewell, Gagliardi, Noland, Donna, and Sutee 2016). The articulation of these five duties and functions not only help the IR professional, but they can also help campus colleagues better understand the role of the IR and its practitioners. When these roles and duties are implemented well, it offers opportunities for the IR leader to demonstrate his or her skills, ultimately building IR capacity.

IR and decision support offices in the US have been charged primarily with the responsibility of extracting, validating, and reporting institutional data. In the UK, on the other hand, this role would be described as management intelligence. Planning departments would use this data to support senior managers by using this data (i.e., through further analysis) to provide 'business intelligence' to answer institutional questions. Some of these questions require bespoke research and (non-routine) analysis. This would be termed as IR (within planning). However, such research could also take place in other professional or support services departments (e.g., market research, student support, student engagement, academic development) as well as by faculty members via practice-based pedagogical research and research on other aspects of the student experience. The practice of IR therefore encompasses much more than the work of a dedicated IR unit. In the wider context of Western Europe, defining IR has been more complex than in the US and to an extent in the UK. This is partly because the term is seldom used in practice and partly because the development

of something like IR has been rather different in most Western European countries. Scholars such Neave (2003), in his reflection on 25 years of the existence of the EAIR, argued that the IR has developed only because institutions in Western European countries have gained greater autonomy and now increasingly manage their own affairs and, importantly, their relationships with external stakeholders. In the UK, in contrast, institutional autonomy has been an established part of the governance of higher education, although in England the sector is now becoming more regulated by Government. (Shattock and Hovarth, 2019, 187–200). Many IR-type activities are embedded in the business-as-usual work of university administrations, which have now adapted to create a new evidence base around student outcomes and research impact to meet the demands of regulators. This is an idea more recently taken forward by scholars such as Huisman et al. (2015) whilst Pausits (2018) has emphasised the importance of the 'third mission' as part of institutional strategies. Interestingly, the 'strapline' of the EAIR, 'The European Higher Education Society', indicates a rather broader conception of the Association than simply focusing on IR. It suggests that EAIR is more closely tied to the academic study of higher education research and broader discussions of implications for HE policy than its counterparts in the US and the UK (Pausits, 2018).

The strapline also indicates a second assumption: that potential audiences may not actually know, despite the definitions provided above, what 'institutional research' is. Clearly, the definitions hold true for the US and to some degree for Western European HE: much of what institutions do is informed by data collection. Learning and teaching as well as services and facilities are changed on the basis of evidence (Webber & Calderon, 2015). Increasingly, student and/or institutional data are used to inform a variety of institutional decisions, including myriad measures of student success, institutional efficiency, and staff and student satisfaction (Webber & Zheng, 2020).

However, the term 'institutional research' is not recognised as a discrete activity in Europe and in the UK in quite the same way as it is in the US, where it has developed and matured for many decades. This may be seen as a semantic distinction but it does have significant implications not only for institutions but also for any notion of an IR 'profession' or, indeed, as related to our concern in this article, as highlighted by Huisman et al. (2015), for IR capacity building. Having an established and well-known set of tasks and responsibilities enables professionals in the field to know their role and contribute to organizational success. With the established set of roles and responsibilities, senior academic leaders also understand the role for IR professionals and can then look to these individuals for decision support in the established areas of responsibility. Terenzini (2013) argues that the effective IR leader acquires a deep set of knowledge and skills over a period of time. The combination of knowledge of analytic and technical skills, deep understanding of the higher education enterprise, and the ability to articulate issues within the unique institution's context offers the IR leader a high level of 'organizational intelligence' (Terenzini, 2013) that can lead to effective IR leadership that is valued by organizational senior leaders.

While we recognise the different development paths of IR and HER and the different directions chosen in different regions (AIR vis-a-viz EAIR) in the past, we argue that a number of drivers for change in higher education today call for new thinking and more collaboration between HER scholars and IR practitioners, in all three tiers suggested by Terenzini, but in particular with regard to the third tier of advocacy and strategic work which would also require deeper engagement with theory that what my currently be the case among IR

practitioners (see Fig. 1). A number of these drivers are discussed in the next section, with a focus on their implications for capacity building in IR.

External drivers of change in higher education today

Global economic, social, political and technological drivers have influenced significant changes in HE systems worldwide increasing opportunities for professionals who engage in tasks that are related to IR and decision support. IR practice has been further shaped by the specific challenges and opportunities created by different national contexts.

Global demand for HE is growing (Altbach et al., 2010), as is the diversity of students, HE providers and types of provision. The increasing participation of under-represented groups, the increasing role of the private sector and the opportunities to widen access through technology-enhanced learning are now established trends. Ongoing debates in many parts of the world about liberal arts/humanities and the expansion of STEM fields (Science, Technology, Engineering and Mathematics) (Olmos-Peñuela et al., 2015) will continue. Across the world, calls for quality assurance and accountability (see Stensaker & Harvey, 2011) will remain, if not increase further. Institutions are awash with data (Webber & Zheng, 2020), assiduously collected and used by senior managers to effect quality improvement programmes.

Issues such as political ideology, funding, and the use of technology serve as drivers for change, although they play out differently in different countries. For example, in the US the economic recession in 2008 substantially affected the sources and amount of funding allocated to HEIs, which in turn affected services to students, staffing employed in HEIs, and resources allocated for research (Barr & Turner, 2013; Mitchell et al., 2017). In Eng-

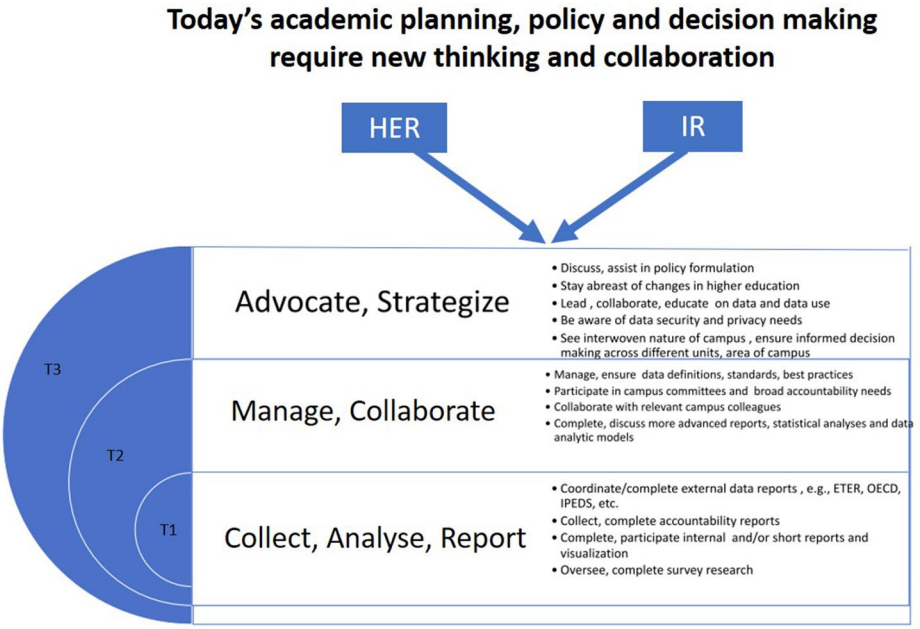

Fig. 1 A model for new thinking and collaboration between HER and IR. (Adapted from Webber, 2019)

land, funding for HE was partially shifted to the consumer (i.e., students), supported by the government through income-contingent loans. This formed part of a privatisation and marketisation agenda running across publicly-funded services since the 1980s. More recently, the establishment of the Office for Students in England in 2018, a non-departmental public body of the Department for Education in has accelerated the demands for robust evidence around student outcomes from English HE institutions. The consumerisation of HE has led to a focus on value for money, and improving the student academic and wider experience through a constant drive to measure and improve quality. In South Africa, for example, state funding of public HEIs decreased significantly over the last two decades and high student fees sparked the fees-must-fall movement in 2015–2016. Students also objected to the slow transformation processes in HE, particularly how institutional cultures and curricula remained more euro- than afrocentric, and dissatisfaction with language policies (Badat, 2016; Booysen, 2016).

The growing need to develop/enhance capacity in IR

Against the background of the drivers for change mentioned above, various guiding concepts are emerging that are influencing IR, and the nature and focus of capacity building in IR, including efficiency and accountability, systems thinking and organisational adaptability. For example, Gagliardi and Wellman (2015) acknowledge that the IR function in the U.S. is evolving, but the mature IR office astutely aligns advanced data retrieval with the use of relevant metrics, strong analysis, and effective communication. These authors further suggest that decision support requires senior leaders who "empower the work by using data to set goals and evaluate performance and by creating a culture of openness to inquiry and willingness to use data to document and improve performance (p. 3).

With increasing requirements on organisational efficiency, performance-based accountability is an important factor in HE planning (Alexander, 2000). Academic planning in today's complex HE sector requires senior leaders to consider the drivers that shape HE today, particularly the external environment (Pfeffer & Salancik, 1978). Integral to capacity building in an organisation or in a unit such as IR (or Planning or Business Intelligence), is an understanding of how organisational elements interact with each other and with the environment, known as systems thinking (Birnbaum 2019; for recent examples see Dunnion & O'Donovan, 2014; Furst-Bowe, 2011). Individuals engaged in capacity building, particularly at the organisational level, must be aware of organisational culture, organisational complexity, and the policy environment and trends, and they need to be more strategic in their interactions with individuals within and across organisational units. As well, specifics of the environment, relationships, and indirect authorities across organisational units can contribute to the assignment of responsibilities and the effectiveness of collaborative work.

As technology continues to advance, there is a growing interest in and use of data analytics to assist in decision support. Variations and flexibility in data storage as well as faster and cheaper computing power enable higher education institutions to gather and use large volumes of data. Institutional research officials are in a particularly advantageous position to assist in the proper use of data-informed decision making, including important discussions on data governance and ethical and responsible uses of data.

Analytics are being used in a number of ways in higher education today include learning management systems (LMS), early alert or early warning advising systems (EWS), dash-

boards, and other tools that provide information on student application and enrolment, the management of student performance, course retention, and degree progress. Data analytics are also being used, for example, to monitor heating and cooling of campus buildings, to examine frequency and length of libraries and facilities use, and to identify the most time-efficient bus routes. Advanced analyses, both traditional inferential analyses as well as predictive modeling and machine learning techniques, enable analysts to discern patterns that can be combined with contextual judgement to inform decisions. A number of recent publications are available to describe these kinds of activities under way across the world, including publications by Daniel (2017), Kahlil and Ebner (2016), Prinsloo and Slade (2015), Reidenberg & Schaub, 2018; and Webber and Zheng (2020).

An organisational capacity-building model was proposed by Morley (2005) at NACUBO (National Association for College and University Business Officers) in the US. He called it a BOC framework (Building Organisational Capacity), and defined it as 'the capability of individual HEIs to anticipate, plan for, and respond effectively to institutional challenges in ways that have continuing impact' (2005:22). NACUBO's BOC framework encourages college and university leaders to view an organisation and its many parts as a complex system with many subsystems, such as administrative and academic departments. Systems are characterised by flows of information and actions and feedback loops that affect the flow of information (Dunnion & O'Donovan, 2014; Furst-Bowe, 2011). Morley (2005) reports that when institutional or unit leaders consider how BOC elements interrelate, strategies and decision making tactics can be aligned, thereby increasing the likelihood that a given initiative will be effective and lasting.

Toma (2010) extended the work of Morley (2005) and further described building organisational capacity (BOC) in HEIs as the administrative foundation that is necessary to plan, implement and sustain a campus initiative. He developed a web-like model (see Fig. 1), acknowledging the interconnections between organisational units and institutional processes. Toma's (2010) model places *purpose* (one of the eight elements) at the centre of the model and interconnects each BOC element. Defining organisational capacity as the necessary foundation to successfully execute strategy, these changes reflect Toma's (2010) idea that capacity building emanates from a shared understanding of 'why we are here, and where we are headed' (See Fig 2).

In this article we argue that Morley's (2005) and Toma's (2010) ideas are relevant to building capacity in IR. Whilst today's IR practitioners must have technical and analytic skills, they are now also required to understand the foundations and practice of HE, and they must be able to seamlessly use their knowledge and skills to provide robust, relevant and timely information to support decision making. They must engage with the relevant internal and external networks, processes and systems that support decision-making and the flow of information and evidence. It is critical that IR directors balance proactive and reactive reporting and information needs, and articulate it in a way that can be heard and used by the relevant stakeholder(s). Often, it seems, managers' awareness of expertise within their own institutions is patchy and this can lead to internal experts being overlooked in favour of others, sometimes external consultants who have little understanding of the institution. At best, this is the result of a lack of consistency and coordinated institutional thinking and leads, ultimately, to inefficiency and under-exploited data. There is a need for consistent and coordinated research efforts to be embedded all aspects of institutional life, rather than being panic responses to poor results in national surveys, which seems to be a common approach

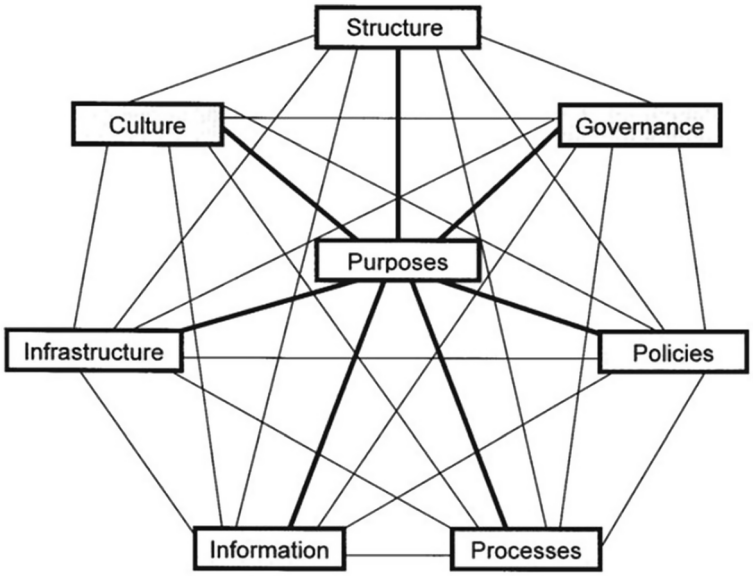

Fig. 2 Building Organisational Capacity. *Source* Toma, 2010

in the European context. This can lead to IR being merely responsive and spasmodic rather than helping to inform effective and innovative strategy and interventions. However, this is dependent on an acceptance of IR as a profession in its own right, which is the nub of the current problem.

Calderon (2012) argues that IR practitioners in the Australian context are now playing an active and visionary role in developing strategy and assessing the long-term positioning for institutions and national systems. This seems critical as we seek to strengthen the practice of IR. New skills in horizon or environment scanning, policy engagement and analysis, networking and influencing will be needed to remain relevant and valued. These skills include: the ability to adapt and change as emerging trends in the labour market arise; the capacity to consider implications for HE in an increasingly global world; and good communication skills that enable the practitioner to engage with a variety of stakeholders. In the terminology of Terenzini (2013:147), such 'contextual intelligence' is of paramount importance: 'Contextual intelligence must move beyond the campus boundaries, beyond a parochial knowledge of the culture, values, and traditions of our particular institution and how to function successfully in it… Understanding "how to play the game" locally is still important, but it is more important now than previously to understand both what the game is beyond our campus and what's needed for our institution to play it effectively'.

Professional development for IR practitioners (whether they work in dedicated IR units, other support services in HEIs, or directly to senior managers) is one way to develop the necessary institutional (and sector-wide) capacity to undertake these increasingly complex and specialist IR activities. Formal and informal opportunities to develop IR knowledge and skills include annual face-to-face conferences and seminars as well as online and video workshops. In the next section, we outline some of the professional development and other initiatives that are ongoing in four international professional IR associations and networks:

the Association for Institutional Research (AIR), European Association for Institutional Research (EAIR), Higher Education Institutional Research UK and Ireland (HEIR), and the Southern Africa Association for Institutional Research (SAAIR).

Capacity development in the context of the association for institutional research (AIR) in the US

Although many institutions have performed some basic tasks such as enrolment and graduation counts for over a century, in 1960 a small group of academic professionals gathered to share their experiences and strategies for work tasks. That initial meeting would grow and become an annual event, the annual Forum for the Association for Institutional Research (AIR). Now for over 50 years, AIR has been the primary association for many professionals in IR and related areas in the US.

The AIR offers a variety of professional training opportunities aimed at introducing or further enhancing practitioners' knowledge and skill development in tasks related to IR. The increasing participation of IR practitioners in other parts of the world in.

AIR events indicates that AIR capacity development opportunities are also accessed outside the US. Offerings include the annual Forum, face-to-face workshops, webinars, multi-day seminars, and a variety of print-based publications. Of particular note is the recent introduction of the multi-day training programmes called 'A Holistic Approach to Institutional Research' and 'Data and Decisions Academy'. In addition, regional and state associations offer a number of popular workshops. For example, for over a decade, the North East Association for Institutional Research (NEAIR) has offered a strong set of 'Drive-In' one-day workshops that are inexpensive and focused on a specific topic.

In addition to short-term, often one day (or less) opportunities for training, AIR promotes graduate certificate programmes. These academic-based programmes enable the student to receive a certificate that documents important skills related to IR. Currently, there are various US institutions offering an IR certificate[1]. Along with its pivotal role of providing professional development information, AIR works with international affiliated groups such as the Middle East, Northern Africa (MENA-AIR) and Taiwan (TW-AIR)[2] to provide assistance with website development as well as network building for group members.

AIR leaders also encourage members to become engaged in the organisation's activities. Individuals who get involved advance the profession and increase their personal and professional networks. Members of AIR can volunteer to join contributor groups, and serve as reviewers and/or advisory groups that offer advice and feedback on major activities such as the annual Forum[3]. AIR leaders are also working to keep IR central to higher education decision making. In 2019, AIR partnered with Educause and NACUBO (National Association for College and University Business Officers, US) to develop and release a statement on the use of data-informed decision making in higher education. The three associations teamed up to express the urgency to reaffirm higher education's commitment to the use of

[1] A full list of certificate programmes can be found at: https://www.airweb.org/Careers/GraduateEducation/Pages/default.aspx.

[2] The full list of affiliated groups can be found at: http://www.airweb.org/Community/Pages/Affiliated-Organizations.aspx.

[3] The range of ways in which members get involved is further detailed at: http://www.airweb.org/Community/Pages/Get-Involved.aspx.

data and analytics to make better strategic decisions. The statement can be found at: https://changewithanalytics.com/

An initiative, funded by the Bill and Melinda Gates Foundation, sought to better understand current IR capacity in the US and help IR evolve to the next level of practice needed to address the future needs of HE. Interrelated projects were designed between 2014 and 2016 to respond to the changing landscape of HE and look for new ways to meet demand. The *National Survey of IR Offices* in the US was one of the leading efforts, and it helped establish a future-oriented vision of high-quality IR practices through creation of a *Statement of Aspirational Practice for IR*. A third, ongoing project involves development of a self-assessment instrument for IR excellence at the institutional level.

The recent US National Surveys of IR Offices in 2016 and 2018 have reported the correlation between institution size and number of professionals working in the IR office (see https://www.airweb.org/resources/research-initiatives/national-survey-of-ir-offices). The surveys are helpful to monitor the grow of IR professionals and IR offices within US HEIs. Although the task of data reporting is listed as the primary IR role, it is helpful to see that larger universities generally employ more professionals, often have graduate assistants or other student help, and, because of their larger staff, are responsible for a wider set of decision support responsibilities. The regular review of IR staff size, roles, and breadth of decision support activities, both through the national AIR office as well as at individual HEIs is important. IR offices with more advanced staff members who are well versed in the content knowledge and skills (i.e., organisational intelligence) can provide greater and more sophisticated decision support. When senior leaders receive this more sophisticated information, they in turn, see the value of IR and its workers.

Capacity development in the context of the European association for institutional research (EAIR) and the UK and Ireland HE institutional research network (HEIR) in Western Europe

The European Association of Institutional Research (EAIR) has existed since 1978 and has, according to the two main historical reflections on the association had a rather mixed relationship with IR and was never intended to have an exclusive focus on it (Neave, 2003; Huisman et al., 2015). Indeed, the association has apparently never included any sub-groups that served to provide training for IR professionals, unlike the AAIR (Huisman et al., 2015). Indeed, the 2005 EAIR annual conference was the first that contained a track that was devoted to IR: the importance of this innovation, according to Huisman et al. (2015), lay in raising awareness of IR across the higher education community across Europe. Unlike their counterparts in the US where most institutions have a centralised 'institutional research' office, a range of internal and external groups undertake IR in Western European HEIs, although IR functions may well be focused on a particular department with a name such as 'academic planning'. Concomitantly, there is no clear career progression for staff who might be seen as 'institutional researchers' as they do not fall into traditional categories of academics or administrators. HE research specialists tend to be academics, according to Huisman et al.'s (2015) notion of the 'firewall': they are more academic than is often expected by management. Thus, institutional researchers in the European context develop in the normal course of their work, rather than being employed with potential for longer term

aim in mind. In such circumstances, it may be difficult to develop a clear and attractive IR career pathway.

There is a need for robust and standardised research methodologies amongst institutional researchers or academic planners, who come from a wide range of different backgrounds and have widely differing assumptions about conducting research. Ontological and epistemological positions are not always mutually understood and the value of qualitative and quantitative approaches need to be recognised and used where appropriate. The obvious example is the growing trend in recent years to inflict a questionnaire survey on students on almost every aspect of their life in HE. For such activities as modular evaluation, a questionnaire is simply not the best or even the most ethical approach.

There is a crucial role for organisations such as EAIR to encourage a development of awareness and understanding of the role of IR and its practitioners. As Klemencic (2016: 18) argued during the 2015 EAIR Forum, 'Work remains to be done by associations such as EAIR to affirm the practice of institutional research and sustain the professional identity and professional community of institutional researchers'. The extent to which this has been achieved (or not) is, of course, open to investigation.

In contrast to the US, IR activities in the UK and Ireland developed very much 'under-the-radar' until the late 1990s when the Britain and Ireland Association for Institutional Research (BI-AIR), an informal gathering for those working in the HE sector with an interest in IR, was convened. BI-AIR evolved into the IRNetwork, supported by the Learning and Teaching Support Network (LTSN) in the early 2000s which had a strong focus on students' learning and their wider academic experience. The other elements of the US conception of IR (focus on data analysis and institutional rather than practice effectiveness), were largely confined to the professional area of 'planning', which supports institutions in planning their resources and provides data for external accountability purposes. UK planners have their own professional association, the Higher Education Strategic Planners Association (HESPA).

Nevertheless, those involved in BI-AIR, together with others interested in the much broader concept of 'institutional self-study' (Watson & Maddison, 2005), came to together in a 2008 conference, which stimulated a special edition of the journal *Perspectives* in 2009, focused on IR and the formation of the UK and Ireland Higher Education Institutional Research Network (HEIR). It was established to provide opportunities for institutional researchers and those working in related HE roles to share their knowledge, learn from others, and build networks in both nations and beyond. It achieves this through organising conferences and thematic seminars, commissioning opinion pieces on different aspects of IR, and utilising social networking tools. HEIR remains an informal network of volunteers, it has no membership fee or formal governance structure, and is built largely around its annual conference which attracts around 150 UK, Irish and international delegates each year and an online seminar series. It has a mailing list with about 300 active members mostly from within the UK and Ireland.

A key point is that IR in the UK and Ireland is dispersed across professional roles and administrative functions. There are some central IR units (especially in Ireland) that provide a link between IR and senior-level decision making, but there remains a persistent challenge regarding how best to facilitate co-operation, co-ordination and communication across operational areas and key stakeholders, particularly where there is a silo mentality. This makes targeted Continuous Professional Development (CPD) a challenge. Instead the

network's capacity building operates through providing 'content' through opinion pieces, conference papers and workshops that cut across traditional professional boundaries and where alternative perspectives are valuable (e.g., on different aspects of the student experience, the use of data for rankings and analytics, and how best to influence senior managers, foster collaboration, and enhance practice).

Capacity development in the context of the southern African association for institutional research (SAAIR)

Except for the older South African universities (established during the 18th century and early decades of the 19th century), most universities in sub-Saharan Africa were established after independence in the 1950s and 1960s. Today African HEIs, and IR conducted by practitioners in African universities, are also affected by the global forces impacting on HE all over the world.

The SAAIR was established in 1994 in Pretoria and since then there has been continuous interaction of SAAIR members with the AIR and the EAIR.

With its more than 200 members from institutions in a number of different countries in Southern Africa, the SAAIR has played an indispensable role in HE during its history of 25 years – primarily so through the offering of a range of capacity development opportunities. The aims of the SAAIR as formulated in its constitution (adopted in 1994), includes, (a) 'to advance research and analysis leading to the production of improved management information for understanding, planning, management, and operation of higher educational institutions and agencies' and (b) 'to provide capacity development and national, regional and international networking opportunities' to its members (SAAIR 1994:1).

Building on the model of the AIR in the US, the SAAIR offers training 'institutes'. There are currently training institutes in four areas, namely, HEMIS, Quality Assurance, Institutional Research and Learning Analytics (Visser & Barnes, 2016).

The South African Post-Secondary Education Management Information System (SAPSE) was introduced in 1988 and replaced in 2004 by the Higher Education Management Information System (HEMIS). Since 1994 SAAIR has organised an annual training institute for its members responsible for these unit-standard reporting systems used by the South African government to inform its decisions on, amongst other matters, the funding of the public HEIs. Over the years, the Department of Higher Education and Training (DHET) has relied on the SAAIR to provide this technical training and capacity development. The topics covered during the HEMIS Institutes are decided by the SAAIR after consultation with the DHET, although the final decisions are made by the SAAIR. Even though HEMIS is not used in other SADC countries (such as Namibia and Botswana), officers responsible for institutional data in those countries have found it useful to attend the HEMIS Institutes, and from time to time SAAIR experts offer these courses in neighbouring countries. The need for this type of training is such that the SAAIR has introduced additional training events, specifically aimed at newly appointed practitioners with the focus on the foundations of HEMIS.

In addition to the technical HEMIS training aimed at the management and operations of this reporting system, the SAAIR has also recognised the need for capacity development opportunities aimed at developing a broader range of research and analytical skills in data work. As a joint venture with the AIR, the SAAIR offered the first two IR Institutes in South

Africa in 2004 and since then such training opportunities are offered annually. Since 2010 SAAIR members also have the opportunity, through the partnership with the AIR, to enrol for the online Data & Decisions Courses. The first cohort of 17 members graduated in 2011 on completion of these courses.

When a new quality assurance (QA) system for HE was introduced in South Africa and neighbouring countries in 2003, most institutions established dedicated quality assurance units and appointed staff responsible for programme accreditation, institutional audits, quality enhancement activities, policy development, and a range of QA related functions. In response to the training needs of these individuals, the SAAIR initiated a Quality Institute in 2006. The Council on Higher Education (CHE)'s Higher Education Quality Committee (HEQC) collaborates with the SAAIR to provide capacity development for QA officers based in universities as well as in national statutory bodies (Geyser & Murdoch, 2016).

Responding to the need for evidence-based interventions to improve student learning outcomes in Southern Africa (against the background of severe inefficiencies in the HE system in Southern African countries), the SAAIR offered its first Learner Analytics Institute in 2015 and it has since become an annual event (Lemmens & Henn, 2016).

In addition to these training institutes, the SAAIR Annual Forum (taking place annually since 1994) offers an important opportunity for members to present reports on their professional work, to give demonstrations of tools and systems that they have developed, and to present scholarly papers.

Given the history of South Africa and the legacy of apartheid, it is of particular importance for the SAAIR to train a new cadre of Black and female data analysts, institutional researchers, quality officers and planners. It is encouraging to observe the growing numbers of Black participants in all the SAAIR institutes and forums. SAAIR is a volunteer practitioner association, sets its own agenda and operates independently. However, as was indicated above, the capacity development activities offered by the association are highly valued by the DHET and other statutory bodies. A study of the synergy between national policy initiatives and SAAIR capacity building initiatives indicated that the SAAIR continuously respond to national and regional needs and developments in HE (Botha, 2016) Table 1.

Concluding remarks

From the discussion above it is evident that IR, and IR practices, do not look the same in different parts of the world. What IR is called, how it is organised, and the concomitant priorities and themes for capacity development differ. The history and context of each country/

Table 1 Enrolments in SAAIR Capacity Building events

EVENT	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
HEMIS Institute	72	96	68	103	123	93	85	120	98	109
HEMIS Foundations Workshop	68	56	37	51	82	64	67	91	75	94
HEMIS Foundations Regional Workshop, Botswana	60	75	32	30	60	-	-	-	-	-
Quality Institute	57	68	46	48	38	-	99	67	87	56
Institutional Research Institute	-	25	40	-	25	-	-	25	36	35
Learner Analytics Institute	-	-	-	-	53	50	26	18	54	-
SAAIR Annual Forum	137	62	86	145	122	112	127	144	139	90

region have implications for the focus of capacity building and professional development activities, who provides it, and what form(s) it takes.

Given its long tradition and relatively advanced stage of professionalisation in the US, a structured and multi-faceted approach is important, including the availability of formal qualifications (certificates) in IR offered by a number of HEIs. In the UK, there is no membership organisation and IR practice is highly dispersed. This means that networking activities via the conference and thematic working papers is the preferred approach for capacity development. In Europe, there (may) be a sense that IR is part of academic research. In Southern Africa, with its much smaller HE system, a hybrid situation has developed, with a membership association offering structured capacity building activities (informed by US models as well as local needs) and providing networking opportunities (informed in part by European models).

However, there are similar issues across all three regions, mostly due to the impact of New Public Management in HE that seems to be prevalent everywhere, including a need for evidence in decision making, the availability of data (including, increasingly, big data), the importance/need for strategic management, accountability, performance management, cuts in public funding, and accountability requirements. Some of these issues have influenced how IR has evolved in the way it has.

Thinking ahead, however, capacity development for IR needs to change and evolve further. A more sophisticated approach to IR is needed, informed by systems thinking, aimed at proactive engagement with policy-makers and managers, organisational learning, direct links to institutional strategy ('a seat at the table'), and the analysis and use of big data. In some countries, to meet the increasing demands for research, analysis and decision support, IR needs to become more embedded within institutions as an area of practice that cuts across other professional functions. In such environments a dedicated IR function can provide the networking, brokering and capacity-building activities required to fulfil this need.

There are many opportunities to share good practice internationally, to fill gaps in current provisions and to involve other professional organisations (e.g., planners, academic and policy researchers) in the design and offering of capacity development opportunities. A result of enhanced international collaboration and mutual learning may well be an acceleration of a much needed professionalisation of IR across the world.

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