Chapter 1
Institutional Research and Decision Support in Higher Education: Considerations for Today and for Tomorrow

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1.1 Introduction

Decisions that are informed by data have become the norm for higher education officials today, and institutional research practitioners have, in many instances, played a pivotal role in providing data that has been transformed into useful information for decision making. Although the need for information about higher education institutions has existed for many more years in history, institutional research (IR) has been an active part of the modern university, particularly after World War II. Although some practices that are associated with decision support have existed for many years and in many parts of the world with established higher education, most scholars agree that the roots of IR reside in the United States, where its practice is clearly identified in terms of its roles, functions, and professional endeavors (Rice et al. 2011; Saupe 1990).

According to Lasher (2011), a research study done by the founders of Yale is often considered the first piece of IR in the US; this 1701 study by W.H. Crowley examined the organizational structure of Harvard. This study was significant because the organizational structure adopted by Yale was different from the only other two colonial colleges at that time, Harvard and William and Mary. This initial study was followed by more reports on governance structures and curriculum, but this early, first period of IR in the US was characterized by individual higher education scholars and was not generally labeled institutional research (Tetlow 1973).

In 1960, a gathering of approximately 20 individuals attended the first "seminar on institutional research" which was the precursor to the National Institutional Research Forum (NIRF) held the next year (Lasher 2011). These events and the insightful individuals in attendance were instrumental in building what is known

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today in the US as Institutional Research. Following the initial gathering, five more annual NIRF meetings took place and in 1966, the first annual meeting of the Association for Institutional Research was held. Having grown and matured over the past 50+ years, AIR has provided significant assistance in professional development, networking for those working on tasks related to IR. Those interested in details about the growth and development of the field in the US may wish to review details in Rice et al. (2011), including Fig. 1.1 shown here that illustrates significant events for and noteworthy contributors to AIR that attest to its growth and maturity.

Many of the functions attributed to IR have evolved in parallel to the evolution and transformation of institutions of higher learning across centuries. The term 'institutional research' has only been in vogue since the late 1950s, when IR offices began to be established across institutions in the US (Reichard 2012). It is frequently used in the US, South Africa, Australia, and in some European countries; but it is increasingly recognized in other regions of the world. In the US, the term 'Decision Support' is becoming more common, as it broadens the scope of IR activities and, most importantly, signals the value of the information that IR officials contribute to institutional decisions.

1.2 Institutional Research: Defined

As defined by Saupe (1990), IR is "the sum of all activities directed at empirically describing the full spectrum of functions (educational, administrative, and support) at a college or university, which are used for the purposes of institutional planning, policy development, and decision making" (1). It is the sum of activities that aim to explore the intricacies of an institution, including its origins, where it is and where it is going, and understanding its sets of relations within the wider social, economic, and geographical context in which it operates.

Fincher (1985) described IR as a specialized administrative function and fittingly styled its practitioners as organizational intelligence specialists. In considering the existing literature on the foundations and practice of IR, IR offices are seen as the engine rooms of the university; developers of policy-related research and research-led policy; and catalysts for institutional change. Fincher's work prompted Terenzini (1993, 2013) to consider the forms of personal and professional competence, institutional understanding, and knowledge needed for effective IR practice.

Dressel (1981) defined IR as the administrative function that facilitates the links between decision makers and institutional purposes, objectives, and processes, while Volkwein (1999, 2008) and Serban (2002) defined IR on the basis of its functions or faces of IR. Terenzini's forms of organizational intelligence and some of the other models for understanding what is meant by IR are further discussed in the models for practice by William Knight in Chap. 3.

While there may be common aspects of IR (such as institutional reporting, data analysis, and interpretation), the range of activities that IR and planning offices

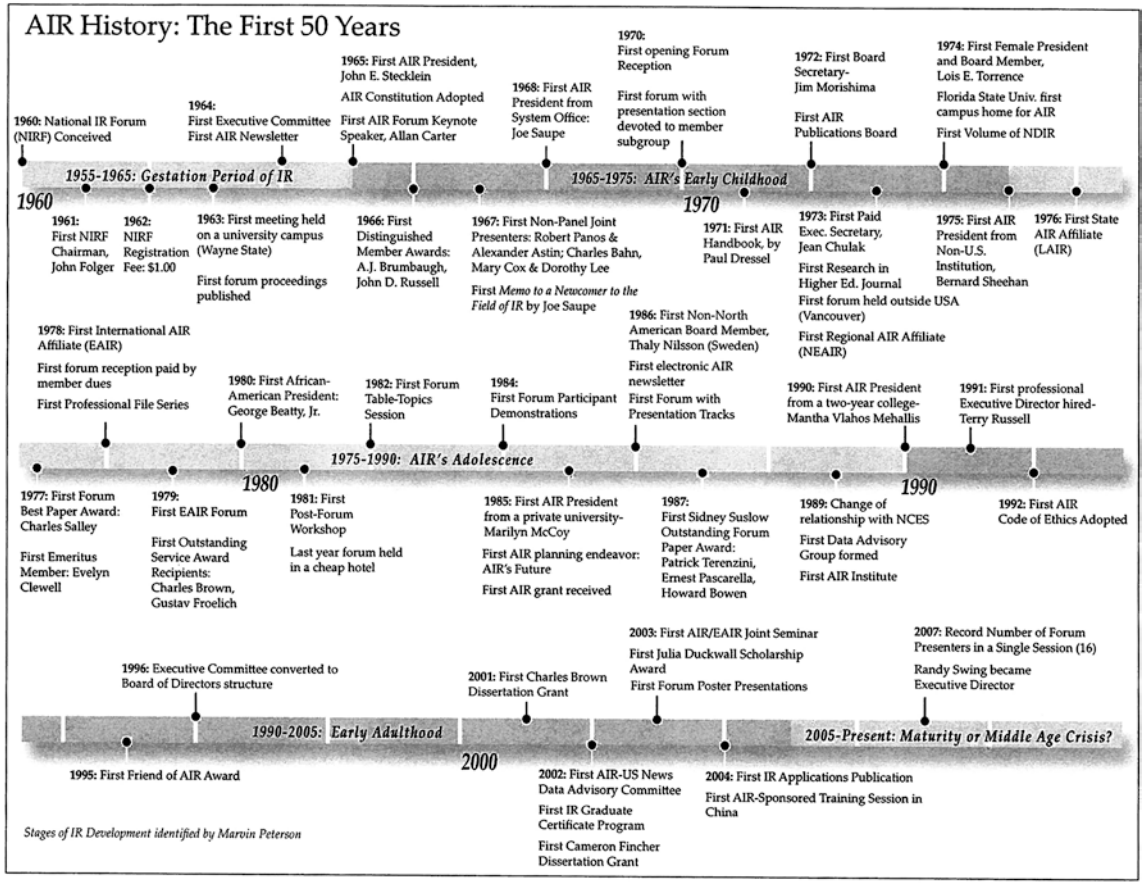

Fig. 1.1 AIR History: The First 50 Years Timeline (Reproduced from Rice et al. 2011)

perform may depend on the institutional type (e.g., research intensive, regional-focused, community- or world class-oriented), or whether the organization is private, for-profit, or public (Delaney 2009; Leimer and Terkla 2009). Ultimately, the purpose, functions, activities, services, roles, and mission of IR is determined by institutional decision makers. IR is what serves best or fits the purpose of institutions and this is what then defines IR within an institution. The intrinsic measures of relevance and success of IR is by its service delivery and capacity in supporting decision making at the institutional level, and its impact within the institution and its operational jurisdiction (either within a region, nation or across-borders). One can see that there is not an easy way to describe what the typical IR office generally does, nor what it is expected to perform. However, there is a blend of tasks, roles, and functions that come together to define institutional research in today's higher education.

Decision Support is a term used to describe the larger set of activities and tasks that include the collection, analysis, and reporting of data as information, collaborating with data stewards, and educating others on the proper use and interpretation of data. With decision making seen as a core process (Chaffee 1983), decision support signals the collective activities and often, a set of campus colleagues that bring subject matter expertise to the solution of an issue under study. IR practitioners are key to campus-wide decision support solutions; the IR staffer may be primary, and in some limited circumstances the only campus member working to address a needed topic, but answers to most of today's daunting questions in higher education planning usually require multiple people, each having knowledge and expertise that when combined, achieve a stronger solution. With these ideas in mind, I frame many comments around the broader term ***Institutional Research andDecision Support*** to signal the collective activities and set of campus colleagues that bring subject matter expertise to the solution of an issue under study.

The depth and breadth of IR and decision support and the manner in which it is carried out depends on the environment that prevails within the institution and within the boundaries where institutions operate (Webber and Calderon 2015). Across the globe, government legislation and funding seek to improve individuals and society as a whole. In many educational systems, and increasingly so in many parts of the world, the central role of IR has been cemented through these legislated requirements for institutions to provide information on the evidence of effectiveness. Historically, IR and decision support offices have been charged with responsibility of extracting, validating, and reporting institutional data. Having access to information, data tools, and methods for analysis has underpinned the foundation for IR to undertake a range of studies to better understand institutional performance as well as provide foundation for institutional repositioning and setting strategic directions. These are a but a few of the many common threads that define the practice of IR and planning whether it is undertaken in an institution based in North America, Europe, Latin America, South Africa, or Asia.

1.3 What Is Building Capacity in Institutional Research and Decision Support?

Building capacity in IR, for me, is informed by some previous discussions on capacity building in organizations (e.g., Cooper 2007; Dill 2000; Lancrin 2004; Marginson 2006). With increasing requirements on organizational efficiency, performance-based accountability is an important factor in higher education planning (Alexander 2000). Academic planning in today's complex higher education sector requires senior leaders to consider the drivers that shape higher education today, particularly the external environment (Pfeffer and Salancik 1978). Integral to capacity building in an organization or in a unit such as IR is an understanding of how organizational elements interact with each other and with the environment, known as systems thinking (Birnbaum 1988). Individuals engaged in capacity building, particularly at the organizational level, must be aware of and strategic in its interactions with individuals within and across organizational units. As well, specifics of the environment, relationships, and indirect authorities across organizational units can contribute to the assignment of responsibilities and the effectiveness of collaborative work.

An organizational capacity-model proposed by Morley (2005) at NACUBO (National Association for College and University Business Officers) developed a model called BOC (Building Organizational Capacity), and defined it as "the capability of individual higher education institutions to anticipate, plan for, and respond effectively to institutional challenges in ways that have continuing impact." NACUBO's BOC framework encourages college and university leaders to view an organization and its many parts as a complex system with many subsystems such as administrative and academic departments. Systems are characterized by flows of information and actions and feedback loops that affect the flow of information. Morley (2005) reports that when institution 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 organizational capacity (BOC) in higher education institutions as the administrative foundation that is necessary to plan, implement and sustain a campus initiative. He developed a web-like model (see Fig. 1.1), acknowledging the interconnections between organizational units and institutional processes. Toma's model places *purpose* (one of the eight elements) at the center of the model, and by interconnecting each BOC element. Defining organizational capacity as the necessary foundation to successfully execute strategy, these changes reflect Toma's idea that capacity building emanates from a shared understanding of 'why we are here, and where we are headed.'

Although they were not thinking specifically of IR, I believe Morley's (2005) and Toma's (2010) ideas are relevant to building capacity in IR. Today's IR practitioners have a tall order in front of them. They must have technical and analytic skills, they must understand the foundations and practice of higher education, and they must be

able to seamlessly use their knowledge and skills to provide good and useful information for decision making. IR directors must balance proactive and reactive reporting and information needs, and articulate it in a way that can be heard by the stakeholder. As Bramblett and Broderick (Chap. 9) point out, building capacity in IR includes a deep understanding of the organizational structure, how information flows, and how one's specific college or university is interconnected. Importantly, it requires a plan for short-term and a vision for long-term goals related to professional development. AIR's *Duties and Functions of Institutional Research* (2017) and the *Statement on Aspirational Practice* (Swing and Ross 2016b) may serve some institutions and IR officials well in offering ideas and perhaps a template for professional development that can help lead to greater IR capacity.

Professional development for individuals who perform IR tasks is a primary way in which we can build capacity. Through annual face-to-face conferences and seminars as well as online and video workshops, IR practitioners have access to formal and informal opportunities to increase their knowledge and skills. For example, AIR offers a professional development activity, the *Holistic Approach to IR* (http://www.airweb.org/EducationAndEvents/OnlineLearning/Pages/A-Holistic-Approach.aspx). Valuable to professionals who are new to IR, this program is offered online as well as in a hybrid version of face-to-face and online work to ensure transmission of important information for those new to IR and an opportunity to build collegial relationships with others. There are many good opportunities for IR and decision support professional development occurring across a number of countries and some examples are mentioned in Chaps. 9 through 15.

Chetty and Muller (Chap. 12) remind us that capacity building is about growth. Better institutional research and decision support will benefit from growth in practitioner knowledge, skills, and experience, and broader capacity development ideally takes place within a framework of three interrelated levels - individual, organizational, and an environment that facilitates growth and change. In some regions or countries of the globe, IR and decision support are well-known concepts to higher education leaders. However, in some regions, capacity building will be easier once senior leaders are well informed about the practices broadly included in IR and the value that IR can bring to decision making.

As higher education addresses change in the new millennium, IR practices and collaborative relationships with others on campus must change as well. Swing and Ross (2016a) propose an expanded 'federated' role of IR, distributed across campus. Although this model was developed in concept and not yet tested, I remain wary of any possible distribution that lets IR leaders lose control of the much-needed central guiding structures. I discuss this issue more in Chap. 16.

Importantly, Calderon (2012) argues that IR practitioners 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. In this book (Chap. 12), Calderon astutely reminds readers that some new skills will be needed in order to remain relevant and valued. Some of these skills include the ability to adapt and change as emerging trends in the labor market arise, the capacity to consider implications for higher education in

an increasingly global world, and good communication skills that enable the practitioner to engage with a variety of stakeholders.

1.4 Massification of Higher Education

Participation in higher education across the world has expanded considerably over the past century, and more countries transition from elite to mass to universal access Trow (2007; original chapter 1973). Calderon (2012) reports that from 2000 to 2030 growth is predicted to be higher than that experienced between 1970 and 2000. The number of students enrolled in higher education by 2030 is forecasted to rise from 99.4 million in 2000 to 414.2 million in 2030 – an increase of 314%.

Prior to the new millennium, the majority of enrollment in higher education was in North America and Western Europe. However, in the new millennium, greater growth is occurring in other parts of world, particularly East Asia and the Pacific. Calderon (2012) reports that the East Asia and the Pacific regions are expected to exceed 100 million students between 2020 and 2021 and over 200 million between 2033 and 2034. By 2035, 42% of global enrollments (or 212.9 million enrollments) is predicted to be from this region, a sharp contrast to the 25% it attained back in 2000. While greatest growth may occur in the Pan Asian regions, other parts of the world have seen and will continue to see great growth as well. India continues to expand, as do the Latin American and Caribbean higher education systems.

There is general consensus that tertiary education broadly assists a country or region with economic and social progress, and most countries are focused on encouraging greater participation in higher education. According to the OECD World Data (OECD Education at a Glance 2016), tertiary education participation rates for 25–34 years olds range widely, with a high in Korea of 69% and a low in Mexico of 21%. Even with an average baccalaureate completion rate of 41% (OECD Education at a Glance 2016), we see higher education continuing to expand across the globe.

Although Trow (2000) points to the value of higher education's expansion, he also warned of problems that have been experienced through its rapid expansion. Included among those problems are escalating costs, adaptations needed to structures of governance to accommodate the move to mass higher education, and the impact of information technologies on traditional forms of higher education. All of these have a large impact on IR and also offer an important opportunity for IR practitioners to step in and provide valued and needed decision support.

Shin and Teichler (2014) believe that looking to the future in higher education means developing scenarios for a "post world-class university" higher education system and a "post-massified" higher education system. They also ponder the possibility of a future higher education system that is not the servant of the most powerful current political ideology but, rather, can serve a multitude of approaches through a creative balance. They suggest that this requires both a realistic and an idealistic discourse, and more projects like HELF (Higher Education Looking Forward),

sponsored by The European Science Foundation (ESF). This project concluded that "forward-look" projects are a promising way to explore the possible futures of technology and society, as well as possible futures of research in the respective areas (Shin and Teichler 2014).

1.5 Technology's Role in IR and Decision Support

Technology is ubiquitous in nearly every facet of the higher education enterprise. Although some might argue that its prediction to make our lives easier and more efficient may not have been fully realized (Borgmann 1992), it is indeed a part of our work that will remain and likely expand even further. As Zheng (2015) astutely notes, the increasing importance of data analytics is acknowledged by higher education leaders who face a multitude of challenges, including increasing operating costs, dwindling state support, limits to tuition increases, stagnant research funding growth, and increasing competition from the for-profit sector and on-line education. To navigate their institutions through these challenges, higher education leaders have placed more emphasis on the use of data to support decisions. Advanced statistics techniques ensure easier and more precise analytic solutions to challenges in higher education. Vendor products for monitoring student success along with enrollment and strategic planning, and daily communications are frequent with many examples of and opportunities for predictive analytics.

Data management is fundamental to effective IR and decision support and business intelligence offers the integrated way to provide effective decision support. As detailed by Zheng (2015) decision support systems (DSS) and business intelligence (BI) are interconnected. As a computer-based information system that supports business or organizational decision making activities, a DSS system provides the data, analysis, reporting, and projection capabilities to facilitate operations and planning. DSS systems introduce the use of models and analytic techniques to supplement conventional data storage and retrieval, should have built-in features that empower analytic features to a variety of user levels, need to be designed to handle semi-structured and unstructured decisions (Zheng 2015). Importantly, Zheng mentions that DSS systems should be designed to support and enhance managerial decisions, but cannot replace human judgment and experience.

As a relatively new concept, business intelligence (BI) is an extension of DSS that combines data gathering, data storage, and knowledge management with analysis to in the decision process (Negash and Gray 2008). BI environments enable workers to use large databases as a source of information, and can allow for simple or more complex analyses and forecasting. The key difference between the concepts of BI and DSS is that BI is a **data-driven** DSS while DSS is a broader concept that includes non-data-driven and heuristic based DSS systems (Zheng 2015). Most decision support practices by today's IR professionals strive for BI, mindful of the need to place the data within the unique context of the specific institutional environment.

1.6 External Drivers that Prompt More IR and Decision Support

There are a number of significant external drivers that have contributed to changes seen in today's higher education systems around the world. Even though its effects were felt more strongly in some regions, the economic downturn of 2008 affected higher education in every corner of the globe. The economic recession substantially affected funding allocated to higher education institutions (HEIs) and that in turn affected services to students, staffing employed in HEIs, and the facilities used for teaching and research. Although innovations in instruction were already underway, the economic downturn greatly prompted HEIs to rethink instructional delivery, particularly the balance of face-to-face instruction in traditional 'brick and mortar' campuses compared to online instruction delivered from a distance. As higher education grow in demand around the world, increasing diversity challenges some traditional services, but the benefits outweigh the efforts needed. In the US, ongoing debates about liberal arts/humanities and expansion of STEM fields (Science, Technology, Engineering and Math) will continue. Across the world, calls for quality assurance and accountability will remain if not further increase. All of these drivers of change that impact higher education provide explicit opportunity for professionals who engage in tasks that are related to institutional research and decision support.

1.7 Broadening and Strengthening the Practice of IR and Decision Support

Although a number of individuals in state and national government systems may perform IR tasks, the broad scope of IR and decision support has generally been confined to the boundaries of an institution (Maasen and Sharma 1985; Webber and Calderon 2015). In the past, the focus of IR has been to provide information for institutional improvement and effectiveness, often through specialized research. Sometimes that information is collected in a less formal way providing basic descriptive trends, but also important is empirical data analysis, mindful of appropriate methodological rigor. This blend of action-based and possible policy-affected scholarly research investigates relevant issues having an impact on institutions. However, this broad scope is being redefined as there is a growing number of institutions globally that operate beyond and across multiple national borders. Additionally, institutions are part of national systems of education and respond to varying national policy imperatives, and interests by sector or institution type, plus institutions have formal strategic alliances with like institutions (either within region or within national borders or even internationally).

There is also a growing trend for IR practitioners to undertake studies within and across industry sectors that may require specialized knowledge residing outside IR

offices. This requires that IR practitioners be aware of the wider spectrum of institutional activities, strategic intent, and policy implications within the education industry and across industries over multiple jurisdictions. Further, traditional models of university governance are progressively being transformed so that universities are becoming not only strategic actors competing in decentralized markets in a comparable manner to private companies (Slaughter and Rhoades 2004; Cantwell and Kauppinen 2014), but are also knowledge production actors supporting public policy goals of government, with an ever increased public accountability and scrutiny but with shrinking government financial support (Whitley and Gläser 2014). These reforms in HE are changing the nature and characteristics of institutional management and the way activities are planned, implemented, and assessed. These changes are invariably having an impact on the roles, functions, service and purpose of IR. IR practitioners are not only required to adapt and embrace new forms of work, but need to respond by broadening and deepening their skills so they can be effective in the emerging workplace models resulting out of ongoing reforms taking place worldwide.

IR practitioners operate across several functional units and perform various roles within the university, including admissions, marketing, quality, assessment, and strategic planning. This means that IR professionals must be knowledgeable of institution functions and practices broadly. Blended professionals (Botha and Hunter-Husselman 2016; Carvalho et al. 2015; Whitchurch 2009), may have something less of a defined identity within the realm of the institutions. According to Whitchurch (2013), the increasing interdisciplinary nature of higher education, influences and implementations of technology, manager and learner preferences for team work, and ideological commitments to widening participation in higher education prompt more diffuse roles. These conditions may create 'blended' knowledges, contextual cross-boundary knowledge that transforms *information* into *knowledge.* 'Blended' relationships emphasizes partnerships and credibility is based on social and professional capital. It requires that individuals to know the campus and higher education issues well, to think about their role more broadly, and to develop new language to communicate with partners. For the IR professional, this less-constricted sense of identity (or redefined identity!) can be advantageous, as it can be an incentive for innovative work practices and for pursuing exploratory and speculative research to advance the institution's mission and play an active role in shaping higher education policy generally.

1.8 The Roles of IR and Decision Support

As I mentioned in a previous writing (Webber 2015), the need for general knowledge about higher education remain the foundational dimension for the work IR practitioners and planners perform, and the need for attention to detail and technical expertise is often underestimated. The more information that is collected, the greater the complexities in managing it; and yet it exponentially widens the scope for

Table 1.1 Full-Time Equivalent (FTE) Staff in IR Offices (Swing et al. 2016)

	Two-year institutions	Four-year institutions
Director and professional staff	%	%
Fewer than 1 FTE staff	1	1
1 FTE to fewer than 2 FTE	17	18
3 FTE to fewer than 5 FTE	28	26
5 FTE to fewer than 10 FTE	12	17
10 FTE or more	1	3

analysis and it provides an opportunity for exploring new possibilities and for fostering institutional innovation.

College rankings schemes (*USNews, Times Higher Education (THE)*, *Quacquarelli Symonds (QS)*, etc.) and other external survey requirements, including recent efforts such as the US College Scorecard (https://collegescorecard.ed.gov/) help provide data for state and government decision support, but certainly increase burden on IR reporting. It is no secret that much of the data required for external reporting can be useful to internal decision support. We should indeed capitalize on the use of this data, yet I believe that IR leaders should be actively involved in meetings that discuss and mitigate reporting burden so that it does not get out of hand. Large institutions typically have a larger IR staff that can more easily handle a higher volume of ad hoc and external reporting, while small IR staffs have limited capacity. A recent study by the US AIR office found a bi-modal correlation between IR office size and number of staff members, as shown in Table 1.1. The distribution of staff members again points out that many IR offices need to build their capacity for doing good decision support. Very often that includes additional staff members, but it also requires staff members who are well versed in the content knowledge and skills that are needed for good organizational intelligence. That is the underlying premise for this book.

The AIR *Statement of Aspirational Practice* (2016) recommends that the practice of IR be distributed "to form a federated network of managers and consumers" (Swing and Ross 2016b, p. 8). This recommendation seeks to take advantage of existing faculty and staff members across one's campus who have skills in statistics and data visualization. While there are typically a number of colleagues across one's campus that have skills in data analysis and perhaps reporting, I believe it is unlikely to find a large cadre of colleagues that have the needed skills in deeply understanding the data, knowledge of what the data mean in higher education, and how it affects or pertains to the specific issues at one campus. It is typically only the skilled IR practitioner, after a number of years in graduate training and hands-on experience in the practice of IR that have these Tier 3 skills of organizational intelligence (Terenzini 2013).

At present, the field of IR, particularly in the US, appears to be at a crossroads. Too often, IR directors report a high workload and the challenge to accomplish all needed tasks each day. Senior leaders and external stakeholders request information frequently, and most often accompanied with a short response time. To add to the challenge, budget shortfalls may also minimize the addition of more staff that could

help manage the workload. It might be tempting to provide data access to colleagues on campus without structured training or guidance, and who may not understand the nuances of varied data definitions or incorrect uses of data or statistical analysis of that data. Such temptations to offer unstructured data use or access should be avoided. Subsequent chapters in this book expand on the value of collegial collaboration with other son campus, but also the need for IR leaders to remain deeply involved in data management, analysis, and governance, to ensure correct use and understanding of the data that leads to high quality decision support. Armed with the training and years of on-campus experience to understand the nuances and the need to examine within context, IR leaders are the professionals who can most efficiently and effectively provide coherent decision support.

Too often, the collection of vendor products publicized to higher education senior leaders and IR officials market the products with great sophistication, and portray the product as a way to accomplish many tasks quickly, efficiently, and with seemingly little effort. In addition, leaders of campus IT units may offer to ease the burden to IR. To this end, the proliferation of vendor products for data collection, analysis, and visualization have proliferated across campus. While Central IT units typically have oversight and responsibility for campus technology and data security that support broad-based business practices, some CIOs may argue that their office can also be the logical unit to oversee the campus data management, analytics, and data reporting. Indeed, this trend may take some of the initial burden off the central IR office, but it will likely not provide consistency nor accuracy in data that is reported. Today's IR practitioners, replete with graduate level training that ensures an understanding of technical and analytic skills (Terenzini's Tier 1-technical/analytical intelligence), deep knowledge of higher education broadly and an understanding of the daily business practices (Tier 2-issues intelligence), and long-term hands-on experience in the understanding of campus-specific data and ways to effectively consider the implications of that data for decision making purposes (Tier 3-contextual intelligence) have an important role to fill in today's higher education setting. The broad set of knowledge and skills is not learned overnight, nor can be effectively accomplished when given minimal time and effort. Effective practice requires IR practitioners to have a very good understanding of the data as well as the ability to interpret and draw inferences about a variety of internal and external data sources. Furthermore, it also requires that decision makers provide support, vision, and commitment in resources for the objectives institutions seek to achieve. IR practitioners need to develop and enhance their skills so they are effective in combining qualitative and quantitative approaches in the fulfillment of their professional duties.

As detailed by Gina Johnson in the preface, the chapters ahead seek to engage the reader in a set of discussions about the institutional research and decision support as it is currently practiced across the world and more importantly, what is needed to ensure its growth and value within higher education. Through six global forces, author Jan Botha examines how and where IR fits in to various higher education systems around the world in Chap. 2. The practice of academic scholarship and the use of conceptual models to situate and organize IR are important and discussed

by Bill Knight in Chap. 3 and in Vic Borden Chap. 4. Authors of Chaps. 5 through 8 discuss important concepts, strategies, and tools that are integral to the success of practitioners in IR and decision support. Data Management, its distribution, and how it is used is supremely critical to good IR and decision support. A thorough and thoughtful plan for data management is discussed in detail by Kelly Briner and John Rome in Chap. 5. Bent Drake, Ian Pytlarz, and Monal Patel share some exciting examples of data visualizations that can help IR practitioners communicate important information to stakeholders, and Charles Mathies reminds us of the distinct possibilities of misuse or misunderstanding that can come from use of data. It is critical that IR practitioners appreciate the importance of placing data within the context of a particular institution and be sure to account for unique events and/or policies that are specific to the setting. To round out this section of chapters on fundamental information related to effective IR, Nicholas Hillman and Adam Kindschy share their comments on the challenges of finance in higher education and how it impacts the IR practitioner. Finance is a critical issue that will challenge higher education for many years to come, and Hillman and Kindschy offer a discussion that equips the IR practitioner to engage with campus colleagues and policymakers with information and strategies on the challenge of college affordability.

Chapters 9 through 15 examine specific applications of work tasks across the world that broadly fit in to the work of IR practitioners. Although IR may not be the descriptor used in all locations, it is clear that there is great overlap in the tasks, strategies used, and the goals for IR professionals around the world. Sandi Bramblett and Michelle Broderick cover the breadth of professional development offerings in the US and Canada; James Williams and David Kane cover Western Europe; Pita Maria Carranza shares insights on some beginning IR in Latin America; Angel Calderon speaks to the broader planning dimensions in Australia; Yuraisha Chetty and Nicole Muller describe actions and events that occur in South Africa; Gina Cinali describes the growth of IR in the Middle East and Northern Africa regions; and Ching-Hui Lin, Yuan-Chih Fu, and Jang Wan Ko address the growth a excitement for IR in Asian countries, China, Korea, Japan, and Taiwan. In the final Chap. 16, I bring together concepts shared throughout the previous chapters, and argue that IR and decision support leaders must strive to seek or remain valued colleagues who provide critical information to senior decision makers on a daily basis. Having this ‘seat at the table’ enables IR officials to use their skills in analytics and data management, deep knowledge of higher education, considerations for the future, and ability to situate the information within the context of the particular institution or setting. I hope you will read the book from cover to cover, and I hope the discussions will excite you or reignite a passion for IR and decision support in our global world of higher education today.

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