Preface

Over the past few decades knowledge generation has risen dramatically to impressive heights. Though humanity's search for new knowledge is most evident in our present times, it is an endeavor as old as human existence itself. The propensity for seeking new knowledge and understandings defines human society. Habermas (1971, as cited in Wang & Cranton, 2013, p. 30) captures beautifully the human drive for constantly learning new things: "we all have needs and interests in life and only learning can satisfy these needs and interests such as getting along well with others, controlling the environment and staying away from oppression within our society."

Learning, on occasion, can be incidental or accidental, but more often the generation of the knowledge needed to help humans effectively interact with phenomena or relationships requires systematic investigation through the activity of research. The word *research* itself, originates from the French word *rescherche* meaning to search. Of course, the search for knowledge is pointless unless the discovered knowledge is diffused throughout human society. Thus, the concept of research necessarily embodies the methods used for systematic investigation, and the manner by which generated knowledge is disseminated. Both research methods and manner of knowledge dissemination, as socially embedded activities, flex and change in response to social context, needs and interests. There can be little argument that at this time of great social and technological change, research methods and modes of knowledge dispersal are subject to change. Now, in this high state of change, is a good time to take stock and reflect on the many means of knowledge discovery and dissemination, both well established and emerging.

There is no singular 'best' method of research. The differing nature of various research endeavors warrant multiple ways of generating knowledge, sharing knowledge, and importantly, avoiding errors. Nonetheless, there exist recommendations as to what type of methods should be employed for various types of research problems. In the West, researchers are commonly advised to employ empirical research methods to address research problems. Typically, researchers have been following this kind of advice, "if you address the magnitude of a research problem, utilize quantitative analyses; if you address the in-depth of a research problem, then utilize qualitative analyses." More recently, the dichotomy between quantitative and qualitative approaches has begun to dissolve as the integrated approach of mixed methods gains popularity. The rationale behind adopting mixed methods research is that combining both quantitative and qualitative methods provides a more comprehensive view of a research problem. Mixed methods are seen to enable both breadth and depth of understanding (Schoonenboom & Johnson, 2017). Proponents of mixed methods approaches argue that mixed methods research provides an alternative angle of viewing the problem. Traditional methods, maintain the mixed methods proponents, are inadequate for investigating very complex questions (Hesse-Biber & Johnson, 2013). So for example, in mixed methods approaches, qualitative methods might be employed to provide elaboration or clarification

understanding of 'what the quantitative analysis is telling us'. Other reasons for mixing qualitative and quantitative data include: triangulation of data or correspondence of data from different methods hence increasing credibility of findings, using results from one method to inform the other method, seeking new perspectives or frameworks, and seeking to increase breadth of inquiry by using different inquiry components (Greene et al., 1989 as cited in Schoonenboom & Johnson, 2017).

The relative balance of quantitative and qualitative in mixed methods approaches varies along a continuum from qualitative dominance, to quantitative dominance, through to an equal status of quantitative and qualitative methods (McManus, Mulhall, Ragab, & Arisha, 2017). Mixed methods designs can also vary according to when each of the component methods is used. Some mixed methods designs implement both quantitative and quantitative methods concurrently. Other designs use a sequential implementation, using either quantitative or qualitative methods singularly first and then applying the other method. For example, a social research might begin with collecting quantitative data through surveys and statistically analyzing quantitative data. On the basis of statistical analysis, points of interest are identified (perhaps outlier results) and then qualitative focus groups or interviews are undertaken with purposefully selected subsamples of participants. Regardless of the timing of qualitative and quantitative components, the defining feature of mixed methods is that at some point in the research process the two approaches meld and integrate together. Most commonly, the integration of qualitative and quantitative is seen in the results but authors such as Teddie and Tashakkori (2009), Guest (2013), and Schoonenboom and Johnson (2017) have identified other points at which integration may occur including at the stages of purpose, research questions, methods, theoretical foundation, paradigm and data collection.

The idea of integrating both quantitative and qualitative research is appealing as we strive to better understand complex problems, but integrating quantitative and qualitative approaches is not necessarily straightforward. Quantitative and qualitative approaches represent essentially two different (opposing) worldviews – just 'how to' best bring together the two views, or even if they can or should be, remains open for discussion and debate (Hesse-Biber & Johnson, 2013). Many advocate for more explicit discussion of mixed methods and paradigmatic foundations (Shannon-Baker, 2016). As the set of beliefs that guide practice, the paradigms and the underlying epistemological assumptions underpinning research methods are worth delving into regardless of methodology.

Underpinning research are four major epistemological positions: post-positivism, constructivism, advocacy/participatory, and pragmatism. Post-positivists believe that knowledge is created by humans' conjecturing, and that for learners to create an understanding, it is important that they work with and challenge the conjectures (Bettis & Gregson, 2001). Post-positivism rests on three basic principles: truth is our belief in the truth of the tested hypotheses (Popper, 1959, as cited in Scotland, 2012); the principal of falsification and thus every scientific theory is always 'tentative' at best (Popper, 1959 as cited in Scotland, 2012), and thirdly, understanding requires more than only empirical data (Scotland, 2012). Resting primarily on empirical evidence with direct experimentation, empirical testing, and variable control, the positivist /post-positivist position is that knowledge generated is value neutral (Scotland, 2012).

Positivism positions knowledge as being neutral, objective and generated through scientific method. Constructivism, takes a more personal approach since the paradigm is embedded in a world-view in which reality is subjective and constructed by individuals. Constructivists assume that individuals seek an understanding of the world in which they live and work. Individuals develop subjective meanings of their experiences—meanings directed toward certain objects or things (Creswell, 2009, p. 8). The meanings constructed by individuals are varied and multiple, leading the learner to look for the complexity of views rather than narrowing meanings into a few categories or ideas. Individuals construct

different meanings from the same experiences, and those individually constructed meanings are valid interpretations of reality.

Constructivism acknowledges knowledge and understanding to be actively construed by the individual. Within constructivism the person is empowered as a powerful agent in the process of knowledge production. The advocacy and participatory view take the constructivist view one step further. Not only do individuals actively construct their own knowledge and discover their own understanding, but individuals, through critical thinking and participation have the potential to challenge the status quo and bring about change for the better of human kind. Drawing on the writings of Marx and Freire, the participatory and advocacy worldviews rest on an action agenda to help marginalized peoples in society (Neuman, 2000). According to Creswell (2009), an advocacy and participatory worldview holds that learners need to become radical philosophers; that is, they need to have an action agenda for reform that may change their lives, the institutions in which they work or live, and perhaps the larger society. The course instructor's role is to have learners speak about important social issues of the day—issues such as empowerment, inequality, oppression, domination, suppression, and alienation. Learners are considered to be equals with their course instructors (co-learners). Therefore, learners help design learning questions, collect data, and analyze information together with their course instructors, which may involve the use of technology. Since this epistemological position focuses on the needs of the learners and learners in society that may be marginalized or disenfranchised, the ultimate goal of this position is for learners to develop emancipatory knowledge. Participatory research methods based on the advocacy world view date back to the 1970's but in more recent times there has been a resurgence in the use of participatory research particularly in community projects designed to help address many of the issues plaguing the planet and its inhabitants. Participatory methods have been used in situations including raising awareness of the impact of deforestation practices and in healthcare to better understand the needs and experiences of patients. The fundamental premise of participatory approaches is giving those affected by the problem 'a voice', and not only empowering them but also providing greater depth of understanding.

The fourth epistemological position is pragmatism. Pragmatism sits somewhat in between positivism and participatory approaches. Pragmatism maintains that a worldview arises out of actions, situations, and consequences rather than antecedent conditions as in post-positivism (Creswell, 2009). In other words, from the standpoint of pragmatism, "the meaning of an event cannot be given in advance of experience. The focus is on the consequences and meanings of an action in a social situation" (Denzin, 2012, p. 81). Learners are required to use all approaches available to understand problems. To understand problems, learners are free to choose the methods, techniques, and procedures that best meet their needs or purposes. Learners may use multiple methods to understand a particular problem. The emphasis in pragmatism is on hands-on application and practical solutions to problems rather than esoteric or theoretical approaches.

All four of the epistemological positions described above are supported by deductive and inductive reasoning which translates into the familiar Dewey's scientific method:

1. Identify and define the problem based on the existing knowledge.
2. Determine hypotheses about why the problem exists.
3. Collect and analyze data.
4. Formulate conclusions.
5. Apply conclusions to the original hypotheses or theory.

Step 5 in Dewey's scientific method can be explained as knowledge creation or generating new knowledge, and new knowledge must then be published in order to disseminate it to the academic world and to the general public. Within the Confucian tradition, to realize one's inner self or self-actualization, one should be completely free from four things: arbitrariness of opinion, dogmatism, obstinacy, and egotism. Two major tenets of research in Confucius heritage countries (CHC) emerge: (1) Confucian thought related to research emphasizes meditation to control oneself, and (2) there needs to be an internal integration between self and nature. The research process that facilitates the development of this meditative and integrated self is to be continually extended through dialogue with others within many different structures of human relationships (Wang & King, 2006).

Complex problems, such as those present in current society, demand a multiplicity of minds and methods to produce innovative methods and viewpoints. This is not to say that well-established paradigms of inquiry are outdated and must necessarily be removed. The value of the established should be acknowledged but we must not get stuck there. Like all effective inquiry, questions need to be frequently asked about the research process itself such that methods, approaches and ideas can be continually renewed: How can/should the established methods be used in new ways? Do we even need to use new methods or do established methods work well? How are established research methods challenged (if at all) by new contexts? What opportunities are there for innovative, systematic ways of knowing that will increase problem solving capacity, help to see things from new angles and ultimately enrich understanding of our interactions with the environment and others? There is a myriad of research contexts and problems, so naturally inquiry into methods and approaches need to be contextually situated.

The various branches of knowledge or disciplines tend to have established or preferred methods of research grounded in established epistemological bases. Disciplines may be spoken of as if each is a self-contained or closed system of knowledge with its own well-established rules dictating how the systematic search for knowledge should proceed. In reality disciplines cannot be fully isolated in this way because understanding relationships and phenomena usually requires understanding of different branches of knowledge. Thus, engaging in research that draws on more than one discipline is not exactly new. Approaches bringing together various disciplines serve well the needs of complex problem solving in an inter-connected and rapidly changing world. Collaboration and research methods spanning the disciplines are emerging as defining characteristics of more recent research efforts (Origgi & Ramello, 2015).

Disciplinary boundaries are becoming increasingly permeable and sometimes blurred with teams of people from different disciplines, working collaboratively on solving research problems. In some instances researchers may develop methods that integrate a variety of approaches from different disciplines. The manner by which multiple disciplines are brought together varies and in literature, different prefixes are attached to the word 'discipline' so as to convey the manner by which multiple disciplines are being enacted in the research. Rosenfield (1992) has proposed a taxonomy to capture the varying levels of integration among disciplines. According to Rosenfield (1992) the most basic level of integration, level 1 is multi-disciplinary research. At level one researchers coming from different disciplines work along side each other using their own discipline methods to address a common research question. At level two, interdisciplinary research entails joint work but still approaching the problem from specific disciplines. At the third level, is the trans-disciplinary approach where methods from different disciplines are brought together harmoniously and synthesized to form the research approach. Research methods drawing on different disciplines or that transcend the boundaries of disciplines have been used in the past, but as researchers seek to address problems of greater complexity, and technology affords increased collaboration, the practice is growing. Researchers are increasingly recognizing the need to explore and better

understand how disciplines can be most effectively brought together to address problems. Some authors such as Punch (2016) call for an extension of research dialog beyond the boundaries of discipline and academia. Referring to the field of childhood studies, Punch (2016) identifies the "need for more interdisciplinary [and] cross world dialogue which also bridges the divide between academia and practice" (p. 352). Others such as Barry, Born and Wetzkalnys (2007) have sought to understand the practice by identifying various drivers for bringing together the disciplines. Drivers include introducing a discipline for its methodological contribution, for its ability to legitimize other disciplines or for its ontological and epistemological contribution (Barry, Born, & Wetzkalnys, 2007).

At a personal level, collaboration across the disciplines may help scholars to grow as a result of navigating the paradoxical tension of honoring one's field of scholarship while [at the same time] reaching across to expand and enrich one's engagement in authentic and complex interdisciplinary research (Groen & Hyland-Russell, 2016). Though there is obvious advantage (and need) for research methods that draw on various disciplines, there are also challenges. Each discipline has developed largely within its own boundaries and thus there are often differences among methodologies in each of the disciplines including: quantitative versus qualitative, closed versus open data collection methods, objectivism versus subjectivism (for example in medicine objectivism is valued, whereas in anthropology, subjectivism is the fundamental condition for research), causality versus description, absolute truth versus the search for a relative perspective (Aagaard-Hansen, 2004). In reality, research activity drawing on different disciplines occurs along a continuum and the resulting methodology is defined by the differences in how, and at what point the disciplines are brought together, and the "power of disciplines" to set their methodology and set research agenda (Mallaband et al., 2017). Regardless of the nature of the integration of the disciplines in the research effort, the inherent differences among the disciplines are a source of tension, and necessitate negotiation and thought as to how, what are sometimes seemingly opposing methods, can be integrated successfully. The challenge for researchers is to look beyond their own belief systems and accustomed ways of working to consider the nature of the problem, assess the limitations and strengths of methods, and then craft an approach to most effectively allow systematic investigation of the problem at hand.

The challenges of researching across disciplines wash into scholarly publishing. There are differences among disciplines in relation to measures of quality and even accepted ethical practices. Peer-review as the gold standard for insuring quality in academic journals and conferences becomes much more complex in reviewing research that crosses disciplinary boundaries. Disciplines have fairly clear epistemological foundations and established (but sometimes implicit) criteria for evaluation of quality. When in interdiscipline research the various epistemologies and methods collide, the definition of quality becomes particularly problematic – it is no longer sufficient to apply the criteria from any one of the contributing disciplines; attempting to apply criteria from all contributing disciplines can lead to contradictions and uncertainty (Belcher, Rasmussen, Kernshaw, & Zornes, 2016). The need to develop criteria for best practice and research quality across disciplines is a matter of some urgency (Belcher, Rasmussen, Kernshaw, & Zornes, 2016). Peer reviewing research drawing on multiple disciplines highlights just how much disciplinary norms and conventions shape communication. Reviewers from outside the discipline may not fully understand contexts and other situations. Cross- or Intra discipline peer review challenging – charged with both maintaining rigor but yet being open to new possibilities for knowledge production.

Scholarly publishing, regardless of discipline, is facing a number of significant challenges. Since around 1665, scholarly publishing in peer-reviewed journals and academic textbooks has been (the mainstay of knowledge dissemination and is the means by which scholarly dialogue and debate is initiated

and extended beyond the boundaries of individuals and research institutions (Origgi & Ramello, 2015). Though scholarly publishing is a long-established practice, the forces emanating from the scientific community, from science and from external contexts such as market pressures, the digital revolution and globalization, have thrust scholarly publishing into the limelight such that scholarly publishing itself has become a major topic of discussion, debate and speculation (Origgi & Ramello, 2015).

A dominant theme in the current discussion surrounding scholarly publishing is the potential demise of university presses. Traditionally, university presses are primary avenues for academic publishing. However, assisted by the digital revolution new business models of publishing have emerged, and in academia, there is the emergence of relatively new business-like models and an associated growing competitiveness (Origgi & Ramello, 2015). Such factors are placing increasing pressures on traditional university press processes. Given the long-standing role of university presses in scholarly publishing, it is with a degree of alarm that some speculate the traditional university press model of publishing will not survive emerging trends and is likely nearing its end. An article published on the 22 April 2018, in the online publication, *The Chronicle of Higher Education* is entitled *Scholarly Publishing's Last Stand* – When university presses close, so do our minds (Cohen, 2018). In the article, Coit Gilman, founder of the university press at Johns Hopkins is quoted as saying "It is one of the noblest duties of a university to advance knowledge", and the article's author Cohen argues that the loss of the university press is a major blow to academic publishing since university presses publish what commercial publishers will not and they are "motivated by something other than commerce" (2018, para. 3). Most definitely the sustainability of university presses is a 'hot topic' at the present time. One of the topics emerging in the discussion of viability of university presses and in discussion of dissemination of research in general is that of open access publishing.

Open access publishing rests on the ideology that research should be accessible to all and money (or lack of) should not impede that access (Hayes & Holley, 2014). But open access publishing is controversial. Although the ideology is free access to research papers, authors are usually up for a fee for publication. A system in which the author pays to have a paper published is clearly open to corruption. The peer review process can potentially be 'bought out' resulting in the publication of inferior 'science'. Furthermore, in an effort to appear competitive and attractive, publishers may accept less than academically rigorous works.

Open access or not, the peer review process has in itself come under some scrutiny. Some point to a lack of evidence of the effectiveness of the peer review process indicating that often it does not pick up errors, or that in the case of conferences pressures to accept larger number of papers allows work to be published that falls short of academic standards and credibility (Kelly, Sadeghieh, & Adeli, 2014). Others critical of the peer review model point to the inconsistencies between peer reviews of the same article. With the newer business models, greater competitive pressures in both business and academia, and the access afforded by digital technologies another issue is plaguing the scholarly publishing process more than ever – predatory publishing. Predatory publishers are publishers who "publish with little or no peer review and lure unsuspecting authors who need to publish their work" (Smart, 2014, p. 55).

Ethical considerations aside, scholarly publishing is also being challenged by the emergence of potentially new outlets for disseminating scholarly work. Academic journals and textbooks are the staple of scholarly publishing. However, the digital revolution is opening options for the dissemination and discussion of scholarly work. Blogs are beginning to attract some attention as methods for sharing and discussing scholarly works. Whereas in the 1990's when blogs first appeared they were considered personal expressions of thoughts on a simply social or 'human interest' basis, blogs are now starting to

be considered legitimate ways of building reputation and expertise. In the field of scholarly publishing, blogs are not being touted as replacements for journals and textbooks but rather the argument is for the value of blogging as a genuine scholarly activity and as a valuable tool for opening scholarly dialogue. The case argued is for blogging to be recognised as a form of scholarship. As Matizen (2012) observes:

Academic blogging can and should have an acknowledged place in the overall ecology of scholarship. It does contribute—and should be recognized as contributing—to both the intellectual and the institutional goals of our universities." (p. 348)

Part of the attraction of social media tools such as blogs in scholarship is that such tools facilitate collaboration and criticism from a wide range of audiences – remembering the goal of scholarly publishing is not only to diffuse new knowledge, but more importantly to subject work to rigorous discussion through which ideas are constructively discussed, evaluated and/or elaborated.

From the preceding discussion it is seen that both dimensions of research – the method of systematic investigation and the method of dissemination, are subject to the forces of change. Given the complexity of present society and its drift towards connectivity and system thinking, working within and across disciplines is a focal point of research activity. There are most certainly points of similarity and points of differentiation among disciplines along the dimensions of content, approaches, scope of inquiry, philosophical underpinnings, research methods, through to how quality, and to how worthwhile and ethical research is defined and conducted. While the concept of a discipline provides a convenient unit of analysis for understanding and organizing knowledge production, disciplines are embedded within the intricate ecosystem of phenomena and human relationship. Specializing in one discipline must therefore not preclude appreciating and understanding the strengths and weakness, the opportunities and challenges found in others.

Unfortunately, most books on scholarly publishing and research methods focus on a "how to" approach, overreliance on either quantitative analyses or qualitative analyses or even mixed methods research, very few of these books deviate from Dewey's approach to research or offer different perspectives from other major world cultures. Why have contemporary theorists and statisticians such as Stephen Brookfield, Sharan Merriam and Patricia Cranton published the most popular books to inform readers and researchers worldwide? In part, this is because of their willingness to publish their writings in a book such as this one, which addresses issues of scholarly publishing and research methods across the disciplines. It was with this goal in mind, that we asked these world-leading scholars to send us their chapter proposals based on the theme of this book. They quickly sent in their chapter proposals. They have written their chapters using a language that can be understood by all graduate students, faculty, researchers and librarians.

OBJECTIVE OF THE BOOK AND TARGET AUDIENCE

The Handbook of Research on Scholarly Publishing and Research Methods across the Disciplines features full-length chapters (around 13,000 words per chapter) authored by leading experts offering an in-depth description of concepts related to scholarly publishing and research methods in this evolving society. The authors are not just leading experts; they are world's leading experts. Amaze yourself by reading the biography section for all authors of this unique volume. This book is intended for researchers, scholars, professors, graduate students as well as librarians in Education, Business and Social Sciences.

ORGANIZATION AND IMPACT OF THIS VOLUME

Based on the theme of this book, this book naturally falls into several parts:

1. The process of scholarly publishing;
2. Qualitative research methods;
3. Quantitative research methods;
4. Multilevel/multidisciplinary analysis and assessment of research.

Some of the chapters were written by the most frequently cited scholars and their own books have been adopted as required textbooks by numerous universities worldwide. We are fortunate that these scholars as well as their colleagues have decided to contribute to this book to help our struggling scholars and graduate students. Words cannot express our gratitude for their expertise and decades of experience in scholarly publishing and research methods.

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