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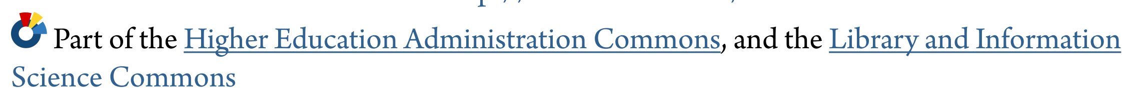
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UNDERSTANDING FACULTY PERCEPTIONS OF THE FUTURE: ACTION RESEARCH FOR ACADEMIC LIBRARIANS

KARA JOSEPHINE MALENFANT

A DISSERTATION

Submitted to the Ph.D. in Leadership and Change Program
of Antioch University
in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy

August, 2011

This is to certify that the dissertation entitled:

UNDERSTANDING FACULTY PERCEPTIONS OF THE FUTURE: ACTION RESEARCH FOR ACADEMIC LIBRARIANS

prepared by

Kara Josephine Malenfant

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I wish to acknowledge those who helped me in completing this dissertation. First and foremost I would like to thank my committee. Chair Jon Wergin was a steady and calm presence through all the twists and turns my research took. When my spirits flagged, he offered heartening words that buoyed me again and again. Al Guskin, who was also my academic advisor early in the program, provided ongoing encouragement and a helpful new perspective at several key points. David Staley, who also served as my methods mentor, offered a balance of enthusiasm and pragmatism about research in the real world of organizations.

Beyond my committee, there are many other faculty and staff members in the Antioch Ph.D. in leadership and change program who each contributed to the course I took in this dissertation. I hold them all in deep esteem and am grateful to each for the roles they played. Likewise, I am thankful to have found such a warm community in my cohort, where classmates challenged and supported each other in vital ways. I am happy to have found a program designed to truly meet my needs as an adult learner. It provided sufficient rigor, offered the right balance of structure and independence, and, quite importantly to me, supported adventurous scholarship.

I am indebted to the faculty and staff at the institution where I conducted my research. The library strategic directions group agreed to participate in my study on top of an already heavy workload, and I am grateful they assented. My key contact was particularly helpful, and I would not have accomplished as much as I did without her assistance. Thank you. I am also appreciative of the librarians at the first university where I had started preparing for my study. They walked a fair way down the path with me before we all agreed to change sites. It was a delight working with them, and I hope to have the opportunity to do so again.

My colleagues at the Association of College and Research Libraries have been more than understanding of my frequent absences and lapses in focus over the past four years. They have been active supporters of my studies and this dissertation in many ways. In particular, Executive Director Mary Ellen Davis was an early enthusiast who provided me valuable opportunities to apply theory in the workplace. My friend and colleague Kathryn Deiss was a crucial sounding board, and her confidence in me was gratifying. She dug right in to read an early draft of my literature review and identify gaps. We bandied about different approaches to the focus groups and the debriefing, which greatly refined my thinking.

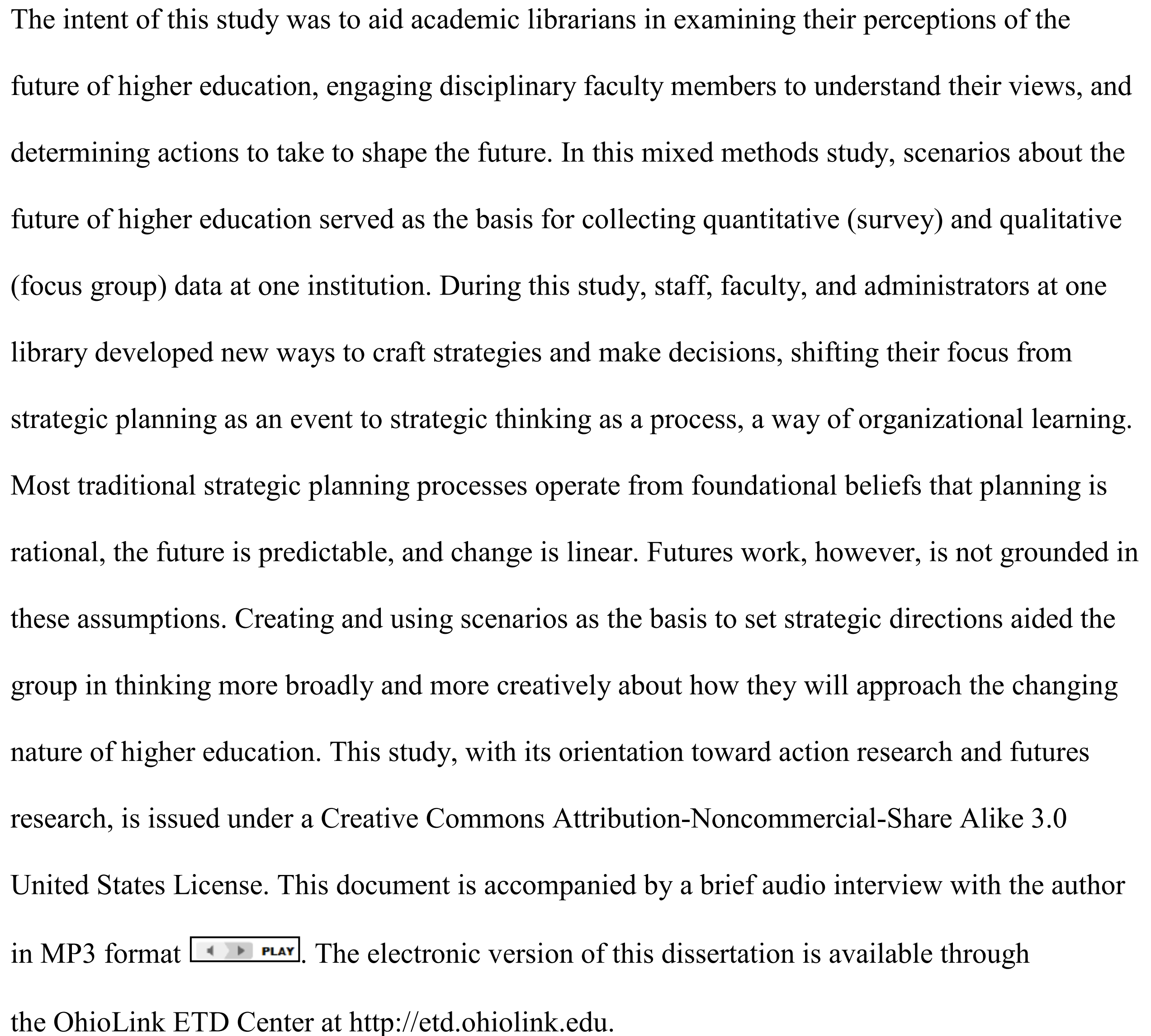
The positive experiences and growth I experienced personally, academically, and professionally as a result of being a student in the Antioch Ph.D. in leadership and change program and carrying out this dissertation did not come without cost. I would like, therefore, to thank my family for their endurance, love, and support these past four years. My parents, Judy and Bert, were constant cheerleaders who checked on my progress during everyone one of our Sunday night calls. My husband Dirk bore my absences without complaint, consoled me when I needed it, and celebrated my successes. My young son, Ian, has had to learn patience at a very young age and did so with remarkable grace. He starts his educational journey with kindergarten this fall, just as I close the last chapter on my formal education. I am grateful to all those who helped me reach this goal expeditiously.

I dedicate this dissertation to my parents,

Albert W. and Judith A. Malenfant,

who instilled in me a love of learning and belief in myself at a very young age.

Thanks, Mom and Dad!



Abstract

The intent of this study was to aid academic librarians in examining their perceptions of the future of higher education, engaging disciplinary faculty members to understand their views, and determining actions to take to shape the future. In this mixed methods study, scenarios about the future of higher education served as the basis for collecting quantitative (survey) and qualitative (focus group) data at one institution. During this study, staff, faculty, and administrators at one library developed new ways to craft strategies and make decisions, shifting their focus from strategic planning as an event to strategic thinking as a process, a way of organizational learning. Most traditional strategic planning processes operate from foundational beliefs that planning is rational, the future is predictable, and change is linear. Futures work, however, is not grounded in these assumptions. Creating and using scenarios as the basis to set strategic directions aided the group in thinking more broadly and more creatively about how they will approach the changing nature of higher education. This study, with its orientation toward action research and futures research, is issued under a Creative Commons Attribution-Noncommercial-Share Alike 3.0 United States License. This document is accompanied by a brief audio interview with the author in MP3 format PLAY. The electronic version of this dissertation is available through the OhioLink ETD Center at http://etd.ohiolink.edu.

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Chapter I: Introduction

Anthropologist Margaret Mead turned to anticipatory anthropology later in her career and in a 1977 lecture explained, “I use the term ‘open-ended’ to suggest that our future is neither predetermined nor predictable: it is, rather, something which lies within our hands, to be shaped and molded by the choices we make in the present time” (Mead, 2005, p. 329).

Statement of the Problem

The intent of this study was to aid academic librarians in examining their perceptions of the future of higher education, engaging disciplinary faculty members to understand their views, and determining actions to take to shape the future. The purpose of this mixed method study was to converge complementary data on the same topic. In this study, scenarios about the future of higher education served as the basis for collecting quantitative (survey) and qualitative (focus group) data.

This study, with its orientation toward action research and futures research, takes as its starting point the report *Futures thinking for academic librarians: Higher education in 2025* (Staley & Malenfant, 2010), which sought to understand librarians’ perceptions of the future of higher education. Upon completing that white paper, I wondered about the perspectives of faculty and where the points of divergence and convergence are. I also wondered what kinds of actions librarians would take upon recognizing faculty perspectives. Academic power structures and systems can reinforce hierarchies and prevent mutuality between faculty members and librarians. In this context, tensions may arise and collaboration can be difficult. Yet librarians thirst for true partnerships with faculty and wish to be seen as educators in addition to service professionals. If one accepts that change is constant and the future is unpredictable, what has to

happen between librarians and faculty to successfully navigate, together, "permanent white water" (Vaill, 1989)?

Purpose of the Study

In this dissertation, a small group of academic librarians and library staff members at one institution used scenarios they have developed to ask faculty about their perceptions, then reflected on the data collected to develop more nuanced understandings and determine actions to take to shape the future. The intended goal of this study was to aid librarians in thinking more broadly about the future, in considering how they will approach the changing nature of higher education, and in increasing their capacity to engage in strategic conversation with faculty members. It may have also helped disciplinary faculty reflect on their desires for the future and prompted them to consider potential roles for the library.

This study, with its orientation toward action research and futures research, emphasizes strategic thinking over strategic planning. Most traditional strategic planning processes operate from foundational beliefs that planning is rational, the future is predictable, and change is linear. Futures work, however, is not grounded in these assumptions. It focuses instead on becoming more adaptable to better manage potential surprises and the multidirectional potential of change.

Background and Context

Academic culture is diverse and multifaceted, not homogenous. Indeed, there are conflicting attitudes, beliefs, and behaviors within colleges and universities. At the same time, the external environment is compelling higher education to change. Large societal trends, such as a culture of openness and the democratization of knowledge, and the expectations of external stakeholder groups for increased accountability, both fit with and bump up against predominant academic values and traditions. Tensions necessarily arise as no system can honor all values.

Straddling the two "twin pillars" of 20th-century higher education in the United States—collegial culture on the one hand and managerial culture on the other (Bergquist & Pawlak, 2008, p. 43)—are academic librarians. We seek to protect the life of the mind and defend knowledge for knowledge's sake. At the same time, we strive to create effective and efficient operations that are responsive to the needs of faculty and students.

Academic librarians, who are traditionally oriented to serve our community of disciplinary faculty members and students, grapple with decisions about how to meet diverse needs and which competing values to honor. Cultural tensions and historically constraining factors may prevent academic librarians from being seen by disciplinary faculty as peers and could prevent librarians from seeing themselves in this light (Benton, 2009; Julien & Pecoskie, 2009; Kotter, 1999; Manuel, Molloy, & Beck, 2003; Thill, in press). Yet, librarians are eager to be full partners, more collaborative, and recognized leaders on campus (Hawks, 2009; Kotter, 1999; Neal, 2009; Raspa & Ward, 2000; Somerville, 2009; Wegner & Zemsky, 2007).

Academic librarians have recreated traditional roles, becoming central to collaborative instructional change (Gilchrist, 2007) and influencing the way scholarship is conducted and communicated (Newman, Blecic, & Armstrong, 2007). Libraries are viewed as "vibrant centers of learning" (Fister, 2010, para 6) because the people who work there are acknowledged as central to teaching and learning. Campus administrators want librarians to continue on this path, working closely with academic departments (Estabrook, 2007) and collaborating in instruction and research so that others on campus consider the library to be important (Lynch et al., 2007). I see academic librarians as uniquely positioned because libraries function as a hub for campus intellectual life and the crossroads of many disciplines. As such, librarians could create space for organizational learning, in an effort to resolve gaps between values and practices. Librarians

could more fully embrace their roles as facilitators of conversation (Lankes, Nicholson, & Silverstein, 2006) to convene discussions with various stakeholders. They could take on leadership roles, available to all academic professionals regardless of positional authority (Wergin, 2007), to promote cultural change throughout the campus community, as Kempcke (2002) advocates. In doing so, they could mobilize their communities to see new perspectives and reframe the questions facing higher education.

Historically, librarians have clung to books closely and poured energy into building collections, yet libraries are much more than their buildings or the books within them. While academic librarians firmly believe in the value of looking outside the walls of the library and outside the campus to better understand the larger environmental context, this kind of strategic thinking is difficult to enact in practice. Thinking more broadly and to the future requires comfort with uncertainty. Futures work calls for confidence in using one's imagination to interpret distant signals, telling stories about the implications they hold for the present. This requires a high tolerance for ambiguity, which is quite different from a belief that one can control and predict the path an organization will take, as in traditional linear strategic planning processes.

Positioning of the Researcher

Changes in higher education and society at large require librarians to shift their mental models and alter their services. This calls for substantial personal and organizational commitment to change. As the Scholarly Communications and Government Relations Specialist at the Association of College and Research Libraries (ACRL), a division of the American Library Association, I have a strong personal and professional interest in understanding how

change occurs. I want to understand the change process and what leadership principles and activities support change.

In my own life as a librarian and association administrator, I believe that there is both a need and a thirst for greater collaboration between librarians and disciplinary faculty members. Librarians, top administrators aside, seldom have opportunities to engage in "big picture" conversations with faculty. Instead, exchanges are often limited to operational tasks, such as planning instruction for specific courses or discussing purchasing and cancellation decisions. I know from experience as a history liaison for six years that there are few opportunities to talk with disciplinary faculty members about issues that are more conceptual and require deeper engagement and reflection. Yet, this is just the kind of conversation librarians seem to crave, as I have seen through the ARL/ACRL Institute on Scholarly Communication. In the institute's signature event, participant teams of librarians, faculty, and administrators come together for 2½ days of intensive program planning. What started as a spontaneous panel of disciplinary faculty on the last day of our first event, later led to an in-depth workshop for librarian alumni called *Conversations with faculty: A workshop on dialogue*. Librarians wanted to know how to better understand faculty perspectives and how to have deeper, more meaningful conversations with disciplinary faculty.

Much of the library literature I will review in Chapter Two shows tensions between librarians and faculty. Many practitioners exhort their fellow librarians to engage more in collaboration with faculty. While I understand this perspective, I believe many of the essays and think pieces do not fully acknowledge the power structures in place that prevent this from occurring. It is not—as some believe—that librarians have a bad self-image or are too meek;

there are many systems which reinforce hierarchies and prevent mutuality, as this literature review will explore.

While I found in an earlier case study about liaison librarians (Malenfant, 2010) that some do have difficulty with the changing nature of profession, I do not start this dissertation research by working from a deficit model. Instead, I appreciate how forward thinking and change centric many academic librarians have been and continue to be. I believe the profession is well aware of its need to change and adapt. I also believe librarians have been quite adept at doing so for decades. As I will show in Chapter Two, librarians are well regarded by presidents and provosts. So, instead of scrambling to demonstrate our value, we can build on the strengths we already have. We can lead campus conversations about the future, engage stakeholders across disciplinary lines, and be intentional about feeding our research back into practice as we continue to adapt and grow.

To my mind, academic librarians are exemplary scholar practitioners and action researchers. In part this is due to academic or faculty status, which requires many to conduct research and publish for tenure or continued appointment. But moreover, founding father Ranganathan (1931) urged librarians to be attentive to the needs of our community members. It is through engaging in conversation and better understanding faculty and students that we are able to continuously adjust and advance. Those who feel librarians are clinging to old ways or change averse, are not seeing the librarians I know. Of course, my view is colored as I am in a privileged position at a national association, working with highly motivated practitioners, scholars, and thought leaders. The librarians I know are very passionate about their work, about connecting with students, about partnering with faculty, and about being meaningful in the life of

the campus. I do not start my research from a place of anxiety or feeling defensive. Instead, I could not agree more with a participant in an earlier case study I conducted:

> I hate the conversation that the library has to reinvent itself to say relevant. It's a very different thing to say we recognize a need on our campus and are proactively doing things to fill that need. It puts us in a very different relationship. (Malenfant, 2010, p. 72)

I have seen in my work as a staff liaison to various committees of ACRL that, while academic librarians wish to rationally study the future and are intrigued by the possibilities, actually doing this work requires quite a different way of thinking and reorienting one's existing mental models. I supported the ACRL research committee as they worked to identify ten assumptions about the future (Mullins, Allen, & Hufford, 2007). A year later, the same committee issued an environmental scan that explored the atmosphere and trends defining the future of academic and research libraries (Association of College and Research Libraries Research Committee, 2008). In both cases, I recognized the seriousness with which the group approached their tasks and that they grappled to find an effective framework to meet their goals. They engaged in long discussions about how to understand the future and how to research assumptions, trends, and drivers.

Given my position at ACRL the past six years, I have developed a different vantage point on national issues, higher education, and disciplinary culture than many practicing librarians. Through my work at ACRL and by being a student at Antioch University, I've come to value the benefits of having this enlarged view; however, I have become removed further and further from practice and the everyday concerns of academic librarians. While I have benefited from the variety and exposure to high-level national issues, I was eager, through this research, to be back in a library working with practitioners and understanding more concretely, less theoretically, the

current and future challenges and pleasures of working with students and faculty in their teaching, learning, service, and research.

Value of Futures Thinking

For futurists, the goal is not to predict the future and then prescribe necessary actions from the top. Instead, futurists present multiple alternate futures, typically as scenarios, in order to open our minds to a variety of possibilities, challenging our mental models and "official" versions of the future. This process supports us in reflection. Futures research is more than a management fad, as Cornish pointed out:

> The perception that we can explore the future rationally and very usefully is now widespread, though by no means universal. Even today, many scholars remain poorly informed about the futurist movement. But the pioneering work of deJouvenel, Kahn, Helmer, and other futurists has left its mark, and today most educated people recognize that trends, scenarios, and other methods refined by futurists are useful in serious decision making. (2004, p. 202)

In the United States, many futurists consult for organizations or communities undertaking action research projects that aid groups in their strategic decision-making. Futures research of this type supports an enlarged notion of scholarship and bolsters those who contend, as (Schön, 1995) and (Jarvis, 1999) have, that knowledge flowing from professional practice is legitimate in building theory. The process of constructing scenarios and reflecting on alternate futures causes us to consider in a new light the assumptions and values we hold. Considering the future as uncertain and multidirectional in its potential allows us to look with fresh eyes at how the choices we make now may play out under various conditions. Given these notions of agency and reflection, some have seen futures thinking and scenario planning as valuable ways to support organizational learning (Schwartz, 1991; Van der Heijden, 1996).

Those who apply complexity theory to organizations have much in common with futurists. Both groups recognize uncertainty, ambiguity, grassroots forces, and nonlinear

conceptions of change. They advocate a reduced focus on sequential planning and equilibrium seeking, believing instead that risk taking and flexibility are positive. When operating under a complexity mind set and supported by a futures thinking perspective, organizations focus less on solving problems or controlling a system's behavior. Instead the focus is on being adaptable through plentiful and open communication. A futures thinking perspective serves as a useful adjunct to traditional linear and sequential strategic planning. It offers a different way of thinking strategically about possibilities, the external environment, ambiguous issues, and unpredictable events yet to occur.

Methodology

Futures research is not empirical research—after all, there are no facts about the future—so it is interpretive (Slaughter, 1995), in the same way that history is interpretive (Staley, 2007). In light of this, "What futurists can and often do study, are 'images of the future' in people's minds" (Dator, 2002, p. 7). Futures research is also not about making predictions by extending a trend in a straight line to make a projection. Instead, the goal is to support communities in considering alternate futures and thinking about how to manage change. As I will show more fully in chapter three on methodology, futures research has a rich knowledge base, robust tools for data collection and protocols for analysis, and a firmly grounded commitment, as an action science, to improving lives.

This dissertation research takes as its starting point the study *Futures thinking for academic librarians: Higher education in 2025*, which I wrote with my methods mentor while undertaking independent learning at Antioch and was issued as a white paper by my employer, ACRL (Staley & Malenfant, 2010). We conceived of it as a way to help stimulate thinking and chose a 15-year horizon to help academic and research librarians see beyond the worries of this

budget cycle and the short-term future. After two months of intensive environmental planning, we created 26 scenarios about possible futures. We presented these short scenarios on the future of higher education to academic librarians and asked their perceptions of probability, impact, speed of change, and threat/opportunity potential of each. The report sparked interest within my professional community and was generally well received. I have been asked to write and present on the findings to a number of audiences. Based on participant feedback, academic librarians understood the aim was to stimulate thinking and prompt librarians to consider events outside the walls of the library and even outside the campus, not to predict any one future.

After completing that research, I began to wonder how librarians' images of the future of higher education would map to those of faculty. I wanted to explore the kinds of actions librarians could take to foster growth toward a future that multiple stakeholders desire.

Setting. This dissertation research engages participants at one institution going far beyond a case study into problem solving and action research. I chose this setting for a variety of reasons. As a state-funded, masters comprehensive institution, this university may feel more acutely than other types of institutions the pressures facing higher education since it has a broad mission and must answer to variety of stakeholders. A relatively new and fast growing campus, this university has 230 full-time tenured and tenure-track faculty members and enrolls just over 9,700 students, nearly all undergraduates.

Faculty, staff, and administrators in the university library are actively engaged in reexamining roles and strategic directions. The library dean, little more than a year on the job, tasked a working group in February 2011 with a six-month set of activities that led to the development of strategic directions for 2012-2015. The library strategic directions working group initiated the work and engaged other stakeholders on campus and in the library as they

developed scenarios, considered possible actions for the library, and recommended strategic directions the library should take (for charge and timeline, see Appendix A).

An ACRL colleague and I served as consultants at this library during this six-month strategic directions process. We assisted library administrators in forming the charge for the library strategic directions working group, articulating their work process and timeline, and orienting the group members to their work. We have continued to be available on call as the group needed us throughout their process, which concludes in late August. My dissertation research is much narrower than this full set of activities, however. My study provided an added dimension to the strategic directions process underway. While the internal actions groups were considering implications for the library, my research focused on faculty perspectives, thus contributing an added view from campus stakeholders. I describe fully the scope of the complete process undertaken by the library strategic directions working group and the bounds of my research in Chapter Three.

Scope. My research design used multiple methods and triangulation, and the primary participants have vetted, negotiated, and agreed to the process. The library strategic directions working group (one administrator, five library faculty members, and two library staff members) were provided opportunities to be involved in all phases of the research as well as preparatory work leading up to the formal start to the study: planning meetings, helping to recruit disciplinary faculty, participating in the focus groups, and making meaning from the findings. Librarians, library staff, and disciplinary faculty members were invited to complete a questionnaire about the group of scenarios (developed by the library strategic directions working group) to determine their perceptions of the future. Next we held two focus groups with faculty to probe more deeply and develop a more nuanced understanding of their perceptions of the

future in a fishbowl style listening exercise. Librarians and library staff were invited to attend these meetings, participate in the conversation, and attend a debrief immediately following. Finally, the library strategic directions working group reflected on the data gathered to determine implications for the library and recommend actions to take and strategic directions to pursue.

Limitations and delimitations. I have purposefully bounded this study to look at the views of faculty members and did not include administrators. While useful to explore both perspectives, as faculty tend to hold values aligned with a collegial culture and administrators tend to align more with a managerial culture, it is outside the scope of this study.

The faculty participant groups were limited because the study's intent was on taking action at one institution, not establishing generalizability through a large sample size, hard data, detailed observations, and measures of variables. Furthermore, this research focused on the participants' perspectives on the topic of study and their search for meaning in a natural setting. The library strategic directions working group discussed the likely reception faculty would have to an emailed survey and ways to increase the response rate. Given the purpose of this study, the group determined that, from a body of 230 full-time tenured and tenure-track faculty members, a target goal they felt to be both realistic and satisfactory was a response of 15% or 35 members, from across the four colleges/schools. In the end, there were 32 usable responses from disciplinary faculty, 10 from library faculty, and 19 from library staff members. Likewise, the group decided that two interdisciplinary focus groups of up to five faculty participants and up to six library participants in each would allow them to gather enough data to base decisions and recommendations for action with confidence. We held two focus groups with a combined total of five college faculty members and six library faculty and staff members.

While using the fishbowl style of focus groups with observers was intended to provide for rich dialogue, there were potential drawbacks. Because there were librarians and library staff members in the room, faculty members may have withheld certain information that was critical of the library. While they may have been more forthcoming in a focus group setting with only me present as the researcher or in one-on-one interviews, I believed the value of having the library strategic directions working group and other librarians hear directly and participate actively in the conversation far outweighed this limitation.

For the open-ended comments gathered in the questionnaire, focus group reflection forms completed by observers and participants, and the focus group field notes, I used summative content analysis. A summative approach goes beyond mere word counts to include interpretation of content with a focus on discovering underlying meanings (Hsieh & Shannon, 2005). My view of content analysis is more impressionistic, intuitive, and interpretive than either classic (inductive) content analysis or a directed (deductive) approach. Some critics have felt that, for focus group data, content analysis alone is lacking as it does not adequately capture the interactions between people holding different perspectives in a discussion (Marková, Linell, Grossen, & Salazar Orvig, 2007; Wibeck, Dahlgren, & Öberg, 2007). While I appreciate this perspective, because my study was using multiple methods and I was seeking to converge complementary data gathered using several means, I felt using discourse analysis would focus undue attention on the focus group conversations. Additionally, I was not seeking, as a linguist may, to explore the co-construction of knowledge that occurred during the focus group conversations. Since the purpose of my study was to work with a small group of academic librarians in determining actions to take to shape the future, I felt the addition of discourse analysis was not warranted.

This study is about leadership, change, and the future of higher education. While I include many references to these topics from the library literature in my second chapter, my intent is not to provide an exhaustive overview of how librarians have studied these topics, particularly around the topic of leadership. Instead the literature shows that, while there is much professional discussion of leadership in academic libraries, this focus is relatively recent for the profession, and may not be well informed by original research, best practices, or supported by theory from leadership literature (Hernon & Schwartz, 2008; Winston, 2008). Therefore, I will offer selected contemporary theoretical frameworks that I feel would be powerful and effective for academic librarians and which will guide this study.

Definition of Terms

Throughout this dissertation I will use the term “faculty” to mean teaching faculty in various disciplines who are in the classroom regularly with students, who conduct research in their fields, and who engage with the larger community (both on and off campus) providing service related to their areas of expertise. While many college and research librarians do hold faculty status and/or tenure, I will use the term “librarians” or “academic librarians” throughout for ease and clarity, recognizing this may rankle some in the field. To describe the faculty and students who use library facilities, services, and resources, I choose the term “community members.” I use this rather than terms such as users, patrons, clients, or customers as, to me, “community members” indicates a sense of mutuality which is not captured in the other terms.

Summary of Chapters

In this first chapter, I have introduced my topic, the purpose of my study, and myself. I have also provided background, context, and an overview of the methods.

In Chapter Two, I review relevant literature to provide context and theoretical frames for my dissertation. I look first at the beliefs and values held by those within the academy, recognizing that there is not one academic culture. I include literature that deepens our understanding of how large societal trends (such as the democratization of knowledge) and expectations of external stakeholder groups (such as the culture of accountability) fit with or bump up against predominant academic traditions. Participants will explore these trends and expectations during the research process. Next, I review literature by librarians about their efforts to better understand faculty perspectives and integrate the needs of that stakeholder group in planning efforts. Then I look at how librarians have understood leadership.

Grounded in an understanding of academic culture, areas of current tension within the academy, and the ways librarians have interacted with faculty and understood leadership, I turn next in chapter two to concepts from the literature of leadership. I present the frameworks of postheroic/relational leadership (Fletcher, 2004; Sinclair, 2007) and leading without authority (Heifetz, 1994) which are, by and large, overlooked in library literature. These theories frame leadership as a process and an activity, not a person. I then look at literature about organizational change and complexity theory with relevant core principles including: nonlinear conceptions of change; self-organization with novel order emerging rather than planned or imposed; risk taking and deviance as positive forces for change; disorder and chaos as necessary to allow a new order to emerge; and the importance of relationships, communication, and mutuality. These principles are supported by a futures research orientation as it considers multiple alternative futures that may be possible, rather than predicting only the most probable. Futurists working in this vein strive to anticipate future events that would be of low probability but high impact if they were to occur, terming these “wild cards” or “black swans.” This same concept is termed “emergence”

by complexity theorists. I complete my literature review by looking at how librarians have sought to understand the future to better situate the contributions of my research.

In Chapter Three, I describe the methodology I have used by first introducing the methodological frameworks of action research and futures research. I then describe the common techniques and tools of futures research, with scenarios being a key unifying device. I provide some reflections on the ACRL futures report which influenced the design of this study. Next I describe the participants, their criteria for selection, and the research design in detail, explaining how I negotiated with the primary participants as they vetted and reviewed the research design. Next, I provide a discussion of the instruments I have used and the protocols for analysis along with a plan for how the data was integrated, synthesized, and interpreted.

In Chapter Four, I present my results with a detailed description and how I came to these results. I provide scenario space maps, creating these data visualizations from the survey responses. I provide narrative examples from the focus groups, reflection forms, and open-ended survey questions, with quotes from participants demonstrating the findings thematically. I present findings on the perceptions of the future, reactions to the process of considering scenarios and thinking to the future, and reflections of the library strategic directions group on the data gathered.

In Chapter Five, I provide an interpretation and discussion of the findings. I describe how this study has made a contribution, both to the practical work of the people at this library and to the literature on libraries and higher education. I describe what I have learned and how I will change my own professional and scholarly practice because of this study. In conclusion, I broaden the scope to discuss implications for leadership and change in my field and in general.

Chapter II: Literature Review

Introduction

In thinking about the ways librarians can better understand the views of disciplinary faculty and plan accordingly, I will first consider the beliefs and values held by those within the academy, recognizing the existence of multiple academic cultures. Reviewing traditional academic beliefs and values will lay a foundation for better understanding how large societal trends (such as the democratization of knowledge) and expectations of external stakeholder groups (such as the culture of accountability) correspond with or chafe against predominant academic traditions. The participants in this study explored these types of trends and expectations during their environmental scanning process, described more fully in Chapter Three on methodology. I will then review past work by librarians to better understand faculty perspectives and meet their needs in planning efforts.

Grounded in an understanding of academic culture, areas of current tension within the academy, and the ways librarians have interacted with faculty, I will look at how librarians and scholars of library and information science have studied leadership. Then I will turn to contemporary and critical theory from the literature of leadership and change which does not have broad exposure within the library profession. First, to think about leadership in a context where librarians may not see themselves as leaders—a notion reinforced by academic hierarchies and the gendered nature of librarianship—I will consider postheroic/relational leadership (Fletcher, 2004; Sinclair, 2007) and leading without authority (Heifetz, 1994). Rather than viewing leadership in terms of the leader as an individual, with inherent affiliated great man notions, or looking at trait, skill, style, or situational approaches and contingency, path-goal, and leader-member exchange theory, I will look at what Fletcher termed "postheroic leadership,"

which she defined as a “less individualistic, more relational concept of leadership” (2004, p. 648.) This opens the door to much wider participation in leading change. As Heifetz wrote, “We ought to focus on leadership as an activity—the activity of a citizen from any walk of life mobilizing people to do something…socially useful” (1994, p. 20). In his view, a leader is anyone who can activate a community to face its problems.

Second, to think about change in a system of systems, like higher education, complexity theory offers a useful theoretical framework. Relevant core principles from complexity theory include: nonlinear conceptions of change; self-organization with novel order emerging rather than planned or imposed; risk taking and deviance as positive forces for change; disorder and chaos as necessary to allow a new order to emerge; and the importance of relationships, communication, and mutuality. These principles are supported by a futures research orientation as it considers multiple alternative futures that may be possible, rather than predicting only the most probable. Futurists working in this vein strive to anticipate “wild card” events of low probability but high impact; this same concept is termed “emergence” by complexity theorists.

I will round out my literature review by looking at how librarians have sought to understand and plan for the future to better demonstrate the contributions of this study.

Academic Culture Founded in Collegiality

Bergquist and Pawlak (2008) proposed six archetypal cultures of the academy: collegial, managerial, developmental, advocacy, virtual, and tangible. Each helps define the nature of reality for those people who are part of that culture. Each culture provides a lens for interpreting and assigning value, provides boundaries, and establishes roles, attitudes, behaviors, and practices. In the U.S. higher education system collegial culture has been dominant, and it is one:

> that finds meaning primarily in the disciplines represented by the faculty in the institution; that values faculty research and scholarship and the quasi-political

> governance processes of the faculty; that holds assumptions about the dominance of rationality in the institution; and that conceives of the institution's enterprise as the generation, interpretation, and dissemination of knowledge and as the development of specific values and qualities of character among young men and women who are future leaders of our society. (Bergquist & Pawlak, 2008, p. 15)

Collegial systems emphasize "consensus, shared power, common commitments and aspirations" (Birnbaum, 1988, p. 86). Bergquist and Pawlak (2008) noted the influence in the United States of the British and Scottish collegiate models, with an elite focus on teaching, and the German university system, with a focus on research. The enduring influences of these systems are felt in North America today.

The legacy of the German university system is formidable, and at its core a university should be "above all, the workshop of free scientific research" (Bergquist & Pawlak, 2008, p. 23). With high value on the pursuit of knowledge for knowledge's sake, "German faculty members were given great freedom in their selection of course offerings and scholarly projects" (Bergquist & Pawlak, 2008, p. 23). Likewise, the English university influenced the higher education sector in the United States through its emphasis on complex thought and manner of discourse over practical or vocational curricula or any specific body of knowledge (Bergquist & Pawlak, 2008). While some of these influences of the British model of elitist education and the German research university model have faded, old patterns persist in the collegial culture of today: disciplinary orientation with affiliated movement away from a universal core curriculum, an orientation to research and scholarship over teaching, high value on faculty autonomy, and the prestige and dominance of large research universities (Bergquist & Pawlak, 2008).

The focus on faculty autonomy is as old as the university itself, as Oxford and Cambridge were self-governing, controlled by their guilds, and independent of the government and churches (Fallis, 2007). "Most professors define themselves first as members of a discipline, and many

professors care more about the 'quality of the department' than about the faculty or the whole university" (Fallis, 2007, p. 131). This high level of autonomy and focus on scholarship and research has negative and, perhaps, unintended consequences. Massy and Wilger (1994) wrote of the centrality of collegiality to academic departments and also its shortcomings, such as fragmented communication and overemphasis on research.

For those operating under a collegial culture, demonstrating worth has proved troublesome. "Faculty members in a collegial culture face a formidable task: how to judge the effectiveness, let alone worth of subtle and complex endeavors such as basic research, service to other people, and in particular, classroom teaching" (Bergquist & Pawlak, 2008, p. 41). Many colleges and universities look to publication records in refereed journals as indicators of effectiveness of faculty because this output is quantifiable and peers make the qualitative judgment. This reliance on peer-reviewed scholarship as the standard for tenure and worth creates disadvantages for adventurous scholarship which is possible in the digital world and marginalizes the importance of the teaching role. Moreover, it fails to answer questions about the value of higher education and student learning outcomes. I will turn my attention next to the ways demanding citizens and legislators have challenged the values and assumptions of traditional academic culture.

Rise of Managerial Culture and Accountability Movement

Collegial and managerial cultures are the "twin pillars" of 20th-century higher education in the United States (Bergquist & Pawlak, 2008, p. 43). A college or university operating under a primarily managerial culture is a "bureaucratic institution" with a hierarchical organizational structure which stresses "precision and efficiency in decision making" (Birnbaum, 1988, p. 88).

This is in stark contrast to the focus of collegial culture on knowledge for its own sake over practical knowledge.

Several factors have encouraged an increase in managerialism in higher education: rapid growth in the 1960s (to meet the needs of baby boom students) which demanded large scale and efficient institutions with a focus on administering facilities, procedures, budgets, etc.; increased federal regulation around personnel management; increased use of part-time faculty which in turn reduced faculty involvement in operations (shifting to administrators instead); and public discontent with higher education starting in the 1960s with reductions in federal, state, local, and private funding support starting in the late 1970s and continuing today (Bergquist & Pawlak, 2008).

Managerial culture is about efficiency, formal hierarchical structures, specific roles and outcomes, responding to pressures for accountability, the bottom line, and generating new revenue. It is not about the life of the mind, generating knowledge, or imparting values and shaping young minds. Senior administrators and others operating from a managerial orientation find their attempts to transfer corporate management theory to colleges and universities are perceived as “insensitive” and can readily offend some in a collegial culture who may meet these efforts with “hostility and profound skepticism” (Bergquist & Pawlak, 2008, p. 63).

Currie and Newson (1998) described how globalization contributes to the promotion of market forces and corporate culture in the academy. They called the accountability movement a micro-process of globalization. They explored accountability as a management fad with TQM, benchmarking, balanced scorecard, management for results, and other techniques being adopted from business but failing in higher ed. These are precisely the corporate strategies that can readily offend those in a collegial culture.

Business leaders, who will employ recent graduates, are concerned about the skills they bring as they enter the workforce. These leaders may be alarmed at the way higher education is operating, and their views often differ sharply from faculty views. “They feel that faculty and administrators don’t take responsibility for the efficiency of the institution and refuse to recognize the need to address escalating costs. Nor do they take responsibility for results” (Newman, Couturier, & Scurry, 2004, p. 74). Many of these business leaders were at the forefront of standards-based school reform at the primary and secondary level and think higher education should be more engaged rather than aloof (Newman et al., 2004). They may well bring with them an implicit view of the role of education as a private good, rather than a public good. It is a view we see reinforced through government policy as well.

Borden (2010) felt there is an internal paradox between assessment to improve academic programs and assessment for external audiences—to answer calls for accountability from policy makers and the public. He saw this imbalance contributing to a widening gap between academics and policy makers. Assessing for improvement, Borden wrote, is aligned with a constructivist epistemology while assessing to meet an external perspective—which focuses on facts that are standardized and can be compared across institutions—comes from a positivist view. Conflating these two theories of knowledge, he said, leads to unintended consequences. As an example, Borden pointed out that in putting graduation rates at the center of attention, institutions have not focused on better meeting the needs of underserved or low-income students who may be less prepared for success. Rather, they have become more selective about the students they admit. These types of “perverse incentives” (recruiting high achieving students who will graduate in a timely manner—thus increasing social stratification) do not support the claims of the

accountability systems (Borden, 2010). This represents a significant internal inconsistency within the culture of accountability.

The types of external pressures for accountability coming from business, regulators, legislators, and parents are the kinds of drivers the participants explored further in this study. The rise of managerialism and related culture of accountability have important implications for how librarians and faculty perceive the future of higher education. Additionally, as some of the driving forces for change around these movements emanate from outside the academy, they are just the type of factors futurists would want to consider more deeply. Another great source of current conflict within the academy is related to the movement to democratize knowledge. It too, has roots outside the higher education sector and could hold strong implications for the future.

Virtual Culture and the Democratization of Knowledge

People are creating knowledge in new ways, and the role of the higher education as part of this process is changing. We see some movement to "democratize knowledge" which I define as multifaceted. Scholars are reaching out to the public to share academic discoveries and knowledge more openly, as through open access journals, open educational resources, and blogs with research in progress. They invite contributions from both research participants, who co-design projects (as in participatory action research), and from their audience of readers (who comment and add their own observations) to produce this new knowledge. There are also pedagogical implications when faculty members, who increasingly value the knowledge students bring from their life experience and the flow of practice to theory, view themselves less as authorities and more as facilitators of learning.

The academy is responding to these complex trends in multiple ways. Some embrace the opportunities to engage more democratically with their communities in producing and sharing

knowledge. For example, Cornell's eBird project harnesses the collective power of amateur bird-watchers who record their observations in a central database so that professional ornithologists can mine these data. MIT's OpenCourseWare makes publicly available via the Web virtually all MIT course content to anyone anywhere, on a permanent basis. And Sophie, an open source multimedia authoring program developed at the University of Southern California, invites readers' comments, thus redefining the notion of the book.

We also see stasis as scholars continue to publish in high priced, subscription-only journals, turning over their intellectual output to be locked up. Promotion and tenure processes retain the narrow definition of scholarship as discovery, despite decades of conversation prompted by the Carnegie Foundation and Boyer's (1990) *Scholarship Reconsidered* and continued by O'Meara and Rice (2005), among others. These conversations have attempted to shift thinking from the divisible triad of teaching, research, and service to interwoven tasks of discovering, integrating, applying, and representing knowledge. At the other extreme, we see movements to increasingly privatize knowledge, through measures such as the Bayh-Dole Act of 1980, which allows universities to retain exclusive control over government-funded inventions for the purposes of further development and commercialization, thus encouraging academic capitalism and competition.

Librarians, who are committed to access to information, have been working for years to reform the formal system of scholarly communication – which allows research and other scholarly writings to be created, evaluated, registered, disseminated, and preserved (Association of College and Research Libraries Scholarly Communications Committee, 2003). Colleges, universities, and their libraries are responding to this dynamic environment and seeking to influence its development (Newman et al., 2007). Librarians and others have developed a values-

based narrative calling for reform of the current system, pointing to inequity in access to information for a number of reasons. For example, the current system of scholarly communication is economically unsustainable due to commercial control, creates disadvantages for emerging digital formats and the adventurous scholarship made possible in the virtual world, fails to serve the public good, and marginalizes new scholars in the humanities who face the increasingly unrealistic standard of publishing a monograph to achieve tenure.

Within higher education, those who promote new digital forms of scholarship, often closely tied to the movement to democratize knowledge, can be seen as part of the virtual culture of the academy, which "values the global perspective of open, shared, responsive educational systems" (Bergquist & Pawlak, 2008, p. 147). In the virtual culture, with Web 2.0 and user-generated content, the faculty member is no longer the expert imparting knowledge. "The greatest challenge of the digital revolution is that the professor must undergo some major changes… Faculty members are no longer automatically situated at the top of the knowledge (and power) pyramid. This can be quite threatening and anxiety provoking" (Bergquist & Pawlak, 2008 p. 169).

In writing of the virtual world, a report by leading higher education associations declared, "This is the moment to take action" and said:

> Decades of investment and development in information technologies and networked information resources have created an unprecedented opportunity for scholars to express, document, organize, and transmit knowledge with extraordinary flexibility, depth, and power; these same developments have made it possible for this knowledge to be accessible throughout our society and globally at manageable costs. Yet, these opportunities are constrained by publishing, tenure, and promotion policies based on historic practices. (Association of American Universities, Association of Research Libraries, The Coalition for Networked Information, & National Association of State Universities and Land Grant Colleges, 2009, p. 3)

Given the context in which academic librarians are mobilizing others to face the tough realities of the unsustainable system of scholarly communication and because collegial culture, the dominant frame in the academy, has a sustained focus on/orientation to individual scholarship, research and publishing, we can see how calls for reforming the system of scholarly communication can be viewed as challenging, contentious, and even radical.[1] If researchers are at the apex and all other functions and roles of a college or university support faculty in that pursuit, there is an inherent hierarchy of values and beliefs in place. Research is the gold standard and the researcher is king. One can see in this context how librarians could feel disconnected from the core work of faculty and that our efforts to reform scholarly communication could generate conflict.

So far in Chapter Two I have presented an overview of traditional academic culture and considered how large societal trends (such as the democratization of knowledge) and expectations of external stakeholder groups (such as those found in the culture of accountability) fit with and bump up against collegial culture. These sections provide background about the historic foundations and contemporary pressures facing higher education in the United States. In the course of this study, my primary participants, academic library faculty and staff members, continued to explore the larger environmental context. They constructed scenarios after taking into account these trends and others which are compelling colleges and universities to change. In reflecting on alternate futures and engaging in conversation with faculty, this study brings immediate value to the participants. Moreover, the results of this study contribute to the literature of librarianship and higher education. The results expand our knowledge about the range of

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[1] Witness a reporter's comments on the joint statement by AAU et al., referenced above, which urged universities to seize the day and become leaders in spreading research and scholarship. Howard (2009) pointed out that the statement favors the phrase "public access" – connected to taxpayer funded research – and avoids using the term "open access," noting that that latter phrase, "to some ears carries the unwelcome sound of revolution" (para 10).

perspectives and areas of tension within the academy. They also guide academic librarians in identifying—from innumerable possibilities—those trends related to the future of higher education which are most pertinent to consider.

Next, I'll turn my attention in the literature review to the roles of academic libraries, the identity of librarians, and the ways in which librarians have sought to better understand faculty and administrator perceptions and attitudes.

Librarians in the Academy, a Question of Identity

Academic librarians find themselves aligned in different ways with collegial, managerial, and virtual cultures. We seek to protect the life of the mind and defend knowledge for knowledge's sake. At the same time, we strive to create effective and efficient operations that are responsive to the needs of our faculty and students. We promote more open systems of scholarly publication and adventurous scholarship now possible in the digital world. Still, we remain committed to a scholarly record that has been carefully evaluated, registered, and preserved. Some of us hold tenure, faculty titles, and have disciplinary PhDs. Others are contingent labor.

Within the library literature, a large number of studies examine how disciplinary teaching faculty use library-led instruction. As Gilchrist noted, "Library instruction has formed the foundation of the majority of faculty and librarian collaboration and coordination" (2007, p. 37). Gilchrist's dissertation, a phenomenological inquiry of a collaborative instructional change initiative, found faculty relied on librarians for teaching and expertise. In some cases, faculty agreed they could not have accomplished the pedagogical change without the librarians.

> The experiences of these faculty participants is (sic) inconsistent with Hardesty's (1991) findings that faculty do not value the contributions of librarians to a student's educational experience, but it did reflect that faculty believe librarians do not fully understand their challenges in the classroom. (Gilchrist, 2007, p. 197)

In Kotter's (1999) comprehensive literature review, he argued that for the profession of academic librarianship to remain viable, there must be improved relations between librarians and classroom faculty. He found that many published accounts of the relationship between librarians and faculty members written by academic librarians leave a general impression that relations are strained, unfriendly, and even acrimonious. Conversely, the accounts by disciplinary faculty, Kotter wrote, tend to have a more positive light, in part as faculty members sought out the relationship for the librarians' specialized teaching and research skills.

Supporting Kotter's findings, more recent literature continues to identify a divide between librarians and disciplinary faculty members. Manuel et al. (2003) conducted a survey and in-depth interviews with 30 faculty members to understand why they use and value librarian-provided instruction. In their analysis of findings, they described how faculty culture and a disciplinary orientation can work against collaboration with librarians in two ways. First, they found that librarians may be viewed by faculty as lesser players in higher education—librarians are seen as lacking a discipline of their own. Second, they found faculty members were more focused on their own disciplines and less interested in general skills such as information literacy, which they may perceive as general education. The authors concluded that there is much work to be done to bridge the divide between librarians and faculty and that institutions typically do not reward collaboration or contributions to general education.

In another example, Julien and Pecoskie (2009) studied librarians' experiences in teaching roles. They found an unequal power relationship with disciplinary faculty that was characterized by dependence and subservience with language of deference and hierarchy. In part, they wrote, gender imbalances among librarians and faculty exacerbated this as did academic culture which privileges research over teaching and sees scholars as separate from those who

provide services, such as librarians. These power imbalances, the authors concluded, can lead to disrespect and exploitation of librarians by teaching faculty.

In his essay on organizational change in the academy, Kempcke argued:

> For transformation of academy culture to occur, librarians as academic principals must accept the leadership challenge to cultivate a climate for cultural change and demonstrate their professional and educational expertise through increased involvement in the campus community… The problem remains that almost all articles focus on the campus faculty as being removed from the culture of the faculty librarian. (2002, p. 531)

In his advice piece, an associate professor of English wondered how to put the library at the center of undergraduate education. He felt there should be stronger alliances between various groups on campus, particularly professors as content experts and librarians as information managers. He noted the inherent difficulties of this proposition:

> Professors and librarians are socialized into different professions with different values that can make us mutually incomprehensible: One emphasizes individual scholarly productivity; the other looks to provide the context in which that work can take place. The two professions are also separated institutionally by different chains of administrative accountability, separate reward systems, and separate budgets. Librarians sometimes seem remote from the usual politics of faculty life, and, increasingly, there are fewer opportunities for collegial exchange between faculty members and librarians. (Benton, 2009)

Some academic leaders advocating for greater collaboration offered a radical view when they declared, “The classroom need not be the only—or even the primary—venue in which learning takes place. Nor will direct contact with faculty members always be needed for legitimate student learning to occur” (Guskin & Marcy, 2003, p. 17). While they continued to explicitly support staff members in student affairs and the library being partners with faculty to support student learning, this view is likely too threatening for many in the academy to be adopted on a large scale.

In her analysis of ethnographic interviews of faculty and librarians, Thill (in press) sought to identify areas of conflict or inconsistency between the two groups on the values and

expectations they held for higher education. Thill looked for comments supporting pragmatic views (i.e., vocational applications of higher education) and idealistic views (i.e., those believing the greatest object of a university education is self-actualization). She found most professors supported the liberal and idealistic view of the mission of higher education. While librarians tended to favor the idealistic view as well, they did not have the same degree of consensus as the faculty. Both groups were conflicted about how to serve their pragmatic students, wishing they "would demonstrate more persistence and passion for the research process" (Thill, in press, p. 17).

Librarians in Thill's study, unlike the faculty, saw their roles as both educators and service professionals as they worked with students. They served students' immediate needs, sometimes delivering information rather than teaching the skills to find information independently, but this created problems:

> It was precisely librarians' role as helpers that complicated their relationship with faculty. Some professors felt that the patron should dictate the amount of help a librarian provided in the style of a "concierge" information delivery service. Others seemed uncomfortable with referring students to librarians for assistance. This was not because of any problem with librarians, but rather a problem with the concept of research assistance. In the liberal model of higher education, in which knowledge is its own reward, professors expect students to struggle. The struggle sweetens the experience of discovery. Librarians, who aid time-pressed student procrastinators, or even hard-working and idealistic students, undermine this model. (Thill, in press, p. 17)

Thill's study contributes to the library literature with its evidence of the friction and contradiction between librarians and faculty around their views of the research process and what they deem as appropriate roles. She concludes that it will be a difficult task "to change the research models and values of those faculty members who distrust all librarian interventions" (Thill, in press, p. 18).

From this literature and others, clearly there is tension within the academy around the topic of teaching: who is qualified to teach, what constitutes valid instruction, and to what extent

learning occurs outside the classroom (or, more accurately, to what extent the learning that does occur is considered valid and valued). Walter (2008) explored the development of a "teacher identity" among academic librarians. He included an excellent overview of the many studies exploring professional identity and stereotypes of librarians for readers seeking to investigate related questions further.

There is no shortage of essays in library trade journals and opinion pieces in higher education trade press around topics of librarians' roles in the academy and whether they should be granted faculty status or not. As Coker, vanDuinkerken, and Bales (2010) noted, faculty status and tenure for academic librarians has been debated for over a century. Some librarians firmly maintained that they should have tenure as a way to increase visibility and give respect to their role as peers to faculty and administrators (Murray-Rust, 2005). Others felt tenure is not needed as academic status grants librarians the benefits they seek, such as being more involved in governance, curriculum reform, course development, and professional development (Carver, 2005). Moreover, they argued, tenure expectations to research and publish hamper librarians' ability to provide quality service to community members. Hoggan's widely cited 2003 journal article reviews the opinions and research of many practitioners and scholars who have written about the advantages and disadvantages, controversies, and debates around the question of faculty status and tenure for academic librarians.

Whether tenured or not, with faculty status or not, professional literature exhorts academic librarians to be more collaborative with others on campus. They are encouraged to develop cooperative working relationships with classroom faculty (Raspa & Ward, 2000), advised to gain support for ideas, develop collaborative relationships, and become recognized

leaders (Hawks, 2009), and urged to reinvent professional assumptions, organizational structures, and workplace processes in order to be more collaborative and inclusive (Somerville, 2009).

In my own life as a librarian and association administrator, I too believe that there is both the need and thirst for greater collaboration between librarians and disciplinary faculty. Librarians, top administrators aside, seldom have opportunities to engage in “big picture” conversations with faculty. Instead, our exchanges are often limited to operational tasks, such as planning instruction for specific courses or discussing purchasing and cancellation decisions. I know from my own experience as a history liaison that there were few opportunities to talk with disciplinary faculty about issues that are more conceptual and require deeper engagement and reflection. Yet, this is just the kind of conversation academic librarians seem to crave, as I saw through the ARL/ACRL Institute on Scholarly Communication. In our signature event, participant teams including librarians, faculty, and administrators, came together for 2½ days of intensive program planning. What started there as a spontaneous panel of disciplinary faculty on the last day of our first event led to the creation of an in-depth workshop for alumni at a later date called *Conversations with faculty: A workshop on dialogue*.

The literature in this section showed that cultural tensions and historically constraining factors may prevent librarians from being seen by faculty as peers and could prevent them from seeing themselves in this light. Despite these tensions around status, academic librarians remain focused on serving the needs of community members. While my research is not about faculty perceptions of librarians or about librarians’ own self-image, it is useful to understand how the relationships have been studied and how the professional identity of librarians is understood. Since my research was intended, in part, to aid librarians in increasing their capacity to engage in strategic conversation with disciplinary faculty, it is important to consider the dynamics of the

librarian/faculty relationship as documented in the literature. This helps illuminate the context within which organizational change and leadership activities can happen.

I will look next at how librarians have sought to understand the needs of faculty members and administrators and how they have used their findings to inform and improve practice.

Librarians' Understanding of Faculty/Campus Administrator Perspectives

Academic librarians conduct research on faculty views in order to better inform the libraries' decision-making and planning efforts. Numerous studies by practitioner librarians at individual institutions explore their faculty members as users of resources, and in recent years these types of studies tend to focus on how faculty members respond to electronic formats of materials that were previously in print only (e.g., Sandler and Palmer, 2003; Walton, 2007). Additionally, administrators in many academic libraries use LibQUAL, a web-based survey for libraries to administer on their campuses specifically to solicit community members' opinions of service quality. Academic librarians have written dozens of articles and presented widely at conferences on what they found about faculty and student satisfaction from using LibQUAL and how they took action.

Larger studies look at faculty attitudes across institutions. During the Spring of 2005, Dickenson (2006) led a study at nine Colorado colleges and universities asking students and faculty about academic library usage and outcomes. Its aim was to gain a greater understanding of how these facilities helped students learn and how libraries helped instructors with their teaching activities and objectives. Over 3,200 undergraduate students and nearly 400 faculty members responded to the questionnaire. Faculty members indicated their libraries support teaching objectives by helping students find appropriate information (61%), access specific

course materials (53%), learn skills to refine searches (47%), and acquire basic library skills (46%).

For the past decade, researchers at Ithaka have conducted a triennial faculty survey to examine how new technology affects faulty attitudes and/ behaviors, asking specifically about their impressions of library roles. Their most recent survey (Schonfeld & Housewright, 2010) had three major findings. First, scholarly information use practices have shifted rapidly, with the library being disintermediated (i.e., removed from the research process as faculty find information independently), and libraries are therefore at risk of irrelevance. Second, faculty are growing in comfort and relying exclusively on digital scholarly materials, which could present new opportunities for libraries along with new challenges for preservation. Third, a conservative set of faculty attitudes, valuing traditional print publications, continues to prevail around their own scholarly communication practices, despite years of effort by libraries, scholarly societies, publishers, and others to create change.

In addition to understanding faculty perceptions as users of library facilities, resources, and services, a host of studies explore faculty as creators of scholarly work. Librarian researchers working in this vein often seek to understand faculty attitudes on scholarly communication issues, such as new approaches to publishing and intellectual property management. While numerous, a few studies bear mentioning as they have strong implications for academic libraries. Extensive ongoing research since 2005 reported on interviews of 160 faculty members across 45 research institutions in seven fields, finding a strong influence of disciplinary traditions (Harley, Acord, Earl-Novell, Lawrence, & King, 2010). Fried Foster and Gibbons (2005) used ethnography, specifically work-study practice, to observe and document the scholarly workflow of faculty. They augmented this with interviews in order to change the libraries' practice, using

iterative faculty feedback on prototypes of the institutional repository to influence subsequent design decisions. Their findings—that it is essential to have a faculty-centric approach to the design and marketing of repositories—along with recommendations about specific marketing approaches, have become the standard for librarians seeking to promote their institutional repositories.

Turning from faculty to senior administrators, Lynch et al. (2007) conducted interviews with presidents and provosts at six universities on their attitudes toward the library. This replicated previous research, and they compared how attitudes had changed over a decade, finding major shifts by university leaders toward their libraries. The leaders cared much more about whether the library collaborated in instruction and research, acquired outside funds, was innovative, and was considered important to others on campus. Their research has implications for how libraries reshape their models and create new services. It also indicated that library directors need new competencies, skills, and knowledge. In another study of higher education administrators, Fister (2010) reported on interviews she conducted with chief academic officers and results of an online survey taken by over 130 academic leaders. She found that academic administrators do not see libraries as an anachronism, but as "vibrant centers of learning" (Fister, 2010, para 6). In part, this was because of the central role academic librarians played in promoting information literacy skills. Academic administrators were, by and large, quite knowledgeable about the library's role in supporting teaching and learning.

Estabrook (2007) interviewed 25 chief academic officers (CAOs) from a diverse group of colleges and universities. ACRL commissioned her study in the belief that CAOs were concerned with the cost of libraries and that librarians needed to better make their case. Estabrook found most CAOs were aware of and thought highly of their librarians and their

library's role. Many emphasized the importance of their library's physical, political, and intellectual connections on campus. Most were knowledgeable about issues facing libraries such as increasing cost of materials. Most CAOs wanted librarians who embrace the changing library landscape and are effective in collaboration (with faculty, students, and information technologists) and communication. They had two types of complaints. They wanted librarians to come and ask for resources more aggressively. They also wanted more effective working relationships between the library and IT, in cases where they weren't already blended organizationally. Although a major library association prompted this study over concerns about funding and feeling the need for stronger advocacy, CAOs were less concerned with cost and more concerned about the library's overall role in the institution. They felt a close connection between the library and academic departments was essential, particularly when budget decisions and material cuts were made.

So far in Chapter Two I have attempted to explore the nuances of academic culture, looking at the democratization of knowledge and the culture of accountability to better understand the kinds of issues and pressures facing the higher education sector. I endeavored to show how large societal trends and the expectations of external stakeholder groups can both align and conflict with predominant academic traditions.

Against this foundation, I turned to the place of libraries in the academy and the ways librarians have interacted with faculty and administrators. Most authors I cited in these two sections studied faculty members and administrators as users of library facilities and resources, their opinions of service quality, and their impressions of library roles in light of technology changes and budget constraints. While many authors noted deep cultural divides and tensions between faculty members and librarians, most studies asked central research questions related to

operating and managing library services. The authors' findings about strained librarian/faculty relationships were secondary.

I did not find research studies on how librarians have created relationships with faculty that are more reciprocal. Yet that is precisely the work many authors believed librarians need to assume, and I agree. Via essays and think pieces, librarians and others questioned the quality of the relationships between faculty and librarians. They advocated for new ways of thinking and becoming more collaborative. I hope my study suggests ways that librarians could begin to reframe and strengthen their relationships with faculty members as peers. As I will show later in the literature review, undertaking this type of relational work is, in fact, leadership; however, this view is not widely held, and relational work is often undervalued. Before expanding on leadership theory that makes these points, I will first look at the ways librarians and scholars of library and information science (LIS) have sought to understand and study leadership.

Librarians and LIS Scholars on Leadership

A recent overview of leadership research in library and information science (LIS) literature revealed that while there is much professional discussion of leadership in academic libraries, it may not be well informed by original research, best practices, or supported by theory (Winston, 2008). Others writing in the scholarly literature concurred. "Despite widespread interest in leadership and the numerous institutes and conference programs on the topic, the amount of research literature in LIS is sparse and does not address many of the trends covered in leadership sources" (Hernon & Schwartz, 2008, p. 246).

To check the reach of theories by Fletcher, Heifetz, and Sinclair (whose work I will cover more fully in subsequent sections of this literature review), I conducted a quick search in the library literature for citations to their works, finding only seven articles referring to anything

written.[2] Although Fletcher and Sinclair may be a bit obscure even within the mainstream leadership literature, these authors and their theories appear largely unknown to librarians and LIS scholars. Riggs (2001) noted how little librarians write and talk about leadership and how few library and information science schools teach leadership. Given these gaps, he boldly suggested, “One could conclude that there is an unconscious conspiracy against library leadership” (Riggs, 2001, p. 8). While I feel such a conclusion is extreme, the focus on leadership is a relatively recent phenomenon for library professionals, as evidenced by a rise in the last two decades of leadership development programs and statements of leadership competencies (Winston, 2008). As but one example, the Institute of Museum and Library Services (the primary federal agency for museums and libraries) awarded grants in 2005 and 2008 to the Simmons College Graduate School of Library and Information Science to develop a concentration in their Ph.D. program focused specifically on “managerial leadership” in the information professions.

In her literature review about leadership in academic libraries, Weiner, concluded that within the LIS literature “it is clear that many aspects of leadership have not been addressed and that a comprehensive body of cohesive, evidence-based research is needed” (2003, p. 14). Hernon and Schwartz wrote about the need to establish a research agenda on leadership for academic libraries and suggested, “LIS literature would benefit from an increased focus on managerial leadership and how it functions in practice. The research opportunities are so great that there could even be a new journal or annual publication on that subject” (2008, p. 248). Riggs felt a sense of urgency around the need for librarians to study leadership:

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[2] A cited author search within the EBSCO database Library, Information Science & Technology Abstracts with Full Text (which indexes more than 700 journals plus books, research reports, and proceedings) revealed Fletcher was cited twice, Heifetz five times, and Sinclair not at all. This quick search, while not exhaustive or comprehensive, illustrates the limited reach of these authors and their leadership theories within the LIS literature.

> Libraries will continue to undergo rapid change in the years ahead. People who work in libraries will have to learn how to lead change and to live positively with more ambiguity… Leadership in libraries can no longer be pushed aside and ignored; it must be brought to center stage, and treated with a capital L… (W)e should explore and enthusiastically implement action plans for promoting and learning more about this phenomenon known as "Leadership." (2001, p. 5)

Much of the research that does exist about leadership in the LIS literature considers traits or skills of those in positional authority. Hernon, Powell, and Young (2003) studied attributes of effective public and academic library directors. Weiner (2003) reviewed and synthesized LIS literature about characteristics and leadership styles of university librarians and academic library directors. Hernon, Giesecke, and Alire (2008) wrote to provide academic library leaders a better understanding of emotional intelligence in order to develop their leadership abilities.

Other authors in the LIS literature have focused less on attributes, traits, or skills. Greenleaf and Spears' (2002) concept of servant leadership has resonated with some (Anzalone, 2007; Olson, 2010). Others have found appeal in theories around effective followership (Chaleff, 1995) that provide opportunities for staff at all levels to exhibit supportive and contributing roles (Deiss & Sullivan, 1998). While my aim is not to provide a comprehensive overview of how librarians have studied leadership, these examples illustrate that the profession has had limited discussion of theories from the leadership literature.

Before introducing contemporary and critical leadership theories that enlarge our notions of what leadership is and which I propose as effective frameworks for this dissertation research and for the profession, I wish to expand my critique of followership and servant frames. I do not believe thinking in these terms is in the best interests of academic librarians.[3] I believe servant

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[3] I am not alone in critiquing followership and servant leadership; there is robust debate from within the community studying leadership theory. I witnessed vigorous and passionate exchanges during the 12th International Leadership Association Conference held in Boston, MA, in October 2010 during the sessions "A conversation with Barbara Kellerman" and "Complex realities: The birth or death of followership in the 21st century." During the latter, Ira Chaleff was a panelist.

and follower frames are not useful for librarians given the hierarchical mindset within the academy, particularly if one believes that we must have an atmosphere of shared action in order to change a system as large as higher education. Those who think of themselves as servant, assistant, or follower have erected powerful mental models that can indicate a lack of mutuality and the belief that they are powerless.

In a panel presentation, Neal (2009) exhorted librarians who serve as liaisons to academic departments to move into new ways of thinking. "I see too many working in what I would argue is a servant relationship with our faculty and students, responding to demands without the ability to shape the expectations. Sometimes we live in parallel universes sort of as strangers." He argued that instead, liaison librarians should focus on "the partner, customer, team relationship that needs to develop" and strive for "a high level of personal investment in collaboration with faculty and with researchers." Neal noted that the current Web 2.0 environment, along with whatever evolves next, "will involve more commitment to conversation, a social networking commitment on the part of the librarian, an investment in collective intelligence."

A technology brief by Lankes et al. (2006) also explored the Web 2.0 environment, the concept of participatory networks, and conversation theory in libraries, and indicated that librarians should take on a more active role. Likewise, in an essay derived from a roundtable ACRL convened on technology and change in academic libraries, Wegner and Zemsky opined,

> Library staff must regard themselves as partners with faculty, offering tools and expertise that in many cases differ from what faculty members themselves possess. The working relationship between faculty and library staff must be one of conjoining complementary strengths to produce a result that neither partner could attain alone. (2007, p. 7)

Given the perceived need for librarians to think of leadership and their roles differently, and given the paucity of leadership theory in the library literature, I will next introduce

conceptual frames which librarians and LIS scholars have not applied, encouraged, or debated extensively within the literature. First, to think about leadership in a context where librarians may not see themselves as leaders—a notion we have seen is reinforced by academic hierarchies and the gendered nature of librarianship—I will consider postheroic/relational leadership (Fletcher, 2004; Sinclair, 2007) and leading without authority (Heifetz, 1994). The library literature has, by and large, overlooked these authors. Then I will look at complexity theory as a useful frame for thinking about change in a system of systems, such as higher education. Complexity theory has explicit ties to futures research, as I will show.

New Conceptions of Leadership: Postheroic and Relational

Who can lead change in colleges and universities? The president? The provost? The dean? Rather than look at academic leaders in positions of top authority, Wergin (2007) and the authors in his edited volume examined the leadership roles available to all academic professionals, with the basic premise that "colleges and universities may be effectively led by emergent acts of leadership from anyone who chooses to lead" (p. xvi). In that spirit, instead of selecting theoretical frameworks which conceive of leadership in terms of the leader as an individual, with inherent affiliated great man notions, or looking at trait, skills, style, or situational approaches and contingency, path-goal, and leader-member exchange theory, I am interested in frameworks which consider leadership as a process. In particular I will look at what Fletcher termed "postheroic leadership," which she defined as a "less individualistic, more relational concept of leadership" (2004, p. 648.) This opens the door to much wider participation in leading change. As Heifetz wrote, "We ought to focus on leadership as an activity—the activity of a citizen from any walk of life mobilizing people to do something…socially useful" (1994, p. 20). In his view, a leader is anyone who can activate a community to face its problems.

Many academic staff members in colleges and universities, librarians included, would probably not term themselves leaders. Indeed, Astin and Leland's (1991) study of women leaders in higher education found that they rarely self-identified as leaders. Sinclair would likely believe that by doing so they "escape responsibility for taking action, or for learning how to take action, when they see the need. In the face of critical problems, they say, 'I'm not a leader, what can I do?' " (2007, p. 20). She expanded on power dynamics:

> In our rush to elevate leadership, we have neglected to see the tendencies towards dependency and obedience that are almost always part and parcel of it. Dependency is one of the biggest problems for leaders and leadership. When followers exhibit dependency, they look to the leader to solve things, they abdicate responsibility for the problem facing a group. (Sinclair, 2007, p. 68)

In order to overcome this tendency to abdicate responsibility, librarians need to accept, acknowledge, and seize their power within the academy. Sinclair claimed most studies about leadership neglect to address power relationships, while "the question of how one finds enough power to act and do leadership differently seems to me to be at the core of leadership" (2007, p. 75). She pointed to Heifetz's work and that adaptive leadership means "leaders need to find ways of not colluding with this dependency. Acts of leadership involve helping focus the group on overriding purposes or values, rather than telling them what the solution is" (Sinclair, 2007, pp. 68-69).

To understand leadership differently and consider power relationships, I look to Fletcher's essay on "leadership as a social process. Post-heroic leadership is portrayed as a dynamic, multidirectional, collective active—an emergent process more than an achieved state" (2004, p. 649). This is quite different from traditional conceptions of leadership and "this shift—from individual to collective, from control to learning, from 'self' to 'self-in-relation,' and from power over to power with—is a paradigm shift" (Fletcher, 2004, p. 650). There are gender

implications to thinking of leadership as a process since traits "such as empathy, community vulnerability, and skills of inquiry and collaboration are socially ascribed to women in our culture and generally understood as feminine" (Fletcher, 2004, p. 650).

In her study of women engineers, Fletcher (2001) explored how relational work is "disappeared" and undervalued in organizations, although we say we need more of these traits and behaviors. She offered ideas on how organizations can make it more visible. One important study demonstrated these theories are in use within higher education. Astin and Leland's (1991) research on women leaders in higher education concluded that the feminist experience cultivated a leadership style which emphasized listening to and empowering others over hierarchy and directing behaviors.

Another proponent of relational leadership, Drath, explained the value of collaboration and dialogue in the leadership process. By his definition, "leadership happens when people who acknowledge shared work use dialogue and collaborative learning to create contexts in which that work can be accomplished across the dividing lines of differing perspectives, values, beliefs, cultures... differing worldviews" (2001, p. 15). But the historic understandings of leadership embedded within the cultures of many organizations may not value this position, as Fletcher explained:

> The relational skills, attributes and stance required to enact a model of "power with" leadership, such as fluid expertise, the willingness to show, and acknowledge, interdependence or need for input, are likely to be associated incorrectly with powerlessness rather than with a new, more adaptive exercise of power. (Fletcher, 2004, p. 653)

I feel this tendency to ascribe relational practice to powerlessness is certainly no different in the library sector. Within the profession of librarianship, as in public relations, human resources, and other professions, although women constitute the majority of librarians, a

disproportionately low percentage of women hold the top managerial positions. In this "velvet ghetto" women academic librarians, like women human resources managers, command smaller salaries and less authority within their parent institutions. Library directors, most often men, may hold the position of dean or vice president at a university or college and are involved in key decisions far outside the library. Many of these positional leaders, whether men or women, are likely to bring with them historic and gendered notions of leadership and power. I believe such a worldview provides a lens through which they, too, may undervalue relational practice.

Others in the field of librarianship see great value in relational approaches that honor the art of dialogue. Lankes et al. (2006) looked at conversation theory to consider how libraries and librarians work in a world that increasingly embraces social networking and where individuals expect to be contributors in a participatory culture. They used the term "participatory librarianship" to describe this shift away from a central authority and recast library practice around

> the fundamental concept that knowledge is created through conversation. Libraries are in the knowledge business, therefore libraries are in the conversation business. Participatory librarians approach their work as facilitators of conversation. Be it in practice, policies, programs and/or tools, participatory librarians seek to enrich, capture, store and disseminate the conversations of their communities. (Lankes et al., 2006, para 1)

Critical leadership theory, such as that posited by Sinclair, Fletcher, and Drath above, challenges the hegemonic view that leaders are in charge and followers are influenced. There is a good deal of interest in and support for anti-heroic normative models of leadership that focus on distributed power, whether called postheroic leadership, shared leadership, collaborative leadership, collective leadership, distributed leadership, or participatory leadership; however, "there is still—as yet—a paucity of empirical models of organizations that have successfully created and sustained distributed models of leadership over the longer term" (Jackson & Perry,

2008, p. 96). Critics may question the viability and desirability of these new theories as working models in organizations. I will look next at another theoretical frame which turns attention away from the leader as a person in positional authority. This frame, too, looks at leadership as an activity supported through facilitation—bringing people together in conversation.

Leading Without Authority, Adaptive Work

The late 1960s were a turning point for theories about leadership which became less leader-centric and more value-centric. In the mid-1990s scholars like Heifetz returned to these ideas and "examined how leadership theory and practice could be used to build a more caring and just society" (Northouse, 2007, p. 342). Northouse identified five principles of ethical leadership: respects others, serves others, shows justice, manifests honesty, and builds community. It is, however, still in the early stages and an area of research that does not yet have a strong body of traditional research findings to validate (Northouse, 2007, p. 357).

Heifetz, Burns, and Greenleaf are three prominent authors writing on ethical leadership. Heifetz was cautious about a focus on visionary and transforming individuals in formal positions of leadership: "If the health of a society requires enlightened leadership only from the people at the top of the organization, or at the top of our political apparatus, we are in trouble" (Heifetz, 2007, p. 37). Wergin invoked Heifetz's work when he declared, "The need for connectivity is nowhere more pronounced than in the academy. It's high time that academic professionals began taking back the academic leadership they have avoided for so many years" (Wergin, 2007, p. 14).

Librarians and faculty may hold very different values around teaching, learning, and scholarship. It is precisely when values are in conflict that the process of leadership is most

necessary. As alluded to above in a reference from Sinclair (2007), "adaptive work" is central to Heifetz's notion of leadership. In his definition:

> Adaptive work consists of the learning required to address conflicts in the values people hold, or to diminish the gap between the values people stand for and the reality they face. Adaptive work requires a change in values, beliefs, or behavior. The exposure and orchestration of conflict—internal contradictions—within individuals and constituencies provide the leverage for mobilizing people to learn new ways (Burns and Tucker). (Heifetz, 1994, p. 22)

Whereas I have previously mentioned some of the conflicting values and forces within the academy, it is worth listing a few again for purposes of illustration. While not a comprehensive list, they include such items as academic freedom, access to new knowledge, certification of knowledge (who authorizes and controls the dominant discourse), job security (promotion and tenure), legitimacy in a discipline, personal and institutional prestige, general education and discipline specific knowledge, whether learning outside the classroom is considered valid, valorizing effective and efficient operations, and measurable student learning outcomes.

Guskin (2009) described centripetal and centrifugal tension between forces like these in the higher education system, and he noted that if either set is too strong, the system becomes unbalanced and compromised. He said if forces inside—such as internal conflict between administrators and faculty, lack of trust, or overassertive faculty governance—are overbearing, they push the system out into chaos and high crisis. Conversely if external forces are dominant, their constraining nature threatens to implode the system by over control. These external forces include suppression of disagreement, disrespect of academic traditions, and a command and control style of leadership. Guskin posited that a balance between centripetal and centrifugal forces creates a balanced tension model, thus creating an organizational climate that is neither

chaotic nor over controlling. Instead, it is one with high morale and clear strategic directions, where risk taking is encouraged and people identify with the whole system.

Given the many areas of potential conflict, how do we bring our libraries, universities, and organizations to a state of creative tension? For Heifetz, bringing to light competing values is central to adaptive work:

> Values are shaped and refined by rubbing against real problems, and people interpret their problems according to the values they hold. Different values shed light on the different opportunities and facets of a situation. The implication is important: *the inclusion of competing value perspectives may be essential to adaptive success.*" (emphasis original, Heifetz, 1994, p. 23)

Some librarians seeking to reform the system of scholarly communication are giving voice to the conflict in these values in conversation with faculty as researchers, authors, peer reviewers, editors, members of promotion and tenure committees, chairs, and deans. Other librarians are asserting themselves as educators, qualified to teach and providing valid and valuable instruction outside the traditional classroom. In these situations, librarians take on a leadership role in parts of the academy beyond their explicit realm of authority. Libraries are a cross-disciplinary hub on campus and librarians can create space for learning, thereby helping to resolve these gaps between values and practices. Librarians can invite various stakeholders and facilitate conversation, thus mobilizing their communities to see new perspectives and reframe the questions facing higher education.

In taking on adaptive work and a facilitative role, librarians need to invest significant planning time. Hosting the occasional brown bag is not enough, and librarians invested in leading change on their campuses would do well to consider that "achieving adaptive change probably requires sustained periods of disequilibrium" (Heifetz, 1994, p. 35). Stakeholders will likely resist. "Holding onto past assumptions, blaming authority, scapegoating, externalizing the

enemy, denying the problem, jumping to conclusions, or finding a distracting issue may restore stability and feel less stressful than facing and taking responsibility for a complex challenge" (Heifetz, 1994, p. 37).

In looking at how higher education is changing, I by no means suggest there is a "crisis." Birnbaum and Shushok (2001) convincingly explained in examining statements from 1865, 1972, and 1996, there are long standing claims that higher education is in crisis. While "strong rhetoric and vivid images of crisis are useful tools with which to gain attention, power, and control of organizational and symbolic processes in a noisy world" (Birnbaum & Shushok, 2001, pp. 69-70), we should instead consider calls of crisis as being related to change. "And change always seems to be more rapid in the contemporary era than in our memories of the past" (Birnbaum & Shushok, 2001, p.71). In his landmark book, Vaill (1989) described the "permanent white water" of change and explained that to navigate successfully, we must all be explorers managing uncertainty through continuous learning and by creating learning organizations.

These contemporary and critical theories of leadership, not well known in the library profession, challenge us to reconsider what leadership is. Similarly, newer theories about organizational change aid us in understanding the nature of leadership needed for 21st-century academic librarians and the colleges and universities of which they are a part.

Complexity Theory in Organizations

To appreciate the fresh ideas complexity theory and complex adaptive systems offer to organizational theorists and to practitioners of change, we must first understand how we have traditionally thought of organizations for the past many decades. As Hatch and Cunliffe (2006) explained, "Modernist organization theorists believe that complete knowledge means

understanding how and why organizations function the way they do and how their functioning is influenced by different environmental conditions" (p. 37). They reminded us of modernism's roots in the Enlightenment which "sought to replace feudalism and superstition with rational knowledge" (Hatch & Cunliffe, 2006, p. 36). Modernism's focus in organization theory is on "finding universal laws, methods, and techniques of organization and control; favoring rational structures, rules, standardized procedures, and routine practices" (Hatch & Cunliffe, 2006, p. 14).

Traditionally, as Marion (2008) described:

> We tend to assume that leadership is centered in personalities and based on authority (whether legal or ascribed by those who follow) and that leaders make decisions, solve problems, coordinate, motivate, focus effort, plan, manage conflict, influence, align effort with formal goals, and create change. Complexity theory is not founded in such common assumptions, thus it may be difficult for some to reorient their thinking to its premises. Complexity theory does not deny these realities; rather it extends them. (p. 2)

To describe how nonlinear, complex systems operate, Marion (2008) identified three key characteristics: "they involve interacting units, they are dynamic (complexity is the study of changing behaviors), and they are adaptive" (p. 5). Key complexity theory dynamics propose that ordered behavior and structure can occur without coordination or input from sources outside the system as "order is heavily influenced by auto—or self-generative forces" (Marion, 2008, p. 3).

Viewing an organization through a complexity lens reduces the focus on planning and other similar equilibrium-seeking activities. Complexity theorists do not look to the leader in authority to control and manage. They, too, view leadership as a process and relational activity occurring among people. It requires a new way of thinking about change. Futurists and complexity theorists have much in common in terms of how they view organizations. While I will explain futures research itself more fully in Chapter Three, I will demonstrate briefly now how the basic premises of futures research are supported by a complex adaptive systems view of organizations.

Complexity Theory and Futures Research

Chiles et al. articulate core principles and "describe the concept of emergent self-organization as complexity theory's 'anchor point phenomenon'" (as cited in Plowman & Duchon, 2008, p. 134). Plowman and Duchon (2008) continued to explain:

> *Self-organization* is the tendency of systems, especially in times of uncertainty or stress, to shift to a new state because the agents that make up the system interact, learn new things and modify their interconnections. A new order emerges locally from a previous one without constant direction from a higher level. This new order of condition is an *emergent* state. (p. 134)

By definition, one cannot plan for emergence, or what Marion (2008) called "a sudden, unpredictable change event" (p. 9). Emergence, according to Catanzaro (2008), "represents a higher order 'blooming, buzzing, confusion' of choices and perspectives, with seemingly little to guide one successfully through the chaotic overload of possibilities, or help discriminate between the useful and the useless" (p. 52). To my mind, a guiding role is precisely the one futures work can play. Practicing futurists and futures researchers do not merely extend trend lines to predict an outcome in the future. Instead they speak in the plural of "futures" to emphasize the value in exploring and considering multiple alternative futures. Anthropologist Margaret Mead turned to anticipatory anthropology later in her career, and in a 1977 lecture explained, "I use the term 'open-ended' to suggest that our future is neither predetermined nor predictable: it is, rather, something which lies within our hands, to be shaped and molded by the choices we make in the present time" (2005, p. 329). The process of constructing scenarios and reflecting on alternate futures helps guide us through these myriad possibilities. It gives us ways to consider the decisions we make now in a light of what futures may be possible.

Emergence is directly akin to what futurists have seen as events of low probability but high impact, which they called events on the periphery, wild cards, or black swans (Bazerman &

Watkins, 2004; Day & Schoemaker, 2006; Ramo, 2009; Taleb, 2007). In fact, some futures scholars explicitly invoked complexity theory when describing their perspectives on studying the future (Bishop, 2002; Hines & Bishop, 2006; Staley, 2007). These events on the periphery, no matter what you call them, are quite different from "steady growth outcomes that build steadily, step by step, from known beginnings and with predictable trajectories (the 'stuff' of traditional science)" (Marion, 2008, p. 9).

Leaders and managers coming from a modernist perspective, as nearly all of us do, have a good deal of reorienting to do. Operating under a complexity mind-set, leaders focus less on solving problems or controlling the system's behavior. As futurist Raynor stated:

> Holding doggedly to a belief in one's eventual ability to control, or at least predict, what matters does not change the fact that our inability to predict is fundamental and intrinsic to the nature of the systems within which we work. (2007, p. 103)

Schwandt (2008) wrote of the nascent nature of complexity theory and the implications it has for leading and structuring organizations. "Nonlinear explanations of the collective may still be in the metaphoric stage of theory building; however it does provide interesting implications for understanding the unpredictability of the collective's actions" (p. 120). While researchers and scholars are still building the research base, complexity theory holds strong appeal to practitioners who see applications in their organizations. Chief among these practitioners, I would argue, are futurists. For them, uncertainty and nonlinear conceptions of change are core principles.

In the most recent sections of this literature review, I have provided an overview of important contemporary and critical concepts from the literature of leadership—relational practice, postheroic leadership, and leading without authority—and from the literature of organizational change—complexity theory, emergence, and the relationship to futures research.

As I previously noted, while the library community is quite interested in the topic of leadership, the LIS literature is not well grounded in original research or informed by theory form the literature of leadership and change. Much of what has been written in the library literature focused on "managerial leadership" by positional leaders and the attributes they need or styles they should use. Given the espoused need for librarians to conceive of leadership and their roles differently, and given the paucity of leadership theory in the library literature, my aim in these sections was to introduce conceptual frames which both guide this study and which I believe librarians and LIS scholars should discuss, debate, and research.

Next, I will round out my literature review by looking at how librarians have sought to understand the future to better situate the contribution of my dissertation research.

Academic Librarians Plan for the Future

The scholarly and wisdom literature by librarians shows hundreds of examples of essays and think pieces that are futures oriented as well as dozens of research studies about the future of libraries. Since at least the 1930s librarians have been publishing monographs (Headicar, 1936) and results of symposia (Danton, 1939) that consider the future of libraries. Rather than attempt to provide a comprehensive overview of this long tradition, I will identify a few general patterns and themes about the ways in which librarians have sought to understand the future, to situate the contributions of my research. I do not claim to be exhaustive nor even comprehensive; the quantity of literature on the future of libraries is simply too great. Content synthesis of all existing writings about library futures would be, in and of itself, a dissertation. Instead, I will point to a few examples that provide general overviews, for those wishing to explore more. Then I will look at recent literature about academic librarians who sought to research the future broadly in order to make better decisions now.

Through citation tracking, Sapp and Gilmour (2002, 2003) identified roughly 200 articles that either cited directly a seminal work by Lancaster (1978), an early predictor and enthusiast of paperless information systems, or another work which referenced Lancaster's that also makes predictions or is written in an anticipatory manner. While not intended to be comprehensive, their articles represented a wide range of essays, editorials, think pieces, and, on a more limited basis, research studies which were generally attitude surveys. They provided insight into how librarians were thinking about the challenges, threats, and aspirations for their profession during the last quarter of the 21st century, a time of dramatic technological and social change. In another, more recent, two-part series Osif (2008a, 2008b) looked at possible futures for libraries by first considering what other practitioners have written. She included references to dozens of forecasts made about the future of books, databases, libraries, and librarians. Again, these were most often essays, editorials, addresses, and think pieces rather than research studies.

Additionally, a notable thinker outside the profession wrote a series of essays about the future of libraries in the library trade press (Kurzweil, 1992a, 1992b, 1992c). And at least one prominent futures researcher and scholar delivered a keynote address to academic librarians at a conference about information literacy in which he emphasized the importance of anticipating and planning for futures in the plural (Dator, 2006). Librarians have similarly written about the value of constructing scenarios and have given practitioners specific guidance on how to do so (Giesecke, 1998; Shuman, 1989). In addition to ACRL's white paper on futures thinking for academic librarians (Staley & Malenfant, 2010), other library associations have had a similar focus. Noteworthy recent efforts include the Association of Research Libraries' scenario thinking project and the academic libraries of the future project, by a group of library associations and consortia in the United Kingdom.

Most pieces referenced above are not futures research, but instead are think pieces or essays, often written by lone authors. Recent notable futures research about academic library settings includes a study by Hernon and Saunders (2009) of the federal depository library program run by the Government Printing Office. They created scenarios and presented them in an interview setting to 30 university library directors from top research institutions. Saunders (2009) conducted other futures research that again aggregated expert opinion in her Delphi study interviewing 13 information literacy experts about the future of that movement. In terms of research design, the researchers in these two studies controlled and directed the research with the questions they brought; the participants' roles were limited. My study, on the other hand, engaged the participants in a substantial way.

Beyond futures research, we have examples from the library literature of futures workshops to inform strategic decision-making. Two rounds of futures workshops, held in 1991 and sponsored by the Research Libraries Group, involved groups of stakeholders exploring preferred futures for libraries (Dougherty & Hughes, 1993, cited in Sapp & Gilmour, 2003). In the first round, a series of six workshops on preferred futures for libraries included library administrators and chief academic officers. The second round brought together a larger group of stakeholders including academic administrators, IT managers, university librarians, faculty, scholarly publishers, and foundation leaders. These workshops identified more than 30 possible pilot projects. Another report on a futures workshop (Emal & Gieseke, 1998) explained how scenario planning—with a team of 15 from a variety of academic units and including students—helped the group move beyond traditional planning efforts and find new solutions for how to provide computer support on campus.

Futures thinking and action-oriented projects of this type are not new to higher education. Kee and Newcomer (2008) give the example of the George Washington University school of business and public management which organized a future search conference. During future search conferences, a technique developed by Weisbord (1992), a large and diverse group of stakeholders is gathered together for three intensive days during which the focus is whole systems learning, empowerment, and teamwork in order to creatively find common ground and define future aspirations. Projects of this type require resources, capacity, and sustained commitment to planning that may be beyond the reach of many institutions.

Certainly librarians have engaged faculty in their formal planning process, as in the case of Eastern Washington University Libraries (Miller, 2009). Staff there held an intensive two-week strategic planning institute with faculty from six colleges to help them reinvent the library. This type of process put the focus on planning as an event, something to be controlled, rather than learning as a way of being. Many academic librarians have understood strategic planning through the framework provided by Bolman and Deal (2003). Within academic librarianship, there is acceptance and widespread application of their four frames—political, structural, symbolic, and human resources—in part as their book is the cornerstone text for the ACRL/Harvard Leadership Institute. Bolman and Deal considered strategic decision making and organizational planning as theater which falls under the symbolic frame. They described the strategic planning process as “a ceremony” and the plan itself a “badge of honor” (p. 279) that reputable organizations must produce. Generally, they said, strategic planning is conceived of as a linear process, from analysis to objectives to action to results, although that conception is not generally played out.

Like a ritual rain dance, traditional strategic planning is "An activity that rarely achieves its intended results (yet which) may persist because it plays a vital role in the ongoing organizational drama" (Bolman & Deal, 2003, p. 279). In the higher education context, an unpublished report to the James Irvine Foundation about academic departments in 18 independent colleges and universities in California supports these conclusions about strategic planning. The report's authors found "the greatest change occurred in institutions with cultures of experimentation, not those with high-profile strategic plans" (Wergin, 2003, p. 116). A traditional strategic planning process keeps the focus on the idea that change can be controlled and managed, two to five years out. Guskin and Marcy (2003) wrote of the dangers of muddling through and asserted that making only incremental change isn't enough, saying, "long-term problems require long-term solutions" (p. 13). They believed the basic assumptions of higher education need to be examined and challenged.

In this section of the literature review, I found that while there are a plethora of essays about the future in the library literature, there are few research studies. The futures studies I found focused on attitudes and perceptions, with a design that was directed and controlled by the researchers. My study, in contrast, engages the participants more fully. While I have defined the general problem, I did not bring a specific research question or rigid set of protocols. Instead, my futures research was an inclusive and flexible approach intended to yield immediate, practical, and action-oriented results for the participants.

While librarians have undertaken scenario planning and conducted futures workshops, by and large they think about the future by undertaking traditional strategic planning. This method of strategy development has at its foundation the belief that planning is rational, the future is predictable, and change is linear. Futures research, however, focuses on: futures in the plural,

flexible strategies, the larger external environment, distant signals of changes likely to come, and the constant process of revising and updating scenarios and assumptions. Futures research is not a static or symbolic activity as strategic planning so often is. In my research I was interested in understanding how to shift the focus from strategic planning as an event to strategic thinking as a process, a way of organizational learning. By engaging in action research, I have aided one group of librarians in experiential learning to develop new ways to make decisions and manage change.

Conclusion

In Chapter Two I have reviewed existing literature and attempted to explore the nuances of academic culture. I presented an overview of traditional academic culture and looked at the democratization of knowledge and the culture of accountability to better understand the kinds of issues and pressures facing the higher education sector. I endeavored to show how large societal trends and the expectations of external stakeholder groups can both side with and clash against predominant academic traditions. Those portions of the literature review provided context since, over the course of this study, the participants will continue to explore these trends and others in the larger environment.

Against this foundation, I turned to the roles of librarians and their relationships with faculty members. The professional and scholarly literature is rife with discussion of the divide between the two groups characterized by strained relationships, hierarchical structures, differing values, and even distrust. While historic academic systems can prevent mutuality, academic librarians exhort their fellows to be more collaborative with others on campus. In the face of power imbalances, librarians remain eager for robust partnerships and collaboration with faculty members. They wish to be valued as educators in addition to service professionals. Yet many library studies on the perspectives of faculty member focused on operational aspects of the

library. Librarians and LIS scholars studied faculty members as users of resources, their opinions of service quality, and their impressions of library roles in light of technology changes. In seeking to better understand campus administrator perceptions, the literature showed, by and large, administrators thought highly of the library and valued the role of librarians. They wanted the library to be innovative and collaborate more in instruction, research, and with IT.

Those middle sections of the literature review, which I have just summarized, provided background on the dynamics of the librarian/faculty relationship and how librarians have understood faculty and administrator perspectives. While my research is not about faculty perceptions of librarians, it is useful to understand how the relationships have been understood since the participants in this study will be engaging in strategic conversations with disciplinary faculty. It is similarly useful to understand how faculty and administrators perceive of the library, its services, resources, and roles.

Grounded in an understanding of academic culture, areas of current tension within the academy, and the ways librarians have interacted with and understood faculty and administrators, I turned next in chapter two to leadership. Finding that librarians are interested in leadership but the literature is not well supported by theory, I offered contemporary and critical concepts from the literature of leadership and change. I presented the frameworks of postheroic/relational leadership (Fletcher, 2004; Sinclair, 2007) and leading without authority (Heifetz, 1994) which have been overlooked, by and large, in the professional and scholarly LIS literature. These theories frame leadership as a process and an activity, not a person. I then looked at literature about organizational change and complexity theory, noting the ties to futures work. Given the volume of discussion about the need for librarians to conceive of leadership and their roles differently and given the dearth of leadership theory in the library literature, my aim in these

sections of the literature review was to offer conceptual frames which both guide this study and which I believe librarians and LIS scholars should discuss, debate, and research. Lastly, I reviewed the ways librarians have understood and planned for the future to better situate my study's contributions.

Throughout this literature review, I have sought to identify gaps and demonstrate that this study will make important, if incremental, contributions to the scholarly and professional literature for the field of academic librarianship. I believe it has done so by:

- expanding our understanding of the range of perspectives and areas of tension within the academy;
- playing a guiding role to identify—from a myriad of possibilities—those trends related to the future of higher education which are most pertinent for academic librarians to consider;
- identifying potential future directions for academic libraries, as articulated by the disciplinary faculty and librarians who participated in this study;
- proposing theoretical frameworks from the literature of leadership and change that could be powerful and effective for the profession;
- supporting a shift from strategic planning as an event to strategic thinking as a process, a way of organizational learning; and
- providing an example of community-based research that is more inclusive than other methods more common to the scholarly LIS literature.

In addition to these contributions to the literature and the profession, this research was designed to yield immediate, practical, and action-oriented results for this library. It should benefit the library strategic directions working group by aiding the members as they further

develop their strategic thinking abilities. Participating actively in the focus group conversations should have helped library faculty and staff members develop capacity to engage in strategic conversation with disciplinary faculty in a new way. When library and faculty participants of the focus groups considered trends outside the higher education sector, they reflected on their own mental models. Lastly, this library started a six-month strategic directions process in 2011, and this study helped support that endeavor. It provided an added dimension to the internal conversation about implications of the scenarios for the library. By focusing on faculty perspectives, my research contributes an added view from campus stakeholders.

This dissertation research went beyond a case study into problem solving and action research. In the next chapter, I explain the methodology I have used by first introducing the methodological frameworks of action research and futures research. I then describe the common techniques and tools of futures research, with scenarios being a key unifying device. After offering a few reflections on the strengths and limitations of the futures study I conducted for ACRL, which provides a foundation for this dissertation, I explain how I proceeded in my research. I describe the participants, their criteria for selection, and the research design in detail, explaining how I negotiated with the primary participants as they vetted and reviewed the research design. Lastly, I provide a discussion of the instruments I will use and the protocols for analysis along with a plan for how I integrated, synthesized, and interpreted the data.

Chapter III: Methodology

Introduction

In Chapter Three, I first describe the underlying frameworks of action research and futures research. I next review some of the common tools and techniques used by futurists, with an emphasis on the role of scenarios. After offering a few reflections on the strengths and limitations of the futures study I conducted for ACRL, which provides a foundation for this dissertation, I explain how I proceeded in my research. I define the participants and how they were selected, outline the research design and vetting process, and describe the instruments used and protocols for analysis.

Methodological Frameworks

To understand how I have approached my research, let me first offer some of the underlying tenets of action research and futures research. Reason and Bradbury describe action research as “a participatory, democratic process concerned with developing practical knowing” (2006, p. 1). Key to action research is its underlying intention to “bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people” (Reason & Bradbury, 2006, p. 1). Researchers undertaking action science, then, work with their participants—in my case disciplinary faculty members and library faculty and staff—“in a collaborative process of critical inquiry into problems of social practice in a learning context” (Argyris et al., 1985, p. 236).

Action research is inherently linked to a participatory worldview, which does not see research and science as separate from the world in which we live or the researcher as an objective and impartial observer, disconnected from the people and phenomena being studied (Reason & Bradbury, 2006). While not a method or culture of inquiry in and of itself, action

research “is a statement of intention and values. The intention is to influence or change a system, and the values are those of participation, self-determination, empowerment through knowledge, and change” (Bentz & Shapiro, 1998, p. 127).

Likewise, contemporary futures scholars and practicing futurists are committed to action and tend not to hold positivist values of distance, objectivity, and impartiality. Because the future is inherently not open to direct experience, there are no facts established and no evidence to measure. “Knowledge of the future is not empirical knowledge, but interpretive knowledge” (Slaughter, 1995, p. 32). Further distancing futures studies from the sciences, Staley asserted that “futurists should not view the future as a scientist might—aiming for predictions and certainties—but rather should view the future in the same way that a historian views the past—aiming for representation and understanding.” (2007, p. 2). Likewise, Ogilvy argued futures study and research should draw on the humanities, rather than emulate the physical sciences (cited in Slaughter, 1995). Dator asserted, “there can be no pretense to ‘truth,’ ‘objectivity,’ or ‘universality’ on the part of anyone teaching or applying futures studies” (2002, p.7).

Futurists are action researchers since they often work in organizations, focused on real-life concerns, rather than as isolated scholars focused on reified concepts. “Although they are committed to truth—to the creation, dissemination and preservation of knowledge—just as other scientists and scholars are, they are also committed to creating an anticipatory and action science that has some effect on society” (Bell, 2003, p. 96).

My dissertation, viewed through Couto, Hippensteel-Hall, and Goetz’s taxonomy of community-based research forms (2009), will extend both the degree of change intended and the degree of community involvement over traditional fieldwork or applied research. I conducted this research *with* and *by* the library faculty and staff as participants; my research methods did

not require distance from them as "subjects." The disciplinary faculty members participating in my research, however, were engaged to a lesser degree. Indeed, the research was *about* and *for* them, as in applied research. To be clear, my research is not participatory action research, which has both the highest degree of intended change and the highest degree of community involvement. Rather, the fundamental questions I pursued were not *of* the participants themselves; I brought the guiding research problem statement with me.

I used a mixed methods triangulation design and describe the particular instruments and protocols for analysis below. While social science researchers operating from a positivist paradigm may believe in an objective, rational world they can measure, explain, and generalize, researchers operating from a constructivist paradigm see the world as a bit more messy, unpredictable, and irreducible. In choosing mixed methods, I identify myself as a pragmatist when it comes to selecting methods. I incorporated a variety of research tools that honor both paradigms, mixing them to suit the needs of the research at hand.

Common Techniques and Tools of Futures Research[4]

Futures thinking has roots in various disciplines and fields—history, humanities, anthropology, political science, economics, and finance to name a few. Further influences come from outside the academy through Herman Kahn in his work with the Department of Defense and at the RAND corporation think tank, later adopted by Pierre Wack at Royal Dutch Shell (Van der Heijden, 1996). Given the diversity in their backgrounds and training, futurists use many techniques to gather data about the present in order to forecast alternative futures. Methods and tools can include: monitoring, scanning, polling/expert opinion aggregation (such as Delphi method), participatory workshops, content synthesis (of existing futures research), historical

[4] Much of the text in the next three sections (techniques and tools of futures research, scenarios, and critically appraising futures research) is adapted from a conference paper I delivered and over which I hold copyright (Malenfant, 2011).

analogy, survey research, ethnography, visualization, gaming/simulation, causal analysis, backcasting, impact-uncertainty grids, emerging-issues analysis, and site visits/field work (Bell, 2003; Cornish, 2004; Gordon, 2009; Hines & Bishop, 2006; Johansen, 2007; Slaughter, 1995).

Each tool has its own strengths and limitations. For example, expert opinion can help establish the "official future," as perceived by a group or organization (Hines & Bishop, 2006). At the same time, group members may be homogeneous in their thinking and too close to their own sector or industry to consider trends on the periphery that, while of low probability, could have very high impact (Bazerman & Watkins, 2004; Day & Schoemaker, 2006; Ramo, 2009; Taleb, 2007). Beyond the concrete tools for gathering information about the present, futurists recommend retaining an open mind to better develop one's sensing abilities. "Sensing requires reflection to get beneath surface reactions and see what is really going on, beneath what it looks like is going on or what others might like you to believe is going on" (Johansen, 2007, p. 18).

Most futurists do not hold tight to only one method or one set of tools. They are quite pragmatic about methodological choices saying it depends on the questions at hand, the audience, and the researcher's own background and abilities. Several advocated multiple methods and triangulation. "The best advice is to be ecumenical in one's methodological commitment and to use several different methods, where possible, to study the same domains of alternative futures" (Bell, 2003, p. 241).

Scenarios. Regardless of the tools used to gather data about the present, futures researchers generally present their findings as scenarios, which allow us to "rehearse the future" to avoid unpleasant surprises (Schwartz, 1991, p. 192). Staley called scenarios "heuristic statements that explore the plausibilities of what might be" (2007, p. 38). He explained the process of futuring:

> In order to make statements about the future, scenarists draw inference from evidence… The scenarist "scans the environment"… (and) often attempts to identify the "driving forces" that will determine the shape of the future... Scenarists do not subscribe to law-like regularities and do not simply extend trend lines from the past into the future; they infer conclusions based on the available evidence. (Staley, 2007, p. 10)

Futurists vary widely in the plot lines and number of scenarios they develop. Cornish proposed developing five scenarios: surprise free/continuation, optimistic, pessimistic, disaster, and transformation/miracle (2004). Hines and Bishop posited four alternative futures: possible, plausible, probable, and preferable (2006). Staley suggested three to four, noting, "it is important that some of the scenarios reflect equally probable scenarios, especially those that run counter to the 'received wisdom'" (2007, p. 139). Textor, in the method he developed of ethnographic futures research, developed three scenarios—optimistic, pessimistic, and most probable—then systematically asked experts questions about the future to gauge their reactions (2005). Less prescriptively, Raynor suggested, "an infinite number of scenarios can be imagined, and no organization can prepare itself for all of them" (2007, p. 209). Schwartz cautioned, "more than four scenarios tend to be too complex; you cannot keep track of their ramifications in your mind" (1996, p. 28). To mitigate the potential for confusion with large numbers of scenarios, Staley developed a graphical tool he termed "scenario space" to order and weight them (2007, 2009).

We should be cognizant that scenarists may have different intentions when it comes to their work. Some may seek to be future aligning, offering possible or probable scenarios, while others seek to be future influencing through preferable or optimistic futures (Gordon, 2009). Creating scenarios that suggest alternate futures is more than fancy or fiction. Futurists balance evidence from the present to draw inferences about the future, aided by their imaginations. While futurists do use their creative skills in crafting scenarios, to be sure, they recognize the

importance of “restrained imagination,” using it judiciously in the same way that historians combine evidence and imagination (Staley, 2007).

In the end, “scenario planning is a practitioner’s art. Its origins are in the real world of management, it is therefore more a craft than a science” (Van der Heijden, 1996, p. 133). For the futurist Gordon, the worth of a forecast or scenario is in how well it prepares us for an inherently uncertain future. He advocated that we reflect on:

> Whether it has illuminated the unknown while shaking our assumptions, forcing us to clarify our thinking, stimulating and structuring difficult discussions, and getting us to ask the right questions and face the hard choices required to adapt ourselves and our organizations to manage future change. (2009, p. 24)

In creating scenarios that have this effect, one cannot rely on empirical evidence and data alone. Effective futures work requires interpretation, creativity, and imagination, similar to the skills that complexity theory demands of leaders. Scenarios present people in our organizations and communities with powerful devices for thinking about and managing change differently. They open our minds to a variety of possibilities, challenging our mental models and “official” versions of the future. Given these notions of agency and reflection, some have seen futures thinking and scenario planning as valuable ways to support organizational learning (Schwartz, 1991; Van der Heijden, 1996).

Critically Appraising Futures Research

Slaughter espoused that futures research is not so different from other fields, and “the essence of futures study is not prediction, nor even forecasting—but scholarship. The same general rules that apply to any non-quantitative field apply in futures: clear argument, fit with the evidence, clarity, fruitfulness, applicability, etc.” (1995, p. 30). He argued that studying the future “calls for the very best work, the very highest standards (of clarity, insight, care, etc.) the most careful and under-stated expression of any field of study” (Slaughter, 1995, p. 31).

Hines and Bishop (2006) used two principal criteria of desirability and probability to evaluate alternative futures and also included consistency and quality. Staley judged the validity of a scenario as a historian judges a representation of the past, focusing on “the scope and quality of the sources, the cogency of the analysis, the validity of the inferences, and the merits of the interpretation” (2007, p. 137). He listed five other formal characteristics that should be present: futuribility (i.e., scenarios built from legitimate evidence and realistic), completeness, consistency, breadth, and utility.

Gordon offered perhaps the most in depth discussion of the factors one should take into account as a consumer of futures research. For every future-oriented claim, we should ask,

> How credible is it? How accurate or biased? Which parts of it are worth integrating into my mental framework? Which parts should be part of our organization’s preparation and planning and which can be discounted and safely ignored? Can I use this knowledge to further the goals of my institution? Can I base a decision on this with confidence? (2009, p. 14)

As we would in reading any piece of research, we should reflect on who conducted the study, for what audience, and why. With futures research, we should specifically ask, “What debate about the future does it form part of? What is it justifying? What is it lobbying for or against? What incentives apply and how will the forecast fulfill them? Whose interests are served or whose cause furthered?” (Gordon, 2009, p. 78).

Reflections on ACRL Futures Report[5]

This dissertation research takes as its starting point the study *Futures thinking for academic librarians: Higher education in 2025* which I wrote with my methods mentor for my independent learning in the Antioch doctoral program and which was later issued as a white

[5] Much the text in this section (reflections on the ACRL futures report) was previously published as the methodological appendix to the report itself (Staley & Malenfant, 2010, pp. 25-27). While ALA holds copyright in that report, it was issued with a Creative Commons Attribution-Noncommercial-Share Alike 3.0 United States License, which allows for derivative works, such as this dissertation.

paper by my employer, ACRL (Staley & Malenfant, 2010). We conceived of it as a way to help stimulate thinking for academic librarians and chose a 15-year horizon to help academic and research librarians see beyond the worries of this budget cycle and the short-term future. After 2 months of intensive environmental planning, we created 26 scenarios about possible futures. We presented these short scenarios on the future of higher education to academic librarians and asked their perceptions of probability, impact, speed of change, and threat/opportunity potential of each. The report sparked interest within my professional community and was generally well received. Based on participant feedback, academic librarians understood the aim was to stimulate thinking and prompt librarians to think outside the walls of the library and even outside the campus, not to predict any one future.

In order to better contextualize the choices I have made in designing this dissertation research, let me offer my reflections on the strengths and limitations of the ACRL futures report. Limiting the scope of our scenarios to one element or construct each was important as we were checking our scenarios against the images of the future that ACRL members hold. This was via a survey, not in a focus group where we could ask clarifying questions and probe answers further. We needed to be certain our participants were clear on the element to which we were asking them to respond. The scenarios in the ACRL futures report are, then, short vignettes. They are building blocks that could be combined to create more robust, rich scenarios.

For the ACRL futures report pilot group, we asked how long it took to complete the survey and if there was anything we should change that would make it easier for others to complete. The self-reported average time to complete was 22 minutes, and a large number commented that it was too long and the scenarios too numerous. As all questions on the scenarios were optional, we could also see the completion rate dip lower as the survey

progressed. Based on this feedback, we modified our final instrument, breaking the scenarios into two groups of 13 and sent the invitation to two new lists of participants. We were careful to ensure that the two scenario groupings represented a mix of themes: academic culture, demographics, distance education, funding, globalization, infrastructure/facilities, libraries, political climate, publishing industry, societal values, students/learning, and technology.

Additional feedback from our pilot group revealed that many people wanted to explain why they had made certain choices about each scenario—particularly around the threat/opportunity question. We responded to this in our final version by including a gently worded open-ended question at the end of each scenario, which invited responses from those who were interested. It was optional and read, “If you’d like, please feel free to share your reactions or thoughts about this particular scenario.” We had between 23 comments (13%) and 68 comments (35%) per scenario. We included some of these comments after each scenario in the ACRL futures report.

We intended both the invitation and questionnaire to be conversational in tone, so we used language carefully. We attempted to draw people into a dialogue, encourage reflection, and make it clear we valued their opinions. For example, within the survey, we did not dryly state “other comments” but instead asked participants to share their final thoughts with the question, “How was the experience of considering these scenarios valuable to you? Is there anything else you would like to share with us?” Of the 184 people who responded (45% of the total participants), only a handful made neutral comments and a dozen were negative. An overwhelming number (92%) reported positively about the experience. Moreover, most people demonstrated an understanding of how scenario thinking can open our minds to different possibilities and can be used for making better decisions now. The selected participant

reflections included in the sidebars in the early pages of the ACRL futures report reflect this understanding. The conversational nature of our approach resonated with a few respondents who commented favorably on the instrument itself. One participant noted, “It was very interesting way of doing a survey. More like an online anonymous focus group. I might look at implementing a similar survey.”

While we aimed to present only vignettes, not full scenarios with “thick description,” it was not always easy to be so concise. With a few scenarios in particular we did present multiple constructs or elements—making it difficult to know what participants were reacting to. A few participants commented that because some scenarios included multiple elements, it was difficult to reply. A focus group approach that facilitated dialogue and probing could have helped to clarify and delve more deeply into understanding perceptions of the future in cases like this.

We had not planned in our initial research design for the ACRL futures report to include an open-ended question after each scenario, and decided to include this based on our pilot survey feedback. We were unprepared for the wealth of comments that streamed in. Scanning through these seems to indicate that many participants were explaining why they chose a certain designation (i.e., high probability, low impact, mix of threat/opportunity). Others indicated signs on their campuses that certain elements were already occurring. Still others articulated implications for the library, were a scenario to come true. We were unable in the scope of the ACRL futures project, however, to analyze them in any systematic way, such as content analysis to draw out themes. With these thoughts on the strengths and limitations of the ACRL futures report for context, I turn next to describing the choices I have made in designing my dissertation research.

Setting and Participants

This dissertation research expands on the work I began in the ACRL futures report by engaging participants at one institution. It goes far beyond a case study into problem solving and action research. I chose this setting for a variety of reasons. As a state-funded, master's comprehensive institution, this university may feel more acutely than other types of institutions the pressures facing higher education since it has a broad mission and must answer to variety of stakeholders. A relatively new and fast growing campus, this university has 230 full-time tenured and tenure-track faculty members and enrolls just over 9,700 students, nearly all undergraduates.

Faculty, staff, and administrators in the university library are actively engaged in reexamining roles and strategic directions. The library dean, little more than a year on the job, tasked a working group in February 2011 with a six-month set of activities that will lead to the development of strategic directions for 2012-2015. The library strategic directions working group initiated the work and engaged other stakeholders on campus and in the library as they developed scenarios, considered possible actions for the library, and recommended strategic directions the library should take (for the group's charge and timeline, see Appendix A).

Since February 2011, I have served as a consultant to this library together with my ACRL colleague Kathryn Deiss, a well-respected facilitator in the library community who has provided organizational consulting to libraries for close to 20 years. We provided consulting services for the duration of their six-month strategic directions process. We assisted library administrators in forming the charge for the library strategic directions working group, which articulated their work process and timeline, and orienting the group members to their work. We have continued to be available on call as the group needs us throughout their process, which concludes in August.

I had begun initial exploratory conversations with another university library in summer 2010 and developed plans over the fall and winter to work with that group as the setting for this study. In spring 2011, it became clear that, for a variety of reasons, the setting would not be a good match. Recognizing a potential opportunity in the library where I was consulting, I approached library administrators in mid-March 2011 about whether they would be interested in becoming the site for my research, given the good fit with their strategic directions and scenario planning process already underway. The library administrators were receptive and referred me to make a fuller proposal to the library strategic directions group members in order to determine feasibility. Over the next few weeks, I continued to develop my research plans in consultation with the library strategic directions working group. By the end of March members agreed to participate in my dissertation research (see consent form Appendix B) and had identified one group member to serve as my key contact.

Research Design

My research design used multiple methods and triangulation with a small group of eight members of the library strategic directions working group as my primary participants (one administrator, five library faculty members, and two library staff members). They had opportunities to be involved in all phases of the research as well as preparatory work leading up to the formal start to the study: planning meetings, helping to recruit disciplinary faculty, participating in the focus groups, and making meaning from the findings. Librarians, library staff, and disciplinary faculty members were invited to complete a questionnaire about the group of scenarios, which were developed by the library strategic directions working group. Next I held two focus groups with college faculty and library representatives to probe more deeply and develop a more nuanced understanding of their perceptions of the future in a fishbowl style

exercise that emphasized active listening. Library faculty and staff members were invited to attend these meetings, participate in the conversation, and attend a debrief immediately following. Finally, the library strategic directions working group reflected on the data gathered to determine implications for the library and consider actions to take and strategic directions to recommend.

The full strategic directions process, which was created by library administrators with assistance from me and a colleague as ACRL consultants, was carried out as follows:

- Conduct environmental scan looking outside the library and outside higher education; identify trends and opportunities (February-April);
- Solicit informal input from students, faculty, and library faculty and staff (February-April);
- Develop five scenarios that look 7-10 years out (by early May);
- Seek volunteers, in concert with the library dean, for library actions working groups to respond to each scenario (early May);
- Provide direction and timeline to the actions working groups (May 12 quarterly staff meeting); and
- Based on the scenarios and the action reports (due mid-June), develop 3-5 strategic directions for the library to focus on during 2012-2015 (by mid-August).
- Discuss these strategic directions during annual library retreat (August).

My dissertation research, interspersed in the full strategic directions process described above, provided an added dimension to the work of the actions groups. My formal data collection began May 3, as soon as the scenarios were ready for discussion, and lasted until June 3 with the final reactions and thoughts of the strategic directions working group. While the

internal actions groups considered implications for the library (mid-May - mid-June), my research focused on faculty perspectives, thus contributing an added view from campus stakeholders. The library strategic directions working group took both sets of reports into account, together with other perspectives they may gather from students and administrators, as they developed strategic directions to guide the library for the next three years. They presented their recommendations to the library dean in mid-August, and these recommendations formed the basis for discussion during the library's retreat in late August.

My detailed research preparation and implementation process, vetted by participants, follows:

Phase 1: preparation. (March - April 2011)

- The library strategic directions working group convened to review my needs and expectations of them in relation to this research and to develop an aggressive recruitment strategy, given competing demands on faculty time due to dean/faculty searches and upcoming end of the semester finals.
- I provided my key contact with draft recruitment documents for review. Group members recommended shortening length, and I made subsequent revisions.
- With assistance from key contact, I secured a student assistant for focus group field notes and oriented her to work.

Phase 2: research began, administered survey, prepared focus groups. (May 2011)

- A multi-pronged recruitment approach began with a university-wide news announcement, direct invitation to college/school faculty, and request for assistance from the library dean to college deans and the school director (see Appendix C).

- Subject librarians recommended individual faculty in colleges/school to invite via targeted invitations, which my key contact subsequently sent (see Appendix C).
- Participants completed survey (see Appendix D).
- My key contact confirmed focus group participation with volunteers (see Appendix E).
- I finalized introductory comments for focus groups (see Appendix F), prepared handouts (see information sheet Appendix G, observers' guide Appendix H, reflection forms for library participants Appendix I, and college faculty Appendix J), and finalized plans for immediate debrief with library participants (see my facilitator notes Appendix K).
- I shared preliminary analysis of quantitative survey data and text of open-ended comments with library strategic directions working group.
- I shared preliminary thematic coding, as anticipated from scenarios and emerging from survey open-ended comments, with peer for checking.

Phase 3: research continued, held focus groups. (May 10-11, 2011)

- I held two focus groups with mix of college faculty members and library faculty/staff members. They provided library faculty and staff members an opportunity to hear key stakeholders—disciplinary faculty—as they discussed their perceptions of the future of higher education. I provided participants with a guide to active listening (see Appendix H). In first listening portion, disciplinary faculty members discussed possible futures of higher education among themselves while library participants listened. In second portion the roles were reversed. In the third phase, I opened up conversation for full group conversation (See my facilitator notes Appendix F). I

asked participants to share their thoughts in writing on a brief reflection form (see form for library participants Appendix I and college faculty Appendix J).

- Library participants took notes, participated in full group conversation with faculty, and, immediately following, convened for small group debrief.
- I continued analysis of data, created scenario space visualizations, coded open-ended data to develop themes, drafted results, and engaged in member checking with focus group participants. I shared preliminary thematic coding of key focus group comments with peer for checking and with members of strategic direction working group, upon their request.

Phase 4: reflection. (May 26, 2011)

I sent the library strategic directions working group my findings on perceptions and the group convened for final reflective exercise (see my facilitator notes Appendix L). The group made meaning of the findings on perceptions about the future. They reviewed scenario space maps I created, considered themes I had identified, and reactions to the process. They considered potential implications for the library and steps the library may wish to consider taking. They reflected on the process of creating and using scenarios to set strategic directions. They identified elements that were valuable, challenging, and how their views of planning had changed. Collectively the group engaged in analysis and interpretation, determining what knowledge may be transferrable to other library settings.

Process for vetting research design with participants. In early May 2011, I shared an overview of the research design as I envisioned with the library dean for initial review and was referred on to discuss my proposal with members of the library strategic directions group. I wanted to be sure my envisioned research process would meet their needs so I asked for their

general reactions and if they saw any red flags for planned activities. I asked their thoughts on timing, noted areas of concern, and clarified the roles they would play. I made modifications to the design, above, and to the supporting documents such as recruitment approaches and facilitator notes. Through this explicit vetting process and the many planning conversations, I mapped out the research together with the library administrators and library strategic directions working group. We negotiated the research design so that it was not something of my making that I imposed on the group.

Instruments and Protocols for Analysis

I have mixed qualitative and quantitative methods in a triangulation design, "the most common and well-known approach to mixing methods" (Creswell & Plano Clark, 2007). The aim was to expand quantitative results with qualitative data in a one-phase design, implementing both qualitative and quantitative methods during the same timeframe with equal weight. The timing was sequential, with the quantitative portion (questionnaire) coming before the qualitative portion (focus groups). I used a convergence model, a traditional approach to mixed methods triangulation, where the collection and analysis of quantitative and qualitative data occurs separately and the results are converged during the interpretation (Creswell & Plano Clark, 2007). This type of design presents challenges as the participants and participant size for the quantitative and qualitative data sets are different. Additionally, integrating two quite different sets of data can be demanding (Creswell & Plano Clark, 2007).

Survey. A member of the library strategic direction group, who was my lead contact, sent the invitation letter and announcements (see Appendix C). The content of the survey questions (see Appendix D) and invitation letter borrowed from the approach I used for the ACRL futures report, as this was previously tested and adjusted during a pilot phase. The text of the recruitment

materials was shortened based on feedback from the library strategic directions working group. In the survey, the descriptions of the scenarios themselves changed as these were written by members of the library strategic directions working group. Demographic questions asked respondents to identify whether they work in the library or are disciplinary faculty in the colleges/school. They also asked length of time working in higher education and whether they are tenured, tenure track, or adjunct. In a separate collection instrument, an additional question asks disciplinary faculty to indicate if they are willing to participate in a follow up focus group.

For each scenario, I asked participants the following questions:

1. Probability that this scenario will occur. (1 Low - 5 High)
2. Impact of this scenario, if it were to occur, on your department/discipline. (1 Low - 5 High)
3. If this scenario were to occur, how soon?
    a. Immediate change: in the next year or is already happening.
    b. 1-3 years, Short term.
    c. 3-10 years, Medium term.
    d. 10-20 years, Long term.
4. If this scenario were to occur, do you feel it would be:
    a. A threat to my department/discipline.
    b. An opportunity for my department/discipline.
    c. A mix of both.
5. If you'd like, please feel free to share your reactions or thoughts about this particular scenario.

The library strategic directions working group discussed the likely reception faculty would have to an emailed survey, in light of the time of year and attention being focused on the large number of dean and faculty searches. As one measure to increase the response rate, the library dean discussed the project during a meeting with other college deans and sent a follow up note. As a second measure, members of the library strategic directions working group felt it would be effective to target recruitment of likely college faculty members. I provided template messages to adapt and use at key stages in recruiting faculty for the survey and focus groups. The library strategic directions working group felt this personal outreach would capture the attention of faculty with whom they have established personal working relationships over time. Given the purpose of this study, the group determined that, from a body of 230 full-time tenured and tenure-track faculty members, a target goal the felt to be both realistic and satisfactory was a response of 15% or 35 members, from across the four colleges/school. In the end, there were 32 usable responses from disciplinary faculty, 10 from library faculty, and 19 from library staff members.

I prepared the quantitative data for analysis by creating two cross tabulations according to the two general categories of participants—college/school faculty and library faculty/staff. To analyze the data, I calculated the mean for the first two questions and the mode for the last two questions. To represent the data analysis, I created a scenario space map for each scenario, showing how the two groups responded, and I present these in the results chapter.

For the open-ended comments gathered in the questionnaire, I developed thematic codes and classified the responses to analyze this data. I describe this protocol more fully, below, as I have used the same procedure to explore, analyze, and represent other qualitative data gathered from the focus groups.

Focus groups. I complemented the quantitative strategy, outlined above, with a qualitative strategy of inquiry, which: is based on the belief that reality is socially constructed, focuses on the participants' perspectives on the topic of study and their search for meaning, takes place in a natural setting, relies on rich narrative description, is concerned with process rather than behavior, and has an emergent research design with flexible procedures (McMillan & Wergin, 2006). Largely through the efforts of my key contact in the library strategic directions working group, I recruited five college faculty members and five library faculty and staff members to participate in the two focus groups. While the survey allowed participants to indicate interest, this was marginally effective in identifying participants. Better results came from targeted invitations to faculty members identified by subject librarians as likely to be receptive.

A primary intent of the focus groups was to provide library faculty and staff an opportunity to converse with key stakeholders—disciplinary faculty—about their perceptions of the future of higher education. After the first "fishbowl" listening portion, where faculty members discuss possible futures of higher education among themselves, I turned the tables so that disciplinary faculty became listeners, while library faculty and staff discussed their reactions and perceptions. Lastly, I opened up the discussion for dialogue between members of the full group (Kaner & Lind, 2007).

While using this style of fishbowl focus groups with participants taking turns as both observers and participants supported dialogue, there were potential drawbacks. Because there were library faculty and staff members in the room, college faculty members may have withheld certain information that was critical of the library. While they may have been more forthcoming in a focus group setting with only me present as the researcher or in one-on-one interviews, I

believe the value of having the library faculty and staff members hear directly and participate actively in the conversation far outweighed this limitation.

Olson and Eoyang (2001) expressed the benefits of using the fishbowl technique to manage a large group discussion by containing and concentrating the pace and intensity. They described this as being a useful technique when the goal is to amplify the differences found within a group and explore a variety of perspectives rather than focusing on similarity. They felt a fishbowl exercise, which they termed a traditional change activity, can be used well through the lens of complex adaptive systems:

> A fishbowl speeds up the process of self-organization because it takes the same differences that exist in the group as a whole and puts them into a smaller container. It also provides transforming exchanges that are visible to the group as they observe the interactions. A fishbowl does not work if the differences in the larger group are unclear or if they are not reflected in the members of the fishbowl. (Olson and Eoyang, 2001, pp. 134-5.)

To better understand how I introduced and guided this conversation, see my facilitator notes in Appendix F. As an aid, I provided all participants with a guide to active listening (see Appendix H). At the conclusion, I asked all participants to share their thoughts in writing (see form for library participants Appendix I and college faculty Appendix J).

Anticipating that I would be active in the moment facilitating the conversation and, therefore, may not take adequate field notes, I sought a research assistant. I contracted an undergraduate on campus who was recommended by an anthropology professor and vetted by my key contact. This student attended both focus groups, took field notes, and provided me with an electronic copy afterwards. Additionally, I recorded audio for each focus group using a Sony ICD-SX712 linear PCM recorder, which has the advantage of being unobtrusive. While I did not have the recordings transcribed for formal analysis, they provided back up to the field notes, allowing me to more accurately capture and represent statements by participants. As I reviewed

the field notes, I listened to the recordings to clarify key quotes. To prepare the reflection forms for analysis, I entered hand-written comments into a spreadsheet.

To provide another source of data, I asked library participants in attendance to take notes and stay in the room briefly to discuss their reactions (see my facilitator notes Appendix K).

Qualitative data analysis. For the open-ended comments gathered in the questionnaire, my focus group notes, focus group reflection forms, and notes from the culminating debrief, I explored the data to develop codes then analyzed the data by assigning codes and grouping them into themes or categories using NVivo software. This allowed me to more ably represent my findings by topic in the results portion of my study. While I used coding to better organize my qualitative data, I had no intention of adhering to the rigorous protocols or epistemological foundations (described by Boyatzis, 1998 and Charmaz, 2006, to name but a few) to claim this as grounded theory. Instead, I was seeking a more systematic approach to organizing the qualitative data, which I was unable to do in the ACRL futures report.

My approach to content analysis was not a classic inductive approach, using data gathered to isolate, count, and interpret themes or recurring motifs inductively to describe a phenomenon from the ground up. Nor was it directed content analysis, which is deductive by applying previously defined categories; I was not seeking to validate or extend an existing theory. My approach to content analysis could best be termed summative, which Hsieh and Shannon (2005) describe as going beyond mere word counts to include interpretation of content with a focus on discovering underlying meanings.

I did not adhere to strict textual approaches which aim to quantify life experience. Instead, I adopted a view of content analysis that is more impressionistic, intuitive, and interpretive. Therefore, in seeking out patterns during the analysis of focus group data, I gave

weight to comments on more than mere frequency as "sometimes a really key insight might have been said only once in a series of groups" (Krueger & Casey, 2000, p. 136). I favored comments said with a high degree of specificity (rich in detail), emotion (enthusiasm, passion, or intensity), or those that come up extensively (said by many different people, which is quite different from comments that may have high frequency by just one person) (Krueger & Casey, 2000). Generally, in choosing the data to analyze and in representing the data, I endeavored to be the voice of the participants and clearly communicate how they felt about the topic, accurately representing the range of views.

Because some theory and research literature exists, when using summative content analysis, "keywords are identified before and during data analysis and are derived from interest of researchers or review of literature" (Hsieh & Shannon, 2005, p. 1286). I entered into this data exploration and analysis already anticipating some themes that would likely arise. These could have been topics present in the scenarios, such as: personalization (smart clothes), consumerism in higher education, technology and teaching—distance, technology and teaching—simulation, economic pressure (on individuals), older workers, and workplace competition. Other themes I anticipated are related to traditional tasks of faculty—teaching, research, and service—and to current hot issues in academia such as: access, quality, completion, and accountability.

While I did not enter into the data exploration phase with a set of codes developed, neither did I enter attempting to "bracket" myself and my tacit knowledge of the landscape. I both expected that many of these themes would arise and, at the same time, remained open to others emerging from the data. I discovered these as I wrote short phrases or ideas to myself as I review data from open-ended responses, reflection forms, and field notes. Charmaz described this memo-writing as "the pivotal intermediate step between data collection and writing drafts of

papers" (2006, p. 72), which serves to keep the researcher engaged in analysis, as some codes stand out to emerge as theoretical categories. (For my final coding structure see Appendix M and see Appendix N for examples of how I coded data and classified comments.)

Some researchers felt that content analysis of focus groups is lacking as it does not adequately capture the interactions between people holding different perspectives in a discussion (Marková et al., 2007; Wibeck et al., 2007). They argued that while content analysis is helpful in isolating and interpreting themes, issues, and recurring motifs, another type of data analysis—such as discourse analysis—is required to explore the interaction between participants on different thoughts, ideas, and arguments in focus group settings. While I appreciate this perspective, because my study is using multiple methods and I was seeking to converge data gathered through several means, I felt using discourse analysis would focus undue attention on data gathered from the focus group conversations. If I were a linguist and the purpose of my study was to explore the co-construction of knowledge that occurred during the focus group conversations, discourse analysis would indeed better shine a light on the interactions. However, since the purpose of my study was to work with a small group of academic librarians in determining actions to take to shape the future, I felt this additional analysis was not warranted.

Given my research problem and the environment, and because I greatly value the contributions of the members of the library strategic directions working group, I provided them all the qualitative data for their review. I compiled open-ended comments gathered via the survey, grouped them by scenario and arranged them by college faculty comments and library participant comments. I also sent them my final focus group notes, with designated thematic codes. In this way, they had the opportunity to see the data behind my results chapter. They could, therefore, choose to participate in identifying themes that emerged, comments that stood

out as particularly helpful or insightful, and any surprising or unexpected topics. They could also raise questions about why I chose to include some comments and not others in the results. To be clear, I assume responsibility for the analysis of the data gathered in the survey and focus groups.

To validate the data, the triangulation design provides some assurances. Additionally, I used peer reviewing. Fellow Antiochian Elizabeth Valicenti—who is coding interviews as part of her grounded theory dissertation and is a faculty member at a community college—served as my peer reviewer in a two-staged process. First I classified the preliminary survey comments, coding them with the themes I had anticipated and new ones that emerged. From this, I developed a coding structure, based on what I expected and what I actually saw. I shared the draft coding structure and preliminary survey comments, as I had coded them, with Elizabeth Valicenti for a gut check. I asked if she agreed with the direction I was heading, if I coded the anticipated themes at the points where she would have expected me to, if I drew out new themes appropriately, if there were better terms to use in describing the categories, and if there were themes I had overlooked. I repeated this process again with the focus group comments, which I again shared with her for peer review, asking the same questions as above. Her careful comments helped me refine my analysis.

To further validate the data, I engaged in member checking with participants of the focus groups as I began to draft my results and discussion chapters. I excerpted quotes I intended to use in context and offered the participants one week to make any comments or clarifications. I similarly engaged in member checking with the library strategic directions working group on statements they made during our final culminating call that I included in the results.

Integration, synthesis, and interpretation. Because I have used an action research approach, with the research conducted with and by members of the library strategic directions

group as full participants, they contributed to the integration, synthesis, and interpretation of the data. I gathered the group a few weeks after the focus groups to spend time together making sense of what we have learned. In this final meeting, I offered the group the opportunity to review my findings in advance and asked several questions (see my facilitator notes Appendix L).

I intentionally placed an individual silent writing exercise with subsequent round robin report out partway through our discussion. This allowed group members time to pause and gather their thoughts on three specific questions, without being influenced by others. It also ensured less extroverted members had space to contribute to the conversation. During the conversation, group members considered the potential implications of the findings and what steps, if any, the library may wish to take as a result. They reflected on their experience, thus far, of creating and using scenarios to set strategic directions. Collectively the group engaged in analysis and interpretation, determining what knowledge may be transferrable to other library settings. I shared a draft of results that included this debrief and allowed group members one week to offer any clarifications. I have further employed an iterative process to validate my interpretation by sharing a draft of the discussion chapter with the library strategic directions working group and allowing them one week for comment.

Conclusion

In Chapter Three, I described the underlying frameworks of action research and futures research to situate my methodological approach. Next I reviewed common tools and techniques of futures research, with a close look at scenarios as a key device. After reflecting on the strengths and limitations of the ACRL futures study, which provides a foundation for this dissertation, I explained how I have proceeded in my research. I defined the participants and how

they were selected, outlined the research design and vetting process, and described the instruments used and protocols for analysis.

I endeavored to remain cognizant throughout the process so the participants and I did not blindly follow the research plan if it was no longer the best strategy. Instead, I allowed the research process to unfold, even if it turned out differently than I had hoped or imagined. Throughout Chapter Three, I described my approach as inclusive and community-based; my intention was to conduct this research *with* and *by* the members of the library strategic directions working group as full participants. In the next chapter, I will describe the results of the research. I will represent the quantitative data with scenario space maps and the qualitative data in thematic groupings, with narrative examples and quotes from participants to demonstrate the findings.

Chapter IV: Results

Introduction

The purpose of this mixed method study was to aid academic librarians in examining their perceptions of the future of higher education, engaging disciplinary faculty members to understand their views, and determining actions to take to shape the future. I have mixed qualitative and quantitative methods in a triangulation design to gather complementary data on the same topic. I used a convergence model to collect and analyze the quantitative and qualitative data separately, converging the results during the interpretation.

In Chapter Four, I present the results of my research with a detailed description of how I came to these results. I represent the quantitative data with scenario space maps, creating these data visualizations from the survey responses, which I also offer in tabular format. I present the qualitative data in thematic groupings, providing narrative examples from the focus groups, reflection forms, open-ended survey questions, and culminating conversation with the library group. I use quotes from participants to demonstrate the findings. One goal in Chapter Four is to document perspectives about the future, not critique them. A second goal is to document reactions to the process of considering the scenarios and engaging in conversation about the future. A third goal is to document how members of the library strategic directions working group reacted to the findings, reflected on their process, and determined next steps.

Quantitative Findings

By the end of the two-week period that the survey was open, 81 people had responded. I removed 11 responses where participants entered the required demographic data then answered only one or none of the other 26 optional questions. Given the scope of my study, I excluded from my analysis responses from nine administrators/administrative staff members outside the

library. This left data from 61 total participants, 32 college/faculty members and 29 library faculty/staff members. The demographic breakdown of these respondents follows.

Table 4.1.
Demographics of survey respondents.

Department		
5	College of Arts and Sciences: Arts and Humanities	
0	College of Arts and Sciences: Interdisciplinary Programs	
5	College of Arts and Sciences: Math and Natural Sciences	
14	College of Arts and Sciences: Social and Behavioral Sciences	
0	College of Business Administration: Accounting and Finance	
0	College of Business Administration: Information Systems and Operations Management	
3	College of Business Administration: Management and Marketing	
4	College of Education	
1	School of Nursing	
29	Library	
Years in higher education		
College/school faculty	*Library faculty/staff*	
0	0	Less than one year
2	3	1 to 4 years
7	7	5 to 10 years
8	5	11 to 15 years
5	8	16 to 20 years
10	6	21 or more years
0	0	Retired
Age		
College/school faculty	*Library faculty/staff*	
0	1	Under 25
2	4	26 to 35
11	4	36 to 45
9	12	46 to 55
7	5	56 to 65
3	3	Over 65
Status		
College/school faculty	*Library faculty/staff*	
23	3	Tenured
9	5	Not yet tenured/on tenure track
0	2	Instructor/not on tenure track
0	19	Administrator/administrative staff

General results. Before presenting the differences in perceptions between the two groups of college/school faculty and the library faculty/staff for each of the five scenarios, it is useful to first view the aggregate data. Doing so depicts how the group perceived the scenarios in relation to one another. Here then, are aggregate summary statistics for responses from all 61 respondents.

Table 4.2.
Aggregate survey responses.

	Scenario 1	**Scenario 2**	**Scenario 3**	**Scenario 4**	**Scenario 5**
Probability (mean)	3.30	2.15	3.31	4.35	3.35
Impact (mean)	3.64	2.00	3.78	3.89	3.55
Speed (mode)	10-20 years	10-20 years	3-10 years	3-10 years	10-20 years
Threat/opportunity (mode)	A mix	A mix	A mix	A mix	A mix

These data are graphically represented below, using Staley's scenario space tool (2007, 2009).

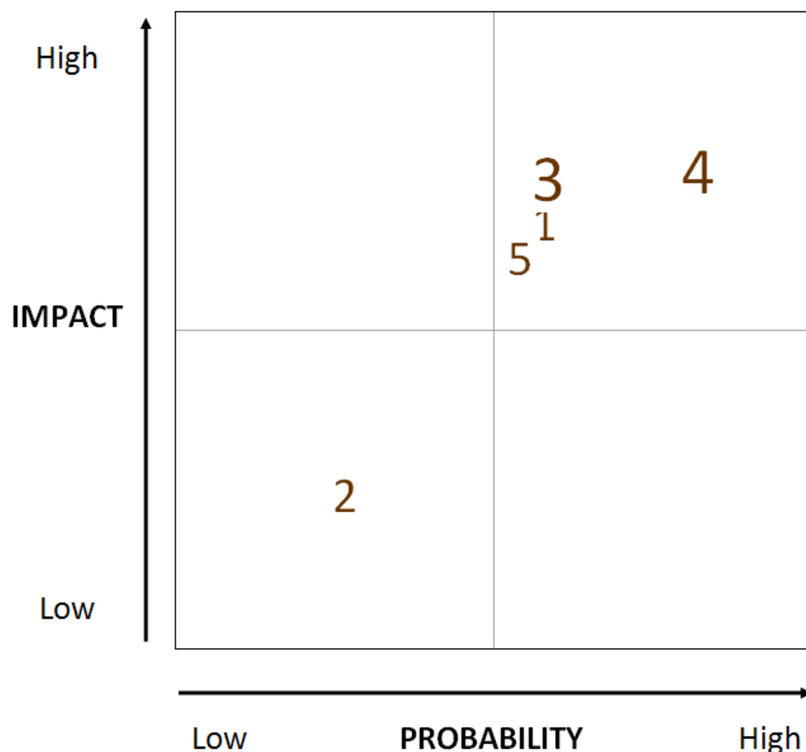

Figure 4.1 Aggregate scenario space map.

Answers to each of the four questions asked reflects a dimension of the scenario space. The y-axis equates to the impact of the scenario, the x-axis to the probability. The font size of the scenario number represents the speed of change (with smallest font as long-term change and largest font as immediate change). The brown-colored numbers reflect a mix of threat and opportunity. (A green-colored number would represent an opportunity and red a threat.)

In figure 4.1, we see that scenarios 1, 3, 4, and 5 are clearly in the high probability, high impact quadrant, and that scenarios 3 and 4 are perceived to be moving more quickly. Respondents deemed scenario 4 as the most probable and scenario 2 as not likely to happen. If scenario 2 were to happen, it would be of low impact in the long-term future.

By cross-tabulating responses to each scenario into the two major groups—college/school faculty and library faculty/staff—differences in perception become apparent, as I will demonstrate next. For ease of reading, I have included the text of each scenario in italics

alongside the results, as written by the library strategic directions working group and presented in the survey.

Scenario 1: vagabond.

As Heather walked down the street, she scans her handheld device for messages. Her shoes "ping" that the tread indicator is registering low and recommending replacement. She presses "yes" and the store ships the new shoes today, already knowing her size and account.

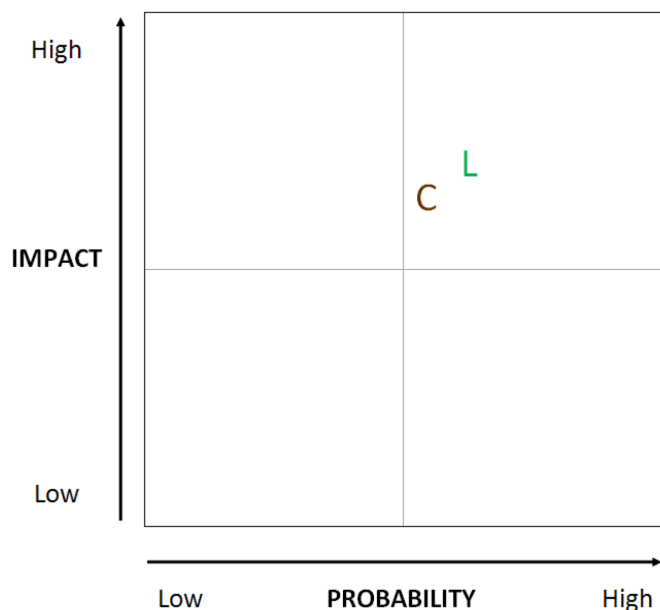

Figure 4.2. Map of responses to scenario 1.

Happy with her purchase, Heather gets serious about school and reviews her planner app, deciding she has time to research one of her assignments. She searches and finds the perfect information on the topic and orders online access. Fractions of pennies are debited from her account for each page viewed.

Her (Geminoid—i.e., android robot with human facial and body movements) professor teaches from a foreign country and she joins the physical therapy class virtually participating with the holographic image projected up from her handheld device rotating through the three images—the one showing the professor, one showing various classmates, or one showing the model of a damaged leg that is the object of the physical therapy lesson. The class is broken into groups to practice different therapy techniques using the simulated limb and various types of therapy equipment manipulated using gestures on the projected image.

As illustrated in figure 4.2, above, while both groups perceived scenario 1 to be above average in both probability and impact, library faculty/staff perceived it as higher for both. The groups agreed that, if this were to occur, it would be in the long-term future. Notably, this is the only scenario where a group perceived an opportunity, although that perception by library faculty/staff was not strong, as seen in the detailed data behind figure 4.2, below.

Table 4.3.
Tabulated responses to scenario 1.

Q1. Probability that this scenario will occur.				
Answer Options	*College/school faculty*		*Library faculty/staff*	
1 Low	4		3	
2	6		3	
3	10		7	
4	7		8	
5 High	5		8	
answered question	32		29	
skipped question	0		0	
Mean	**3.09**		**3.52**	
Standard deviation	1.25		1.30	
Q2. Impact of this scenario, if it were to occur, on your department/discipline.				
Answer Options	*College/school faculty*		*Library faculty/staff*	
1 Low	4		3	
2	4		2	
3	6		5	
4	7		8	
5 High	11		11	
answered question	32		29	
skipped question	0		0	
Mean	**3.53**		**3.76**	
Standard deviation	1.41		1.33	
Q3. If this scenario were to occur, how soon?				
	College/school faculty		*Library faculty/staff*	
Answer Options	*Response Count*	*Response Percent*	*Response Count*	*Response Percent*
Immediate change: in the next year or is already happening.	1	3.1%	1	3.4%
1-3 years, Short term.	1	3.1%	7	24.1%
3-10 years, Medium term.	9	28.1%	6	20.7%
10-20 years, Long term.	21	65.6%	15	51.7%
answered question	32		29	

skipped question	0		0	
Mode	**10-20 years, Long term.**		**10-20 years, Long term.**	
Q4. If this scenario were to occur, do you feel it would be:				
	College/school faculty		*Library faculty/staff*	
Answer Options	*Response Count*	*Response Percent*	*Response Count*	*Response Percent*
A threat to your department/discipline.	7	22.6%	1	3.4%
An opportunity for your department/discipline.	7	22.6%	15	51.7%
A mix of both.	17	54.8%	13	44.8%
answered question	31		29	
skipped question	1		0	
Mode	**A mix.**		**An opportunity.**	

Scenario 2: it's always been done that way.

Rip Van Winkle likes his life just like it is, he goes to work every day knowing what to expect, where everything is and how to do his job; he's satisfied with the status quo. Lately Rip has been feeling poorly. He met with his doctors and is diagnosed with a rare disease that is unlikely to be cured in the near future. Rip decides to participate in a new technique of medically induced suspension/cryogenic storage until the disease can be eradicated from his body. He likes his life so he agrees and similar to the Jim Carrey movie "The Truman Show" the public watches him sleep, watches all the medical miracles transform him into a healthy man—mostly they're waiting for his reawakening.

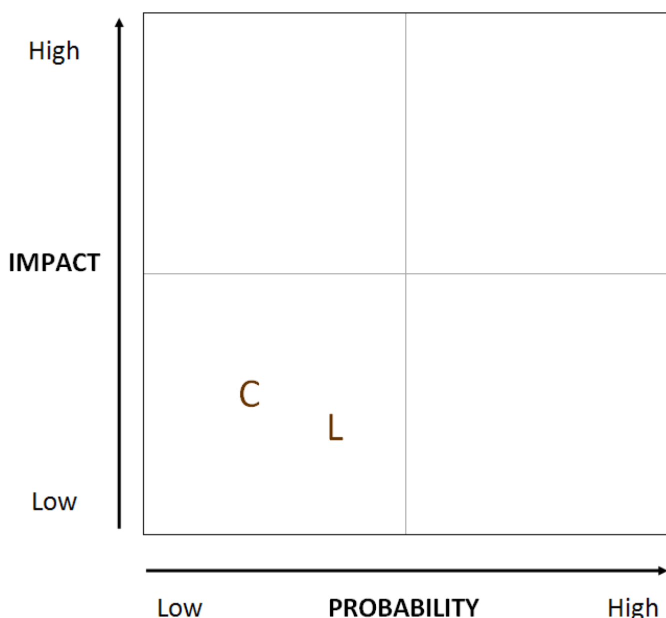

Figure 4.3. Map of responses to scenario 2.

Fifteen years later Rip Van Winkle is reawakened and his rare disease has been cured but he doesn't recognize the world any more.

Both groups perceived scenario 2 as having low probability and low impact. This is the only scenario where college/school faculty perceived the potential for greater impact than library faculty/staff members. If it were to occur, they both believed it would be in the long-term future and a mix of opportunity and threat. The detailed data behind figure 4.3 follow.

Table 4.4.
Tabulated responses to scenario 2.

Q1. Probability that this scenario will occur.		
Answer Options	*College/school faculty*	*Library faculty/staff*
1 Low	13	8
2	13	7
3	3	7
4	1	3
5 High	1	3
answered question	31	28
skipped question	1	1
Mean	**1.84**	**2.50**
Standard deviation	0.97	1.32

Q2. Impact of this scenario, if it were to occur, on your department/discipline.		
Answer Options	*College/school faculty*	*Library faculty/staff*
1 Low	12	16
2	10	4
3	6	5
4	0	1
5 High	3	2
answered question	31	28
skipped question	1	1
Mean	**2.10**	**1.89**
Standard deviation	1.22	1.26

Q3. If this scenario were to occur, how soon?				
	College/school faculty		*Library faculty/staff*	
Answer Options	*Response Count*	*Response Percent*	*Response Count*	*Response Percent*
Immediate change: in the next year or is already happening.	0	0.0%	0	0.0%
1-3 years, Short term.	0	0.0%	1	3.7%
3-10 years, Medium term.	3	10.7%	5	18.5%
10-20 years, Long term.	25	89.3%	21	77.8%
answered question	28		27	
skipped question	4		2	
Mode	**10-20 years, Long term.**		**10-20 years, Long term.**	

Q4. If this scenario were to occur, do you feel it would be:				
	College/school faculty		*Library faculty/staff*	
Answer Options	*Response Count*	*Response Percent*	*Response Count*	*Response Percent*
A threat to your department/discipline.	4	15.4%	0	0.0%
An opportunity for your department/discipline.	2	7.7%	8	36.4%
A mix of both.	20	76.9%	14	63.6%
answered question	26		22	
skipped question	6		7	
Mode		**A mix.**		**A mix.**

Scenario 3: quarantine.

The recent pandemic left the country crippled, air and train travel is halted because disease might be spread by travelers, gas stations are closed. Public gathering places are shut down to prevent further spread of the disease. People are restricted from any form of travel and must remain in local regions. Businesses and schools are partially functioning and hospitals are overloaded and Geminoids (i.e., android robots with human facial and body movements) are providing patient services. Similar to the 1918 influenza epidemic, young men are afflicted the hardest and a generation of women is left with limited marriage partners.

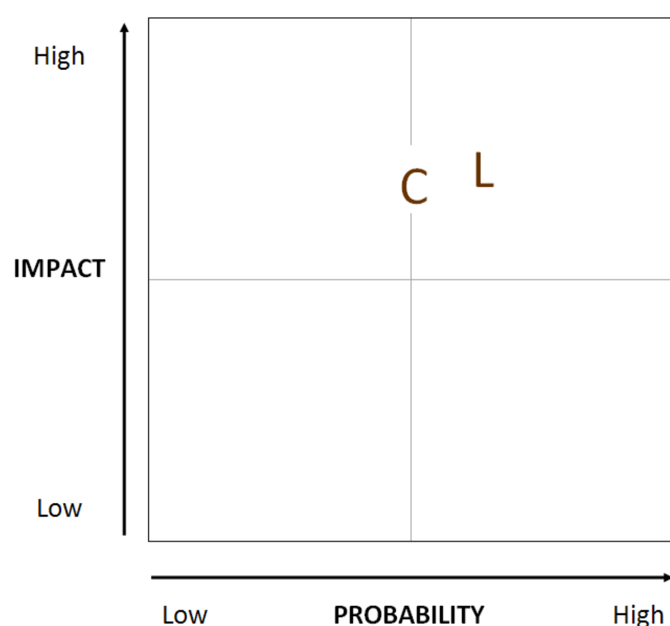

Figure 4.4. Map of responses to scenario 3.

Again, we see that the library group perceived greater probability and greater impact in scenario 3 than the faculty group. The library group places this clearly in the high probability, high impact quadrant, where planners are most likely to focus. The faculty group, however,

perceived this as just above average probability and above average impact. Both groups see this scenario as potentially happening in the medium term, 3-10 years, and a mix of opportunity and threat. The detailed data behind figure 4.4 follow.

Table 4.5.
Tabulated responses to scenario 3.

Q1. Probability that this scenario will occur.				
Answer Options	*College/school faculty*		*Library faculty/staff*	
1 Low	3		0	
2	6		4	
3	8		10	
4	9		6	
5 High	2		7	
answered question	28		27	
skipped question	4		2	
Mean	**3.04**		**3.59**	
Standard deviation	1.14		1.05	
Q2. Impact of this scenario, if it were to occur, on your department/discipline.				
Answer Options	*College/school faculty*		*Library faculty/staff*	
1 Low	2		2	
2	4		2	
3	5		5	
4	5		7	
5 High	11		11	
answered question	27		27	
skipped question	5		2	
Mean	**3.70**		**3.85**	
Standard deviation	1.35		1.26	
Q3. If this scenario were to occur, how soon?				
	College/school faculty		*Library faculty/staff*	
Answer Options	*Response Count*	*Response Percent*	*Response Count*	*Response Percent*
Immediate change: in the next year or is already happening.	1	4.0%	2	7.4%
1-3 years, Short term.	1	4.0%	1	3.7%
3-10 years, Medium term.	13	52.0%	17	63.0%
10-20 years, Long term.	10	40.0%	7	25.9%
answered question	25		27	
skipped question	7		2	
Mode	**3-10 years, Medium term.**		**3-10 years, Medium term.**	
Q4. If this scenario were to occur, do you feel it would be:				
	College/school faculty		*Library faculty/staff*	

Answer Options	*Response Count*	*Response Percent*	*Response Count*	*Response Percent*
A threat to your department/discipline.	9	37.5%	7	29.2%
An opportunity for your department/discipline.	1	4.2%	4	16.7%
A mix of both.	14	58.3%	13	54.2%
answered question	24		24	
skipped question	8		5	
Mode		**A mix.**		**A mix.**

Scenario 4: off to work we go.

By 2018 more and more people in the developed economies are 80 years old and older. Their lives have changed dramatically as they need more medical care, resulting in strain on the health care system. A series of cyber terrorism episodes made private information and personal records easily accessible and widely used in hiring decisions.

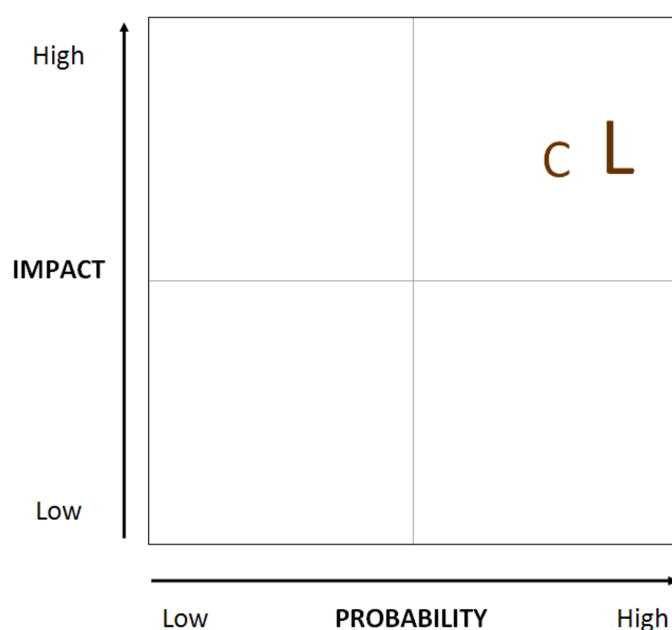

Figure 4.5. Map of responses to scenario 4.

Older people need to work longer because social security and Medicare are no longer the safety nets they were. There is a crush of older/middle-aged/younger people competing for jobs. Middle-aged people are stretched in three directions: caring for their parents physically and/or financially, keeping their own jobs, helping their children financially. Young people struggle to afford higher education and/or training to find jobs that pay enough to start families.

Again, we see the library group perceived this scenario as having slightly greater probability and impact than the college/school faculty group. Both groups perceived it in the

high impact, high probability, or “actionable” quadrant, where planners should focus their time and energy. While both perceive it as a mixed of threat and opportunity, their views diverged sharply around speed. While most college faculty saw this as a medium term change, in 3-10 years, the library group saw it as immediate, in the next year, or already happening. The detailed data behind figure 4.5 follow.

Table 4.6.
Tabulated responses to scenario 4.

<table>
<tr><td colspan="5">Q1. Probability that this scenario will occur.</td></tr>
<tr><td>Answer Options</td><td colspan="2">College/school faculty</td><td colspan="2">Library faculty/staff</td></tr>
<tr><td>1 Low</td><td colspan="2">1</td><td colspan="2">0</td></tr>
<tr><td>2</td><td colspan="2">1</td><td colspan="2">0</td></tr>
<tr><td>3</td><td colspan="2">5</td><td colspan="2">4</td></tr>
<tr><td>4</td><td colspan="2">8</td><td colspan="2">3</td></tr>
<tr><td>5 High</td><td colspan="2">13</td><td colspan="2">20</td></tr>
<tr><td>answered question</td><td colspan="2">28</td><td colspan="2">27</td></tr>
<tr><td>skipped question</td><td colspan="2">4</td><td colspan="2">2</td></tr>
<tr><td>Mean</td><td colspan="2">4.11</td><td colspan="2">4.59</td></tr>
<tr><td>Standard deviation</td><td colspan="2">1.07</td><td colspan="2">0.75</td></tr>
<tr><td colspan="5">Q2. Impact of this scenario, if it were to occur, on your department/discipline.</td></tr>
<tr><td>Answer Options</td><td colspan="2">College/school faculty</td><td colspan="2">Library faculty/staff</td></tr>
<tr><td>1 Low</td><td colspan="2">0</td><td colspan="2">1</td></tr>
<tr><td>2</td><td colspan="2">1</td><td colspan="2">2</td></tr>
<tr><td>3</td><td colspan="2">7</td><td colspan="2">5</td></tr>
<tr><td>4</td><td colspan="2">12</td><td colspan="2">7</td></tr>
<tr><td>5 High</td><td colspan="2">7</td><td colspan="2">12</td></tr>
<tr><td>answered question</td><td colspan="2">27</td><td colspan="2">27</td></tr>
<tr><td>skipped question</td><td colspan="2">5</td><td colspan="2">2</td></tr>
<tr><td>Mean</td><td colspan="2">3.93</td><td colspan="2">4.00</td></tr>
<tr><td>Standard deviation</td><td colspan="2">0.83</td><td colspan="2">1.14</td></tr>
<tr><td colspan="5">Q3. If this scenario were to occur, how soon?</td></tr>
<tr><td></td><td colspan="2">College/school faculty</td><td colspan="2">Library faculty/staff</td></tr>
<tr><td>Answer Options</td><td>Response Count</td><td>Response Percent</td><td>Response Count</td><td>Response Percent</td></tr>
<tr><td>Immediate change: in the next year or is already happening.</td><td>5</td><td>19.2%</td><td>11</td><td>42.3%</td></tr>
<tr><td>1-3 years, Short term.</td><td>2</td><td>7.7%</td><td>2</td><td>7.7%</td></tr>
<tr><td>3-10 years, Medium term.</td><td>12</td><td>46.2%</td><td>9</td><td>34.6%</td></tr>
<tr><td>10-20 years, Long term.</td><td>7</td><td>26.9%</td><td>4</td><td>15.4%</td></tr>
<tr><td>answered question</td><td colspan="2">26</td><td colspan="2">26</td></tr>
<tr><td>skipped question</td><td colspan="2">6</td><td colspan="2">3</td></tr>
</table>

Mode	3-10 years, Medium term.		Immediate change.	
Q4. If this scenario were to occur, do you feel it would be:				
	College/school faculty		*Library faculty/staff*	
Answer Options	*Response Count*	*Response Percent*	*Response Count*	*Response Percent*
A threat to your department/discipline.	7	25.9%	3	12.0%
An opportunity for your department/discipline.	3	11.1%	6	24.0%
A mix of both.	17	63.0%	16	64.0%
answered question	27		25	
skipped question	5		4	
Mode	**A mix.**		**A mix.**	

Scenario 5: hunter/gatherers.

Gas prices long ago skyrocketed to over $10 a gallon, so almost everyone stops driving regularly. Consumer buying of discretionary items is down.

The electric system increasingly shows more and more solar panels, especially as businesses seek new revenue and incentives to sell electricity to the grid. Water shortages increase as another drought settles into the southwest. Water saving measures expanded to water harvesting (rain barrels) from rooftops on commercial, public service, and some residential sites. Desalination plants become commonplace as they have long been in the Middle East. Pockets of desertification are increasing as more towns find themselves with critical water shortages and are abandoned.

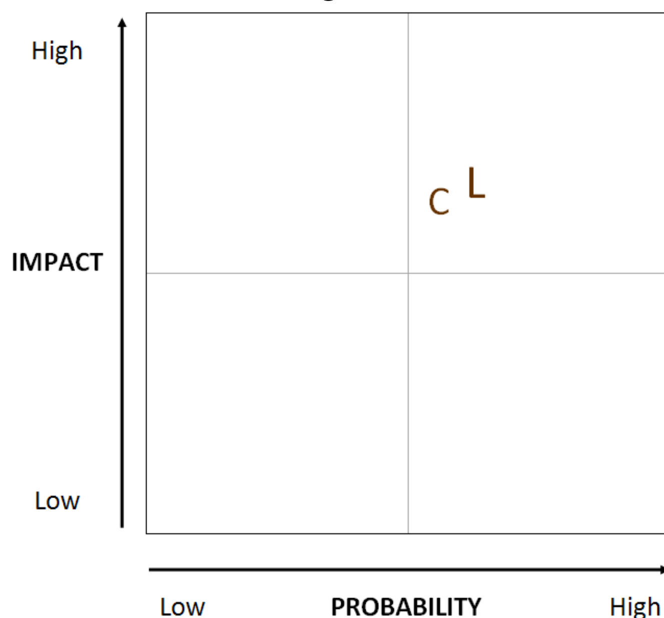

Figure 4.6. Map of responses to scenario 5.

These developments led to a boom of small eco-communities. Essentially local neighborhoods are more the norm where you live

and work, grow your own organic food, and walk or bike every day. Savings are in good hands under the mattress or at the trusted local bank, where you know all the bank-tellers by name. Planners look to the European model of green belts for urban planning.

This final scenario is another example where the library group perceived greater probability and impact than the college/school faculty, although both placed it in the "actionable" quadrant. Both groups saw it as a mix of threat and opportunity. While the college faculty perceived it as happening in the long-term future, the library group thought its likely speed as split between long and medium term. The detailed data behind figure 4.6 follow.

Table 4.7.
Tabulated responses to scenario 5.

Q1. Probability that this scenario will occur.				
Answer Options	*College/school faculty*		*Library faculty/staff*	
1 Low	2		3	
2	4		3	
3	9		5	
4	12		8	
5 High	1		7	
answered question	28		26	
skipped question	4		3	
Mean	**3.21**		**3.50**	
Standard deviation	0.99		1.33	
Q2. Impact of this scenario, if it were to occur, on your department/discipline.				
Answer Options	*College/school faculty*		*Library faculty/staff*	
1 Low	1		4	
2	2		1	
3	10		4	
4	11		9	
5 High	3		8	
answered question	27		26	
skipped question	5		3	
Mean	**3.48**		**3.62**	
Standard deviation	0.94		1.39	
Q3. If this scenario were to occur, how soon?				
	College/school faculty		*Library faculty/staff*	
Answer Options	*Response Count*	*Response Percent*	*Response Count*	*Response Percent*
Immediate change: in the next year or is	2	7.7%	3	11.5%

already happening.				
1-3 years, Short term.	4	15.4%	5	19.2%
3-10 years, Medium term.	8	30.8%	9	34.6%
10-20 years, Long term.	12	46.2%	9	34.6%
answered question	26		26	
skipped question	6		3	
Mode	**10-20 years, Long term.**		**Split: 3-10; 10-20.**	
Q4. If this scenario were to occur, do you feel it would be:				
	College/school faculty		*Library faculty/staff*	
Answer Options	*Response Count*	*Response Percent*	*Response Count*	*Response Percent*
A threat to your department/discipline.	4	16.7%	1	4.2%
An opportunity for your department/discipline.	5	20.8%	7	29.2%
A mix of both.	15	62.5%	16	66.7%
answered question	24		24	
skipped question	8		5	
Mode	**A mix.**		**A mix.**	

Summary of quantitative findings. In nearly every scenario presented via the survey, the library faculty/staff perceived both greater probability and impact (the exception being scenario 2 (it's always been done that way), where college/school faculty perceived slightly greater impact, although still below average). The largest differences were the higher probability viewed by the library group perceived for scenarios 2 (it's always been done that way), 3 (quarantine), and 4 (off to work we go). Both groups saw four of the five scenarios as part of the "actionable" future (i.e., high probability, high impact quadrant), numbers 1 (vagabond), 3 (quarantine), 4 (off to work we go), and 5 (hunter/gatherers). No scenario was perceived as a "wild card" (i.e., low probability, high impact quadrant) by either group.

For four of the five scenarios, both the library faculty/staff and college/school faculty perceived them as a mix of threat and opportunity. A notable exception is scenario 1 (vagabond), which the library group felt would be an opportunity, were it to occur. Both groups were generally in agreement on the speed of change, believing most scenarios would occur in either the medium term (3-10 years) or long term (10-20 years) future. However, their views diverged

sharply around the speed of scenario 4 (off to work we go). The library group saw this as immediate, already happening, while the college/school faculty saw it as medium term.

Qualitative Findings

In presenting the qualitative results, I focus on two broad areas: content and process. First I present findings about the possible futures of higher education, organized by themes. Then I present findings about the process of considering the scenarios and engaging in conversation about the future. My sources of data are open-ended comments to the survey, focus group remarks, reflection forms completed by focus group participants, and a final culminating debrief with members of the library strategic directions working group. In presenting the qualitative results of this study, I endeavor to convey the voice of the participants and communicate how they felt about the topic.

Focus group demographics. For the first focus group, one college faculty member and three library staff members attended. The second focus group was attended by four college faculty members, two library staff members, and one adjunct (part-time) library faculty member. The library participants included a member of the strategic directions working group who attended both focus groups. The college faculty members came from the College of Education and from four different departments in the College of Arts and Sciences: liberal studies, psychology, political science, and physics. One volunteered in response to a general announcement and the other four were recruited through targeted invitations, having been identified by subject librarians as likely to participate.

Importance of human contact/social learning. By far, the topic most extensively commented upon, in the survey and both focus groups, was the potential for technology to continue to change higher education. Participants saw implications for the way faculty members

teach, what they teach, how they (and students) conduct research, and the way the library faculty and staff members support learning and provide services. Much of the focus group conversations revolved around how much has already changed due to technology. Participants commented on how important it is, both now and in the future, to maintain human contact in a teaching environment mediated by technology.

Several pertinent comments occurred in response to scenario 1 (vagabond), which posited online learning over great distance, non-human instructors, and simulated learning through the use of holography. One college faculty member commented, “Obviously, Professor Geminoid would be a threat, but [it’s] hard to remove the human element from education entirely, and liberal learning will continue along fairly traditional paths.” Another college faculty similarly observed, “This scenario lacks meaningful human to human contact. All contact is via technology, which does not satisfy the human need for connection.” A third college faculty member between 56 and 65 jokingly remarked:

> As someone who still values f2f and real-time interactions and sees their pedagogical value, I guess I'm glad I won't be around for this one. ;-) While currently my students value their technological devices, they still hunger for the human element. The next generation may not see the value of human contact which they may experience as unduly “stressful.”

This theme about the importance of human contact in the midst of technology arose during both focus groups, where college faculty saw social learning as increasingly necessary and valuable. One college faculty member, discussing online education, emphatically declared, “The engaged learner is the one who has some social learning in their experience.” Another college faculty described how technology has already changed her teaching style:

> I'm very deliberate about having lots of points of discussion in my class and opportunities where the students can talk to one another. And I know they think they're going off topic, but I think it's good that they're communicating and getting to know their colleagues. I'm very deliberate about it. I tell them, “I’m giving you this opportunity because it is a

> commuter campus," although I blame it less on that than the technology. You need to get to know your colleagues; that's a really important part of the experience here.

A third college faculty member in a focus group reinforced the above ideas that changes have already happened and that connection is integral to the college experience:

> I'm feeling a real loss of community, I feel like students are missing out on one of the best parts about college, which is to be around people who are interested in the things you are interested in, and help you to be more motivated.

Technology and pedagogy. In terms of potential changes to pedagogy that could be triggered by new technologies, two college faculty members had mixed reactions to the usefulness of holograms, when responding to scenario 1 (vagabond), as the following quote illustrates:

> There are many concepts in the physical sciences that can be modeled and touched hands-on in a laboratory setting with face-to-face interaction with peers and instructor. Why replace an experience with essentially a 3-D picture? On the other side, there are also many concepts that can only be explored by simulation, and this technology would allow exploration of those scenarios, e.g., the workings of the atom.

In reaction to the possibility of online learning over great distance (an idea represented in scenario 1), several survey respondents commented that this is already occurring. During a focus group, a college faculty member with over 30 years of experience expressed reservations about current trends in online learning:

> Quite truthfully I'm worried about what is happening to education… I see that there is such a press towards privatizing education with more online classes. I'm not that thrilled about the way the future is going, but that's because I am an old fogey.

Another focus group faculty member distinguished many currently offered self-paced online programs from much more robust courses, where faculty members connect meaningfully to digital learners. "If there's no semester start and students begin anytime, it's a moneymaker for universities. It's like a correspondence course, but is not exciting, interactive, and engaging. Individualized learning is quite different."

In considering the student experience in a learning environment such as that suggested in scenario1, one college faculty member remarked, “Practicing students would have even more pressure to accomplish a lot of activities in a compressed time-frame (just think about how much busier we all are BECAUSE of all of the technological devices we carry).” Time pressures aside, being surrounded by technology today isn’t necessarily detrimental for students, according to a college faculty member in a focus group. “Despite all the downsides of technology, in some sense students are as smart, or smarter, than they've ever been. It's just in a different way; they've become informational scavengers, I guess.”

Focus of curriculum and research. In addition to the ways technology has already changed and will continue to change teaching and learning, participants identified the need to adapt curriculum in light of future technologies. In a focus group, a physics faculty member explained:

> Technology affects not just how we teach but what we teach. There are special elective courses where we're saying the state of the art is now X. Researchers are pushing the boundary ever more forward... We constantly have to review our curriculum to train people to use these [new technologies]. We've recently had conversations across science departments here and with other local schools [in our regional alliance, which focuses on curriculum improvement and articulation]. We are in agreement that tomorrow's scientists, in all the fields, have to be more computational, need stronger quantitative skills, and must have a stronger technology base. It's not enough to look at something and categorize it. You have to go deep, and it takes technology to do that. This is the big thing happening in my area.

During the same focus group, faculty members in psychology, liberal studies, and political science all strongly agreed with the physicist that this move toward a quantitative focus is also a current trend in their fields and, consequently, greater technological skill is now and will continue to be required of their students. They discussed the increasing focus on skills needed to carry out “computational” research, whether statistical analysis in neuroscience, geographic information systems for planning, or gaming theory to predict election results. One faculty

member commented that the focus is driven in part by funding agencies, “You have to go where the NSF funding cycle takes you, for better or for worse.” Two of the faculty members commented that the focus on computational/quantitative research has drawn scholars away from examining social factors and issues in their fields. The psychologist noted that while this swing is part of the cyclical nature of the field, as a result researchers are now looking at biological issues instead of social issues, thus “moving away from becoming involved in activist areas.”

A college faculty member, in responding to scenarios 3 (quarantine) and 5 (hunter/gatherers) noted that such drastic global social changes would, “change the content of sociology” and “have an impact on the content of sociological research.” Two library respondents to scenario 4 (off to work we go) identified the connection between rapidly changing technologies and curriculum. A tenure-tracked librarian said, “This can be an opportunity for us to offer students/users more services to retrain or reeducate themselves for different jobs.” Beyond an opportunity for the university, one library staff member felt rapidly changing technology would spawn workplace rivalry. “Keeping up to date with the latest technology will be a must for anyone to compete or even stay in the job market.”

In a focus group, a college faculty member in education talked about the role of higher education in retraining workers, given changing technology and a more competitive workplace. The faculty member mentioned a futures video which indicated children in today’s kindergarten class will have as many as 20 different jobs in their lifetimes:

> We used to prepare people for one job, then we said seven and now it's even much higher as jobs are changing. That retooling, that reeducating is something we have to think about in the future even more than we do today. Although we do some now, we'll need to do even more in the years ahead. How can we make it more accessible, more individualized, more personalized? How can we help students think about finding a good fit in their careers differently? … We need to help them think about new jobs they would be good at doing instead of only considering the kinds of jobs that people they know have had—someone who is a role model and who inspired them. How are we going to connect

> people, those isolated people who are at a dead end in their career? How do we get them in, and in the right place? It sounds like a counseling job or an advising job to me, but I'm not sure that we're geared to do that today on such a large scale.

The workplace. Since library respondents to the survey felt scenario 4 (off to work we go) is fast moving and happening now, the implications of an older workforce and diminished economic status of younger workers bear closer consideration. A library staff member expanded on possible outcomes of this scenario:

> This looks like a boon to the department bottom line as it would be able to choose from a very wide (and desperate) pool of job applicants. It could lower its costs by keeping most positions temporary, and get rid of anyone at a higher rate in order to hire someone at a lower rate. The unspoken implications would cast a sense of doom over the personnel and cause a fierce underground, back biting, competition. This would keep everyone's nose to the grindstone. Employees would skip breaks and work unpaid overtime in order to complete projects ahead of others and keep their job.

A faculty member from the College of Arts and Sciences, division of social and behavioral sciences, perceived this scenario as a threat and said, “If faculty and staff stay on till very old age, it will utterly change the dynamics of university life as well as stop job opportunities for younger cohorts.” A tenured faculty member in education saw an immediate impact on the field. “We are already seeing an impact on teacher education and teaching as older teachers delay retirement due to the recession. It's harder to recruit teacher candidates, and schools have fewer newly-credentialed teachers.” A library staff member similarly saw this scenario already happening:

> I see more families living together longer, caring for elderly parents and not having the money to start a family. Well-paying jobs seem fewer and far between, so it takes more than two incomes to provide for an extended family as well as to start a family.

Library respondents remarked on other changes to the workplace, not due to the aging workforce or economic pressures, but because of what technology could now support, particularly if gas prices were to rise dramatically (as in scenario 5) or a quarantine were issued

(as in scenario 3). Several believed that telecommuting would soar and that the library should consider offering “different work schedules, telecommuting, and other options so that it is not a financial strain for our staff to actually get to work.” Another library respondent would respond well to such a move, based on this response, “Access to knowledge and information would still be needed but delivery would change. Opportunity to work from home—NICE!”

Libraries in the future. Because library respondents perceived scenario 1 (vagabond) as being an opportunity, it is worth considering reactions to this particular scenario and to the general topics it represented. One library faculty member explained why the prospect may be positive:

> I think it's highly likely that there will be a) indicators in shoes that they are worn, b) auto shipping of products and c) students paying for their articles. Each one of those pieces can have a great effect on the library and the first two can offer a fabulous opportunity to reach students in different ways.

A library respondent to the survey saw opportunity if this scenario were to come true, “Somewhere along the chain there will always be a need for human interaction and someone to find answers to the questions. The problem solvers, that's where we fit in.” This reinforces early comments about the importance of the human element.

In response to scenario 3 (quarantine) and 5 (hunter/gatherers) two library respondents saw that people would not use the library facility as much. In response to the latter scenario, one person inferred, “We would need to provide more virtual services, and possibly include outposts of a physical library in these [small eco-] communities for [university] users (but really there is less of a need for a physical space).”

The idea of moving library services to be increasingly digital/virtual and to reach students in new ways arose in the focus groups as well. College faculty in both focus groups talked about

their views on the future of the book. A college of education faculty member identified a challenge being discussed in the field:

> The book as we know it is disappearing. There are a lot of people really uncomfortable with that, but it doesn't matter. People can love books, I love books...I think there will be different ways we access data, but it's not going to be in all these textbooks…There are school aged children now using eonly textbooks…What does it mean for the student who walks into this library? What is the experience like for someone who has gone through their high school education using only digital textbooks?

Another college faculty member expanded beyond textbooks, saying, “One day all your textbooks, all your reports, lecture notes are going to be written with this one little device, like an iPad. It's going to happen. It's bound to change the way we interact.”

Again in a focus group a college faculty member talked about the emergence of augmented reality, describing a small personal video projection device developed by the MIT Media Lab that connects the physical world to the virtual world. She imagined what it could mean for libraries in the future:

> You walk into the store and anything it sees, it can read. You can learn about products or open a book and see a book review projected on a nearby surface...You can access all your files and start to work with them on the wall. That's what exists today; you only have to think it, and it’s there. What will exist in the future? What does a library look like when you think it, and it’s there?

In response to these kinds of musings by the college faculty, the library staff members maintained value in print objects, if only as back up to digital objects where access may not be stable in the event of system failures. There was also discussion in one focus group about the serendipity of browsing the physical objects on the shelf. One library staff member summed up her position by stating, “For libraries, I think it's going to be a combination of print books and online information. It's a matter of working it out.”

Another area identified for libraries in the future, even those like this university that are not research intensive, is in data curation—i.e., preserving and providing access to large datasets

gathered for research. A college faculty member in a focus group talked specifically about the need for assistance with data gathered through geographic information systems, feeling there is an increasing urgency, “Someone needs to store the data in a standard format. The data are scholarly materials so I believe it would be better in the library [than in IITS] if you could work that out.”

Changing entrenched systems. Participants in the focus groups identified a grand challenge facing higher education in preparing for the future. They discussed the need to change entrenched systems in order to meet the needs and expectations of the college students of tomorrow. A College of Education faculty member explained that provocateurs in her field “are talking about students learning differently and how we're still stuck in a pretty constrained environment, four walls with people physically around you. Yet the world has narrowed and people can be connected immediately across great distances.” Beyond the idea of virtual or online education, she identified a larger disconnect across the education system writ large:

> I think universities are behind K-12 in terms of thinking about the future of education and what technology can do. I think faculty members are more behind than our teachers. Our teachers are starting to get that it's going to be different. They're not sure what to do about it. But our faculty are still pretty entrenched in how they learned, rather than how they should provide learning for future generations of students.

A second faculty member, in the College of Arts and Sciences, confirmed that faculty members are entrenched and aware of it. She described tension in the current state:

> We are still teaching things that students were taught in the 50s. And it's not just this department, but in the field generally. Looking at how statistics have changed is really amazing. We didn’t use computers in graduate school and learned very complicated statistics by calculator. But now you can do much more complicated analyses in a very short period of time. Even though we know this, we are still teaching students the basic things that were being taught in the 20s, 30s, 40s, and certainly the 50s. And we can't get out of that. I don't know why. We tell ourselves that students need to know how to think about the fundamentals, and I firmly agree they need to understand the concepts.

A third faculty member described the ways in which competing priorities and realities make it a challenge to adopt pedagogical change:

> I hear more and more references to our job not being to educate students about things, but to educate them about how to find out about more things. I feel caught in the transition. While I feel like this is what I'm trying to help them accomplish, at the same time there is foundational knowledge they need more of. We are talking on this campus about time to degree being even shorter. And there is a disconnect between the financial reality [of students who seek to graduate more quickly] and the fact that they probably need more preparation to deal with the enormous quantity of information that they need to be able to process.

Overlooked topics. While the comments on the themes above occurred extensively, by several people in different ways, a few topics I had anticipated from the scenarios did not arise in any of the comments. These include cyberterrorism (scenario 3), strained medical system (scenario 4), solar/alternative energy (scenario 5), and water shortages (scenario 5). Other topics, whether anticipated or emergent, were only touched upon very briefly and strike me as important to consider when thinking about possible futures of higher education. They include ethnicity, gender, personhood, social stratification, and interdisciplinarity. I present next the limited participant comments on each of these topics in turn.

Ethnic diversity came up briefly once, where a focus group participant relayed a recent experience visiting a kindergarten classroom. “I was so struck by the wide demographic in the classroom. There were many Middle Eastern, many Chinese, and many African-American students. It was such a wonderful blend, and that's what I see in the future.” I would have expected more discussion of ethnic diversity, given that this campus has a large population of Latino, Asian American, and Native American students.

In term of gender, two college faculty members made relevant survey comments about scenario 3 (quarantine) with one saying, “The change in gender ratios would also have some

impact on the nature of the student body, but considering the feminization of higher education that is already occurring, that effect might be minor."

In a focus group discussion of the ramifications of living in a world where technology is woven in all aspects of daily life, a college faculty member commented, "One of the questions that is increasingly being asked in [my field] is, 'who is a human being?' What kind of a human being am I if half of my body consists of artificial devices, like an artificial heart?" Another college faculty member similarly touched on existential matters in response to scenario 2 (it's always been that way), "Changing the definition of 'life' would definitely have an impact on how we teach sociology."

The increasingly interdisciplinary nature of higher education came up briefly in a focus group by college faculty members discussing neuroscience. One person remarked that one could view interdisciplinarity as merely "the fad today, but I believe a move to interdisciplinary research and educational efforts will be something that grows and sticks around for a very long time."

While previous comments touched on economic difficulties facing individuals (in relation to extended families living together, workplace competition, and pressure to complete school faster) one faculty member extended this to the larger social level. She talked during a focus group with a great deal of conviction about social stratification:

> My major concern about the future, in terms of scenario building, is the growing gap between the wealthy and the poor that we see in this country and all over the world. At some point I think we'll see some kind of revolution. I don't know what kind of revolution it will be, but we will undergo some major societal overhaul because of this. I have no idea if it will happen in the next 10 years or 20. I don't know how long people's tolerance is for that divide.

This faculty member continued on to identify a "disconnect" with research in her field. She explained that, while scholars are thinking about the future all the time, it is not about the

fundamental problems related to the growing economic divide. From these comments, it would seem that this field is also becoming less activist, much like earlier comment from a psychology faculty member about that field.

Summary of findings on themes. Based on open-ended comments to the survey and remarks made in the focus groups, the topic discussed most extensively was the potential for technology to continue to change higher education. Participants saw implications for the ways faculty members teach and the way the library faculty and staff members provide services in an increasingly digital world. In addition to the ways technology has already changed and will continue to change teaching and learning, participants identified the ways curriculum and research have and will continue to change, in light of future technologies. Many participants felt it crucial, both now and in the future, to maintain human contact in a teaching environment mediated by technology. In both focus groups, participants identified the need to change entrenched systems in order to meet the needs and expectations of the college students of tomorrow as a grand challenge.

Participant Reactions to Process

Participants were asked in two ways to consider the process itself. First, the survey asked respondents to share final thoughts with the questions, “How was the experience of considering these scenarios valuable to you? Is there anything else you would like to share with us?” Second, at the end of the focus groups, I asked participants to complete a brief reflection form about their experience and verbally instructed them to be brutally honest. While all library participants completed a reflection form, one faculty member had to leave early and did not complete the form.

Positive and stimulating. Most of the 20 library faculty/staff members who chose to leave open-ended comments in the survey expressed positive reactions which indicated that they understood the aim of the exercise. They perceived the task of reading and responding to the scenarios in a positive light and used words like, “stimulating,” “thought provoking,” “fascinating to ponder,” and “good to look ahead.” One person explained, “For many of these scenarios, I do not always make the obvious link on my own, but once brought to my attention, it becomes an ‘ah ha’ moment in many ways.” Others expressed comparably positive sentiments, as the following two quotes illustrate: “Very interesting! I felt both excited and a bit ‘freaked out’ by some of these possible futures! Definitely gets you thinking.” And, “It has reinforced that sitting idly by is not the answer. There was enough reality in the scenarios to bring them to life.”

Similarly, five college/school faculty members expressed clear positive reactions indicating they perceived benefit in considering the scenarios. A college of education faculty member remarked, “Imagining various futures is a good exercise for us to provide a bit of challenge as we make current decisions.” A faculty member from the math and natural sciences division found the scenarios to be, “interesting, and I believe that all of these scenarios are possible. It's a reminder that part of our responsibility as educators is to equip students with the ability to adapt to whatever obstacles our future will throw at them.”

Not new or stimulating. Four college/school faculty members made comments indicating that the scenarios were not novel or provocative. Two survey respondents made remarks to this effect, with a sociologist saying, “Most of them were issues that are likely in some form and they're included in my teaching already in various ways, so this wasn't really new... (sorry about that).” A faculty participant in a focus group similarly said, “All those things look very possible to me. There have been too many times in my life where I thought something

was science fiction, and then it happens just five years later." The most strongly voiced opinion came in a focus group from one faculty member who is familiar with futures research techniques and had conducted a Delphi study. This faculty member proffered a critique saying, "The scenarios you presented are sort of mild. I think they are more of what's expected instead of really thinking out of the box."

Negative or dismissive. In response to the survey, four college/school faculty members and two library faculty/staff members made negative and/or dismissive comments about a particular scenario, the survey generally, or the idea of thinking so far to the future. Their reactions to the scenarios ranged from the mild—"silly" and "curious"—to the more strongly worded "outlandish," and "bizarre." Two faculty members derisively likened the scenarios to cinema saying they were like a "low budget movie" or "bad Hollywood movie." One person "became impatient" with the questions asked and another said, "That was the weirdest survey I've ever taken... a mystifying experience." Two people described a lack of worth, or usefulness, to their practice. An experienced faculty member from the college of education noted, "We have difficulty meeting our current needs (and understanding what they are) let alone with such futuristic imaginations." A longtime library staff member echoed these worries, "I am concerned about our current library organization and whether it has the ability to handle what's occurring in the next 1-3-5 years. These scenarios, if they occur, are well beyond that."

Confused. In the survey, five college/school faculty members and one library faculty member expressed a degree of mild confusion around the relevance of the scenarios, saying things like, "I don't get the connection to the library," and, "I didn't really understand the usefulness of the scenarios nor their relationship to my department/discipline for the most part."

A third opined, “I don't understand why the Library is asking us to do this... Maybe better explanation was needed in the cover email.”

During a focus group, similar sentiments of confusion arose immediately following my introductory comments, in which I gave an overview of the library strategic directions process and how my research fits in. A college faculty member revealed that he looked at the survey but really did not understand the scenarios at all. He could not connect to them, so just exited without answering. A second faculty member chimed in, “Me too!” The first speaker continued:

> I see now that I had a misunderstanding about this whole project. I thought it was about how libraries and the transfer of information will occur in the future, in 15 or 20 years, and how it could have an impact on the way that we are teaching our courses and conducting our research. So I couldn't figure out how the scenarios related. But now I see where we are going, and it's a very different direction.

Pressure and sadness. For some, thinking about the future prompted comments about the rapid pace of change and the associated pressures. One library staff member explained during a focus group how the publishing industry affected her work. “It's like a constant scramble. I'm at point A and I can see point B, but I don't know how to get there. I just don't know how to get there.” In the same focus group, another library staff member described tension about thinking to the future while living in the present:

> Things change so quickly; you follow up on something and it's gone. I think we're very flexible and very interested in being ready for the future, but at the same time, we still have to get the job done. And so you're multitasking in a way that you haven't had to do… Now we're running as fast as we can… We can't get the job done with what we have plus research which direction is the best way to go. All during that time [of researching the future] that job, today's job, has to get done.

Beyond the feeling of pressure about what the future may bring, two participants described a degree of sadness. One library staff member commented that the survey “made me think about the future and kind of depressed me.” Another library staff member in a focus group poignantly stated:

> In [my department], we think a lot about how we might specifically be affected in our own little corner of the world. I haven't gotten to thinking globally yet, but right now I frankly feel kind of lost about it all. I don't even know what to really focus on about how we need to adjust.

Optimistically, this same participant remarked positively at another point during the focus group about the experience of considering the scenarios and expressed enthusiasm for the larger library strategic directions process.

Valuable learning from focus group. Library participants of the focus group perceived that they learned a great deal by participating. On a scale of 1 low - 5 high for the question “How much did you learn about the perspective of college faculty members?” the library group rated learning at 4.16. One person expanded on this rating by explaining, “I don't have a lot of opportunity to associate with faculty outside of the library, so the perspective provided, especially as it was from the viewpoint of educational technology, was very informative.” Library participants reported on the reflection sheet that they learned these specific things about how college faculty members view the future of higher education and the library:

- 1. Not as familiar with the library as I would have hoped. 2. Very interested in seeing (more) library functions expand to 24/7. 3. Some are resistant to change.
- Everyone is concerned about lack of personal communication, socio/economic gap. Materials going electronic. Across the board these topics were mentioned.
- Faculty are concerned about technology—is growing too fast; growing population—‘rich and poor.’
- Loci of large amounts of data - either in the library or IITS.
- Looking towards virtual education. Books are disappearing how to replace hard copy with digital.

- 1. That online teaching is the preferred method. 2. That K-12 are way ahead of the curve in technology use. 3. That college faculty are hindered by adhering to the way they were taught.

Library participants reported being shocked or surprised to hear from college faculty that:

- Better connected to students in online course vs. classroom.
- Faculty are concerned student will become socially maladjusted [due to excessive technology use].
- 1. K-12 is ahead of the universities (in forward tech thinking) 2. Our scenarios were subdued.
- Still teaching materials from the 1950s.
- That kids in kindergarten now will most likely have 20 different jobs in their lifetime—we need to think in terms of re-tooling/re-educating.

Library participants reported feeling hopeful about some remarks made by the college faculty, in particular, "They also see the need to move forward; current book stacks are not necessary = move to 24/7 access, learner centered." They were also hopeful to hear, "The library is perceived as being forward thinking. That there are directions we can move towards where we can continue to be a viable part of higher education."

When asked to identify potential implications for the library in what they heard, library participants commented:

- Digital! Digital! Digital! 24 hr. access. Ease of access important.
- Physical holdings are going and we'd better keep pace with virtual or be left behind (or worse).

- Services - reappointment of library spaces.
- Status quo unacceptable - need to provide service in a manner expected by incoming students. Adjust services to student needs, do not retrain students to how academic library functions.

In response to a final open-ended question, which invited anything else participants would like to share, one library staff member reported, “Provided we are allowed the training and resources I have no doubt we will be on the forefront of technology.” A second commented on the worth of participating in the focus group, relative to the larger library strategic directions process, “I feel like I'll be approaching my participation in the working group better informed.”

Increased awareness from focus group. College faculty members who participated in the focus groups reported learning less than the library participants. On a scale of 1-5 for the question “How much did you learn about the perspective of library faculty/staff members?” the college faculty group rated learning at 3. College faculty members expanded upon their ratings saying, “I learned some but not a lot about their perspective. They were curious and sincere about their interest in supporting [our university].” And, “The librarians (sic) seemed to have a hard time staying on topic and were more genuinely interested in faculty discussion than in generating their own points.”

College faculty reported greatest learning was not about the perspectives of the library group members but rather becoming aware that the library is undertaking a scenario-planning project to set strategic directions. Specifically, one college faculty member reported learning, “1. The librarians think about future scenarios which seem unconnected to what I associate with libraries. 2. That librarians are proactive in meeting future challenges.”

The college faculty reported feeling hopeful by what they heard from the library participants because, “They are very concerned about meeting future department needs.” A second reported feeling hopeful because, “They are looking into the future to plan how to meet the needs of faculty and students.” A third faculty member commented, “I was really impressed to see how much concern and effort has been put into this.”

Summary of findings on participant reactions. Most of the library faculty/staff who left comments in response to the survey question, “How was the experience of considering these scenarios valuable to you? Is there anything else you would like to share with us?” expressed positive reactions. Similarly, library participants of the focus group perceived that they learned a great deal, in part because they don’t often associate with faculty outside the library. They reported feeling hopeful about the future because college faculty members also see the need to move forward. They could identify clear directions and areas of strategic opportunity as a result of participating in the focus groups. While negative or confused reactions were limited, a few people commented that thinking about the future brought up feelings of pressure or sadness.

College/school faculty members were more mixed in their reactions to the survey and focus groups. While five expressed positive reactions and perceived benefit in considering the scenarios, four people indicated that the scenarios were not novel or provocative. Four made negative or dismissive comments and five college/school faculty members expressed a degree of mild confusion around the relevance of the scenarios, which was expanded upon by a focus group participant. College faculty who participated in the focus groups reported greatest learning was not about the perspectives of the library group members but rather becoming aware that the library is undertaking a scenario-planning project to set strategic directions. They saw the library

in a positive light as proactive in planning to meet the future needs of students and faculty and were impressed.

Reflection and Action

Prior to the final culminating debriefing with the library strategic directions working group, I shared a draft of the preceding findings. During the call, I asked members to consider how these results could inform the larger strategic directions process they had underway and to spend time reflecting on the process of scenario planning thus far (for more on how I managed this culminating conversation, see Appendix L: Guide to Final Reflection, Library Strategic Directions Working Group). Five members of the group participated in a 90-minute phone call, and, in response to my invitation, one of the three absent members provided feedback via email.

Potential implications of faculty perspectives. Members of the library strategic directions working group discussed several specific findings that piqued their interest. While these could represent opportunities for strategic action, no finding was discussed at any length. I will present in turn the limited comments on the aging population, entrenched teaching practices, and student expectations.

One person found it interesting that scenario 4 (off to work we go) elicited different perceptions of speed and thought this indicates what people see in their immediate environments. "Faculty look at their students, and there's only the occasional older student.... Our perspective is broader in the library; we see people from all across the campus—a wider group of users. This is an opportunity for us."

In terms of entrenched teaching practices and tension in the shifting role of faculty members, one person commented, "I thought it was big that faculty knew they were teaching in old ways but couldn't stop. That was big. I thought it was also interesting that they teach the way

they've been taught. If you've been in academia a long time, that's probably the case. This could it be an opportunity for us." The same person found it "very interesting" to hear college faculty comments about the divide between primary/secondary and tertiary education. "When students go through K-12 they have so much innovation, but they get here to the university and all of a sudden it drops off. They have to relearn how information is presented to them here."

The most discussed aspect of the findings was the range of reactions to the scenarios and to the process of thinking about the future. "I was struck by people on the one side being really excited and really positive about the future, thinking it's fun, challenging, and even freaking us out. Then the other side said we were too mild, this is already happening." In response, another person felt "It's hard to bring the two ends together. There's such a large void between the people who thought things were outlandish or they were in the wrong survey then those who thought everything was already happening." Group members identified a potential area of action, "We might need to better explain to the external audience our process, since the responses to the survey were so confused. When we explained it to the library audience there was more context."

Another person noticed "the tension between folks who are excited about more and more work and resources being available to them online and all the possibilities inherent in that versus those who were fearful or resistant to having less human, face-to-face interaction." One person seemed less concerned with reconciling the differences in perspectives and found this variety of perspectives to be liberating:

> Their responses were interesting in that there's a range with everything. I'm considering what ways we might go. I'm already thinking for every person that finds something extreme, there's another person who doesn't. It gives me hope that we can find a middle ground to move forward.

Usefulness of findings on faculty perspectives. Two people expressed general positive reactions to the findings on faculty perspectives saying, "I think it's really valuable to have

gotten this feedback from the campus and focusing on faculty. I don't know that we could have done something as far reaching and am glad that you did it." A second person echoed that thought saying, "You've pulled faculty perspectives which would have been hard for us to draw together…in terms of the large analysis. That's really a plus."

Two people wanted to know more about other perspectives on campus. "I feel like the lack of student input is a big gaping hole in our process." A second wondered, "Should we have asked students, computing, and administrators about their perceptions, too? We need to know what they want as they are stakeholders."

One person questioned the merit of the findings, pointing to a small sample size and disproportionate representation of faculty members in the social and behavioral sciences. From a positivist perspective, she explained, "I'd rather see a larger sample. I don't think this is large enough to trust the responses in any general terms. That colors things, but I'm a natural skeptic." Later in the conversation, she returned to this thread feeling, "there's not enough to work with" and more stridently stated, "This is just the beginning of the conversation and in order to be able to do anything with it, we need to know more. I'm not sure we should act on anything that's so superficial, so introductory." A third time, this same person brought up her lack of confidence in these results and issued caution about plans the group was discussing to seek out student perspectives:

> We have to be very careful about how we take one comment and turn it into a strategic plan. In terms of next steps for this planning process…we have to see if there are any trends in the feedback. And if there isn't a clear trend, then we have to use the results very cautiously and maybe just put it in a file basket, so to speak.

Value of using scenarios to set strategic directions. In a round robin report out after a silent writing exercise, group members described their process of creating scenarios as being

valuable because of the creativity and broad perspective it engendered. They also cited a positive group experience across positional and departmental boundaries.

In describing the imaginative aspects of creating scenarios, a group member stated, “I appreciated that this process encouraged creativity and fearlessness, not to judge ideas as they were thrown out, but to be accepting of possibilities.” Another person commented on the value of “the broader perspective it brought. Usually we’re looking at much more specific issues and don’t have the same opportunity to think quite so broadly.” Related to this idea of looking broadly, she commented on the time horizon the group chose finding it valuable to “look so much further to the future, instead of three years out, really looking so far out and try to bring that back.” A third person made a connection between the ways their process has unfolded and greater weight or credibility in it. “Certainly it’s a new way to think about things, more thoughtful and purposeful in that way. We give this more credence, because we’re setting aside time to devote to this planning.”

Several people talked about the value and pleasure of working in a library-wide group, particularly a mixed group of library faculty and staff members with one saying, “I don’t get the chance otherwise, and it has been really wonderful.” A second echoed this and continued to cite a “shared leadership” model saying it was “essential” to their process that group members stepped in and picked up on different tasks as needed. “This was absolutely above and beyond—way beyond—anything we signed on for. We could not have done as much in as such a short a time without that shared leadership.” Two people brought up the value of creating group norms at the beginning, and commented in particular on “trusting the group” and that “there are no wrong answers.” The group felt strongly enough about their norms that they included them as background in their instructions to the actions working groups (see Appendix A).

The positive experience and perceived value of this strategic directions process extended beyond their group; others in the library have become enthusiastic about their roles on the actions working groups:

> I'm really excited to see that the library staff reactions are very positive and upbeat… It was a real light in a pretty big tunnel we've had on this campus and in this state. A positive reaction is not just a positive reaction but a very special one in this context. It shows how much people care about what we can do and what the possibilities are. It also speaks to the people who work here.

At the end of her remarks, this speaker reported others in the room were nodding and some chimed in with a brief affirmative word or phrase.

As the group talked, they revealed the thought and care that had gone into establishing conditions that would foster these upbeat reactions in other staff members on the actions groups. First, at their quarterly staff meeting in mid-May they oriented the actions groups to their work and gave them an hour to spend time in small groups digging into their assignments. Then, at their request, the library dean gave the actions groups Starbucks cards to encourage them to take time away from daily work and meet outside the library. "We felt strongly this should happen. It's not very often at all that we in our own work groups, let alone mixed groups, get off campus." These measures seem to have met their intended purpose as groups organized second meetings off campus and were "coming back very positive, excited, and wanting to apply what they're talking about already in their daily work."

Challenges of using scenarios to set strategic directions. While creativity and a broader perspective were valuable in creating scenarios, they also posed challenges. In the second round robin after the silent writing exercise, one person described a personal challenge in the beginning of getting out of her "day-to-day thinking." She said, "It got easier as we went along to get up to that futures level. Really getting out there and considering possibilities took

some work. It's not something we've done or are used to doing." Once the group started the environmental scan and she established her flow, she wanted to keep going:

> I just kept wanting to do more of that research—because it was just so interesting to see everything out there! It was good to have the timeline to keep us on track. Otherwise I would have been out there doing environmental scanning forever.

A second person described similar challenges with stretching so far beyond the confines of her daily routine work, saying it felt "a little bit risky to do things in a new way." She continued to explain, "Creativity is hard for me, and going to that place was hard because it's so different from my day-to-day work with numbers and attention to detail. But it was good; I enjoyed it."

Every group member mentioned time commitment as a significant challenge. "It's worth it, I think, but at the beginning I was surprised to hear about the charge and how long term it would be," one said. Another person agreed, adding, "It felt like every week we had a deadline, and that crunches creativity." A third noted wistfully, "The fact that we're only in the middle of it now makes me kind of sad. It has been *a lot* of work." She continued to express feeling "overloaded" in general. She described how this group was attentive to the needs of members of the actions groups:

> We fought for release time for the action groups and made it clear they could stop their work to do this [strategic thinking], but we didn't get to fight for it ourselves…We all know it's really important, but that's like lip service compared to what needed to be in order to make it happen.

A fourth person reinforced this need to find release time in order to ensure sufficient preparation and robust participation. "I don't know how to do it, but there has to be a way. Every dean in the U.S. has to figure out how to solve this. Otherwise it becomes an exercise in resentment." Two people commented that the timing may have negatively affected their overall process in general and the results of this study in particular:

> The timing was unfortunate because there were numerous dean and faculty searches plus the regular end of the semester crunch. Library people were conducting a faculty search, had the usual end of the semester push, plus this strategic visioning work. I think we would have gotten more buy-in if we had had more time and conducted it mid-semester.

Beyond time constraints and initial difficulty in being creative and expansive in thinking, group members discussed potential drawbacks in having scenarios that were not comprehensive. They noted that they had overlooked including a scenario that touched on data curation, which a college faculty member brought up in a focus group. They commented on a choice they made not to include a scenario on an institutional repository. “Our working groups can propose those options as we go forward. It’s important to see in the focus group that the question came up about data and this is a direction we should at least think about.” One group member expressed concern with the fluid, less-structured approach they took to determining scenario topics. “Underlying this whole thing, I still am uncomfortable with the scenarios we chose, and some more parameters would have helped.”

Reflection on past planning; altered views. In the third and final round robin after the silent writing exercise, group members described how this strategic directions process has been different from past planning experiences and how creating scenarios has changed their conceptions about how planning should happen. Generally, they talked about value in having a broader perspective with external input and that this process focused on longer-term strategy instead of short-term operations.

One person described how past planning was “only in the library as an all-day staff retreat amongst our units, with a focus on short-term goals rather than strategy.” A second person concurred, saying past efforts were “very operational based, towards achieving specific goals, based on what individual library units are going to do in specific situations. We haven’t looked very far out.” This process, by contrast, was “a very different way of getting more global

information input from others" and one person "appreciated being focused on the library-wide and campus-wide vision rather than just the unit, which is limited. Here I wasn't limited... I liked having the bigger picture and participating in that." Another person agreed about the value of having a larger perspective. "I liked that we were taking into account data from outside, from the campus faculty, students, and staff. It gives this process more importance on campus. We saw in the faculty comments that people were impressed." Another person described:

> Our previous planning didn't consider broader societal issues or trends in any way. We were operating in a library bubble. Our previous planning process was more reactive rather than making changes or progress in a meaningful way. We were just reacting to what had happened in the previous year. I now see the value of this type of process that needs to be big, global and not so literal, not so operational.

One group member, familiar with scenario planning, compared this experience not to past planning on this campus but at another university library. There the process of setting strategic directions occurred over a longer period of time with more supporting infrastructure, greater involvement, dedicated release time, and professional facilitation throughout "rather than sharing responsibilities and learning as we go along." In light of that, this experience seemed lacking. She had previously voiced concerns about the merit of the findings on faculty perspectives and expressed doubts about the scenarios the group chose; however, "I'm grabbing on to this new idea—this creativity and this way of using scenarios. Creativity is an important part of it and plays a role in strategic planning." She talked about potential lessons from incubators and startup businesses. "There's a valuable kernel that you have here in the idea of scenarios and creativity as part of strategic planning that needs to be developed more. There are some lessons to be learned from new entrepreneurship."

Despite all the challenges, the group members appeared positive about the process they have used thus far:

> To me this kind of planning just works so much better. It does take a whole lot more time, but it brings creativity and a broad, more forward-thinking perspective, which are really important. We need to find a way to do this kind of planning more often.

Advice to others on process. In terms of transferring elements of this process of creating scenarios to set strategic directions, group members had some specific words of wisdom to share with others. "Getting dedicated time to really work on this can only help. Set some deadlines and give the groups opportunities to really work on it." Specifically, group members felt it was crucial to set aside time on environmental scanning in the early stages, although some had questioned the need initially. "It turned out it was critical to the creativity, giving us permission to go out and do something very different. Without it we wouldn't have been on board or as enthusiastic. We wouldn't have accomplished as much." As this speaker finished her comment, she described nods around the table room. Another person described a specific step of the environmental scanning process that others should add in, "Invest time in an environmental scan of higher education *before* scanning broader areas—political, economic, et cetera."

In addition to dedicating sufficient time and specifically allocating time to environmental scanning, one person reaffirmed the value of having diverse perspectives from various units and both library staff and faculty. "The mix of people we had represented from across the library was very important. Other libraries should resist the urge to have only the supervisory team or management team as the steering committee and for the actions groups also."

The group saw in the college faculty findings "an opportunity for the library to take a leadership opportunity on campus. I was pleasantly surprised that everyone thought this was a wonderful forward thinking idea." In light of this, another person recommended that other libraries taking on this work be more intentional about communicating out to the larger community throughout:

> Preparation should come from library administration to the campus about this. Tell people we are embarking on this, what's happening, why it's happening, and that it's a priority for the academic year. Faculty members will become aware on a regular basis. In that way, you have a real roll out.

One person, when asked for her best thinking about what elements could best serve others seeking to implement similar processes, expressed reluctance until the work concludes later this summer. "Will we be able at the end of this to say, 'yes it was successful'? Will we have good input from the library staff in the actions groups? Will we have succinct and clear suggestions from them?"

Next steps in setting strategic directions. Group members saw two immediate areas of focus in the weeks ahead: gathering student input and developing messages for the campus. One library faculty member, who had previously expressed concern about the lack of student input, asserted, "My personal goal is to get student feedback over the next couple of weeks so that we'll have reports from the actions groups, faculty perspectives, and student feedback to consider holistically." There was not one clear champion on the issue of communicating out to campus but a general feeling that there was an opportunity to craft messages that would position the library positively. A group member said, "We'll have to; we'll want to."

While the strategic directions working group takes a pause and waits to receive the actions groups reports in mid-June, they will focus time and energy on continuing to support those groups. They will also create a plan for how to integrate those reports with their own knowledge, their understanding of campus priorities, the findings on faculty perspectives, and student input in order to determine strategic directions. (Per Appendix A their recommendations are due to the library dean in mid-July and will form the basis for discussion at the all-staff retreat in August.) Group members expressed some anxiety and concern about this shift in the focus of their work. One person asked, "In terms of pulling this together, what's most important?

How do we converge all this data after being so divergent and also, at the same time, consider our core responsibilities?" Another wondered, "How do we really look at all everything we've found and know how to move forward? If one person said it, or said it loudly enough that's no way to set a vision."

While this next phase of their process was outside the bounds of my dissertation research, I remained involved with this group in my role as an ACRL consultant for the remainder of their strategic directions process over the last months. Together with my colleague, we worked with the group through this critical turn, so their decisions were firmly grounded and they made recommendations with confidence. We will also facilitate their staff retreat in August.

Summary of reflection and action. Members of the library strategic directions working group had limited discussion of specific findings on faculty perspectives, briefly identifying several that could represent opportunities for strategic action related to the aging community demographic, changing entrenched teaching practices, and new student expectations. The most discussed aspect of the findings was the range of reactions to the scenarios and to the process of thinking about the future. Two group members felt positively about the usefulness of the findings on faculty perspectives and one questioned their merits, due to small sample size and disproportionate representation.

Group members felt the process of creating and using scenarios to set strategic directions has been valuable because of the creativity and broad perspective brought about. They felt the experience of working intensively in a small group that crossed units and included both faculty and staff members was valuable. They gave examples of the ways this experience has been positive and valuable for others in the library, who are enthusiastic despite general tough times. While creating scenarios engendered valuable results of creativity and a broader perspective,

these same attributes posed challenges. Participants described initial difficulty in freeing their thinking as this set of activities has been so different from typical day-to-day work. They also described mild challenges in having scenarios that are not comprehensive. The most significant challenge of the process by far has been finding the time to devote to this work. Additionally, they expressed anxiety and concerns about their next steps and the shift they will be making as they draft strategic directions.

Despite the challenges, the group members appeared positive about the process they have used so far. This strategic directions process has been quite different from past planning experiences because of the broader perspective and external input. This process has focused on longer-term strategy instead of short-term operations and unit-specific goals. In considering elements of this process that would be transferrable to other settings, group members felt strongly about dedicating sufficient time and having group members with diverse perspectives. Recognizing the opportunity to be perceived as campus leaders, they recommended that other libraries taking on this type of work be more intentional about communicating outside the library.

Summary of Results

In Chapter Four I have sought to document perspectives about the future, held by disciplinary faculty and library faculty and staff at one institution. I also documented reactions of these participants to the process of considering the scenarios and engaging in conversation about the future. My third goal was to document how members of the library strategic directions working group engaged in reflection and considered actions to take.

In the qualitative findings, the library faculty/staff perceived both greater probability and impact than college/school faculty to nearly every scenario presented via the survey. (The

exception was scenario 2 (it's always been done that way), where college/school faculty perceived slightly greater impact, although still below average). Both groups saw four of the five scenarios as part of the "actionable" future (i.e., high probability, high impact quadrant), numbers 1 (vagabond), 3 (quarantine), 4 (off to work we go), and 5 (hunter/gatherers). For most of the scenarios, both the library faculty/staff and college/school faculty perceived them as a mix of threat and opportunity. The exception was scenario 1 (vagabond), which the library group felt would be an opportunity. Both groups were generally in agreement on the speed of change, believing most scenarios would occur in either the medium term (3-10 years) or long term (10-20 years) future, except for scenario 4 (off to work we go). The library group saw this as immediate, already happening, while the college/school faculty saw it as medium term.

In presenting the qualitative results of this study, I have endeavored to be the voice of the participants and clearly communicate how they felt about the possible futures of higher education and the process of thinking about the future. The topic discussed most extensively was how, in an increasingly digital world, faculty members will continue to change the way they teach and the way library faculty and staff members provide services. Participants also identified the ways curriculum and research have and will continue to change, in light of future technologies. Many participants were concerned with maintaining human contact in an environment mediated by technology. Participants in both focus groups discussed the challenge of changing entrenched systems that no longer meet the needs and expectations of students.

In terms of the process of considering scenarios and participating in focus groups, the library faculty/staff had more positive reactions. They reported learning a great deal from college faculty in focus groups and feeling hopeful that college faculty members also see the need to move forward. College/school faculty members were more mixed in their reactions to the survey

and focus groups. They expressed a mix of positive, negative, and confused reactions. Some felt the scenarios were not novel. College faculty members reported greater awareness from the focus groups about the fact that the library is using scenarios to think far to the future. They felt positively about the library and were impressed that they were proactive in planning to meet the future needs of students and college faculty.

During the final culminating reflective call, members of the strategic directions working discussed the specific findings on faculty perspectives only briefly, identifying several that could represent opportunities for strategic. They noted the range of reactions to the scenarios and to the process of thinking about the future. When considering their own experience, group members valued the creativity and broad perspective they gained, working intensively in a small group across units and reporting lines to create scenarios. They described challenge in both creating the process and in engaging in a set of activities so different from typical day-to-day work. As they looked ahead to the next phase of creating strategic directions, they expressed anxiety and concerns about this shift in their focus.

In the next chapter I will provide my interpretation of these findings and begin to link these results to the literature I cited previously. I will discuss the ways in which my study has made a contribution to the literature of my field and to practice.

Chapter V: Discussion

Introduction

While this study, as action research, involved participants more fully than other forms of social science research, the fundamental issues I pursued and protocols I used were not those of the participants themselves. I worked with a group of academic librarians and staff members who were already exploring the future and creating scenarios in order to guide their strategic directions. My research, focused on disciplinary faculty perspectives, was designed to contribute an added view from campus stakeholders and augment internal library conversations about implications of the scenarios.

Another intent was to provide a venue for library faculty and staff members to engage in purposeful conversation with disciplinary faculty members about topics they would not typically have opportunities to explore together. Participating actively in the focus group conversations should have helped library participants develop capacity to engage in strategic conversation with disciplinary faculty in a new way. My aim was to encourage reflection on the results in order to feed this back into practice and take action. I had hoped the results would have a catalytic effect as the library's working group determined strategic directions the library could take to approach a changing environment.

In seeking to understand disciplinary faculty perspectives, I brought the guiding research problem statement with me. The research questions did not come from the library strategic directions working group, and their limited participation in the focus groups reflects this lessened commitment to my research interests. It is worth remembering that I had invested months of planning and preparation at another site, which ultimately proved unsuitable. I compressed the preparation and planning with this group to fit the timeline of their larger process. My

dissertation research was a late addition to the process they had established (with my input as a consultant) in late February. I presented the opportunity to be the setting for my dissertation research in mid-March, they agreed in late March, and we began collecting data just five weeks later.

For whatever reason—timing, workload, weak interest, lack of perceived value, feeling anxious or intimidated, or something else entirely—no full-time, tenured, or tenure-track library faculty members attended the focus groups. No subject librarians and no librarians on the strategic directions working group were present. One staff member who is part of the strategic directions working group did attend both focus groups. I believe that if the library participation had been different there would have been richer conversation with more robust and meaningful findings about possible futures of higher education. I raise this gap now, early in the discussion chapter as this is a significant limitation which surely affected the quality of those results and, ultimately, diminished their usefulness.

My aim, however, was to try out a process and implement a particular intervention in order to discover what was useful. So, putting aside the specific findings on perceptions, it seems that participating in the larger project, which emphasized long-term strategic thinking over narrower linear, rational, and sequential planning, has been quite valuable for members of the group and the broader library staff, as I will explore below. By pulling back to look at the entire process, I will detail useful lessons about how others can approach an unknown future. There are specific conclusions that may be beneficial for organizations facing similar problems and seeking an inclusive, collaborative way to set strategic directions while encouraging broad thinking and creativity.

Interpretation of Findings

Because this was not a case study but action research, I will limit my discussion of the findings from the survey of scenarios and the focus group conversations. Instead, I will spend more time focusing on findings related to the process of creating and using scenarios to set strategic directions, discussing what I have learned about how similar processes could be constructed in other academic libraries. But first a few words on the faculty perceptions and areas of difference with library views.

General observations about differing perceptions. As the scenario space figures showed, the two groups had quite different reactions to the scenarios. In nearly every scenario presented via the survey, the library faculty/staff perceived both greater probability and impact than college/school faculty. In one they perceived opportunity, where disciplinary faculty perceived a mix. In another they perceived the speed as immediate, where disciplinary faculty perceived it as medium term. The groups agreed that scenarios 1 (vagabond) and 4 (off to work we go) were in the high probability, high impact quadrant and, therefore are "actionable," meaning planners should spend time considering possible implications for the topics they represent.

Just as scenarios are "heuristic statements" used for talking about what the future might bring (Staley, 2007, p. 38), I used the scenario space maps as heuristic devices for examining differences in perspectives about the future. Staley designed this tool primarily for use during an in person setting, such as a workshop, so a group could order and weigh scenarios in relation to one another (2007, 2009). I used the scenario space tool in a new way to graphically depict perspectives of two groups about the same scenario (with data on rankings collected via a survey), thus extending its application.

To my mind the differences in perception indicate that the scenarios resonated more strongly with the library participants. This interpretation flows logically, as library participants were more invested in them, having created the scenarios and actively studied them to consider possible implications. Put another way, the library participants perceived increased impact and probability because they dedicated time and resources to create the scenarios. If the library group came to the survey cold, the way the disciplinary faculty members did, their perceptions may not have differed so greatly. This interpretation—that engagement alters perceptions—is supported by the vast differences in participant reaction to the process of considering the scenarios and participating in the focus group. Library participants were generally positive where college faculty reactions were much more mixed.

Notably, in the focus groups, college faculty who expressed confusion over the scenarios and the survey responded favorably once the purpose and background were framed more fully. They felt positively about the library and were impressed that library faculty and staff members were proactive in planning to meet the future needs of students and college faculty. In the final debriefing call, the library strategic directions group felt these faculty reactions indicated a chance to demonstrate leadership on campus and position the library as forward thinking.

Looking back to the literature, presidents and provosts care more now than a decade ago about whether the library was innovative and was considered important to others on campus (Lynch et al., 2007). In a second study, chief academic officers wanted librarians who embrace the changing library landscape and are effective in collaboration (with faculty, students, and information technologists) and communication (Estabrook, 2007). The findings in this study relate to past literature as they show that being engaged in futures thinking and scenario planning is viewed positively by college faculty members (at least by champions) and positions libraries

as proactive in embracing the changing landscape. It would be worth exploring further to see if this view is held only by those already friendly to the library or is held more broadly among college faculty. If the latter, taking on futures work of this type represents an opportunity, provided the library is proactive in communicating abundantly and clearly with the campus.

Now, I will turn from general observations about differing perceptions to discuss some specific disciplinary faculty perceptions that bear consideration as this library and others set strategic directions. I will connect the findings to past literature on the topic to draw out implications.

Changing roles, changing values. College faculty members who talked about needing to change, being aware of being entrenched, but feeling caught in transition harken back to writings on cultures of the academy. One faculty member remarked about being an "old fogey" in relation to the future of online learning and the affiliated press toward privatization. Another identified the constraints of the current educational model of "four walls with people physically around you. Yet the world has narrowed and people can be connected immediately across great distances." These comments confirm past work on challenges to traditional collegial culture from both the virtual culture of the academy, which "values the global perspective of open, shared, responsive educational systems" (Bergquist & Pawlak, 2008, p. 147) and the managerial culture which is about efficiency, outcomes, accountability, the bottom line and generating new revenue.

One faculty member talked about the pressure to graduate students faster, due to financial constraints, rubbing up against the faculty belief that students need more fundamental knowledge. This comment brings up questions, expressed in business terms, around the value and cost of a degree. Similarly, comments about workplace pressures and the need to retrain for multiple jobs can be linked to authors writing about the managerial culture in the academy. The

idea of training for specific skills needed by the workplace supports a view of education as a private good, for the benefit of individuals and companies, rather than a public good. This library and others should be cognizant of the ongoing debates around accountability, the increasing influence of external pressures from business, regulators, legislators, and parents. They should be attentive to the depth of tension in the academy between managerial and collegial cultures, as libraries have firm footing in both.

College faculty in the focus groups talked about their ongoing desire to impart knowledge to students. “We are still teaching things that students were taught in the 50s...And we can't get out of that. I don't know why. We tell ourselves that students need to know how to think about the fundamentals.” At the same time they realized there is a transition and the job is no longer “to educate students about things, but to educate them about how to find out about more things.” These comments reflect a shift that may be affiliated, in part, with the increasing influence of virtual culture and the difficulties of shedding assumptions true under a collegial model. In a Web 2.0 world users generate their own content and the faculty member is no longer the expert imparting knowledge. “The greatest challenge of the digital revolution is that the professor must undergo some major changes… Faculty members are no longer automatically situated at the top of the knowledge (and power) pyramid. This can be quite threatening and anxiety provoking” (Bergquist & Pawlak, 2008 p. 169).

One member of the library strategic directions working group commented during our final call that changes to entrenched teaching practices and the shifting role of faculty members could be an opportunity for the library. This university library is currently hiring a librarian to develop and manage an institutional repository, which will preserve and provide access to campus-generated digital content. Institutional repositories have the potential to democratize

knowledge by allowing broad participation, changing the rules around the certification of knowledge (i.e., who authorizes and controls the dominant discourse). As such, this could raise alarm from those closely aligned with the collegial culture. As the library moves forward, staff should be cognizant of the potential for others on campus to misunderstand or be dismissive of their efforts, perhaps in part due to underlying anxiety about a loss of authority. Fortunately, there is a robust professional community for peer support with rich experience in launching similar repository services. In particular they should closely examine the research results of Fried Foster and Gibbons (2005), who found that it is essential to have a faculty-centric approach to the design and marketing of repositories. These authors recommended specific measures for promoting institutional repositories, which many libraries have successfully adopted.

While these comments about the challenges of changing entrenched systems and practices reflect past theory about academic cultures, we can also view them through Heifetz's lens of adaptive work to gain additional understanding. In Chapter Two, the literature showed that librarians and disciplinary faculty may hold very different values around who authorizes knowledge, who is qualified to teach, what constitutes valid instruction, and to what extent legitimate learning occurs outside the classroom. It is precisely when values are in conflict, in Heifetz's view, that the process of leadership is most necessary. Adaptive work, a central notion in Heifetz's view of leadership as a process, "consists of the learning required to address conflicts in the values people hold, or to diminish the gap between the values people stand for and the reality they face. Adaptive work requires a change in values, beliefs, or behavior" (Heifetz, 1994, p. 22). If the library were to see the change in teaching practices and systems as an opportunity, it may be useful to view this shift as an adaptive challenge. In doing so, the library could better consider whether they are positioned appropriately with the necessary

strengths to expand and grow in this arena. For Heifetz, bringing to light competing values is central to adaptive work:

> Values are shaped and refined by rubbing against real problems, and people interpret their problems according to the values they hold. Different values shed light on the different opportunities and facets of a situation. The implication is important: *the inclusion of competing value perspectives may be essential to adaptive success.* (emphasis original, Heifetz, 1994, p. 23)

While, in our final culminating debriefing, library participants expressed limited usefulness on the findings about faculty perspectives, I hope the above discussion connects back to the literature to draw out conclusions in a productive way. Now I will shift my discussion from the findings on perspectives to the process of creating and using scenarios to set strategic directions. This appears to have been useful in several regards.

Resituating the context. Before discussing the ways in which the process has been useful and drawing conclusions about learning that may be transferrable, I believe it is important to resituate the context within which this study took place. For this library, past planning occurred during an all-day staff retreat with staff, faculty, and administrators focusing on short-term goals around operations in their own units. The library dean, little more than a year on the job, sought to implement a process that was quite different. She brought outside consultants, an ACRL colleague and me, to help support a six-month process that required thinking far to the future, across the library, outside the library to campus, and off campus to society at large. She tasked a small group (a purposeful mix of one library administrator, five faculty members, and two staff members) with taking responsibility for the entire process, and directed them to design opportunities for broad and meaningful engagement across the entire library. Early on, I caught wind of sidebar conversations where some in the library felt certain that the dean had already

developed a strategic plan, which was tucked in her back pocket and at the ready. This exercise, they felt, was only for show.

So here is a setting where people are not used to thinking far to the future, considering the whole library, the broader campus, or the general milieu in which we live. Library faculty and staff members were not accustomed to working intensively in groups across units and hierarchical lines. They had not done this type of work before and some had not trusted administrators to be authentic with them. At least a few were suspicious of being co-opted into someone else's process so as to give it the appearance of participation. Moreover, they were not used to being entrusted with such a high degree of responsibility. Here they were tasked with setting strategy for the whole organization. Furthermore, while they were given clear expectations via their charge (Appendix A), they were granted great freedom in determining how best to proceed in their work.

Taking responsibility, organizational learning. Newly empowered, the library strategic directions working group felt this new process was quite a stretch from their "day-to-day thinking" and "a little bit risky." More than merely engaging in a new process, they were creating much of the process themselves. While the group's charge gave them a solid framework and timeline for deliverables, there were many decision points along the way about how to carry out their work. They not only created the scenarios, but bore oversight responsibility for engaging others in the library and guiding their participation.

While the group did have some support and structure from me and my colleague as consultants, they were largely self-directed and self-managed, "sharing responsibilities and learning as we go along." Not accustomed to working together in this way, the group found it valuable to establish norms to trust one another, not worry about giving "wrong answers," and

not judge ideas immediately. This set a tone which allowed them to be "fearless" in generating creative ideas as they developed scenarios. While participants felt that picking up on tasks in order to create the process was "absolutely above and beyond—way beyond—anything we signed on for," I feel it is an example of organizational learning realized.

The work required of them to create the conditions in which the scenarios could become useful devices for talking about and exploring the future is no small feat, as I will explore further a bit later. This group's work created a foundation for faculty, staff, and administrators across the entire library to think about change quite differently and to become active in shaping their future. They have opened their colleagues' minds to a variety of possibilities, challenging their mental models and "official" versions of the future. Given the potential for agency and reflection, Schwartz (1991) and Van der Heijden (1996) believed futures thinking and scenario planning are valuable ways to support organizational learning. In this case, I believe that is precisely what has happened.

The value of the organizational learning that has taken place should not be discounted as a byproduct. Recognizing this potential from the outset, the dean asked the group to not only develop strategic directions, but to conduct a brief assessment of the strategic directions process itself and report back to her (Appendix A). Requiring the group to spend time reflecting and reporting back is an important measure for reinforcing the learning that has taken place. As Vaill (1989) explained in his landmark book, in order to successfully navigate the "permanent white water" of change, we must all be explorers managing uncertainty through continuous learning and by creating learning organizations. While I do not claim that this library has transformed itself into a learning organization as a result of this process, I do believe it has taken an important

step in that direction. Next, I will discuss the particular benefits of this process, describing how they helped this organization become more adaptable.

Creativity and expanded view. Members of the library strategic directions working group expressed strong positive feelings about the advantages of this process in contrast to past experiences. They felt they have become much more creative and expansive in their views. They found it valuable to be outside the "library bubble" and proactive instead of "reactive" as in the past. They enjoyed considering "broad societal issues" and being "big, global" in their thinking. They found it useful to look "so much further to the future, instead of three years out." Although it has been challenging to stretch and get out of "day-to-day thinking" and has required more dedication, the group appreciated the "thoughtful and purposeful" nature of this process.

These findings support past literature by proponents of futures thinking who found scenario planning helps groups focus on futures in the plural, the larger external environment, and distant signals of changes likely to come. Using scenarios as a method of strategy development is not a short term, symbolic activity as strategic planning so often is. A traditional strategic planning process keeps the focus on the idea that change can be controlled and managed, two to five years out. Guskin and Marcy (2003) wrote of the dangers of muddling through and asserted that taking an incremental view on change is not enough. They said, "long-term problems require long-term solutions" (p. 13). They believed the basic assumptions of higher education need to be examined and challenged.

Engaging in this six-month futures work process required this group to develop their skill with thinking broadly, interpretation, creativity, and imagination. It required participants to tolerate a high degree of ambiguity and to question deeply their assumptions about the way the

world works. Beyond the positive experience of the library strategic directions working group, this process created a spark within the library.

Enthusiasm, care, and connection. As the process unfolded, the group managed to overcome initial skepticism among library faculty and staff writ large. Others surely observed that this group was "thoughtful and purposeful" in their actions and noticed that they were giving the process "credence" by devoting significant time to it. During the culminating debriefing, the group reported that colleagues in the library were "very positive and upbeat." Moreover, they described how engaging in this process has helped people who volunteered for the actions groups feel hopeful during tough times. This view that the process has generated enthusiasm and broad appeal throughout the library is not just hype by the library strategic directions working group. It is genuinely held by individuals, as evidenced by their reactions to the survey—where they reported the scenarios were "very interesting" and "fascinating to ponder"—and after the focus groups, which they found "very informative." Being part of this process has been motivating for staff; it is "a real light in a pretty big tunnel we've had on this campus and in this state."

Just as I did not discount the value of organizational learning as some afterthought or side effect of this process, so too I do not wish to overlook the importance of the relational work that the strategic directions working group undertook to cultivate these positive feelings among their colleagues outside the group over the course of their six-month process. They thoughtfully designed the process to attend to the needs of the actions working group members and foster connections. They set aside time at the quarterly staff meeting so actions groups could dig in and get started, with ready access to support and clarification. They "fought for release time" and secured small but symbolic resources—Starbucks cards—so that groups would spend time working together in a different setting. They recognized that actions groups had not worked in

this way before and provided their own ground rules as examples to consider. By including their own group norms, they signaled that listening, dialogue, and collaborative learning are valuable conditions for an effective group process. By demonstrating such care and connection, they established conditions that fostered the enthusiastic reactions in the actions groups, who came back from their first independent meetings “very positive, excited, and wanting to apply what they’re talking about already.”

The way in which they approached the actions groups emphasized empowering others over hierarchy and directing behaviors. Just as they designed much of their own process with only broad guidelines, so too they allowed the actions groups to determine how they would reach their final reports. They were careful to provide the actions groups with enough structure, in the reporting template, to feel contained, but did not prescribe step-by-step instructions. In genuinely seeking such substantial feedback, they acknowledged that they do not have all the answers and depended on the contributions of others. As the literature review in Chapter Two showed, there are gender implications in this type of relational work since traits “such as empathy, community vulnerability, and skills of inquiry and collaboration are socially ascribed to women in our culture and generally understood as feminine” (Fletcher, 2004, p. 650). In her study of women engineers, Fletcher (2001) explored how this type of relational work is “disappeared” and undervalued in organizations, although we say we need more of these qualities and behaviors. The historic understandings of leadership embedded within the cultures of many organizations may not value relational work, as Fletcher explained:

> The relational skills, attributes and stance required to enact a model of “power with” leadership, such as fluid expertise, the willingness to show, and acknowledge, interdependence or need for input, are likely to be associated incorrectly with powerlessness rather than with a new, more adaptive exercise of power. (2004, p. 653)

In this case, the practice of relational work by members of the library strategic directions group should be named as such and acknowledged as valuable. I believe this work was crucial in generating engagement and commitment with people across the library. Viewed through this same lens, the dean's choice to engage the whole library in creating strategic directions can likewise be considered relational leadership. Rather than controlling from the top and sending the message, "I know best," by delivering a strategic plan of her own making (or written with top administrators only), she demonstrated a need for broad input and promoted interdependence.

In choosing to give the work to the library strategic directions working group, the dean departed from a traditional leadership stance. "We tend to assume that leadership is centered in personalities and based on authority (whether legal or ascribed by those who follow) and that leaders make decisions, solve problems, coordinate, motivate, focus effort, plan, manage conflict, influence, align effort with formal goals, and create change" (Marion, 2008, p. 2). In this case the library dean invited real participation, and the group has felt uneasy at times, as I will explore next.

Anxiety and provocation. The process has not been an easy one. In the final culminating call, group members discussed their discomfort, anxiety and concerns. As I already discussed, participants felt strained since picking up tasks required to create the process was "absolutely above and beyond—way beyond—anything we signed on for." While the process was fairly structured, the group made many decisions along the way. At least one person was "uncomfortable with the scenarios" the group chose and wanted "more parameters." On this point, the group did spend time up front discussing how they would determine scenario topics. They quickly chose a fluid approach as they were interested in exploring possible futures, rather

than one central question. Another felt they should have spent more time, prior to the broad environmental scan, on developing a better understanding of the higher education sector.

In the final call, group members expressed feeling anxious about shifting their work from being so divergent in their thinking to determining strategic directions based on their understanding of campus priorities, possible futures they explored, what they have learned from this study or from students, and reports back from the actions groups. They wondered, “In terms of pulling this together, what’s most important?” They doubted their own ability to meet the high expectations of them, “Will we be able at the end of this to say, ‘Yes it was successful’?” While it is surely risky to reveal such vulnerabilities and uncertainties, at least some members felt safe in voicing these reservations with one another. I view this as an encouraging sign, since being confident enough to recognize and name our own insecurities is fundamental to becoming genuine learners and to engaging others in authentic, meaningful ways.

The questions they have asked of themselves reflect an understanding of the gravity of their charge to present a path forward toward meeting the future. The strategic directions this group is crafting have real implications for resource allocation and work priorities. They will guide the library in making choices about where to put time and efforts, meaning some opportunities will necessarily be foregone. This sense of accountability is new and anxiety provoking. The group may have wanted to “escape responsibility for taking action, or for learning how to take action, when they see the need. In the face of critical problems, they say, ‘I’m not a leader, what can I do?’ ” (Sinclair, 2007, p. 20). The library dean chose to overcome this tendency toward obedience and, in giving them genuine responsibility, was “not colluding with this dependency. Acts of leadership involve helping focus the group on overriding purposes or values, rather than telling them what the solution is” (Sinclair, 2007, pp. 68-69).

I interpret the numerous comments about the large time commitment and being "overloaded" as related to feeling apprehensive. Saying, "I don't have time" is a more palatable public expression of internal doubts such as, "Am I up to this? Can I do it?" While this process had significant structure, this was a very new way of working at this library. The group was learning to create their own process and feeling their way around, struggling to feel comfortable and confident. Again, this group was not used to thinking far to the future, across the library, outside the library, and outside the campus. They were not used to working in groups across units and hierarchical lines. They were certainly not accustomed to being granted such considerable responsibility and being accountable for their recommendations.

The process, as it was designed and unfolded, provided significant challenge and was disorienting to group members. These qualities energized them, prompted new ways of viewing the world, and moved them into learning new ways of behaving that were quite positive. There is risk, however, in pushing a group like this too far; people could simply shut down and the group could fall apart. Turning once more to Heifetz (1994), his conception of adaptive leadership includes principles of giving the work back to the people and keeping distress within a productive range by modulating provocation:

> The pains of change deserve respect. People can only sustain so much loss at any one time. Leadership demands respect for people's basic need for direction, protection, and order in times of distress. Leadership requires compassion for the distress of adaptive change…Knowing how hard to push and when to let up are central to leadership. (Heifetz, 1994, p. 241)

Clearly this group has felt some distress and some pain, but I believe it has been generally kept within the productive range. To further understand the essential role of anxiety in a process like this, I turn now to psychologist Edgar Schein, who I have not previously referred to in my literature review. Schein explains why transformational learning—i.e., being able to

eagerly challenge deeply held assumptions about strategies and processes and, therefore, think and act in fundamentally altered ways—happens so rarely. Instead, most people do the same old things in superficially tweaked ways. Schein expressed his view, during an interview, that there is "an inherent paradox surrounding learning: Anxiety inhibits learning, but anxiety is also necessary if learning is going to happen at all" (Coutu, 2002, p. 104). He described two types of anxiety associated with organizational learning: "learning anxiety" and "survival anxiety."

> Learning anxiety comes from being afraid to try something new for fear that it will be too difficult, that we will look stupid in the attempt, or that we will have to part from old habits that have worked for us in the past. Learning something new can cast us as the deviant in the groups we belong to. It can threaten our self-esteem and, in extreme cases, even our identity. (Coutu, 2002, p. 104)

Schein explained to his interviewer that learning anxieties form the "basis for resistance to change" and can be overcome only by, "survival anxiety—the horrible realization that in order to make it, you're going to have to change… (P)otential learners experience so much hopelessness through survival anxiety that eventually they become open to the possibility of learning" (Coutu, 2002, pp. 104-105). In Schein's view, learning happens only when survival anxiety is greater than learning anxiety. He explained that leaders can either increase survival anxiety—by threatening people with job loss or taking away rewards—or decrease learning anxiety by creating a safe environment to unlearn old ways and learn new ones. The latter tends to be much harder, Schein said, and many organizations prefer the easier route. Learning how to change, then, is not a happy and comfortable process. "The evidence is mounting that real change does not begin until the organization experiences some real threat of pain that in some way dashes its expectations or hopes" (Coutu, 2002, p. 105).

Summary of interpretation. So far in Chapter Five I have presented my interpretation of the findings. I made general observations about differing perceptions between library participants

and college faculty members. I asserted that the scenarios resonated more strongly with the library participants in terms of impact and probability and that the library group responded more positively because they were invested and engaged in creating them. I connected the findings on college faculty members who talked about needing to change, being aware of being entrenched, but feeling caught in transition to past literature on competing values in academic cultures and the adaptive challenge this presents.

Next, I shifted to a discussion of the larger strategic directions process underway in the library. I resituated the context and showed how this process has encouraged learning and required participants to take new responsibility for shaping their futures. I discussed the ways in which the library strategic directions group engaged in thoughtful relational work to aid their colleagues in the actions groups. While the larger process engendered creativity, an expanded view of the world, and enthusiasm, it was not without cost. I discussed the ways group members have felt anxious and concerned and tied this back to past literature. Tensions like these are necessary to promote change and learning, provided they are kept in a productive range. Before I begin concluding comments on aspects of this process that would serve others, I would like to reflect on my own personal learning as a scholar.

Personal Reflections on the Research Design

Before enumerating on lessons in the larger strategic directions process, I first feel honor bound to examine the shortcomings of my research design and its intent to better understand faculty perspectives. In looking at the broader context of a siloed organization, where historically people did not work across units or talk in a purposeful way about strategy, I feel I simply pushed too much. I entered into this study hoping I could suggest ways that librarians could begin to reframe and strengthen their relationships with faculty members as peers and came up

short. I was so intent on ensuring the disciplinary faculty members participated in the focus groups I did not concern myself enough with library participation. While I thought I was clear with members of the library strategic directions group in planning conversations and in the consent form about their participation, I now understand that I was expecting too much.

Given where this organization is at and in light of what Heifetz and Coutu said about anxiety and provocation, my desire to see librarians engage in strategic conversation with faculty was too provocative, especially in such a short time frame. They may not have been ready for this level of deep engagement with others on campus just yet. In this interpretation, “I’m too busy” is another way of saying, “I can’t handle this right now.” In this I must also own up to my failings in implementing an inclusive design. I brought the research problem, the fundamental issues, and protocols with me; they were not of the participants themselves. While the group assented willingly to participate, given all the other demands on them, they may not have had the emotional reserves to openly debate and negotiate particular aspects of my design. In my zeal to forge ahead, I was not as attentive to their reservations as I could have been.

As I think about how I will approach futures work and research later on, I can reflect on what I learned as a new scholar about the use of the survey and focus groups as tools to gather data. While I extended the use of the scenario space maps as heuristic devices for examining differences in perspectives about the future, I would not do so again via a survey instrument since vital context was lost. Without sufficient framing, confusion arose. Staley designed this tool for use during an in person setting, such as a workshop, and I believe it would work much better in such a setting. I believe it could be effectively used with a heterogeneous population, in person, to explore differences in perspectives, perhaps combined with a brief silent writing exercise to rank scenarios prior to large group discussion.

Although I shortened the cover mail and announcement text, at the recommendation of the strategic directions working group, I believe that was a mistake. While they thought a longer message may go unread, college faculty members were confused about the purpose and did not see the scenarios as related to the library or their departments. This came up again in the focus group, where framing comments I made in the introduction offered much needed clarification. While my proposed invitation text provided more context, I deferred to the group. I consciously made this choice to defer largely because I was aware that time for further negotiation would likely be perceived as a burden. Before assenting to be the site for my research, group members had expressed concern about the time required. Consequently, I was overly cautious of taxing them and did not call for further discussion when I should have.

The comments from college faculty that were negative, dismissive, or confused were certainly due in part to the abbreviated recruitment messages. Their reactions were a sharp contrast to reactions the earlier ACRL futures report. There, of the 184 people who responded (45% of the total participants), only a handful made neutral comments and a dozen were negative. An overwhelming number (92%) reported positively about the experience. Moreover, most people there demonstrated an understanding of how scenario thinking can open our minds to different possibilities and can be used for making better decisions now. This vast difference between reactions to the ACRL futures survey and the college faculty reactions to this survey reinforces my privileged position at ACRL. There the survey invitation was sent out under the president's name and I was listed as second author, with a faculty member from a research institution as lead author. All these factors in the invitation alone sent strong signals to prospective respondents about credibility, even before they read the first scenario. By contrast,

this survey was part of a project of the library and an unknown doctoral student, lending quite a different tenor.

I will turn now in my reflections to the focus groups as a tool for gathering data. While I had intended the fishbowl to amplify differences and explore a variety of perspectives in a democratic way—by allowing each group to have the floor while others actively listened—things did not play out in quite that way. I cannot attribute this solely to the composition of the library participants. The way I ordered the exercise, college faculty spoke first while library participants deferred. Thus, I may have unwittingly reinforced academic hierarchies. If I were to try this style of focus group again, with a group of engaged and progressive librarians present, I would have them speak first.

I observed that throughout the focus groups, it was difficult at times for participants to refrain from talking about the present. While it can be a useful benchmark to discuss how much change has already occurred, it was challenging to steer the conversation to the future. More than once I purposefully attempted to redirect the conversation from the present to the future. One time in particular I failed dramatically when a participant had "one more thing to say" about the topics of today. I listened to recorded snippets of the conversations more than once to see if my timing was off or my redirections unclear. They were not. I believe it was truly difficult for many participants in the groups to think far to the future, and the chance to opine about the present was too tempting to pass up. This calls into question the use of an open discussion format, such as the one I chose. It suggests a more directed format may be more effective, with specific questions to guide and manage the conversation.

In this design, I asked the library strategic directions group to partake in a final exercise, in part to help interpret the data, and shared the findings in advance. A member of my

dissertation committee suggested I could do likewise with a group of disciplinary faculty members who had not been part of the focus groups to see what meaning they attributed to the data. While this would have been fascinating and could have enriched my interpretation, time and distance curtailed this.

Shifting from data collection to data analysis, I feel I learned a tremendous amount about content analysis, an area where I felt lacking and was eager to develop skills. I feel that my approach to content analysis, a summative one, was a good fit for my research problem and the data I gathered from the survey and focus groups. Being meticulous kept me very faithful to the data. On a few occasions, I seemed to recall a certain topic as especially noteworthy. When I reviewed my coding, double-checked notes, and listened to recordings, however, I found the discussion was more limited than I had remembered. This obliged me to reflect on why I was attributing greater importance to a particular comment. Was it truly noteworthy? Was it said with strong emotion? Did it resonate with me because of my own interests? I feel quite confident now, going forward, in applying this technique of data analysis to other settings. I already see potential application as I will gather data during a group summit this fall and collaborate in drafting a white paper that reports the results.

Lastly in my reflections on being a new scholar, I found it enlightening to work with another university's institutional review board. There were a few notable differences in what they required that proved useful lessons in thinking about how I approach future research.

Now, having presented my interpretation of findings and my reflections on the work of being a researcher, I will turn to a discussion of the significance for libraries and implications for future research.

Significance to Leading Change in Academic Libraries

There are many factors contributing to the way the strategic directions process has unfolded at this university library. My interpretation of the findings indicates possible ways to help similar groups develop a sense of agency. In other comparable settings, one could use aspects of this intervention to pull a group of people together in order to instill a sense of optimism as they work to shape their own future. For instance, some of the most striking features of the strategic directions process at this university library are the:

- Focus on the long-term future and external environment;
- Shared work, rather than concentrating power and decision-making at the top;
- Diverse participation, across units and hierarchical lines;
- Explicit expectation that participants reflect on the process;
- Tension between structure/support and the freedom to design the process;
- Learning that arose because the group engaged in designing their own process;
- Productive nature of anxiety and distress;
- Care and attention via the relational work, which effectively supported the actions groups; and
- Creativity and broad enthusiasm the process generated.

While not all elements of the process undertaken here are necessarily transferrable, others could take on a more informal process to develop strategic directions based on scenarios about the future. Academic libraries seeking to create and use scenarios to set strategic directions should:

- Be explicit about the context for why this is the approach you are taking;
- Recognize the amount of time may be greater than past planning efforts;

- Establish group norms, particularly if this is a new way for groups to work;
- Consider a more structured approach to selecting the scenario set if tolerance with ambiguity is low (i.e., anxiety too great) or there is a particular question to pursue;
- Create conditions that encourage creativity and broad, divergent thinking;
- Allocate sufficient time for grounding in an environmental scan of the higher education sector;
- Reward risk taking through symbolic acts, public praise, or other appropriate means;
- Call for reflection in order to reinforce learning;
- Monitor levels of anxiety and provocation and keep them in the productive range;
- Share frequent updates across the library in the interest of transparency and to lend credence; and
- Most importantly, remind the group that this shift from strategic planning as an event to strategic thinking as a process requires continuous learning; it calls for an ongoing commitment to review and revise assumptions about the future as the world around us continues to change.

Implications for Broader Community, Future Research

The act of creating and using scenarios to determine strategic directions has been useful to catalyze interest, action, and commitment to change within this library. I believe this study has made important, if incremental, contributions to the scholarly and professional literature in several ways.

To the scholarly community of LIS researchers, I believe the main contributions of my study have been in providing an example of community-based research that is more inclusive

than other methods more commonly used and in proposing postheroic theories from the literature of leadership and change as worthy of exploration, discussion, and debate.

To the professional community of practicing academic librarians, I believe the main contribution of my research is demonstrating an inclusive process that supports a shift from strategic planning as an event to strategic thinking as a process. A secondary contribution has been the exploration of current areas of tension within the academy in the literature review and as discussed by the participants.

To the community of futures researchers and consultants, I believe the main contributions of my research have been demonstrating a way to extend the scenario space tool to explore differences in perception and providing additional evidence that futures thinking can support organizational learning.

In reflecting on my study, I can suggest a few areas for additional exploration that could be fruitful. One would be the connection between an inclusive approach to futures work and relational leadership. Another is the potential of engaging in futures work to enhance the status of the library on campus as innovative and position it as proactive in embracing the changing higher education landscape. Additionally, there may still be value in carrying out a study to determine the extent to which talking with disciplinary faculty members about the future, in a structured setting, develops librarians' capacity to have more strategic (and less operational) conversations going forward.

Conclusion

While my formal data collection ended with the culminating call, reflected in the results chapter, my relationship with this group is ongoing. Informally, there is evidence that this process has made a difference in how members of the strategic directions group think about

talking to others in the library. In planning their next steps, for example, they quickly realized that although the working groups have submitted their reports, they need to continue to communicate with them over the last two months. They cannot simply write and issue a document in a vacuum, therefore, they continued to communicate their progress and seek feedback.

In my research I was interested in understanding how to shift the focus from strategic planning as an event to strategic thinking as a process, a way of organizational learning. By engaging in action research, I feel my work has been useful in aiding staff, faculty and administrators at one library in experiential learning to develop new ways to craft strategies and make decisions. Most traditional strategic planning processes operate from foundational beliefs that planning is rational, the future is predictable, and change is linear. Futures work, however, is not grounded in these assumptions. I believe I met the intended goal of this study to aid this group in thinking more broadly and more creatively about how they will approach the changing nature of higher education. On a more limited basis, I believe it also helped disciplinary faculty reflect on their desires for the future and prompt them to consider potential roles for the library. For a variety of reasons, which I reflected on above, I did not succeed in aiding librarians in increasing their capacity to engage in strategic conversation with faculty members. Ultimately, however, that goal was an unrealistic one given the time constraints to implement this research in a new setting and given that, for this group, the process underway was already quite provocative.

Engaging in futures work required this group to become much more comfortable with ambiguity and to develop their skills with interpretation, creativity, and imagination. These are similar to the skills that complexity theory demands of leaders. Viewing an organization through a complexity lens reduces the focus on planning and other similar equilibrium-seeking activities.

Leadership then is not about a person in authority who controls and manages change. Leadership is a process and relational activity occurring among people. This requires new ways of thinking about our organizations and about change.

This strategic direction process, with its focus on distant signals of changes yet to come from far beyond the walls of the library, has played a guiding role in helping this group to make sense of the "higher order 'blooming, buzzing, confusion' of choices and perspectives" (Catanzaro, 2008, p. 52) inherent in an unknown future. By taking responsibility and investing time in developing a process, people in this library have explored and considered multiple alternative futures. Library faculty, staff, and administrators constructed scenarios and reflected on alternate futures in order to chart a course and make better-informed decisions now in light of what futures may be possible.

They have developed a sense of agency, and taken on responsibility for shaping their own future, in a way that others may reasonably emulate. I feel it apropos to conclude with the same quote I used to open my dissertation, by anthropologist Margaret Mead. "I use the term 'open-ended' to suggest that our future is neither predetermined nor predictable: it is, rather, something which lies within our hands, to be shaped and molded by the choices we make in the present time" (2005, p. 329).

APPENDIX

Appendix A: Library Internal Working Documents

1.) Library Strategic Directions Work
February 18, 2011

Introduction
This Library is embarking on a six-month set of activities that will lead to the development of Strategic Directions for 2012-2015.

As a unit of academic affairs, the Library looks for ways to create and implement innovative approaches that support the teacher-scholar model, expand learning opportunities for our constituencies through innovative approaches, develop partnerships throughout campus and with our off campus partners, and support faculty and student research and creative activity. The Library serves as a cornerstone of the university and is actively engaged in the numerous sectors of the University community.

Against this backdrop, the Strategic Directions Working Group is charged with developing a set of strategic directions that will guide the Library for the next three years. These strategic directions will help us make decisions and create a lens through which we can interpret and engage the changing landscape around us. Important in developing these directions will be an exploration of the dynamic environment in higher education and beyond. Details of the charge to the Strategic Directions Working Group are described below.

The Library's strategic directions should be aligned with those of the University and with the Academic Affairs.

All staff and faculty will have an opportunity to be involved in the Strategic Directions project. The process will be divided into three phases:
1. Environmental scanning and scenario creation
2. Possible implications and actions of scenarios created in step 1
3. Development of strategic directions for 2012-2015 based on environmental scanning and scenario and actions work.

Strategic Directions Working Group Membership and Charge
Convener: To be determined by the Working Group members
Members:

The Strategic Directions Working Group is charged with overseeing the entire Strategic Directions process. They will initiate the work and engage other stakeholders on campus and in the library. Specifically, the Strategic Directions Working Group is charged to:
- Conduct environmental scan looking outside the Library and outside higher education; identify trends and opportunities;
- Solicit input from students, faculty, and library faculty and staff;
- Develop 4 or 5 scenarios that look 7-10 years out (Submit to library dean by May 15, 2011);

- Seek volunteers, in concert with the dean, for Actions Working Groups to respond to each scenario;
- Provide direction and timeline to the Actions Working Groups;
- Based on the scenarios and the action reports, develop 3-5 Strategic Directions for the Library to focus on 2012-2015; submit Strategic Directions Report to library dean by August 15, 2011;
- Communicate progress regularly to library staff, faculty and administration
- Conduct a brief assessment of the strategic directions process itself and report to library dean by August 15, 2011.

Actions Working Groups Membership and Charge
Conveners: TBD
Members: TBD

The Strategic Directions Working Group will identify members of 4-5 Actions Working Groups each of which will consider a specific scenario and identify strategies and actions to respond to that scenario. The Strategic Directions Working Group will provide direction and timeline to the Actions Working Groups. The membership of the Actions Working Groups will be diverse in nature. These Groups are charged to:

- Review their assigned scenario
- Discuss possible implications
- Determine library capacity and strengths that can be brought to bear on the scenario in question
- Determine other groups and individuals on campus that might be effective partners in anticipating this scenario
- Imagine ways that the library could leverage their strengths if this scenario came to pass
- Identify and recommend key actions the library should take in the next three years
- Prepare a report to the Strategic Directions Working Group by June 15, 2011.

2.) Actions working group instructions
May 12, 2011

Introduction & Charge
[Repeated from initial document, above.]

Introduction
The scenario below is a possible future that may or may not be preferable; it contains elements that are futuristic yet plausible. To prepare for the future consider how the library should leverage itself or respond if such a scenario were to happen. Think the unthinkable, anticipate surprises, practice new possibilities, direct the library into the next decade or farther.

Scenario #: Title
Scenario description

Report Template Worksheet

1. What impact would this scenario have on the library?

2. What strengths or resources could the library bring to this scenario?

3. What are our challenges and vulnerabilities if this were to come true? Are there risks here we should work to mitigate?

4. To what degree are our strategies and underlying values able or unable to respond effectively to the conditions this scenario?

5. Determine other groups and individuals on campus that might be effective partners in anticipating this scenario.

6. Identify and recommend key actions the library should take in the next three years.

7. Additional comments or observations.

Strategic Directions Working Group Norms (FYI)

- Share air-time (make sure everyone is heard)
- Participate and contribute
- Balance advocacy and inquiry
- Be prepared—do homework
- Differ respectfully and professionally
- Promote consensus—don't block progress
- Encourage enthusiasm and be fearless
- Honor each other's talents and expertise
- Keep it strategic—whole library
- Open u (don't limit language)
- Non-attribution
- Trust the group

Appendix B: Consent to Participate in a Research Study

PhD in Leadership and Change Program|
150 E. South College Street, Yellow Springs, OH 45387
937.769.1360 www.antioch.edu

Library Strategic Directions Working Group
You have been invited to be in a research study about faculty perspectives on the future of higher education and implications for academic libraries. You were selected as a possible participant because of your work at [university] library on the library's Strategic Directions Working Group.

Kara Malenfant, a doctoral candidate in the Antioch University Leadership and Change program and Scholarly Communications and Government Relations Specialist at the Association of College and Research Libraries, is conducting this study (kmalenfant@ala.org or 800/545-2433 ext. 2510). Her dissertation chair, Jon F. Wergin, Ph.D., Professor of Educational Studies, Antioch University, (jwergin@antioch.edu or 804-269-3826), is overseeing this study.

Background: This intent of this study is to aid academic librarians in examining their perceptions of the future of higher education, engaging disciplinary faculty members to understand their views, and determining actions to take to shape the future. It may also help disciplinary faculty reflect on their desires for the future and prompt them to consider potential roles for the library.

Procedures: The study involves, at a minimum, one preparatory meeting, recruiting faculty to participate in a survey and focus group, responding to the survey, attending up to two focus group and immediate debrief meetings, and participating in a final culminating meeting to reflect on the data gathered. The preparatory work began in March 2011. The formal research commences in April and lasts through June 2011 on the [university] campus and through conference calls. Meetings last between one to two hours. The total time involved should be no more than 8 hours. If there are any follow-up questions, Kara will seek your approval for additional meetings. She may send excerpts of her draft report for you to verify/clarify via e-mail.

Risks and Benefits: The research findings may benefit you in your work as a librarian by offering you a different way of thinking strategically about the external environment, ambiguous issues, and unpredictable events facing higher education. The results may benefit the [university] library as staff members begin setting strategic directions in summer 2011. The findings may be useful to other libraries and librarians as they consider trends outside the higher education sector and determine how they will approach the changing environment. By participating actively in the research process, you may develop a greater understanding of faculty perceptions and a greater personal awareness of your own views. The risks are considered minimal; although unlikely, there is a chance that you may experience some discomfort in examining and discussing your perceptions.

Confidentiality: You may share confidential information during the preparation, survey, focus groups, and debrief. Your opinions may be utilized for research purposes, but you will not be identified by name in the final written document. To minimize risk, Kara will:

1. Keep your name confidential;
2. Keep all related research materials with personally identifying information, including this Informed Consent Form, in a secure file cabinet and destroy them once the study is complete;
3. Present excerpts of her report as necessary for your review to check for accuracy or misunderstandings;
4. Remove your name and any identifying information prior to publishing the final report.

Voluntary Nature: Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with [university] or Antioch University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships. Should you withdraw, your data will be eliminated from the study.

Contacts and Questions: You have the right to express any concerns regarding ethical procedures or questions to:

Dr. Lisa Kreeger, Chair
Institutional Review Board
Antioch University
lkreeger@phd.antioch.edu

Instructions: Please read this form and ask any questions you may have before agreeing to be in the study. You have been provided with two copies of this informed consent form. Please sign both, indicating that you have read, understood and agreed to participate in this research. Return one to Kara and keep the other for yourself.

Statement of Consent:
I have read the above information. I have asked questions and have received answers. I consent to participate in the study.

______________________________	_Kara J. Malenfant______________
Name of participant (please print)	Name of researcher
______________________________	______________________________
Signature of participant	Signature of researcher
______________________________	______________________________
Date	Date

This document has been approved by
Institutional Review Board at
[university]
Expiration Date: April 25, 2012

Appendix C: Recruitment

1.) University news announcement

HELP THE [UNIVERSITY] LIBRARY EXPLORE THE FUTURE

Do you wonder what the future could hold for higher education? So do we at the [university] library!

A group of library faculty and staff members has constructed five scenarios about possible futures that may affect higher education. Together with a doctoral candidate who is conducting her dissertation research with us, we are eager to understand faculty and administrator perspectives.

Please participate in one, or both, of these activities:

1. Share your opinions in a brief (15-minute) survey at https://www.surveymonkey.com/..., open until 5:00 p.m. Pacific on Tuesday, May 17, 2011 (with the chance to win one of five $10 Starbucks gift cards).
2. Discuss your ideas during one of these lunchtime focus groups (food and beverage provided):
   a. May 10, 2011, 12:00-1:00 p.m.
   b. May 11, 2011, 12:00-1:00 p.m.

To volunteer for a lunchtime focus group, please contact *name, email, phone (Member of library strategic directions working group)*.

In February, [university] library faculty and staff began a six-month process of scenario planning and strategic directions work. [Name], dean of the Library, explained, "As a unit of Academic Affairs, the Library looks for ways to create and implement innovative approaches that support the teacher-scholar model, expand learning opportunities through innovative approaches, develop partnerships throughout campus, and support faculty and student research and creative activity."

As part of that process, we are the site of a research study by a doctoral student about faculty perspectives on possible futures of higher education and implications for academic libraries. Her work will complement the scenario planning process we have underway and provide an added dimension as we consider directions the Library could take.

2.) E-mail invitation to college/school faculty

From: [Administrative Staff for Academic Affairs]
Sent: Tuesday, May 03, 2011 12:09 PM
Subject: YOUR IDEAS NEEDED

SENT ON BEHALF OF [*LIBRARY ADMINISTRATOR*] **TO ALL TENURED AND TENURE TRACK FACULTY**

~~~~~~

College faculty—we need your ideas and thoughts on the future of higher education.
~~~~~~

The library faculty and staff have written 5 scenarios about possible futures that may affect higher education. We need your ideas to shape library planning.

Please participate in one, or both, of these activities:

1.) Share your opinions in a brief (15 min.) survey at https://www.surveymonkey.com/... open until 5:00pm Pacific on Tuesday, May 17, 2011 (with the chance to win one of five $10 Starbucks gift cards).

2.) Discuss your ideas during one of these lunchtime focus groups (food and beverage provided):
   a. May 10, 2011 12:00-1:00 pm
   b. May 11, 2011 12:00-1:00 pm

To volunteer for a lunchtime focus group, please contact *name, email, phone (Member of library strategic directions working group).*

We know that everyone is busy but we ask that you take time to include your ideas with ours for strategic planning.

3.) Dean to deans communication
From: Library dean
Sent: Friday, May 06, 2011 1:26 PM
To: College deans
Subject: your help recruiting faculty for research study underway at the library

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As you may remember from the information memo I shared earlier in April, [university] library is the site of a research study by a doctoral student about faculty perspectives on the future of higher education and implications for academic libraries. Her work will provide an added dimension to the scenario planning and strategic directions process we started in February.

Our library group has constructed a number of scenarios about the future of higher education, and we are eager to understand faculty perspectives. I'd like your support and ask you to **please encourage department chairs and faculty members to participate** in one or both of these activities:

1.) Share your opinions in a brief (15 min.) survey at https://www.surveymonkey.com/... open until 5:00pm Pacific on Tuesday, May 17, 2011 (with the chance to win 1 of 5 gift cards for $10 at Starbucks).
2.) Discuss their ideas during one of these lunchtime focus groups (food and beverage provided):
   a. Tuesday, May 10, from noon to 1pm
   b. Wednesday, May 11, from noon to 1pm

In particular, we are seeking faculty from the colleges/school to attend the focus groups—with lunch on us! You can find full details in the announcement in the university news http://... and in an email invitation we sent directly to faculty.

I know, given all the other demands on their time, that faculty members may not see these general messages. They will be much more likely to respond to a request from you, and we are eager to have a full understanding of what our colleagues on campus think. If there are any questions please contact [name, email, phone (member of library strategic directions working group)].

4.) Message to targeted faculty for focus groups
From: Member of library strategic directions working group
Sent: Friday, May 06, 2011 2:10 PM
To: Targeted college/school faculty
Subject: The Library needs your IDEAS

You were recommended by your Library colleagues as a faculty member with great ideas and vision for the future of the campus. Your knowledge and participation is critical to the Library's vision process. Where do you think your discipline will go in the next 10 years? Join us for a one hour lunch with Starbucks sandwiches and desserts on either Tuesday, May 10 or Wednesday, May 11, noon-1pm in [building, room]. Contact [name, email, phone (member of library strategic directions working group)].

Appendix D: Survey

Welcome
Thank you for participating in this research study. The following survey concerns your images of the future for all types of colleges and universities.

After asking a few general demographic questions, we'll present five scenarios about possible futures that may affect higher education, asking four questions about each. A scenario is not a prediction, still less a desired future, but is a possibility given current trends. We are not assessing your preferences for each scenario, but rather we seek to understand your views of the likelihood, speed, and impact of each. There are no wrong answers here; we're interested in *your perceptions* of these possible futures.

We estimate it will take you 15 minutes to complete this survey. Your involvement in the study is voluntary, and you may stop your participation at any point.

Demographics
1. How long have you been working in higher education?
_Less than one year
_1 to 4 years
_5 to 10
_11 to 15
_16 to 20
_21 or more years
_retired

2. What is your department at [[university]?
College of Arts and Sciences (drop down menu)
_Arts and Humanities
_Interdisciplinary Programs
_Math and Natural Sciences
_Social and Behavioral Sciences
College of Business Administration (drop down menu)
_Accounting and Finance
_Information Systems and Operations Management
_Management and Marketing
_College of Education
_School of Nursing
_Library
_Other department (please specify):

3. Are you:
_Tenured
_Not yet tenured/on tenure track
_Instructor/not on tenure track
_Administrator

4. What is your age range?
_Under 25
_26 to 35
_36 to 45
_46 to 55
_56 to 65
_Over 65

Scenario 1: Vagabond

As Heather walked down the street, she scans her handheld device for messages. Her shoes "ping" that the tread indicator is registering low and recommending replacement. She presses "yes" and the store ships the new shoes today, already knowing her size and account.

Happy with her purchase, Heather gets serious about school and reviews her planner app, deciding she has time to research one of her assignments. She searches and finds the perfect information on the topic and orders online access. Fractions of pennies are debited from her account for each page viewed.

Her (Geminoid—i.e., android robot with human facial and body movements) professor teaches from a foreign country and she joins the physical therapy class virtually participating with the holographic image projected up from her handheld device rotating through the three images—the one showing the professor, one showing various classmates, or one showing the model of a damaged leg that is the object of the physical therapy lesson. The class is broken into groups to practice different therapy techniques using the simulated limb and various types of therapy equipment manipulated using gestures on the projected image.

1. Probability that this scenario will occur.
1 2 3 4 5
Low High

2. Impact of this scenario, if it were to occur, on your department/discipline.
1 2 3 4 5
Low High

3. If this scenario were to occur, how soon?
Immediate change: in the next year or is already happening.
__ 1-3 years, Short term.
__ 3-10 years, Medium term.
__ 10-20 years, Long term.

4. If this scenario were to occur, do you feel it would be:
__ A threat to my department/discipline.
__ An opportunity for my department/discipline.
__ A mix of both.

5. If you'd like, please feel free to share your reactions or thoughts about this particular scenario.
Open text box

Scenario 2: It's always been done that way

…

Scenario 3: Quarantine

…

Scenario 4: Off to work we go

…

Scenario 5: Hunter/Gatherers

…

Final thoughts

How was the experience of considering these scenarios valuable to you? Is there anything else you would like to share with us?

Open text box

Thank you

Thank you for your insight. Your responses have been collected. To thank you for your time, you may now enter your name into a drawing to win one of five gift cards for $10 at Starbucks. Additionally, you may express interest in participating in a follow-up focus group.

When you click on the "done" button below, you will automatically exit this survey and be taken to a separate collection instrument for the drawing and focus group.

Done.

Thank you

Drawing & Focus Group

Thank you for participating in the futures research study and sharing with us your perceptions about possible futures that may affect higher education. We invite you to participate in a lunchtime focus group and/or enter into a drawing. If you'd like to do so, please answer the questions, below. Otherwise, simply exit this page.

__ Yes, please include me in the drawing to win one of give gift cards for $10 at Starbucks.

__ No, thanks.

I am willing to participate in a lunchtime focus group at the [university] library, where light food and beverage will be served. I am available on the following dates:

1st choice	2nd choice	No, thanks/not available	
__	__	__	Tues, May 10, noon to 1pm
__	__	__	Wed, May 11, noon to 1pm

How can we contact you?

1. First Name:
2. Last Name:
3. E-mail Address:

<u>Focus Group Volunteers Only</u>
We apologize for having to ask the following demographic questions again, but the information we're collecting here is not tied in any way to the main survey, so that we protect the confidentiality of those responses. Therefore, in order to help us balance the focus groups, please tell us a little bit more about yourself.

1. How long have you been working in higher education?
    _Less than one year
    _1 to 4 years
    _5 to 10
    _11 to 15
    _16 to 20
    _21 or more years
    _retired

2. What is your department at [university]?
    College of Arts and Sciences (drop down menu)
        _Arts and Humanities
        _Interdisciplinary Programs
        _Math and Natural Sciences
        _Social and Behavioral Sciences
    College of Business Administration (drop down menu)
        _Accounting and Finance
        _Information Systems and Operations Management
        _Management and Marketing
    _College of Education
    _School of Nursing
    _Library
    _Other department (please specify):

3. Are you:
    _Tenured
    _Not yet tenured/on tenure track
    _Instructor/not on tenure track
    _Administrator

4. What is your age range?
    _Under 25
    _26 to 35
    _36 to 45

_46 to 55
_56 to 65
_Over 65

Done.

Thank you

Appendix E: Confirmation with Participants Prior to Focus Groups

To: Volunteers for Focus Groups
From: Member of Library Strategic Directions Working Group
Subject: confirming focus group on *X date* at library

Dear *name*,

Thank you for expressing your interest in participating in a 60-minute lunchtime focus group on the future of higher education to be held:

> *Tuesday, May 10, from noon to 1pm/Wednesday, May 11, from noon to 1pm*
> Plus immediate debrief 1pm to 2pm (*for library participants only*)
> [building, room]

The focus groups will be a thought-provoking way to exchange ideas with colleagues from other academic departments and from the library over lunch. We will be providing sandwiches. You are welcome to come 10 or 15 minutes early if you'd like to have more time to settle in and grab a bite before we formally begin our discussion.

The focus groups are part of a research study Kara Malenfant is conducting with the[university]library faculty and staff as a doctoral candidate in the Antioch University Leadership and Change program. The intent of her dissertation research is to aid academic librarians in examining their perceptions of the future of higher education, engaging disciplinary faculty members to understand their views, and determining actions to take to shape the future.

(*Insert for library volunteers only:* In addition to attending the focus group, Ms. Malenfant is asking all library faculty/staff members who participate to attend a quick debrief immediately following (schedules permitting). She seeks to understand, from your perspective, which comments from the focus group discussion resonated most strongly with you (i.e., comments said with a high degree of specificity, emotion, or those that come up extensively). This will help her to more accurately analyze and interpret these comments.)

While your opinions may be utilized for research purposes, Ms. Malenfant will not identify you by name (or with any personally identifying information) in the final written report. She might send excerpts of her draft report to you to verify/clarify your intent via e-mail. During the focus group, you'll see her recording the conversation as a back up to the field notes. If she embeds any audio clips in her final report, she will contact the speakers first for clearance. If you have any questions or ethical concerns about this project, please contact Dr. Lisa Kreeger, Chair of the Institutional Review Board, Antioch University, lkreeger@phd.antioch.edu.

Again, we're very pleased you are willing to share your perspectives with the library faculty and staff and Ms. Malenfant in an upcoming focus group. If you have any questions about the focus groups, please let us know.

Earlier you indicated that *_pm- _pm on day, month date*, 2011 for lunch and discussion were good for you. **Can you please confirm that this time still works for your schedule?**

Your participation is important to Ms. Malenfant's research and progress as a new scholar. We want to know that you will be able to attend.

Thanks in advance,
[Name, email, phone (Member of library strategic directions working group].

Appendix F: Notes for Oral Introduction to Focus Groups

Welcome and Introduction: (5-7 minutes)
Introduce self (explain role), library futures group, and faculty participating.
Point out refreshments.

Objectives:
Give 2-sentence overview of entire research project and how this meeting fits in. Part of larger research project. Alternative futures, not predicting, not preferable futures but probable. Point is not to come to consensus on one vision of the future, but to develop capacity to adapt for many possible futures. This exercise is designed to stimulate your thinking, give a glimpse of what other stakeholders on campus think.

While your opinions may be used for research purposes, I will not identify you by name (or with any personally identifying information) in the final written report. You may have noticed that I'm recording the conversation—this is a back up to the field notes. If I were to use any audio clips in my final report, I'd contact you separately and clear it with you first.

We hope today to create a dialogue that is spontaneous, rich, and relevant. We approach this with a spirit of mutual respect and mutual learning. (Point out information sheet.)

Overview of format/agenda:
"Fishbowl" style means we all have the chance to discuss and all will be active listeners. You may find the worksheet guide to active listening useful. Three stages as follows:

- First, library faculty and staff will listen to the college faculty members discuss their perceptions. We'll let the conversation be organic and see how it emerges. (est 15-20 mins)
- Next, we'll turn the tables. The college faculty members will become listeners and the library faculty and staff will discuss their views on the future as well as any reactions to what they heard. (est 10-15 mins)
- Finally, after each group has listened intensely to the other, we'll open this up to a more natural, open discussion where the groups can interact and converse. (est 20 mins)

Lastly, I'll ask you all to spend 5 minutes reflecting silently and writing down your thoughts, be brutally honest. This is another source of data that I will review along with a smaller group of library faculty and staff. After this meeting, I'll be working with this smaller group to reflect on what we've learned, draw out implications for the library, & determine what next steps, if any, the library should consider taking. (Point out observers' guide.)

Setting the scene (2 mins)
Set time frame as 7-10 year horizon (invite audience to think back to where they were 7-10 years ago, establish mindset of longer term future, give examples from headlines and own life/work experience to interject a little levity and humanity). Summarize five scenarios briefly, this is what the library faculty and staff have been thinking, we want to hear what you are thinking in your disciplines.

Stimulus to college faculty

Now, let's think out 7-10 years to the future. How do you imagine your work will look? What does it mean to be "forward thinking" in your discipline? Who is on the bleeding edge in your field?

<u>Redirect (if needed)</u>
The library is very interested in being where you are in the future, to meet the needs you and your students will have. In light of that, where do you see your college or department in 10 years?

<u>Stimulus to library participants</u>
You all have been doing some deep thinking in the library about what the future may bring. What kinds of things have you been talking about? Where do you see this campus in 10 years? How do you see the library in that kind of future?

Appendix G: Information Sheet for Focus Groups

Today's focus group is part of research study at the [university] library about faculty perspectives on the future of higher education and implications for academic libraries. Below is some more information about the project. You should keep this sheet for future reference.

Name: Understanding faculty images of the future: Action research for academic librarians

Purpose: This intent of this study is to aid academic librarians in examining their perceptions of the future of higher education, engaging disciplinary faculty members to understand their views, and determining strategic actions the library can take. It may also help disciplinary faculty reflect on their desires for the future and prompt them to consider potential roles for the library. The intended goal is to aid librarians in thinking differently about the future as they consider trends outside the higher education sector, converse with disciplinary faculty members, and determine how they will approach the changing environment.

Procedures: In this study, scenarios about the future of higher education serve as the basis for collecting quantitative (survey) and qualitative (focus group) data. A small group of library faculty and staff members is involved in all phases of the research as well as preparatory work: planning meetings, creating scenarios, helping to recruit college/school faculty, participating in the focus groups, and making meaning from the findings.

Conducted by: Kara Malenfant, a doctoral candidate in the Antioch University Leadership and Change program and Scholarly Communications and Government Relations Specialist at the Association of College and Research Libraries, (kmalenfant@ala.org or 800/545-2433 ext. 2510).

Reporting: The results of this study will be reported and published in my dissertation. Additionally, I may reuse some data for future scholarly publication. While comments you make today may be utilized for research purposes, I will not identify you by name (or with any personally identifying information) in the final written report. While I will be recording the conversation, this is a back up to the field notes. If I were to use any audio clips in my final report, I would contact you separately and seek permission from you first. I may send excerpts of my draft report for you to verify/clarify via e-mail. You are free to not answer any question or to withdraw at any time.

Oversight: Dissertation chair, Jon F. Wergin, Ph.D., Professor of Educational Studies, Antioch University, (jwergin@antioch.edu), is overseeing this study. If you have any ethical questions or concerns about this project, please contact Dr. Lisa Kreeger, Chair of the Institutional Review Board, Antioch University, at lkreeger@phd.antioch.edu.

Appendix H: Observers' Guide to Focus Groups

Purpose:
This guide serves as an aid to you in your role during this exercise. While you won't be talking during one of the "fishbowl" portions, you will be active. This may assist you in attending to the other group members' underlying assumptions about the future and help you pick up on any debates they have in their disciplines or departments. In particular, you may notice points of divergence and convergence with the views you hold.

Observing and Listening

- Give the person your whole attention, and make that evident.
- Listen actively by:
    - Being aware of your predispositions—assumptions about meaning.
    - Being internally silent, quiet your inner chatter.
    - Letting patterns and themes emerge.
    - Observing the body language of those speaking.
- As you listen, follow the disorientation, rather than resisting and falling back on your established frames of understanding.
- Be prepared to ask for clarification. [6]

Note taking
So that you are prepared for the large group discussion, you may wish to take notes. Record any observations, jot down surprising remarks, and, if a connection to your department pops into your head, write it down. While these notes are yours to keep, they will be helpful to you during our large group discussion and in the final reflection activity.

During the debrief
Once the conversation opens up to a large group discussion, you should feel free to ask the other group members to clarify or extend any of their comments. Here are a few examples of gentle, probing questions you may wish to ask:

When you mentioned X it really caught my attention,

- Tell me more about…
- What makes you think…
- Does this relate to what Maria said earlier about…?
- Explain what you mean by…
- What do others in your field tend to think?
- What kind of roles do you envision for librarians in this scenario? [7]

[6] Suggestions on observing and listening adapted from a presentation: *Conversations with faculty: A workshop on dialogue* by Jon Wergin of Antioch University for the ARL/ACRL Institute on Scholarly Communication, March 11, 2009, Seattle, WA.
[7] Questions adapted from Rees (2001).

Appendix I: Library Faculty/Staff Reflection Form for Focus Groups

Purpose:
This worksheet is an opportunity to share your impressions with the researcher and library futures group. They will use this information as one source of data in the analysis and interpretation for this project. While your comments will be shared and may be included in the final research report, any personally identifying information will be removed to safeguard your anonymity.

Please take 5-7 minutes to record your thoughts on the following questions. Leave this sheet in the room.

1. What are up to three things you learned that you didn't know before today about how disciplinary faculty view the future of higher education and the library?

2. Was there anything you heard from the disciplinary faculty members that shocked or surprised you? If so, what?

3. Was there anything you heard from the disciplinary faculty members that made you feel hopeful? If so, what?

4. How much did you learn about the perspective of disciplinary faculty members?

1	2	3	4	5
very little				a great deal

(please circle one)

Please expand upon your rating:

5. What are some potential implications for the library in what you heard today?

6. Is there anything else you'd like to share?

Appendix J: Disciplinary Faculty Reflection Form for Focus Groups

Purpose:
This worksheet is an opportunity to share your impressions with the researcher and library futures group. They will use this information as one source of data in the analysis and interpretation for this project. While your comments will be shared and may be included in the final research report, any personally identifying information will be removed to safeguard your anonymity.

Please take 5-7 minutes to record your thoughts on the following questions. Leave this sheet in the room.

1. What are up to three things you learned that you didn't know before today about how library faculty or staff view the future of higher education and the library?

2. Was there anything you heard from the library faculty or staff that shocked or surprised you? If so, what?

3. Was there anything you heard from the library faculty or staff that made you feel hopeful? If so, what?

4. How much did you learn about the perspective of librarians?

1	2	3	4	5
very little				a great deal

(please circle one)

Please expand upon your rating:

5. What are some potential implications for the library in what you heard today? For your own discipline?

6. Is there anything else you'd like to share

Appendix K: Guide for Focus Group Debrief

20 minutes of open discussion with library participants addressing:

1.) Key points you heard—any themes emerging?

2.) Particularly helpful quotes? Anything strike you because it came up a lot (by more than one person) or was said with lots of detail or emotion?

3.) Were there topics you hoped the group would address and didn't? What were they?

4.) What unexpected topics emerged? Should we explore these more in second focus group?

5.) Should anything be changed for second focus group?

Appendix L: Guide to Final Reflection, Library Strategic Directions Working Group

Date: May 26, 2011

Length: 90 minutes

Overview/Goals: Researcher convenes library strategic directions working group to engage in final reflective exercise, after reviewing draft results. Collectively the group makes meaning of scenario space maps and comments, engages in analysis and interpretation.

Participant Prework: Review draft of results, scenario space maps and thematic findings. Consider potential implications, how these results will inform larger strategic directions work, and what knowledge may be transferrable to other settings.

Meeting outline:
Introduction: This is a chance to pause and reflect, now that you're well into your strategic direction process. As a reminder, per your charge, you've been asked to not only recommend strategic directions, but to report out on the process of scenario planning. So here we are today, to consider the value of having these responses, from a group we don't normally talk to about these kinds of things, relative to an unknown future. We have 90 minutes to cover:

1.) Implications discussion (15 mins): What seemed like greatest areas of opportunity to strategize? What roles do you see for yourself and for the library in the future?
2.) Process discussion (15 mins): How did learning the perspectives of others move you into thinking differently from where you had been going? As you thought about faculty reactions, did anyone's opinion change your mind about the way you see the futures you portrayed in your scenarios and the usefulness of considering them? Did learning faculty perspectives change anything else for you? Do you know more now? Have a larger view of higher education landscape?
3.) Process exercise. Silent writing then round robin report out (40 mins):
    a. Please record two things you have found valuable about scenario planning,
    b. Please record two things you have found challenging about scenario planning.
    c. The library has done planning in the past, so think back on how this has been different from previous processes you've been involved with or witnessed (here or at other places). What are the ways in which doing scenarios altered your thinking about how planning should happen?
4.) Transfer discussion (15 mins): What do you want other academic libraries to know about what you've learned about college faculty perspectives? About scenario planning? What advice would you give to other libraries that are setting strategic directions and seek to better understand college faculty perspectives?
5.) Next steps discussion (5 mins): Actions to be taken by researcher, consultants, group members prior to June 15, when actions groups reports are due.

Appendix M: Coding Structure

Alters research in discipline
Augmented reality
Books/textbooks
Changing education (entrenched faculty & systems)
Diminishes devalues discipline
Divide between K-12 and universities
Eco communities
Economic pressure (on individuals)
Ethical challenges
Funding of higher education
Gaming and game theory
Importance of human element
Interdisciplinarity
Localization and learning
Lost knowledge
Medical advances
- dangers

Neuroscience
Older workers
Personalization (smart clothes)
Pressure, keeping up (rapid change)
Privacy
- auto ordering

Reactions
- challenging or stimulating
- dismissive
- negative
- neutral
- positive
- confused

Restricted travel
Retooling, skills training
Shifting costs to students & consumerism in higher ed
Social stratification
Student body
- gender
- age
- ethnic diversity

Student expectations
Technology
- curriculum
- library services
  - -- distance
- personhood
- student experience
- teaching
  - -- distance
  - - simulation
- work
  - -- distance

Transportation
Workplace competition

Appendix N: Examples of Coding

Open ended comments for Scenario 1: vagabond

By	Comments	Themes
College faculty	As someone who still values f2f and real time interactions and sees their pedagogical value, I guess I'm glad I won't be around for this one. ;-) While currently my students value their technological devices, they still hunger for the human element. The next generation may not see the value of human contact which they may experience as unduly "stressful".	Technology - teaching Importance of human element
College faculty	I think we are all apprehensive of change. As with any new technology, there are both positives and negatives. This particular scenario would not directly impact my discipline, although it is possible that I don't see how it would right now. It might. In all, in my discipline using technology to communicate across the world has been positive–easier access to research subjects. However, I also see how for a particular scenario such as this practicing students would have even more pressure to accomplish a lot of activities in a compressed time-frame (just think about how much busier we all are BECAUSE of all of the technological devices we carry). How valuable would it be to practice on a hologram? It would depend on the hologram and how/whether it responds to the students, and that type of hologram is probably a long way away.	Technology - teaching - distance Technology - student experience Technology - teaching - simulation
College faculty	Obviously, Professor Geminoid would be a threat, but hard to remove the human element from education entirely, and liberal learning will continue along fairly traditional paths.	Importance of human element
College faculty	Re #2: impact would be high in part because this scenario would likely drain funding away from my discipline. #4 is difficult to answer as the question is presently articulated. I can't say that I think the outcome of this scenario would necessarily be a threat. The language seems a bit hyperbolic for how I imagine such events would impact my discipline.	Funding of higher education Reactions - dismissive
College faculty	There are many concepts in the physical sciences that can be modeled and touched hands-on in a laboratory setting with face-to-face interaction with peers and instructor. Why replace an experience with essentially a 3d picture? On the other side, there are also many concepts that can only be explored by simulation, and this technology would allow exploration of those scenarios, e.g. the workings of the atom.	Technology - teaching simulation
College faculty	This scenario lacks meaningful human to human contact. All contact is via technology, which does not satisfy the human need for connection.	Importance of human element
College faculty	Though what is described would not be a direct threat to Sociology, if current trends continue the student described	Technology - teaching

	would be taking Sociology courses to round out their understanding, and thus Sociological teaching would need to learn to fit within the pedagogical paradigm used.	
Library faculty/staff	can lose human interaction	Importance of human element
Library faculty/staff	It seems the first part is already happening - apps that automatically order products based on your personal information. The Geminoid professor and holographic images seems a bit more distant to me - beyond 10 years - but then again I don't follow these trends and have no idea where we currently are at with these trends.	Privacy - auto ordering Technology - teaching
Library faculty/staff	Ordering clothes, footware online is current thanks to the forerunners L.L. Bean, Lands End and other catalog stores. Not sure how this would work with having pings set in underwear... Teachers from all over the globe conducting classes already occurring... Handhelds projecting holographic images probably will occur 1-5 years...	Privacy - auto ordering Technology - teaching
Library faculty/staff	seems very lonely & isolating yet efficient	Importance of human element
Library faculty/staff	Thoughts that come to mind: Somewhere along the chain there will always be a need for human interaction and someone to find answers to the questions. The problem solvers, that's where we fit in.	Importance of human element
Library faculty/staff	To a certain extent, some of this is happening now. If, however, this scenario were to occur to its fullest extent, I think it could spell the end of the university library, as we know it anyway. I'd like to think there's a way for the library to support this scenario in one way or another; I'm just not sure how!	Technology - library services
Library faculty/staff	very exciting to contemplate this	Reactions - positive

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