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Gazing into the Crystal Ball: Using Scenarios for Future Visioning of a Distance Learning Library Service

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Abstract
This article describes the use of scenarios as a tool to assist a large distance learning library service in its strategic planning. Through a description of the scenario process from beginning to end, the authors detail the steps that the library director and the consultant took initially; their missteps; and the successful conclusion. This study of the journey through the scenario process to a new strategic plan should prove useful to library administrators interested in exploring new ways to plan for uncertain futures.

Background

Scenarios, which ask people to suspend their current beliefs or strongly held values long enough to appreciate new connections, new themes or new directions, are a way to envision the future of an organization. Scenarios take into account the complexity of current forces and their plausible future implications while avoiding the dangers of mental models or habits that can influence the planning process (Godet & Roubelat, 2000; Ringland, 2006; Shoemaker, 1995). The challenge in any organization is to create the conditions for strategic creativity to emerge and develop scenarios that challenge current mind-sets that consciously or unconsciously make assumptions or judgments about the future (Heijden, 2005; Schwartz, 1991). Scenarios take complex elements and weave them into a story that is coherent and systematic and future-oriented.

While scenarios focus on the future, they differ from forecasts or visions. Forecasts are descriptions of a relatively unsurprising projection of the present (Lindgren & Bandhold, 2009). Visions are often uncomplicated and meant to both inspire and articulate a desired future. Both forecasts and visions conceal risks while a well-worked scenario story includes the plausible impacts of such risks (Heijden, 2005). A preferred scenario adapted to a local organization may serve as a vision guiding future change.

Scenarios help leaders at all levels of the organization consider more uncertainty, expand current thinking, and improve long-term decision making. They are being used to

imagine alternative futures in higher education and in libraries; and are valuable in planning because they allow people to see different paths that open the potential for more than one future direction for an organization. Incorporating scenarios into planning can potentially change beliefs and assumptions about work and focus on the strategic development of the organization (Burt, 2003; Burt & Chermack, 2008). Scenarios can also open up new possible futures and help library directors articulate a vision that includes new library service innovations (Jantz, 2012) and demonstrate how decisions made today move toward the future library.

Proposal

Many distance learning library services developed organically in response to colleges and universities offering programs off campus or online rather than being implemented as part of a library's long-range planning. While the literature of the field, conference presentations, and social networking sites highlight the quest for innovative technologies and new ways to provide library services to distance learners, there is little discussion about how distance learning library services envision and plan many years into the future. In addition, the use of scenarios as a planning tool has been limited primarily to research libraries. This study moves the investigation of scenarios as a planning tool into new areas by exploring the use of scenarios to inform strategic planning in an academic library that supports a large distance learning program.

As directors position distance learning library services to support a changing academy, they must, in turn, use new planning tools which allow them to re-think library services and move beyond the image of the traditional library. Scenarios help leaders develop a process that investigates possible futures; identifies uncertainties; and involves staff and librarians at all levels. By exploring the scenario process in a large distance learning library service, this study attempts to demonstrate the effectiveness of the process in long-range planning and, perhaps, provide a model for other similar libraries.

Literature Review

Historical Context

The beginnings of "what if" narrative scenarios come from Herman Kahn and the RAND Corporation (Lindgren & Bandhold, 2009). After World War I, the RAND Corporation used scenarios to research new forms of weapons technology. Kahn pioneered the technique of "future-now" thinking, which is a detailed analysis plus an imagination to write a myth or story as if it were written by people living in the future (Ringland, 2006). Kahn's scenarios helped people break past their mental blocks and consider "unthinkable" futures.

In 1947, Stanford University established the Stanford Research Institute (SRI) to offer long-range planning for business incorporating operations research, economics, and political strategy along-side science and military consulting. The SRI "futures group" began to ask questions and apply scenario thinking to a variety of disciplines to study the

future. These questions were not only related to military and weaponry science, but also led to large-scale educational teaching machine systems in 1973; low-cost 3-D color television in 1977; undersea motels, factories, and recreation centers powered by nuclear power; and commercial passenger rockets going to the moon by 1980 (Ringland, 2006). While top scientists in other companies asked what the world would want and need in the next 20 years, SRI focused on straight-line numeric forecasts and gathered literature on utopias and dystopias from science fiction to create plausible scenarios.

Developing scenario thinking was an incremental step in strategic planning and advancing the leader's view of different possibilities (Swanson, 2008). Peter Schwartz, president and founder of the Global Business Network, believes that when leaders undertake strategic planning, denial acts as an automatic shut-off valve to creativity and alternative solutions (1991). Scenario thinking, therefore, can become a useful part of strategic planning. Early on, Kahn's founding of the Hudson Institute earned him the title of America's top futurist. By the late 1950s, many companies and organizations used scenarios. The work of the Hudson Institute brought the scenario process to corporations such as Corning, IBM, and General Motors.

A great advancement in scenarios and future thinking occurred at Royal Dutch Shell. Pierre Wack and Ted Newland of that company developed scenario thinking at in a critical moment. They had written two future scenarios: one presented the conventional wisdom that somehow oil prices would stay stable; the second outlined a more plausible future—an oil price crisis sparked by the Organization of Petroleum Exporting Countries (OPEC). Despite the managers receiving, reading, and understanding the implications of the scenarios, there was little change in organizational decision making. The breakthrough came when Wack and Newland realized scenarios needed to change management's view of reality—to match it up more closely with the reality as it is, and reality as it is going to be (Schwartz, 1991). With this changed view of reality, Royal Dutch Shell navigated a major oil crisis brought on by OPEC. Shell addressed a broad range of strategic and planning decisions across the uncertainties of time and politics (Koninklijke Nederlandsche Petroleum Maatschappij, 2005).

Scenarios and the Academic Library

Academic library leaders can use scenarios to expand the culture view; the fundamental perceptions, beliefs, and patterns of behaviors and norms; and ways of sense making of staff and librarians (Shepstone & Currie, 2008). A number of articles, research reports, and edited volumes use scenarios to express future directions of academic libraries (Deiss & Giesecke, 1999; Dupuis, 2009; Hardesty, 2002; O'Connor & Au, 2009; O'Connor, Blair, & McConchie, 1997; Reyes, 2006). These writings represent the directions an academic library might take to re-define reference desk service of the future Watstein (2003), portray scenarios as a planning tool in health sciences libraries (Ludwig, Giesecke, & Walton, 2009), or encourage future thinking among libraries within the Association of Research Libraries (ARL) (Staley & Malenfant, 2010). Malenfant (2011) uses scenarios during a planning process which examined how perceptions of disciplinary faculty members can inform and expand academic librarians'

thinking about devising future oriented action plans. Hernon and Saunders (2009) developed scenarios that explore possible relationships between the U.S. government depository program and research universities up to 2023, and Chadwick, DiPlato, Le Conge, Rubin, and Shaffer (2012) did the same for public libraries. Hernon and Matthews (2013) edited a volume that suggests a path for transforming academic libraries and involve national leaders in offering their perspectives on scenarios. When scenarios are used in an academic library setting they can paint a better picture of tomorrow and challenge the status quo (p. 196). As scenarios are used more frequently in academic libraries, Hernon and Matthews caution that organizational leaders need to include the general workforce of a library. By doing so, scenarios will avert being too futuristic, unable to connect with the work in current library organizations.

A workshop on leading discussions of ARL scenarios in university research libraries focused on developing a strategic agenda and aligning organizational planning.[1] Researchers described how scenarios were introduced in their organizations after the workshop and how they were used with the balanced scorecard (Ball, Bowlby, Burri, Lewis, & Mengel, 2012).[2] In 2010, Staley and Malenfant developed 26 future scenarios that represented themes relating to the culture of higher education, demographics, distance education, funding, globalization, infrastructure (e.g., facilities), political climate, publishing industry, societal values, student learning, and the use of technology by academic libraries. In order to make these scenarios actionable in local environments, they asked library directors six, critical questions:

1. "If this scenario were to exist today, would academic libraries be able to leverage it to our advantage?

2. Are the resources, staffing, organizational processes, and strategies available to take advantage of this scenario?

3. If this scenario were to exist today, in what ways are academic libraries currently vulnerable to the change it represents?

4. To what degree do the strategies and underlying values leave library leaders unprepared or unable to respond effectively to the conditions this scenario represents?

5. If all the staffing and resources were available, what could librarians do to leverage this scenario to their advantage?

6. What would need to happen—internally and in the external environment—for this vision to become a reality?" (pp. 21-22)

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[1] In Ludwig & Church-Duran (2012) the two-and-a-half day workshop at Georgia Institute of Technology in Atlanta, GA, March 23 through March 25, 2011, used experiential learning and participants' university research library environments to assessing needs and map out a custom plan on how most effectively to incorporate the ARL 2030 scenarios into current and future planning. The ARL 2030 scenarios did not include the current library in the scenarios.

[2] The balanced scorecard is a strategic planning and management system used in business and industry, government, and nonprofit organizations to align business activities to the vision and strategy of the organization.

These questions encourage directors to think about the current library, its staffing and organizational processes. The fourth question challenges directors to think about the assumptions and ways in which their leadership may not effectively bring about the changes they envision. For managerial leaders, understanding where the money is allocated is important; yet equally critical are thoughtful considerations of how the current human resources and professional development practices help the library arrive at the future scenario. Future stories that allow greater awareness of environmental factors challenge the assumptions of academic and research librarians and may prove critical for improved decision making (Staley, 2012).

As librarians and staff at all levels read the strategic scenarios, they imagine ways the current library may introduce changes to the current organization. Through the discussion with a future scenario librarians and staff may realize the impact their work has on the institution. Research is beginning to show that organizational cultures are less a permanent, manifested phenomena and more of a manipulated asset (Fortado & Fadil, 2012), thus the way library directors use scenarios can contribute to establishing organizational culture norms and beliefs that foster new thinking and approaches to change in the library. Recognizing how the assumptions, values, and beliefs of library directors influence decisions toward organizational change is an important element of establishing lasting change in organizations.

Research Design

Embry-Riddle Aeronautical University's (ERAU) Hunt Library served as the distance learning library site for the use of scenarios in strategic planning. ERAU is a specialized university focusing on aerospace studies and aeronautical engineering. Granting degrees ranging from as associate's degree in Air Maintenance Science to a PhD in Aviation Science, ERAU has two residential campuses and a large distance learning program. The residential campus in Prescott, Arizona has approximately 1,700 students. The other residential campus, in Daytona Beach, Florida, is home to approximately 5,200 students and the university administration. The largest ERAU campus is Worldwide, the distance learning division of the university, which enrolls approximately 25,000 students, who take classes in over 150 centers all over the world or through the online programs. The Hunt Library, located on the Daytona Beach Campus is the library for both Daytona Beach and Worldwide.

The Hunt Library has a staff[3] of 36 librarians and technicians who serve both the residential and distance learning students of the Daytona Beach and Worldwide campuses. In 2010 the library initiated a new cycle of strategic planning in order to ensure that services to both sets of users remained customer-centric as well as to plan for innovation and improvements. Initially the library developed one-year plans with input from the entire staff. The planning was quite successful resulting in the achievement of most annual goals and the development of project work teams designed to support innovation in areas that the majority of staff considered to be high-priority.

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[3] Staff will be used from this point forward to designate the library personnel. The term refers to both librarians and technicians.

In the 2012-2013 academic year, the Hunt Library management team[4] engaged the staff in a set of exercises designed to look further out into the future in order to develop a three-year strategic plan. The first of these, at a staff retreat in December 2012, employed the SOAR[5] method. As a result of this retreat, the management team had some ideas about strategic directions for the three-year plan, but decided that the results tended to reflect the one-year plans the library had developed earlier rather than being as future-oriented at the three-year plan needed to be.

In the spring of 2013, the director read the dissertation of Dr. Jon Cawthorne, the consultant, on the use of scenarios for long-range planning in research libraries. After a discussion with the consultant, in which he expressed an interest in expanding the use of scenarios to other libraries, the director considered that this approach might be the way to help the Hunt Library staff envision a future a little further out than one year. They settled on a date in June for the consultant to lead a scenario exercise.

The Scenario Process

Group Assignments

In late May 2013 the director and the consultant met to discuss the process. The consultant supplied future scenarios he had developed for a conference presentation earlier that year. Each of the three scenarios described a different set of circumstances 25 years in the future. They varied from somewhat bleak to very rosy. The consultant asked the director to adapt the three scenarios to the circumstances of the Hunt Library. The director made the changes and the consultant edited the new scenarios for consistency.[6] They discussed when to make the scenarios available to the library staff and decided that the management team members would see them the day before the staff retreat and everyone else would receive them at the retreat.

Library staff and the Vice President of Student Affairs, to whom the library director reports, assembled for the retreat on a day in mid-June at lunchtime. While everyone else ate, the director and the consultant explained the process. Each of the staff members had been randomly assigned to a group. Members of the management team plus the Vice President of Student Affairs formed another group. Each group was instructed to read the three scenarios; give titles to each; pick the one they liked the best; explain why; and list what was missing. The groups were also instructed to choose a note taker, a culture hawk, who would report on issues created by the predominant culture in the library, and a presenter.

At the end of the brief presentation, the groups were asked to move to various conference rooms throughout the library and take the next hour to follow the instructions

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[4] The management team is comprised of the director and four associate directors.
[5] The SOAR approach begins with an examination of an organization's strengths and opportunities, as does a SWOT analysis. But rather than exploring weaknesses and threats, participants share their aspirations for their preferred future and define measurable results (Stavros, Cooperrider, & Kelley, 2003).
[6] See Appendix A for the text of the scenarios.

the consultant had given them. The director and the consultant walked around to each of the groups to answer questions. They observed some frustration among many of the staff members. Some reported that they barely had enough time to read and digest the scenarios and were not sure how they would accomplish the rest of the assigned tasks in the time allotted.

Inside the Groups

Although the written directions seemed clear, the Associate Director for Research and Worldwide Library Services reported that once the group met they realized there were many unanswered questions. Despite their best efforts, the associate directors had a tendency to try to second-guess what the library director wanted and at the same time align themselves with the Vice President of Student Affairs. This was not a productive outcome. The time went quickly and the directives set forth for this hour-long discussion were not all completed. As the clock ticked, the group rushed through so they would have enough information to make their presentation; thus short changing the process.

The associate directors acknowledged that if they were feeling pressed, having had the chance to be part of the process and read the scenarios a day earlier; their colleagues, who had just received the information, were probably feeling this impact even more severely. One of the staff members supported this assumption when she said that several people in her group were not able to complete the reading of the scenarios in time for the group to get much else done. They also rushed so they would have something to report to the larger group.

Reporting Out

After the hour was up, the groups reassembled and each reported on their discussions. The presenters listed the titles their groups assigned to each of the scenarios and the one they voted as their top choice. There was no clear winner. One group chose Scenario One as the preferred future, while two groups each voted for Scenario Two and Scenario Three. The sixth group developed a Scenario Four, which was a hybrid of the elements they had liked in the three scenarios.

Some of the general comments that arose in the discussion during the reporting-out pointed to some consistency among the groups. While none of the groups completely liked one scenario in particular, there was a great deal of conformity in the elements they liked and disliked in each of the scenarios. Many of the staff members said that despite the rush, the exercise made them feel valued and they believed that their input was important to administration. They also said that the culture of ERAU led them to assume they were being led to the director's preferred decision.

The Vice President of Student Affairs found a large gap in the exercise: the fact that there was no mention in the scenarios of the student of the future and what the projected needs of that type of user might be in relation to the library. Other comments during the discussion touched on the great changes that technology brings to libraries and

the need to build flexibility into planning, collaborate better with faculty, and be aware of the library's impact in the ERAU community.

Specific comments on the scenario process were fairly negative. Everyone said that they had not had enough time to read and digest the scenarios. They stated that they would have preferred to receive them the day before and to have had the roles assigned earlier. Other feedback included:

- No one understood the role of the Culture Hawk;

- The scenarios were set to far out in the future (2025) for most people to comprehend;

- The language and length varied from scenario to scenario and created a bias that suggested staff were being led to a decision;

- Some of the elements, such as eliminating all print books and collaborating with local academic libraries, did not seem plausible;

- A worksheet would have been useful in framing the group discussions;

- Naming the scenarios was fun but it was time-consuming and seemed pointless.

At the end of the reporting-out session, the director and Vice President of Academic Affairs left for another meeting. The consultant led a discussion on the process and staff members were very open about what they stated were the flaws of the experience. Many staff members expressed concern at the decision to keep the associate directors in a separate group. They thought the managers should have been part of the assigned groups. Some of the staff questioned the future of their positions since pieces of one scenario eliminated a current department. The associate directors stated that the unfortunate timing, which resulted in the director being absent from the final discussion, was a misstep.

Rewriting the Scenario

In early July the management team met to discuss next steps. The scenario exercise had frustrated most of the staff and had developed no new information to add to the library's new strategic plan. The team decided to revisit the process and to adapt it according to some of the feedback. The director sent a message to the staff in which she informed them that there would be another staff meeting in July to discuss the scenarios. Prior to that, she would develop a Scenario Four that reflected the most desirable elements of the three earlier scenarios as well as other input from the staff retreat. She also promised that everyone would receive the new scenario prior to the meeting along with some questions designed to help them think about the ways the scenario could be used in strategic planning.

From the feedback the staff gave at the scenario planning retreat, the director drafted a new scenario and named it *The One-Stop Shop*[7]. She shared the draft with the other members of the management team who added their suggestions to strengthen the document. They also worked collaboratively to develop a set of instructions for staff. The new document was distributed several days before the next meeting, scheduled for mid-July.

Before this meeting staff members read the new scenario, discussed it with colleagues if they were so inclined, and had answers to the questions on the instruction page. The response[8] was far more positive than that of the first meeting. For the most part, the staff members were supportive of this vision of the future, which among other things, projected out to 2018 rather than 2025 as the three earlier scenarios had. Many of the new services or operations included in this scenario were attractive to the group. Very few of the envisioned changes were dismissed but some staff asked for clarification on specific changes that would impact them or their departments.

One area that brought up considerable discussion was the items staff members found missing from the scenario. Aside from the perennial request of some staff members to adopt a cat, the missing areas focused on centralization of similar services and increased collaboration with other departments within the university. The last category of discussion centered on the actions the library needs to take in the near future in order to achieve the vision of the scenario. Not surprisingly, many of these included obtaining more financial support, increased staffing, and new technology.

The staff involvement in the development of Scenario Four as well as their response to it achieved the purpose of the exercise. The feedback both complemented and added to the information that came out of the earlier library strategic planning retreat that employed the SOAR approach. Using the results of both retreats, the management team drafted a new library vision, mission, and set of strategic directions that they shared with the staff. From this draft, each department suggested goals for the first year of the new three-year Strategic Plan. The management team took the departmental suggestions and finalized the new Hunt Library Strategic Plan[9] in September 2013.

Discussion

The initial scenarios were adapted from a set that the consultant had created for a conference earlier in 2013. Although not specifically aimed at a research library audience, their focus did stem from scenarios developed for ARL libraries. The director and consultant realized that the scenarios needed some work in order to fit the ERAU audience, but did not seek any advice from senior members of the Hunt Library staff. This led to a bias in the scenarios toward the ideal future the director envisioned as well

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[7] See Appendix B for the text.
[8] See Appendix C for a bulleted list.
[9] For more information on the Strategic Plan, please visit http://library.erau.edu/about/strategic-plan/#strategic.

as to a frustration on the part of the associate directors, who knew little more than the staff and, thus, were not able to answer questions effectively.

The mood in the library during the group sessions at the retreat and the reporting-out period was primarily negative and came as a bit of a surprise to the director. Rather than creating a positive atmosphere in which staff members believed their input about the future of the library was valued, the initial scenario process elicited some anger and distrust. However, the consultant and the director viewed the initial negative feedback in a constructive way and assured the library staff that they would take their input into consideration and make changes in future processes.

In the second phase, the director collaborated with the other members of the management team to craft a new scenario process that proved highly effective. Excluding the associate directors initially was done to allow them the opportunity to react to the scenarios without prior knowledge. While it may have achieved that purpose, it also served to alienate them a bit from the director. This result was far more detrimental to the working relationship of the management team than any positive response to the scenarios warranted. Therefore, the inclusion of the associate directors in the second part of the process was extremely important.

The decision to withhold the scenarios from the library staff until they moved into their assigned groups the day of the retreat proved to have many benefits in the long run. Because of the lack of information, the time constraints and the perceived bias in the scenarios, the frustration level among the staff was very high and the more vocal members expressed their displeasure forcefully. Although the director and the consultant did not enjoy the tone of the feedback, they were both aware of the importance of engaging the staff in a very important discussion. Many staff members voiced their concerns about specific areas of the scenarios and the process itself and their input led to some good revisions to both. In addition, the negative dimensions of the initial scenario process may have created a stronger interest in the future visioning of the library than would have otherwise existed.

The consultant learned from this process as well. It is important for the consultant to address and mange expectations of the library director. Directors have future visions or directions they want to lead their library. Scenarios intentionally introduce future directions that may not fit the current vision or, more importantly, may reveal too much about a particular direction the leader is not prepared to share. Since the director and the consultant wrote the scenarios, an entire scenario planning process was skipped. The skipped process requires staff to start at the very beginning identifying the uncertainties in the environment. These uncertainties led to writing four different stories or narratives of how the future may unfold. If done again, the consultant believes it is better to include all staff earlier in the process. Given all the work it takes to identify four distinct, but plausible stories of how the future may unfold, libraries may need to better understand the steps to scenario planning.

Conclusion

The scenario exercise at the Hunt Library was constructive in a number of ways. Although the director may have started things off on the wrong foot by deciding to withhold information from the staff until the day of the first meeting and by not including the library associate directors in the planning, the results were positive. The Hunt Library Strategic Plan for 2013-2016 is considered to be a vital guide for the near future, not only by library staff, but also by campus administration. In addition, the recovery from the problematic first scenario exercise reinforced to the library staff the importance of their input regarding library planning.

There are many ways to plan for the future of an organization. The scenario process is an interesting one that encourages participants to think outside the box library staff normally inhabit. A scenario exercise can take place at any level of the organization with as few as one participant and as many as the entire complement of the library. The Hunt Library chose the latter approach and it was a good decision. Library staff had several ideas for future adaptations that the library administration and the consultant did not envision.

Further research in this area would be valuable. Up until recently, the scenario approach has been used primarily in large research libraries. Given that the resources and missions of such libraries are quite different from smaller academic libraries, a scenario that would be very effective in future visioning for a research library may fail to achieve the desired results, as was evidenced in this case. In particular, it might be beneficial to investigate scenarios in the planning of other distance learning library services. Much of the predicted change in higher education appears to impact the education of distance learners. Using scenarios may be an ideal way to help plan for new distance learning library services and make improvements in existing ones.

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Appendix A

FUTURE SCENARIOS FOR HUNT LIBRARY 2025

Environmental Overview

During the first 25 years of this century, Embry-Riddle Aeronautical University (ERAU) experienced considerable growth. Academic programs were added at all levels, including ten PhD programs, three of which were unique globally. Programs dedicated to the enhancement of research attracted more students and raised the profile of the university globally. The Daytona Beach and Prescott campuses enrolled enough students annually to maintain financial stability, while ERAU explored the expansion of worldwide locations to increase campus growth, student success and create profit for ERAU.

Overall, higher education institutions faced increasing pressure from state and federal government agencies to demonstrate value. A growing global workforce demands greater accountability for student learning and access to cutting edge research through the long-term sustainability of scholarly communication. These realities forced several smaller colleges and universities to merge, close or increase the numbers of non-traditional students (returning, veterans and online) and international immigrants. Due to faculty retirements—which significantly reduce class availability—the average student needs five or more years to graduate.

The early 21st century saw the arrival of Google, Amazon, and many varied and online search engines, as well as revolutionary products such as the Kindle and iPad, and new teaching models like the Massive Open Online Courses (MOOCs). By 2025, search and discovery was so easy, the value of the physical "just-in-case" library changed to "just-in-time" access. Further, the second decade of the century saw a building boom on the Daytona Beach campus, which impacted the Hunt Library. In 2014 staff and collections moved to temporary quarters while the old building was razed and the new multi-purpose student center was constructed. Access to physical collections was limited and there was no student study space in the temporary quarters.

In the summer of 2017 the Hunt Library staff and collections moved into the top floor of the new student center. Other departments on this floor are the Office of Undergraduate Research, University Archives, CTLE, Starbucks, and a 24/7 open study space. The Hunt Library faced some challenges like pending retirements, increased reliance on technology and accountability in higher education, that were common to academic libraries and unique to their circumstances. The success of the Scholarly Commons and the ERAU institutional repository transforms faculty and student research and attracts consulting work and corporate partnerships. The following three scenarios present a possible snapshot of the library in 2025 based on different ways they operated in this changing environment.

Scenario One

The Hunt Library has become the learning commons popular in the first two decades of this century at other institutions. Although the library is a self-contained unit, there is a lot of interaction among the departments on the top floor of the student center. In fact, many students and faculty consider the whole floor to be one large unit. The library staff provides mediated research assistance to the worldwide campus while continuing to serve the Daytona Beach campus. For example, librarians provided instruction in the classroom buildings and set up satellite mobile research desks in areas of high student concentration. They also focused on building Scholarly Commons into a repository of the best of ERAU research and archives.

Staffing levels are the same, (35-40 staff members and librarians) but many of the jobs have shifted due to significant retirements. These new positions support instructional technology, scholarly communications, and special collections. The research/liaison librarians divide their time between video chat with students and faculty to consult on research requests, embedding instructional sessions in courses, and assisting the scholarly communications staff. Electronic and technical services staff focus on providing instant access to the primarily electronic collections. The main thrust of the circulation department is the maintenance of a massive textbook reserve collection in addition to building security; inter-library loan facilitates access to ERAU legacy print collections; and the work of Media Services has been absorbed by IT. Staffs are content with the stability and predictability of the Hunt Library. Library administration provides funds for professional development and training opportunities outside the library for the transition to new positions.

Scenario Two

The library maintains a service desk in the open study space on the top floor of the student center, but that is all that resembles a traditional library. The desk is cross-staffed with highly trained personnel from the Office of Undergraduate Research, University Archives, CTLE, and Starbucks. As in-person business decrease, demands for electronic collections and services expand, yet due to the excellent service, patrons are often seamlessly connected with research librarians virtually when they need more detailed assistance. The library staff began to focus on service to worldwide start-up locations to the exclusion of much else. They reasoned that any services and collections they developed for Worldwide would also help Daytona Beach. They also focused on building Scholarly Commons into a repository of the best of ERAU research and archives. Other than small collections of unique aviation print materials, the physical materials were sold or donated. New materials were collected in electronic format and the special collections were digitized.

Staffing levels, while they are the same as they were in 2010, the staffing patterns have shifted. Many of the jobs that supported a physical library are no longer needed in the virtual environment. Most departments lost staff or morphed entirely into new areas, such as scholarly communications, while the research department doubled in size. The

focus of the majority of librarians and staff is 24/7 virtual reference and instructional support and creating specialized learning objects upon request. Circulation, cross-staffing staff at the desk handles the large number of internal to ERAU and external ILL requests. Ordering and processing of new materials is all electronic so one acquisitions technician remains of the old technical services department and access to collections falls to electronic library services. Staffs are active, engaged and responsible for their collective professional development. Library administration only provides professional development and training to help staff improve the user experience online and in-person.

Scenario Three

All of the departments on top floor of the student center recognizing the important connection to not only their work, but decreasing the duplication within the space they would inhabit in the new building. The result is a collective academic support area designed to offer visitors the instructional and research experience they need. Highly trained library technicians, or students, who direct visitors to the service or resource that best matches their need, staff a reception desk at the entrance to the floor. The physical layout of the library public space encourages discussion and collaboration among students and faculty. The easy flow from the library space to the Office of Undergraduate Research or CTLE enhances the access to the professional advice students and faculty need as they share old and create new knowledge. The coffee shop, located in the open study space is constantly busy. The collections supporting instruction and research are now primarily electronic. However, the library maintains a core collection of physical materials in aviation science and has been designated an official repository in this subject area. The special collections and university archives share an inviting and climate-controlled area within the library proper.

In-person demand for physical collections and services fell off during the 2014-2017 period in temporary quarters. Library staffs focused on virtual service and instruction and collaborate with the libraries at Daytona State College and Bethune-Cookman University. In exchange for the Hunt Library taking on some of the virtual reference demand at the other two institutions, BCU and DSC offered study space and access to general physical collections to ERAU students and faculty. ERAU receives worldwide attention for the ways in which the Hunt Library staffs focus on the mutual needs of surrounding institutions.

Library staffing levels are the same as they were in 2010, but the jobs have shifted and staffing levels fluctuate to support digital scholarship and new forms of scholarly communication. New technologies have contributed to efficiencies and library staff skills focuses on supporting scholarly communications initiatives and the ERAU research agenda developed. This research agenda influences a interdisciplinary digital consortia of university archives. While still maintaining the collections access through a print on demand university press, the Hunt Library organization also supports teaching and learning at ERAU and is viewed as integral to the advancement of ERAU as a research university. Staff are recognized and sought-after worldwide for their expertise and knowledge of the new library model. Library administration splits the professional

development and training proceeds with staff to champion innovative thinking among Daytona Beach faculty departments as well as worldwide campus locations.

Hunt Library

Strategic Plan – Scenario Exercise, #2

Instructions

1. Print the scenario.
2. Read it before the meeting on July 16.
3. Cross out anything you do not like.
4. Highlight any items that you especially would like to see realized.
5. Write down anything you think is missing from this future:

6. Write down what you, your department, or the library would need to do to realize the new things you like the best in the scenario. (Please keep in mind that this includes hiring new staff!):

Hunt Library -- 2018

Environmental Overview

Embry-Riddle Aeronautical University (ERAU) experienced considerable growth in the twenty-first century. Academic programs were added at all levels, including new PhD programs, one of which is unique globally. In 2012 the university embarked on a five-year plan to increase undergraduate research as part of their accreditation cycle. Programs dedicated to the enhancement of research attracted more students and raised the profile of the university. By 2018, the Daytona Beach and Prescott campuses enrolled enough students annually to maintain financial stability, while the Worldwide campus continued to expand program locations and online courses.

The early twenty-first century was also a time of rapid change for higher education in general. New technologies, such as Google, Amazon, as well as online search engines and discovery tools, appeared on a regular basis and impacted students' research and study habits. Other new technologies included tablets, e-readers and smart phones, enabling students to access information and remain connected at all times. Social media brought people together in new ways and faculty experienced innovative teaching models like the Massive Open Online Courses (MOOCs) and open-access publishing. In this environment of ever-increasing technology and instant access to information, many people, including faculty and administrators in higher education, considered the academic library a thing of the past. They believed that everything was openly accessible online. As a result, academic libraries began to experience an erosion of their funding levels and position in their institutions.

The Hunt Library at ERAU was similar to many U.S. academic libraries during this period. Serving the residential Daytona Beach campus and the Worldwide distance learning campus, Hunt Library staff took pride in their customer service and kept up with technological innovation to the best of their ability given constraints imposed by funding and the policies of the University Information Technology (IT) department. Satisfaction surveys and anecdotal evidence convinced the staff that the students and faculty, who visited the building and used the services and resources, were pleased with the high level of service. However, administrators and some members of the faculty had begun to publicly question the viability of the library in the long-term since they believed most information was online.

In 2013 the university administration decided to locate a long-planned student services center on the spot that the Hunt Library building had occupied since 1985. They also agreed that rather than construct a new library, they would situate library services in the new student services center. To accomplish this, the library was moved to temporary quarters for the three years of demolition and construction beginning in 2014. During the construction period, access to some library physical collections was limited due to space restrictions and student study space was inadequate. Staff members were separated into three locations, one group with the collections and public services functions, one in a singular classroom module nearby, and the remainder in an office building about ten-minutes' walk away. In the summer of 2017 the Hunt Library staff and collections moved into the top floor of the new student services center. Other departments on this

floor are the Office of Undergraduate Research, University Archives, Starbucks, an IT-supported computer lab, and a 24/7 open study space. The following scenario presents a possible future for the Hunt Library of 2018.

Scenario Four: One- Stop Shop

The Hunt Library has become the learning commons popular in the first two decades of this century at other institutions. Although the library is a self-contained unit, there is a lot of interaction among the departments on the top floor of the student services center. All of the departments recognize the important connection they have and work to decrease the duplication of effort in the new building. The result is a collective and collaborative academic support area designed to offer visitors the instructional and research experience they need. A reception desk at the entrance to the floor is staffed by highly trained library technicians or students, who direct visitors to the service or resource that best matches their need.

The physical layout of the library public space encourages discussion and collaboration among students and faculty. The easy flow from the library space to the Office of Undergraduate Research or the University Archives enhances the access to the professional advice students and faculty need as they share old and create new knowledge. Student use of the library and its resources grew exponentially in the first few months of the opening of the new student center. Library hours were extended beyond those of the old building and temporary quarters and students fill the private study areas, group labs, and open space all the time.

Most of the library's information resources are electronic and accessible anywhere at any time. The physical collections that remain in the library are related to the primary curricula of ERAU since the Hunt Library has been designated a national repository for aviation science books and NASA documents. The special collections reside in a glassed-in area that is climate-controlled and secure. Tables and chairs inside the enclosure are used by researchers seeking the primary sources housed in this area. This part of the library space is adjacent to the University Archives.

Staffing levels have not changed much in the twenty-first century (35-40 staff members and librarians), but many of the jobs have shifted due to significant retirements and new responsibilities for the library. These new positions support instructional technology, scholarly communications, and special collections.

The Research Librarians continue to provide mediated research assistance to the Daytona Beach and Worldwide campuses and have evolved into the primary research and information resource for university administration. They provide library instruction in the state-of-the-art library multimedia lab, in departmental classroom buildings and through the Worldwide online course delivery system, with the help of Instructional Technology Librarians. Research Librarians also offer consultations to students and faculty in the library, through video chat, and at satellite mobile research desks in areas of high student concentration.

Electronic and Technical Services staff focus on providing instant access to the primarily electronic collections on the state-of-the- art devices students favor. Electronic Services staff support the technology within the library proper work with the Instructional Technology and Research Librarians to maintain an effective web presence. They also collaborate with IT staff who take care of the technology in the 24/7 lab also on this floor. Technical Services staff continue to acquire new materials and ensure discovery in the new ILS they maintain. They also process and catalog the increasing special collections of aviation-related print materials the library obtains.

The main thrust of the Access Services department is the maintenance and support of the electronic textbook reserve collection, access and control of the library Special Collection, building safety and security, and assisting with the development of streaming media to support instruction and highlight research.   Inter-library loan facilitates access to ERAU legacy print collections and provides enhanced document delivery.

The Scholarly Communications department, which evolved out of the old Preservation Team, has successfully digitized the special collections of the ERAU libraries and the University Archives. In addition, the librarians and staff have assisted the majority of faculty and many students to contribute to Scholarly Commons, begin new journals, and publish books. As a result, ERAU established a university press in 2016 that resides in the library. The librarians also offer their expertise to other institutions seeking advice on preservation and scholarly communications issues.

In 2018, library user satisfaction is still high, but there are now many more ERAU students, faculty and administrators who regularly consult the library first for their information needs. As the library extended its mission to include championing and facilitating open access to faculty and student research, ERAU attracted more attention globally as being far more than a flight school. This increased profile for the library drew in users who explored and took advantage of the expert research help and the information resources that the library selected and made accessible for the ERAU community.

Library staff members are content with their work and proud of their accomplishments. Although some jobs changed, the library administration provided professional development and support for acquiring new knowledge and skills' sets. These days, the ERAU library is often mentioned with pride in the public communications of the university administration and is beginning to be recognized in the U.S as a leading academic library.

Appendix C

Scenario Exercise #2

Likes

- Repository
- University Press
- 24/7 Open Study Space
- State of the art multi-media lab for instruction
- Collaboration with other departments on same floor
- Video chat
- Extended Library hours
- One desk for triaging – not necessarily staffed by Library staff
- Climate control for special collections
- Physical layout of Library that encouraging discussion and collaboration
- New ILS and IMS
- Greater IT role
- Special collection adjacent to archives
- New staff positions created
- Electronic textbook reserve
- Administration providing professional development opportunities
- Sharing our digitization knowledge
- Instructional electronic librarians separate to research librarians
- Library staff proud of their work and accomplishments

Dislikes/Clarifications

- Clarify safety and security responsibilities, including whether for whole floor or just Library
- Clarify how fragile and special collections will be taken care of
- Increased profile drawing in what kind of users? (page 4, final para)
- "Easy flow from Library to OUR - like a shopping mall? Yes …
- 24/7 staff to include IT experts ?
- Language in first sentence of Scenario … sounds like we're playing catch-up. Comments: we should make ourselves indispensable to student community and aspire to the now in the Scenario.

Anything Missing?

- Conservation of print materials
- Diminishing print collection/growth in electronic material. How to handle? Comments: will still buy print collections requested. Success could increase print collection?
- Not much focus on Prescott despite talking about increased collaboration

- Might need to work with development office to make sure we have funding
- Centralized printing service
- Centralized document delivery
- More compact shelving, floor to ceiling shelving to accommodate more
- Strive to be leader in distance learning added to final paragraph?
- Collaboration with existing university and other press?
- Library cat!
- How to support some of the open access teaching models like the MOOCs?
- Where would electronic library technicians fall in hierarchy?

Action

- More staff, equipment, room
- Training – every aspect
- Institutional administrative support
- Needs for logistics of teaching classes outside the Library
- New technology
- Immediate marketing, budgeting
- New service models
- Liaison service between departments on the same floor/points of contact etc.
- Consultation with other libraries who have had to re-locate
- Get involved in fundraising and development so Library voice is heard. Have a separate 'development' position?