University of Arizona Libraries Initiates Successful Partnership with Campus Commercialization Unit: A Case Study

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Introduction

The University of Arizona (UA) Libraries initiated and formed a relationship with the commercialization unit on campus, called Tech Launch Arizona (TLA). The goal of this partnership is to provide decision support for UA individuals and teams working to bring University of Arizona intellectual property to market (TLA, 2015). In 2014, the partnership was formalized between the two entities as the Tech Launch Arizona Business Intelligence Unit (BIU). The BIU is made up of a cross-disciplinary team of professionals from TLA and librarians from the University Libraries who focus on the research, aggregation and summarization of actionable information for teams working toward protecting and patenting inventions, developing effective commercialization plans, and starting companies. The librarians involved in this work each hold expertise in a variety of areas including: business, competitive intelligence, market research, medical devices, engineering, pharmaceuticals and health sciences. This work is recognized by the UA Libraries’ leadership and campus as being critical to the library’s success and an area for growth; and ultimately supports the strategic plan of the university. Lessons learned, preliminary successes, and future opportunities identified for the library from the early stages of implementation, will also be presented.

What is Technology Transfer?

Technology transfer is the process of transferring scientific findings from one organization to another for the purpose of further development and commercialization, according to the Association of University Technology Managers (AUTM). University technology transfer offices collaborate with researchers to identify novel technologies with commercialization promise, provide counsel on patent and copyright protection, and develop plans for future technology growth (AUTM). These offices act as campus-based “accelerators,” incubators, and proof-of-concept programs to help advance technology and boost fledgling start-up companies.
They offer resources for connecting investors and industry partners to inventions, as well as link faculty to domain experts to assist with development of fledgling inventions.

In order to successfully bridge the gap from invention to commercialization, technology transfer offices employ professionals who understand local and regional economies and who can establish university–private sector relationships. Nationwide, university technology transfer efforts facilitated the launch of over 671 companies and 591 new products in 2011 alone, and support an estimated 3 million jobs (AUTM). Technology transfer incentivizes the transfer of technology to the private sector for job creation and local business development; an estimated 73% of all startups form stay in the state in which the technology was developed (AUTM).

**Library Partnership with Campus Commercialization Unit**

The newly recharged TLA was created in 2012 and includes the Office of Technology Transfer, University Research Parks, Commercialization Networks and Operations, the Wheelhouse Proof of Concept Center, Corporate and Business Relations, and a number of License Agents who are embedded in colleges or research units. TLA’s primary goals are to drive economic development in Southern Arizona and create new revenue streams for the campus (TLA, 2015).

Two of the authors began working at the University of Arizona in 2012 in a department whose effort was to systematically assess the information needs of faculty, students and staff in departments and campus units (Feeney, et al., 2013). This work involved meeting with faculty and staff about needs, and publicly available information such as strategic plans, web sites, etc. The end goal of this work was to inform and shape future library products and services to meet information needs of student and faculty (Feeney et al., 2013). The insights that this department provided to the library were to inform those in roles who did not have high touch work with their customers, but who needed to understand how users were interacting with the library to improve existing services and develop new ones.

Concurrently, the University of Arizona technology transfer office was in the process of revamping its department. Two of the authors met with the new unit head to gather information about how the library could work more closely with the technology transfer unit and learn more about how the unit was getting its information needs met. The librarians recognized this as an opportunity for the libraries to further engage and collaborate with the campus commercialization unit. The librarians approached the newly formed Tech Launch Arizona (TLA) technology transfer unit with the idea, and soon after, the librarians had the support of the Dean of the UA Libraries and TLA to launch a pilot partnership, and the collaboration of two additional librarians working in health sciences.
In February 2014, the Business Intelligence Unit (BIU) was formed. The BIU model is a cross-disciplinary team of professionals from TLA and the University Libraries associated with Wheelhouse Arizona, as previously mentioned. The work of the TLA BIU is essential to TLA’s mission by contributing to development of market feasibility strategies for technologies. The result of this work includes: cited market and industry research summaries for pinpointing potential markets for a technology, developing an understanding of the value proposition and commercial potential of the technology to the marketplace, and identifying potential gaps in the marketplace. TLA’s commercialization process consists of three distinct stages: market and intellectual property assessment; determination of commercial potential; and preparation of the company or transfer of the technology. Within each stage, the BIU plays an important role in supporting the efforts of the TLA Tech Transfer and Wheelhouse teams. Providing information such as industry research, market research, competitive analysis, business intelligence, opportunity identification, and network associate identification enhances the ability of TLA make high-quality decisions.

**Collaboration between Librarians across disciplines**

Librarians meet bi-weekly with the TLA Wheelhouse as members of the Business Intelligence Unit to review progress of existing projects and discuss the needs for emerging projects. On average, each project output from the Libraries requires 10-12 hours to complete. This includes an initial conversation discussing questions posed by TLA colleagues, conducting a literature search, reviewing the relevant articles and reports, and the writing up summaries of data and analyses based on an iterative open dialog between librarians and TLA staff. Seventy percent of all projects originating out of TLA BIU have a biomedical component; health sciences and business librarians working together are key to the success of this work. The needed skill sets are often spread across more than one librarian, and have included deep subject and technical expertise, market research, literature and patent searching skills, and excellent reference interview skills. For example, librarians work together to provide information decision support for a technology that enhances drug delivery for patients. This type of project requires extensive technical expertise to search biomedical databases for articles describing the relevance, efficacy, and patient need of the technology. At the same time, another librarian with business expertise scans the market landscape to identify competing technologies, potential opportunities for partnerships with an existing company, or finding openings for commercial potential. This internal collaboration between librarians allows for the librarians to focus efforts, capitalize on existing skill sets, and help deliver a fuller information picture for TLA BIU.

**PRELIMINARY SUCCESS**

The collaboration has seen some successes realized thus far. The first successful start-up project to have come out of the TLA BIU collaboration was for a novel chemical synthesis involving glycolipids technology, and was licensed to start-up, and entered the marketplace as
the company Glycosurf (TLA, 2015). The TLA BIU helped to identify application and business opportunities for this new company. The TLA BIU collaboration supports faculty, students and staff in teaching, learning and research capacities, and is part of the University of Arizona Libraries Strategic Plan 2015-2018. Strategy No. 4, Innovating, states the following initiative: “Provide market research and competitive intelligence to Business Intelligence Unit of Tech Launch Arizona’s Wheelhouse.” This initiative directly correlates to the land grant mission of the University of Arizona, as well as the “Never Settle” campus strategic plan for support of innovation. In April 2015, the librarian team was awarded the 2nd ever “Tech Launch Arizona Innovation and Impact Award” for their efforts, thus further demonstrating the importance of this work to the campus community.

**What We Have Learned And What Remains Challenging**

Staying flexible and taking a “let’s see what evolves” approach with this type of work is imperative. Initially, TLA followed the start-up business model of iterative changes, and are quite entrepreneurial in their approach. Many of TLA’s processes changed rapidly as it learned what was needed by both the market and the campus to be successful. Librarians working with TLA needed to adapt to the start-up style of working as well as working with each other. All of the librarians working with TLA had experience working in industry earlier in their careers, and were comfortable with the ebb and flow of the work, rapid change, and managing a certain level of ambiguity.

To keep up with the changing needs of TLA, the librarians need to be in constant communication. One of the early challenges the librarians faced was how to divide up the work. The librarians reside in different departments, so collaboration is key to making this partnership work. The majority of projects are health sciences related, and those projects are allocated to the health sciences librarians first, and the other topical projects related to basic research science, such as optics and engineering, are triaged to science, business and marketing librarians. The team is responsible for identifying who should take each project. This is not a straightforward process, but one that takes odd turns and sometimes u-turns to complete. Work distribution is usually allocated by expertise in a particular subject area, but depending on the needs and turn around time of each project, librarians may share work in order to complete the project. The workflow is still forming and is not completely streamlined. Each librarian is considerate of each other’s current workload, and negotiates effort with each other. It is not a perfect process, but discussions are underway for improvement.

The University of Arizona Libraries and TLA are in ongoing discussions to address the challenges of allocating resources to meet future needs. The topics include developing a plan for funding and new additional information resources, and what other resources could potentially fit the information needs for future projects. As information professionals, our position gives us an opportunity to demonstrate leadership in this area, and an advantage in monitoring products and resources, and suggesting which items to investigate. In turn, TLA provides user feedback on information resources that they have found useful and helpful when conducting initial research. User feedback is valuable for information professionals, and especially helpful working towards a common goal.
Future Opportunities

It is important for the librarians to continually assess the technology transfer landscape, local TLA unit needs, and trends affecting this work. Professionals from TLA and UA Libraries meet periodically to further examine and address topics such as: capacity, workflow, resources, and additional needs. Regular communication between parties assists UA Libraries to plan for the volume of TLA projects that could benefit from information services, determine level of disciplinary and service expertise required, and identify how UA Libraries could best provide services at appropriate points throughout TLA workflows.

One of the areas that can be further developed is to provide targeted training for TLA professionals and students on specific resources that the library makes available to its users. The librarians have provided some basic business database training for graduate students working with TLA, but it has been limited, and not programmatic in approach. In addition to the overview of business resources, the librarians developed training in the health sciences databases as well as other resources to meet the needs of TLA projects. Graduate students conduct research for TLA with backgrounds in biomedical engineering, molecular and cellular biology, optical sciences and medical physics. These students may be familiar with some resources, but may not be aware of other resources available, and effectively navigate these tools to their full advantage. As instructional librarians, the training provided to key specialized resources complement the basic business research training. For example, the health sciences librarians compiled a list of key resources that would be helpful for the students and staff who are scanning the drug and medical device marketplace.

As the TLA BIU partnership moves forward, the librarians are focusing on common workflows and further embed in TLA’s workflows. One internal next step is to define a shared support model for science and health sciences librarians that include workflows, staffing, communication, and responsibilities. As a result of ongoing discussions of the process, the librarians have been invited to attend the weekly “round table” meetings at TLA. These round table discussions cover one or two new potential projects. Up to this point, the librarians have not been involved on this level, and this demonstrates the importance of the work that the librarians bring to the effort.

Not only is this partnership demonstrating the importance of the information professional, but also highlights the collaborative efforts of UA Libraries and Tech Launch Arizona. This partnership is revolutionary, and non-typical for academic libraries. Librarians are not seen just as librarians conducting research, but as collaborative partners engaged in the common goal. This partnership requires engagement and confidence at the leadership level of both the library and the technology transfer units to be successful.

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Endnotes


