Chapter 4
The Library as a Center for Innovation:
A Collaboration at the University of Maryland

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ABSTRACT

The University Libraries have formed a strategic alliance with the Academy of Innovation and Entrepreneurship at the University of Maryland to develop library services and spaces to support student innovation and entrepreneurship. In Fall 2014, the Library opened a new state of the art "makerspace" that was developed via joint planning fundraising. In addition, the Libraries and the Academy are exploring further development and expansion of existing spaces in the library to support innovation, creativity, design-thinking, and entrepreneurship. This chapter situates this case study in the current literature of how academic libraries support innovation and entrepreneurship. Furthermore, it discusses how libraries can initiate and develop similar relationships on campus to assist in the creation of similar programs and services. This includes a discussion of best practices about joint fundraising. Finally, it discusses how "makerspace" services and spaces can be used to facilitate student learning as well as innovation and entrepreneurial activities.

INTRODUCTION

Over the past several years, more and more libraries have opened "makerspaces" or "hackerspaces" as a way to offer their communities access to tools and opportunities to create new things. Many of these new spaces are appearing in public libraries. The American Library Association discusses that "makerspaces may provide libraries with new opportunities to further technological innovation and entrepreneurship in the community." Access to new tools, equipment, and spaces to foster collaboration are creating communities of makers. These communities offer users to 'tap into different skills sets and knowledge levels,' and have become as valuable as the tools themselves. (American Library Association, 2015). By

late 2014, over 40 percent of libraries offered makerspaces and an additional 36 percent were planning them (Library Research Services, 2014). These makerspaces are providing children and K-12 students with greater opportunities to develop skills and engage in active learning activities. Growing national interest in the "maker movement" increased when the White House hosted the first-ever "Maker Faire" in June 2014 (Urban Libraries Council, 2015).

Makerspaces are now becoming increasingly popular in academic and research libraries as well. Two recent articles in the *Chronicle of Higher Education* highlight the rise of entrepreneurship programs and the "maker movement" on college and university campuses (McMurtrie, April 20, 2015; Carlson, April 20, 2015). The growing number of entrepreneurship programs is an indication of efforts to respond to critiques that colleges are universities are not preparing graduates with relevant skills for the workforce. There is widespread support for these efforts among students, faculty, administrators and alumni. Administrators view entrepreneurship programs as a "form of experiential learning as a way to prepare students for an unstable economy in which on-the-job training is increasingly rare," while, for students, these programs offer more creativity and independence than other more traditional types of programs. For faculty, entrepreneurship programs provide opportunities for greater student engagement in applying classroom learning. These programs are also attractive from a fundraising perspective because successful alumni who have developed their own businesses are supportive of these efforts (McMurtrie, April 20, 2015).

A 2015 report by Kauffman: The Foundation of Entrepreneurship outlines the growth of entrepreneurship programs. In 1985, there were only 250 such courses; by 2008 this figure had risen to 5,000 courses enrolling more than 400,000 students per year (Ewing Marion Kauffmann Foundation, 2015). According to this report, millennial students are driving this rise: they came of age as the IT revolution and the Internet arose; they have high levels of exposure to entrepreneurship and to media coverage of success stories; and they have high levels of educational attainment (Ibid, 2015). In 2011, 16 percent of college and university graduates started their own businesses upon graduating, up from 5 percent in the early 1990s (Ransom, January 2, 2013). All of these figures indicate a growing interest in entrepreneurship on college campuses.

In addition to entrepreneurship courses and programs, colleges and universities are supporting entrepreneurship and innovation through new administrative offices, research centers, undergraduate learning communities, and "makerspaces" as well as a multitude of workshops, extracurricular programs and events (McMurtrie, April 20, 2015). The creation of specialized spaces to support innovation is skyrocketing on campuses. These makerspaces, sometimes called by other terms such as "hackerspaces," "innovation centers," or "fab labs," typically house equipment and tools including 3D printers and scanners, electronics and circuit boards, woodworking and metal tools, fabrics, paint and other tools to design and develop new products. These facilities also often include collaboration and teaching spaces. Makerspaces provide students with a place to engage in creative activities with other students from a variety of backgrounds and disciplines. These spaces also offer students and faculty a mechanism for teaching and learning about vital workplace skills such as teamwork, independence and problem solving (Carlson, April 20, 2015). There are a multitude of examples of prestigious colleges and universities creating such spaces over the past few years, including MIT, Georgia Tech, North Carolina State University, Case Western Reserve University, Northwestern, the University of Arizona, and the University of Nebraska, among many others. As these new programs and spaces are being developed, academic libraries are creating new programs and services to support these efforts, in addition to providing specialized spaces for innovation and entrepreneurial activities. Libraries have long been champions of collaborative learning spaces via

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