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Intellectual Entrepreneurship: A Frame for Engaging Undergraduates in Scholarly Communication

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Intellectual Entrepreneurship: A Frame for Engaging Undergraduates in Scholarly Communication

By Stephanie Davis-Kahl

Introduction

Intellectual Entrepreneurship (IE) is a useful frame for librarians in general, and has special resonance when considering issues of and advocacy for open access and public access.

As Cherwitz states,

“The aim of intellectual entrepreneurship is to educate ‘citizen-scholars’ – individuals who own and are accountable for their education and who utilize their intellectual assets to add to disciplinary knowledge and as a lever for social good.” (Cherwitz, 2000)

IE serves as a bridge between academia and community, connecting the two entities and creating reciprocal relationship between students who apply their knowledge, and community partners, who benefit from the students’ involvement and provide a real world outlet for learning. The “social good” aspect of IE aligns it well within the social justice aspect of open access and public access. The “disciplinary knowledge” aspect aligns well with efforts to bolster public support for liberal education and higher education; it also connects directly to librarians’ work with information literacy, data management, reference/consultation models, and collection development. Librarians are agents of IE themselves by training and ethos, “a good heart and an organized mind,” (Gorman, 1982). The mission of libraries is to provide access to information and knowledge, and to provide an environment in which user choices are protected – all align with knowledge and social good. As intellectual entrepreneurs, librarians are perfectly situated to help students and faculty’s development as intellectual entrepreneurs in their own right, in thought as well as in deed. This chapter will discuss the opportunities for bringing together

scholarly communication and IE, specifically for an undergraduate population at a liberal arts college.

What is Intellectual Entrepreneurship?

IE is a major initiative founded and led by Professor of Communication and Rhetoric Richard Cherwitz at the University of Texas at Austin. The program is characterized by a broad approach to the word “entrepreneurship.” As Beckman and Cherwitz note, “These idiosyncratic definitions of entrepreneurship also underscore a fundamental tension with the term. A conscious acknowledgement of the problems with defining entrepreneurship in material/financial terms has spawned these grammatical shifts, broader conceptions of what entrepreneurship could mean for higher education and a need for overarching philosophy of practice.” (Beckman and Cherwitz, 2008, p. 90) IE is grounded in the belief that higher education can and should play a positive role in community development and outreach, and through IE, students can connect their classroom experiences and learning with issues within the community, helping to work towards resolutions. IE is way of seeing higher education and community engagement as mutually beneficial and increasingly necessary.

There are several types of entrepreneurship, as shown below in a chart created by Professor Jeanne Koehler, Southern Illinois University School of Medicine:

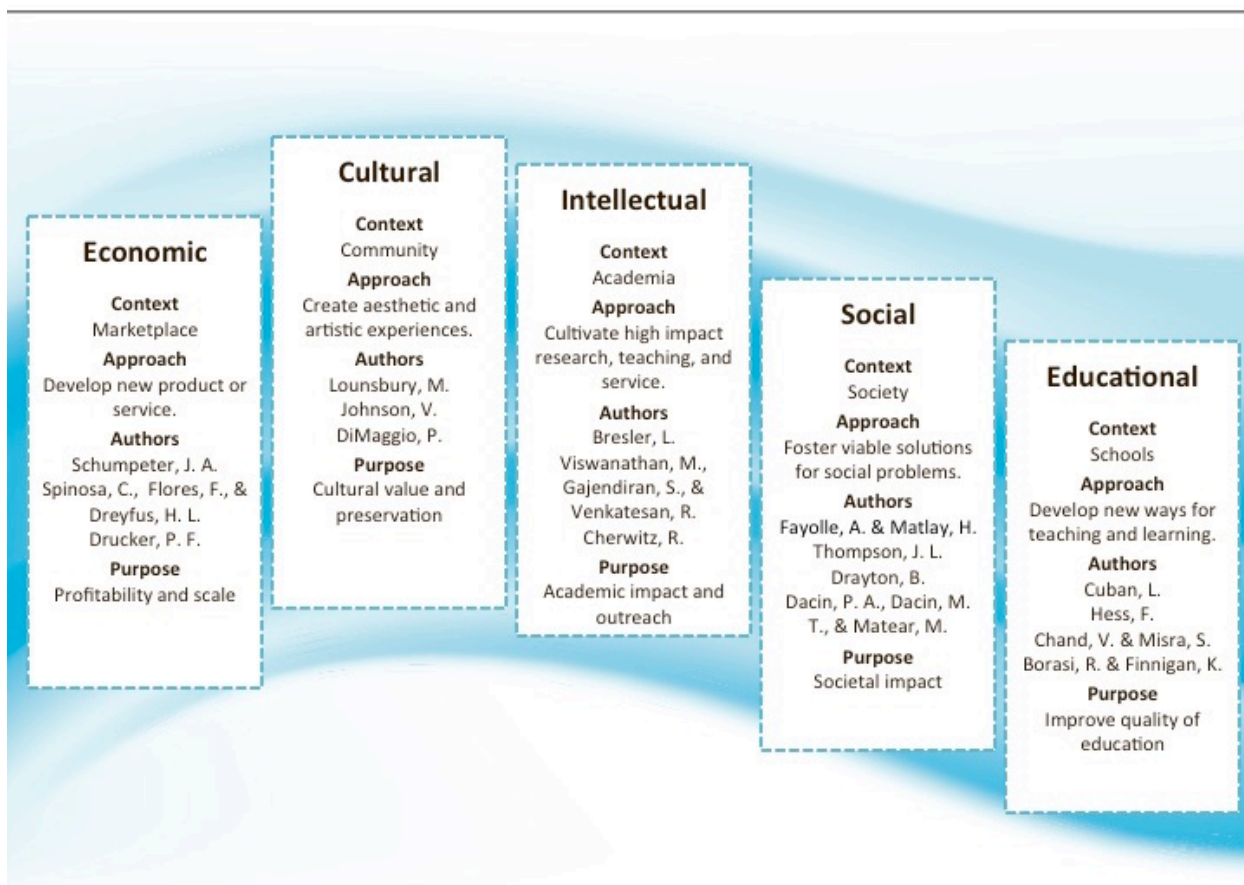


Chart by Jeanne Koehler, Ph.D., used with permission.

Diversity within the definition and concept of entrepreneurship only strengthens Beckman and Cherwitz's argument that entrepreneurship includes, but goes beyond, a definition situated in the business world. The chart also demonstrates the scholarship devoted to expanding and extending definitions of entrepreneurship; and in searching the literature of various disciplines, we see that entrepreneurship is present in such varied fields as art and design (Levick-Parkin, 2014), higher education (Jansen et al, 2015 and Chia, 1996), anthropology (Fayolle et al, 2014), literary studies (Haveman, Habinek and Goodman, 2012), medicine (Eyre et al, 2015), psychology (White, Thornhill and Hampon, 2007), management (Ogilvie, 2015) and urban studies (Freire-Gibbs and Nielsen, 2014).

IE, specifically, as a philosophy, is an alluring combination of the pragmatic and the ideal; it is:

[...] premised on the belief that intellect is not limited to the academy and entrepreneurship is not restricted to or synonymous with business. Entrepreneurship is a process of cultural innovation. While the creation of material wealth is one expression of entrepreneurship, at a more profound level entrepreneurship is an attitude for engaging the world. Intellectual entrepreneurs, both inside and outside universities, take risks and seize opportunities, discover and create knowledge, innovate, collaborate and solve problems in any number of social realms: corporate, non-profit, government, and education.” (Cherwitz, About IE)

IE speaks at once to “humanist traditions...the liberal arts...[and] the need for thought and reflection in the midst of the world of action.” (Beckman and Cherwitz, 2008, p. 98) It speaks also to pedagogy and teaching, of creating environments in which students are “agents of change who own, are accountable for and put their knowledge to work for the betterment of themselves and society.” (Beckman and Cherwitz, 2008, p. 99) It is characterized by words we hear often in higher education, especially when discussing outcomes for students: discovery, engagement, integrative thinking, collaboration, ownership, and action. All of this is conceived in an environment where the student moves from the classroom into the community and back again, bringing together what they know into what they do with community partners. As Cherwitz states, “Complex problems cannot be solved by any one academic discipline or institution. Answers demand collaboration and joint ownership of learning among universities and the public and private sectors. Such an approach rejects the typical elitist sense of “service,” where

universities are the sole proprietors of knowledge, contributing to society by promising “access” and “knowledge transfer.”” (Cherwitz, 2005, p. 69)

Intellectual Entrepreneurship and the Framework for Information Literacy in Higher Education

The idea of educating citizen-scholars that collaborate with communities to solve problems should resonate strongly with us. As a profession that prides itself on openness and has provided leadership for IL, IE is extremely compelling. IE also fits well with the *Framework for Information Literacy in Higher Education* (hereafter referred to as “the *Framework*”), adopted by the Association of College & Research Libraries (ACRL) Board in early 2015. The introduction to the *Framework* notes “Students have a greater role and responsibility in creating new knowledge, in understanding the contours and the changing dynamics of the world of information, and in using information, data and scholarship ethically.” (ACRL, 2015) This is parallel to IE’s focus on students as active participants in the community, as a partner with a specific knowledge set and an investment to the community’s health and success.

IE and the vision of IL presented by the *Framework* intersect in several ways. First, both stress learning and behavior; IE with its emphasis on disciplinary knowledge, and the *Framework* with its focus on “knowledge practices,” defined as “demonstrations of ways in which learners can increase their understanding of these information literacy concepts.” (ACRL, 2015) Second, both aim for a shift in what the *Framework* calls “knowledge dispositions,” defined as “ways in which to address the affective, attitudinal, or valuing dimension of learning,” (ACRL 2015) directly in response to their experience in the community (IE) or during the research process (the *Framework*). Third, both IE and the *Framework* are discipline-agnostic. Both the main definition of IE and the six concepts making up the *Framework* can be applied to any and all disciplines, as well as interdisciplinary studies. Both function as a student-centered

foundation for learning and for application, practice and experimentation; both emphasize integration. The definition of IL is based on integration in the *Framework*: “Information literacy is the set of *integrated abilities* encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning.” (ACRL, 2015, emphasis mine). IE, by insisting upon a reciprocal and equal relationship between knowledge and experience, also uses integration as an indicator of success. Fourth, both IE and the *Framework* can be practiced anywhere in the curriculum, by any level of undergraduate or graduate student. Both the *Framework* and the philosophy behind IE undergird High-Impact Educational Practices, a set of educational experiences espoused by the American Association of Colleges & Universities (AAC&U), that have been shown to significantly engage students. (AAC&U, 2008) Finally, both IE and the *Framework* rely on student agency to participate, to reflect and to improve themselves and their work in the classroom: IE with its focus on ownership, and the *Framework* with its focus on metacognition. It could be argued that in order for IE to be fully realized, the dispositions in the *Framework* must be mastered; and for the *Framework* to be fully mastered, students must apply their knowledge as set forth in the definition of IE. The two are linked inextricably, and serve to improve one another.

Intellectual Entrepreneurship and Scholarly Communication

The “social good” element of IE is the strongest connection to scholarly communication advocacy for open access (OA) and public access (PA). Sharing the products of state and/or federally funded faculty research is a vital form of social good enacted by both OA and PA. Another is the strong advocacy for protecting copyright as a social good, especially fair use. The movement to educate the public about their rights as readers and users of content through the

creation of Creative Commons licenses is another vital contribution towards legal and ethical use of information in all formats, and serves as a teaching opportunity for librarians, faculty and students in curricular and co-curricular experiences. Large-scale efforts to open content such as textbooks, data, images, journals and monographs all fulfill IE's integration of disciplinary knowledge for the social good philosophy, and thanks to reuse and share alike licenses, encourage expanding and extending scholarship in the hands of the public. Similar to IE, scholarly communication advocacy efforts in OA and PA, as well as author rights, serve to educate and shift behavior and attitudes in the hopes that faculty and researchers will take ownership of their work. Beckman and Cherwitz state that "Discovery is a privilege shared by the university community," (Beckman and Cherwitz, 2008, p. 93), and scholarly communication advocacy seeks to extend that privilege directly to the public.

Case Studies

At IWU, we are fortunate to have a number of opportunities to connect scholarly communication education and advocacy and information within the frame of IE. The following are short case studies that illustrate examples of positive collaboration with faculty, departments and schools, risk and experimentation, application of disciplinary knowledge, and open sharing of undergraduate work to benefit the community. The examples share these characteristics and align perfectly with IE: students engaging deeply with a specific topic within or across disciplines to identify and create new interpretations and knowledge that they then share with their scholarly and artistic communities, either locally or globally.

Undergraduate Research

Undergraduate research is defined as "An inquiry or investigation conducted by an undergraduate student that makes an original intellectual or creative contribution to the

discipline.” (Council for Undergraduate Research, n.d.) In addition to the Council for Undergraduate Research (CUR) definition, Gerald Graff, a professor of English and Educational Studies at the University of Illinois at Chicago, states: ““Research” is best defined simply as work that enters the current conversation of a particular field in a significant way.” At IWU, there is a deep and vibrant tradition of undergraduate research that fulfills both definitions. Departmental Honors is one such example. The program requires a 3.50 grade point average in the major, a proposal approved by a faculty research advisor, and a commitment by three faculty members to serve as the research committee for the student. The student defends their project at the end of the year, receives a notation on their transcript, and is expected to deposit their final project in Digital Commons @ IWU, the institutional repository. It is a common practice for students working towards Honors to participate in the John Wesley Powell Undergraduate Research Conference (also known as JWP), an annual event that will be celebrating its 27th anniversary in 2016. Honors students usually give a presentation on their findings, or present a poster to share their methods and conclusions with the audience, which is comprised of faculty, fellow students, parents, alumni, Board of Trustee members and members of the community.

Students have the option to share their JWP presentations and posters via Digital Commons @ IWU, and through workshops sponsored by the JWP committee, students learn about the opportunity and are introduced to the permissions form that will allow IWU to distribute their work, while the copyright is retained by the students. Students are encouraged to confer with their faculty advisors for advice on sharing their own, and the Scholarly Communications Librarian is consulted often for guidance as well. The Conference is an excellent opportunity for all students who participate in the Conference to share their work through the repository, and most choose to do so. There are, every year, a number of students

who elect not to share their work. Some students are working directly on projects with a faculty member that will eventually be published in the professional literature, and others elect not to for personal reasons. Others decide to embargo their work for a few years.

There are also faculty who require their students not only to present at the conference, but also to deposit their work in Digital Commons. One example is Professor Leah Nillas in Educational Studies. Senior students in the department are required to undertake a major research project as part of their student teaching to fulfill state requirements for the teacher credential. Professor Nillas requires her students to create a poster based on their research, present it at the conference, and all teachers who supervised the students during student teaching are invited to the presentation during the JWP conference so that students may share their results and publicly thank their supervising teacher. The teaching opportunities related to scholarly communication issues here mainly focused on clarity regarding roles, rights and responsibilities of the students in relation to the university: reviewing the permissions form to clarify student roles and responsibilities for using others' work ethically; and to ascertain that students understood their role and rights as copyright holder.

Another example is how to best include work from students in our Schools of Music and Art. Unfortunately, the art and music events are not as well attended as the poster and oral presentations during the Conference. Creating a collection expressly for fine arts was an early goal in the development of Digital Commons @ IWU due to the excellent quality of the work, the potential for expanding the reach of the students' work, and because of the capacity of the platform to integrate video and images. Again, informing and educating students about their roles, rights and responsibilities is key; allowing them to consider and reflect upon the pros and cons of sharing their work gives them the agency to manage their own artistic identity and voice.

The music students, especially, are given several options to share and archive their work via a video- or audiotaped performance hosted in the repository, a pdf of their score hosted in the repository, the same pdf added to the library's collection, or all of the above. The options are included in the permissions form designed especially for the music students, developed in collaboration with composition faculty. Art students are given similar options – a recording of their presentation on video or audio, plus a transcript to improve discoverability of their work. Finally, we ask permission to also host images of the students' work in the repository. By working with art and music students to discuss options for sharing and by sharing different forms of their work, it is our hope that we educate them on positive models of permissions and rights, give them a vocabulary for advocating for their creators rights in the future, and build goodwill between the library, the School, and their students and alumni.

Curricular Opportunities

Another example of the intersection between IE and scholarly communication advocacy is via the formal curriculum. Two courses in the social sciences, *Creating a Sustainable Society* and *Visual and Ethnographic Methods*, are significant in this regard. In both courses, students work to gain specialized skills and knowledge in the disciplines and interact with community members to apply their knowledge and skills to issues within the community or to exploring the lives and professions of community members. Both course carry with them the expectation of a major final project, and the requirement that the product of the work will be shared with the community. Finally, both professors who teach each course select projects that embody high-quality research or writing for inclusion in Digital Commons @ IWU.

Visual and Ethnographic Methods, an upper-division course offered in the Anthropology Department, fits perfectly into the IE model. The course description states: "Analysis of the

production of visual ethnographic material from the turn of the century to the present is followed by hands-on training in ethnographic interviewing and culminates with student-produced ethnographic films.” (Illinois Wesleyan University Catalog, 2015, p. 129) Students in the course not only produce short films, but also produce posters for the JWP conference and photo-essays. Professor Rebecca Gearhart selects a few essays each year for inclusion into Digital Commons, and revised her standard Institutional Review Board proposal for the course so that participating community members, who serve as research subjects, would understand that the information about them collected by students would be openly accessible via the repository. The social good element demonstrated in this example is educating the campus community about members of our external community; the diversity of professions, experiences, and life histories portrayed in the photo-essays helps to break the campus bubble we often reference in discussions of our students’ campus experience. By agreeing to share their work openly, the students complete the final phase of the scholarly communication cycle: dissemination, with an understanding of the rights and responsibilities as researchers and as copyright holders.

Creating a Sustainable Society, the senior seminar course for the Environmental Studies major, provides majors with the chance to marry their coursework with a “real world” sustainability challenge in the local community: “Applying the subfield perspective they have acquired in earlier coursework, each student will research and write a substantial paper on the seminar topic and present his or her findings orally. Taken collectively, these individual works will provide a multidisciplinary analysis of the seminar topic.” (Illinois Wesleyan University Catalog, 2015, p. 176) By asking students to build upon the foundation of past coursework (i.e., scaffolding to a capstone experience), the course requires students to grapple with the integration of research methods, writing skills, and real-world issues encountered in the Bloomington-

Normal community. Similar to *Visual and Ethnographic Methods*, students' research and the community partnership culminates in a presentation to community organizations and with a paper, some of which are selected for inclusion in our institutional repository. There have been projects that have affected significant social change in our community, such as "Growing Food Justice in West Bloomington, Illinois" by Daniel Burke, Class of 2009. His paper discussed food insecurity writ large, and the food desert in West Bloomington, and ultimately led to an internship with the Heartland Local Food Network. During his internship, he developed and implemented a plan to provide residents of Bloomington-Normal who receive benefits from the Supplemental Nutrition Assistance Program (SNAP) easier access to our local farmer's market via a grant-funded point-of-sale machine for the farmer's market. Thanks to his efforts and the community's support, now anyone can use cash, credit cards, or SNAP cards to purchase tokens to use at the farmer's market as payment. The course often deals with similar issues of social justice, and students in the course are often involved in our campus Action Research Center. Not only does *Creating a Sustainable Society* pose a significant IL challenge for students, who seek out and use scholarship from various disciplines to inform their work, but the projects sometimes pose challenges for students selected to deposit their work in Digital Commons. Pursing permissions for images and text used in presentations to community members offers an excellent teachable moment for locating Creative Commons-licensed images and for best practices in requesting permissions for rights holders. In addition, the education about the responsibilities and rights as researchers is a key aspect of students' dissemination of their work after the coursework is completed.

Undergraduate Journals

Illinois Wesleyan University currently has six undergraduate journals, four of which are long-standing publications sponsored by departments and hosted in the institutional repository. In general, undergraduate journals are an increasingly high interest area for academic libraries, especially as library publishing programs become more prevalent. Undergraduate journals connect with several of the High Impact Education Practices – collaborative projects, undergraduate research, capstone projects, and internships. Sharon Weiner and Charles Watkinson of Purdue University published an article in *the Journal of Librarianship and Scholarly Communication*, about their assessment of undergraduate journals. In their study, they found:

“The assessment showed that student authors benefitted from experiencing the full spectrum of the scholarly publishing process. Notably, students gained knowledge of important information literacy concepts. These learning gains and the demonstrated influence of JPUR on student career and scholarly aspirations clearly show that publication of an undergraduate research journal supports university priorities for student success as well as the Libraries’ strategic priorities of information literacy and scholarly communication.” (Weiner and Watkinson, 2014, p. 1)

Each undergraduate journal at IWU has its own identity, traditions, and mission; for the purposes of this chapter, this chapter will focus on the *Undergraduate Economic Review (UER)* specifically due to its strong and collaborative partnership with the library. The *UER* has an interesting history and is a stellar example of IE and scholarly communication advocacy efforts. The *UER* has its roots in collaboration – before the *UER* was developed, Illinois State University, located about a mile away from our campus, and IWU published a joint undergraduate research journal called the *University Avenue Undergraduate Journal of*

Economics. That journal ceased in 2004, and the *UER* was created to “support and encourage high quality student research in all areas of economics by publishing the best undergraduate papers from across the world.” (Garg, 2004, p. 14). The *UER* is sponsored by the Department of Economics at IWU, with infrastructure for submission, review, and publishing provided by The Ames Library through Digital Commons @ IWU. Submissions are open to any undergraduate student in economics in the world. The journal had has submissions from Mexico, England, China and India, to name a few. It is a born-digital, open access journal; all authors retain copyright of their work. Editorial processes are run by the student editorial board led by a senior Economics major selected by the faculty as the editor in chief.

The journal, while run by students, is advised by two faculty members. Professor Michael Seeborg, the Robert S. Eckley Distinguished Professor of Economics and I, in my capacity as Scholarly Communications Librarian and as the library liaison to the department, serve as Managing Faculty Co-Editors and advisors to the editorial board. Professor Seeborg contributes his substantial disciplinary expertise, and I advise from my perspective as a librarian, liaison and open access advocate. I also serve as liaison between bepress, Professor Seeborg and the students, and most importantly, to teach and educate students about their contribution to the overall open access movement through their work on the *UER*. The editorial board meets throughout the year to discuss marketing the journal to increase submissions, different types of research to feature in the future, and most recently, the possibility of including data with articles.

Most of our reviewers are drawn from the Economics’ Department Senior Seminar and also include younger students who have excelled at writing in the department – each fall, we meet as a group and review the criteria for publication as well as the mission of the journal, its history, and I give a presentation and lead a discussion about scholarly publishing, the tension

and stressors on the scholarly publishing environment (as well as generally within higher education and for libraries), and how open access (while not without its own challenges and issues), is a way to achieve the mission of research – to contribute to the common good by sharing knowledge. It's a new topic for the majority of the students, and it's often a thought-provoking conversation with them.

Professor Seeborg and I, in collaboration with Professor Robert Leekley, the advisor for the *Park Place Economist*, designed and deployed a survey to better understand the costs and benefits to students' participation in the two economics journals. Our results echoed the Purdue study. Peer reviewing, specifically, had a significant impact on students' learning in three areas: the peer reviewing experience offered a model for students' writing in general, helped them learn about new applications of economic concepts, and helped them learn about other areas of economics. In addition, 63% of students said they gained a better understanding of open access; in fact, Jake Mann, who served as Editor-in-Chief from 2011-2012, wrote the journal's open access statement during his term.

Further, in a bepress webinar broadcast in 2013, then-Editor-in-Chief Skye Song stated:

“As a reviewer, my critical thinking and writing skills improved substantially through reviewing the articles. [...] And the critical thinking and writing skills I gained through my work with the UER proved beneficial for my own coursework, because I remember when there were group projects – oftentimes I found myself the designated proofreader and trusted by my peers to make the final edits for the papers. Now, two years later, as the editor-in-chief, although my responsibilities have moved away a little bit from reviewing articles, I have taken on other responsibilities, such as recruiting and managing reviewers and editors, assigning any editorial tasks, reviewing reports by the editors to

make final decisions on articles, maintaining communications with authors, faculty members from other institutions, and answering inquiries. Therefore, this role has greatly enhanced my leadership and teamwork skills, as well as my communication and organization skills.” (Skye Song, 2013)

What began as an experiment with Professor Seeborg and the *UER* is now a fully formed partnership that represents IE philosophy to create experiences for students to use their disciplinary knowledge for the public good. The presentation at the beginning of the year stresses the *UER*’s contribution to the economics discipline and to the open access movement as a model for undergraduate students and faculty to disseminate their work. The experience of working with the journal opened up the opportunity to embed scholarly communication education and advocacy directly into the curricular and extracurricular experience for students. Further, in participating in the journal, students *integrate* their past coursework from their major, from IWU’s Writing Program, and from the various IL sessions they have participated in from their first year. Bringing all these elements together embodies the integrative aspects of IE for students. If our goal is to educate a knowledgeable, engaged and information literate citizenry, we must not only embed topics of open access, public access and author rights into our work with undergraduates, we must do so in ways that connect with disciplinary knowledge and experiences.

Benefits for Undergraduates, Libraries and Institutions

Bringing together IE and scholarly communication education and advocacy has several benefits. Building on existing curricula and partnerships between faculty, departments and the library can create new ways to foster and share information from the university to the community

and back again. Using the repository as an outlet for student work requires a high level of relationship development with faculty to create trust and to dispel concerns about OA, many of which are born out of myth and misperception. Using the repository can encourage different conversations between faculty, students and librarians that extend IL instruction and has the potential to give librarians a new role on campus as experts in copyright as well as open access advocates. Sharing student work, especially work done in partnership with the local community, can help demonstrate intellectual, creative, scholarly achievements, marketing of skills, and adherence to ethics and conventions of the discipline. For prospective students and their parents, showcasing products of IE experiences in the repository can help to promote the university as a place that values student-centered learning and the accomplishments of students, and speaks to the achievements of a liberally educated student at IWU. Finally, students who choose to share their work do so after making an informed decision about why sharing with wider community is beneficial and part of the learning experience.

There are also challenges to using IE to embed scholarly communication education and advocacy into student experiences. Unfamiliarity with the term ‘intellectual entrepreneurship,’ or a distrust of entrepreneurship in general could be a stumbling block for librarians wishing to frame their work in this way. Regarding open access, there are still many faculty unfamiliar with open access and those who still view it as anathema to true scholarship, equating it with predatory or vanity publishing. There may also be strong concern regarding the sharing of undergraduate work specifically, even work that has been designated as Honors, as too novice to share with the discipline at large.

Conclusion

IE helps students find and own their voice, in part due to the relationships formed with faculty through courses, with community partners through experiential learning, and with librarians as experts is open access, copyright and author rights. Chambliss and Takacs state that “Students best learn skills in a supportive community, with relationships that value and encourage those students and those skills. *The real people involved*—not the abstract “programs”—are crucial.”¹ (Chambliss and Takacs, 2014, p. 133) Framing scholarly communication education and advocacy within the IE lays the foundation for students to have agency over their education, to apply their learning directly, to contribute back to their peers and community and to make informed choices about sharing their own.

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