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# Innovation, Creativity and Meaning: Leading in the Information Age

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# **Innovation, Creativity and Meaning: Leading in the Information Age**

By Tomalee Doan and Mary Lee Kennedy

## **Abstract:**

Today's fast pace global environment requires information professionals to be leaders keeping pace with user needs. Two academic research libraries share their work seeking to ensure and leverage the creativity in their organizations focusing on the most meaningful innovative opportunities. The premise is that usefulness and appropriateness is achieved through strategic alignment – thereby opening the door of opportunity for innovative products and services. The ability to seize the opportunity each group seeks to meet is due to the recognition by the organization of that alignment. And so, organizational perception, awareness and value all impact the successful implementation of creativity. The products and services presented in this article, Harvard's Baker Library Historical Collections Online and Purdue University's career wiki, stem from organizational alignment, and the work of the leadership teams to influence perception, create awareness and demonstrate value.

## **Keywords:**

Innovation, creativity, knowledge creation, information discovery, online historical collections, career wiki

## **Introduction**

There is a generally held belief in the business world that in the global knowledge economy (GKE) an organization must innovate or risk death. Organizations that connect knowledge, and manage and provide information can count themselves among those who need to take heed. This is not news. Obviously, information professionals, as leaders in a time of constant change, ubiquitous information, and multiple venues for knowledge sharing, in combination with economic globalization, must innovate in order to support their customers. The authors of this paper believe there is tremendous creativity and associated innovation occurring in information organizations today.

Our purpose is to share some of our own work to continue the dialogue of game-changing opportunities for information professionals who seek to make a difference. Our work emanates in the support of graduate level business education. However, as you will see, our work affects a broader constituent base – reaching a global practitioner and research audience. It is founded in business theory and practice as applied to leading innovation in knowledge and information management. Given our mandates, the focus is on the support of knowledge creation.

## **The Context**

Librarians today have come to view change as the means to accomplishing significant goals, recognizing that our organizations must keep pace with user needs, acknowledging that we do indeed have information competitors and that we are part of organizations and therefore must align with larger objectives than our own. It is essential to innovate in order to continue to be meaningful. At Purdue University, the Libraries have embarked on a transformational agenda, taking into account the dominant contexts that define it through information literacy, interdisciplinary research partnerships, and outreach opportunities. At Harvard Business School, Knowledge and Library Services has expanded its mandate to lead the strategy and management of information and knowledge assets, support research and course development, create a world class user experience on the Web and the intranet, and bring information to life through outreach and knowledge dissemination programs. There are many models and published works on innovation.<sup>1</sup> It is not our intention to assess

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<sup>1</sup> Early work by Clay Christensen makes a distinction between disruptive innovation and sustaining innovation (citations), work by Michael Tuchman highlights the ambidextrous organization that must both exploit the present and explore the future through incremental, architectural and discontinuous innovations (Harvard Business Review,

the pros and cons of each, rather **to focus on our role as leaders in both identifying those opportunities that make sense to seize at a given point in time, and to inspire and create opportunities for creativity to lead to innovation.** There is an important critical distinction to be made between creativity and innovation. For the purposes of this paper we base our understanding on the work of Theresa Amabile and Dorothy Leonard who define creativity in terms of the production of novel and appropriate (useful) ideas by individuals (Amabile) or by teams (Leonard), and innovation as the successful implementation of those ideas.<sup>2</sup>

Both Purdue and Harvard Business School develop leaders through graduate and executive education programs. Our common mission as information organizations is to support the objective of leadership development. Purdue University Libraries does this by fostering an information environment that advances learning, discovery, and engagement. HBS' Knowledge and Library Services (KLS) does this through the enablement of ideas, expertise and information. Although we have some similar capabilities that are distinctive in our respective organizations, we apply the distinctive capabilities differently given the organizational climate in which we operate. Our innovations are not the same, nor do they make sense to be the same. This is clearly where the importance of usefulness and appropriateness leads to a greater chance of successful implementation of creativity.

Purdue and Harvard Business School's KLS have strategic plans that articulate (and provide for the measurement of) the value we bring to our respective organizations. We have purposefully set out to align our work to enable the greatest possibility of success in what we do. Purdue's strategic plan was developed for 2006-2011; KLS's was developed in 2004 and recently updated for 2008-2011. Essentially both organizations set out to provide greater value than possible via any other resource, through the development of innovative services and products based on a set of distinctive capabilities<sup>3</sup> that are aligned with the

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April 2004), and more recently the work of Satish Nambisan and Mohanbir Sawhney (*The Global Brain*, Wharton School Publishing, 2007) stresses the need for connecting and harnessing the creativity of innovators in a global world.

<sup>2</sup> "How to Kill Creativity," article by Teresa M. Amabile, Harvard Business Review, Sept-Oct 1998, pp. 76-87; *When Sparks Fly*, Leonard/Swap, Harvard Business School Publishing, 1999.

<sup>3</sup> Distinctive capabilities are defined as unique skills and competencies that distinguish the organizational resource from other available resources

defined needs of the target audiences. Through our strategic planning and review processes, as leaders, we seek to ensure and leverage the creativity in our organizations to focus on the most meaningful innovation opportunities. The case of KLS' creativity in Table 1 is aligned with (i.e. positioned for usefulness and appropriateness) in terms of our:

**Table 1**

<b>Distinctive Capabilities</b>	<b>Target Audiences</b>	<b>Target Audiences' Objectives</b>	<b>Products and Services Impact</b>	<b>Continuous Improvement</b>
Information research	Faculty	Course Development	Achievement of learning objectives	Environmental Scanning
Information architecture	Students	Research	Research impact	Training and development
Information product design and management	Alumni	Knowledge and Information Sharing	Program success	Strategic and tactical conversations
Knowledge and information management	Staff		New knowledge creation	
			Organizational efficiency	

Purdue's vision is to achieve preeminence as an innovative and creative research university library meeting the challenges of the information age. One goal is to advance learning through information literacy initiatives and further the University's learning goal. This is accomplished by increasing campus awareness of the Libraries' value through their participation in interdisciplinary research. The discovery goal is met by providing information resources and applying library science expertise to interdisciplinary research. Purdue is Indiana's land and space grant University. Therefore, the mission of the institution is to teach and provide outreach opportunities (Table 2) through engagement to individuals who might not otherwise afford or obtain an education.

**Table 2**

<b>Learning</b>	<b>Discovery</b>	<b>Engagement</b>	<b>Audience</b>	<b>Product and Service Outcomes</b>
Information literacy competency skills  Campus-wide commitment to information literacy  Increase use of collections and information resources  <b>Value added</b>	Libraries participation in collaborative sponsored research  Campus awareness of value added participation of library faculty in interdisciplinary research  Alignment of collections to support research	Libraries participation in outreach  Collaboration with libraries across state, nation, and world  Participation in sponsored economic outreach activities	Faculty  Students  Staff  Alumni  State of Indiana residents, nation, world	Achievement of increased information literacy skills  Economic Success  Research impact  Increase Interdisciplinary collaboration

**Innovations that Make a Difference**

By its very definition, innovation depends on useful and appropriate creativity. Our premise is that usefulness and appropriateness is achieved through strategic alignment – thereby opening the door of opportunity for innovative products and services. Our ability to seize the opportunity each group seeks to meet is due to the recognition by the organization of that alignment. And so, organizational perception, awareness and value all impact the successful implementation of creativity. The products and services we present in this article all stem from organizational alignment, and the work of our leadership teams to influence perception, create awareness and demonstrate value. While our innovations occur in each of our strategic objectives, we have focused on our discussion on the topic of knowledge and information discovery.

## **Innovations in the Discovery Process**

### **Baker Library Historical Collections Online Collections and Research Aids**

Baker Library Historical Collections manages and provides access to archives, manuscripts, business records and rare books from the 1400s to the 21<sup>st</sup> century. The rare book collection includes over 350,000 volumes. The archives and manuscript collections number over 28,000 linear feet including 35,000 photographs. There are over 1,400 individual business manuscript collections ranging in size from a handful of items to 4,000 linear feet of a single companies' records.

Not everything is a manuscript, book, or paper item. Much work has been done to digitize specific collections as well as to include artifacts that represent the nature of the knowledge in the collection.

One of the biggest challenges for collections of this nature is the ability to make them accessible and discoverable beyond the physical environment – particularly with the growing expectation that at least in its simplest form, a collection, and not just the record of it, is available on the Web for free. Given this expectation, Baker Library Historical Collections made the decision to process and digitize materials that are useful to our faculty, and as a derivative, valuable to students and faculty around the world. Many external researchers from around the globe do use the collections in the de Gaspe Beaubien Reading (remember the accent mark for all de Gaspe) Room. With the generosity of the de Gaspe Beaubien family we have been able to further the discoverability of this unique collection of business research materials, often considered somewhat “boring” for anyone other than a business history academic. The initial idea was very simple – bring the collections to life in the context of creating a deeper understanding of the history of business so that mistakes and successes from the past could be leveraged in the current day. Our products were developed and made accessible on the website at <http://www.library.hbs.edu/hc/index.html> They are pictured below:

Home > Find > Historical Collections > Historical Collections Home

## Historical Collections

In this Section:

- Historical Collections Home
- Collections
- General Information and Services
- Exhibits
- Current Research
- Research Fellowships
- Historical Research and Digital Assets
- Historical Returns Series

From its inception, Baker Library has collected rare and unique materials that focus on the evolution of business and industry. Spanning seven centuries, the collections include manuscripts, rare books, pamphlets, broadsides, photographs, prints, advertising ephemera, and corporate reports. These rich and varied collections support research in a remarkably diverse range of fields.

The collections are available for use in the de Gaspé Beaubien Reading Room, located on the first floor of Baker Library adjacent to the Historic Lobby.



VIEW PREVIOUS WHAT IS IT? VIEW NEXT

**Recent Additions:**

Twentieth-Century Business Archives  
**LEHMAN BROTHERS COLLECTION**

**Featured Exhibit:**

A "DARING EXPERIMENT"

**Featured Resource:**

THE MAKING OF THE MODERN WORLD

**Current Research:**

**The Business of Civil War: Military Mobilization and the State, 1861-1865**  
By Mark R. Wilson

**From Higher Aims to Hired Hands: the Social Transformation of American Business Schools...**

**A Nation of Counterfeiters: Capitalists, Con Men, and the Making of the United States**

**The Boardinghouse in Nineteenth-Century America**  
By Wendy Gamber

Internet | Prote

Our initial target audience was faculty members at Harvard Business School and at other parts of Harvard University. Discovery goals were much broader, seeking to reach faculty and students external to Harvard.

Collections to be digitized are chosen based on a Steering Committee of leading business historians. Our focus has always been on telling the story in the collections rather than to focus on the physical items themselves.

Initially we developed a product line called "Historical Returns". Our first effort (and only one to date) focuses on financial bubbles (see: <http://www.library.hbs.edu/hc/historicalreturns/fb/>) It juxtaposes the South Sea Bubble with the Internet Bubble and could just as easily have been written to predict the Housing Bubble. While it is very popular and still is located on the site as a lively Flash production, it was extremely expensive to develop in terms of time and resources. We decided that the idea was right but the format, for now, was not. We returned to more traditional digital formats with the value add being the user experience plus deeper resources and subject expertise playing out in collection guides and research aids. The Lehman Brothers Collection guide (see: <http://www.library.hbs.edu/hc/lehman/>) is designed to provide researchers with an overview of the collection, to provide access to the deals themselves, and to provide a history of the Lehman company. The idea of a research aid is well represented by "A Daring Experiment" (see:



<http://www.library.hbs.edu/hc/daring/>). The exhibit (both virtually and physically) commemorates the initial years of MBA education for women at HBS. It provides sources from the archives as well as oral histories from the women themselves. Research guides further the users understanding of the topic via related archival and digital resources. Each of these examples (collection and research guides) provides a self-contained unit of study for faculty or students. They provide enough context to stand on their own – and to lead to deeper study should that be desired.

A multi-disciplinary team is required to deliver on the discovery objective. A project leader directs the work supported by web designers, web developers, curators, editors, information architects, taxonomists, digitization experts, and an advisory team of business historians. We learned early on that bringing in expertise as needed was more economical, and more importantly much more effective, than expecting one person to be able to lead every project.

Our goals have been met. As a discovery innovation, these information products in Table 3 measure their success in terms of reach, and more specifically, reach by target audiences – faculty and students. Our first product was launched in Fiscal Year 2006. Year over year growth is indicated below in terms of product launch and associated reach.

**Table 3**

Fiscal Year	New Products Launched	Year Over Year Change in Reach (Site Hits)
2006	South Sea Bubble Historical Returns  Coin & Conscience  WSJ- Funny Side of the Street	10,337*
2007	Human Factor  New Directions	43,584--- 322% increase
2008	Human Relations  Daring Experiment Lehman Brothers  Concrete Symbol	95,196---118% increase

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\*incomplete data reflects numbers beginning in November 2006

Our strategy and approach is working as defined by our user requirements and our funding model. Minor adjustments have been made to ensure the depth of information and knowledge about a collection or topic is easily available, while respecting that given the massive holdings of Historical Collections all 1400 collections cannot be made available at once. Technology has been a significant enabler, but more importantly the cross-disciplinary team has been critical in achieving a realistic outcome and one that our target audience finds useful. Table 4 provides a summary explanation of the effort.

**Table 4**

<b>Discovery Opportunity</b>	What are the lessons leaders and potential leaders can learn from the past? Just as importantly, how do we make the record of business history discoverable by students and business practitioners? How do we bring historical collections to life?
<b>Innovation</b>	Baker Library Historical Collections established a program to move information to the Web, to establish a marketing campaign and to digitize materials, particularly in relationship to current day issues.
<b>Impact</b>	<p>Materials from the site have been used in many educational programs at the undergraduate and graduate level outside of Harvard Business School and Harvard University. We receive unsolicited kudos constantly.</p> <p>Historical collections have been leveraged to support doctoral seminars and influence doctoral dissertation topic selections.</p> <p>The new strategic plan led to the recent acquisition of the Polaroid archives – a significant record of 20<sup>th</sup> century innovation and increased interest in the collections by senior decision-makers.</p>
<b>Continuous Improvement</b>	<p>A very “cool” product early on needs to be rethought in terms of long-term sustainability and usefulness.</p> <p>Outsourcing work to experts aids in ability to meet</p>

	customer demands
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### **Purdue's Management & Economics Career Resource Initiative and Wiki**

In 2006, Purdue University Libraries developed a new strategic plan focusing on preeminence in innovation and creativity. The vision for the Purdue Libraries is "to be recognized for leadership in advancing innovation within academic librarianship." The basic premise of the plan acknowledges information access is vital to progress, knowledge is never complete, and lifelong learning is essential to success. The focus on service, collaboration, and research has resulted in developing opportunities that contribute to greater access to resources, increased student success in the classroom and career opportunities, and delivering services to a very diverse student population. Innovation must be driven by providing solutions to the needs of students and faculty, rather than the needs of the Libraries.

Providing innovative library services that enhance the student user experience drove the creation of a comprehensive career wiki <http://career.purdue.edu> involving partnerships between several Purdue campus units. The Purdue Management & Economics Library (MEL) recognized a tremendous opportunity to build a strong collaboration among campus units in the career development area enhancing the interviewing abilities and job opportunities of Purdue students. Purdue University has a central career campus unit, the Center for Career Opportunities (CCO), which develops partnerships with Purdue colleges, schools, and other stakeholders to deliver career services. MEL faculty met with key staff from the Center of Career Opportunities (CCO), Krannert School of Management Graduate Career Services, Krannert Undergraduate Career Services, and Consumer Science & Retailing and Hotel Tourism and Management Departments in the College of Consumer and Family Sciences. The library quickly discovered there was little or no fund allocations within these units to provide access to print and electronic resources supporting career information including resume writing, interviewing skills, specialized career services for international students, doing company and industry research, or supporting students seeking career opportunities abroad.

It is the Purdue University Libraries culture and value to serve all constituents to allow for greater collaboration and to increase the campus wide commitment to the University's core competency of information literacy. By bringing together the various campus career units to discuss how best to collaborate, MEL found the units to be working in isolation of one another and duplicating some of their services. Further, CCO must only provide resources on their website that can be shared with alumni and students of other Purdue satellite campuses. This is a mandate set by the University Provost's Office. The career wiki, a library product and service, offers access to career resources electronically. To

effectively increase use of all library collections and information resources in addition to the services each unit offers, MEL takes responsibility of administering and organizing all the content on the career wiki submitted by each campus career unit. All career units have been trained by MEL faculty on adding content and how best to organize the career information of their specific unit into the career wiki. The career wiki now provides a single place for students to obtain all campus career information regardless of their academic department on campus. Within the career wiki, the library can create links to vital career resources both electronic and in print. Through MEL's initiative, Purdue University Library funds have been granted to support the information resources necessary for this career initiative. Purdue students are no longer at a disadvantage competing with our peer institutions in preparing themselves for the job market. Purchased electronic resources include Vault, Plunkett's Research, CareerSearch, and HV1. Plunkett's Research was only available through KGSA to the MBA population in the Krannert School of Management. Now, with joint funding from KGSA and the Library, the database is available to all students on Purdue's campus. Additionally, MEL began purchasing new career print materials and secured all WetFeet Press titles for students. While providing leadership in administering the career wiki, MEL faculty also offer assistance working with each career unit to provide instructional workshops to students on doing company and industry research. The library faculty are also working with the Krannert School of Management Employer Forum (SMEF) offering website navigational assistance and direct linking capabilities to targeted company and industry information to assist students in preparation for the upcoming job fair. <http://www.mgmt.purdue.edu/events/smef/home.asp> These library services will be offered to all campus departments hosting career fairs beginning fall semester 2008.

Once students graduate, the need for these valuable resources does not stop. Alumni job searches will continue through their lifelong learning efforts in order to compete for the best jobs. Recent studies indicate a college graduate will change jobs at least eight times before they reach the age of forty. It is part of the Purdue University Libraries commitment that we also continue to serve this constituency. The Purdue Libraries will continue to develop innovative services shown in Table 5 that will enhance student access to relevant and reliable career information meeting the information literacy object and contributing to lifelong learning.

Dashboard > Career Wiki > Purdue University Career Wiki

Search

Career Wiki Log In

## Purdue University Career Wiki

**View** **Attachments (1)** **Info**

Added by [Joel Diaz](#), last edited by [Firoozah Taheripour](#) on May 23, 2008 ([view change](#))  
Labels: (None)

Business News

[Krannert Graduate Career Services](#)

[Krannert Undergraduate Career Services](#)

[CSR Undergraduate Professional Development](#)

[Hospitality & Tourism Management Career Center](#)

### Welcome

Welcome to the Purdue University Career Wiki--an online comprehensive career resource. This site has been developed through the collaborative efforts of the offices linked on the left sidebar and the Management and Economics Library. This collaboration has resulted in a site that supports the job and internship seeker through various phases of the search process: identifying career paths; developing written materials (resume and cover letter); researching fields, industries and employers; and preparing for interviews. As you need help with any portion of your search or these resources, please do not hesitate to contact your Career Services staff or the Management and Economics Library. To provide specific comments about these pages or general comments, please contact: [kranlib@purdue.edu](mailto:kranlib@purdue.edu).

**Career Guides**

**Job Boards**

**Subject Specific Job Boards**

**Population Specific Job Boards**

**International Job Boards**

**Company Research**

**Industry Research**

**Employment Data**

- [National Compensation Survey](#)
- [Overview of BLS Statistics on Wages, Earnings, and Benefits](#)

[tag cloud](#)

**Search the Career Wiki**

Search

**CCO Calendar**

Be sure to checkout the career events calendar on the [CCO's website](#).

Table 5

<b>Discovery Opportunity</b>	Investigation of these units showed little or no sharing of information resources or collaboration with instructional workshops to enhance student job seeking success or preparation for job fairs.
<b>Innovation</b>	Collaboration between departmental units to provide library instructional workshops on company and industry research and creation of a career wiki. The library negotiated new career electronic resources and developed additional print resources to enhance student experience
<b>Impact</b>	Effort has increased awareness in Libraries Information Access Committee for the need to support career efforts on campus and to further investigate alumni access to electronic resources with Purdue's Alumni Association
<b>Continuous</b>	Development of a career wiki for departments to share

<b>Improvement</b>	information with other campus units; library faculty will organize all departmental career resources; students have a single access point to additional resources; Management & Economics Library was invited to become a member of School of Management Information Access Committee
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### Conclusion

In a 2006 Educause Review article, Jerry D. Campbell, Chief Information Officer and Dean of University Libraries at the University of Southern California, Los Angeles wrote, “given the events of the past decade, academic librarians perhaps know better than anyone else that the institutions they manage—and their own roles—may face extinction over the next decade.”<sup>4</sup> This is a very recent reminder that the burden rests upon librarians to demonstrate their value to the institutions we are part of – and most importantly, as partners in meeting our shared customers expectations. Innovation means to “renew,” and it is vital to an organization’s viability. What holds true for the rest of the global knowledge economy must necessarily hold true for us as well. In this technology-savvy environment it is highly likely that innovations will have a technology delivery component. Nevertheless, innovation starts with imagination and creativity; often based on significant environmental study, organizational savvy, opportunity management, and definitely critical thinking. Our examples are shown to open up a dialog that we believe is essential in demonstrating the kind of innovation that is delivering value in 2008.

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<sup>4</sup> “Changing a Cultural Icon: The Academic Library as a Virtual Destination,” article by J. Campbell. *Educause Review* (1) 16-31, 2006.