

Building Connections, Collections, and Communities: Increasing the Visibility and Impact of Extension Through Institutional Repositories

Abstract

Over the past 20 years, university libraries have developed and manage institutional repositories—digital libraries that provide free, public access to the research, scholarship, and publications of their university's faculty, staff, and students. Although underused by Extension professionals, institutional repositories are powerful tools that can be used to raise the global visibility of Extension scholarship, highlight resources from individual initiatives and projects, provide readership statistics to demonstrate impact, and create digital archives to create topical collections and to facilitate study on the history of Extension.

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The Internet is a powerful tool that can disseminate information to a global audience. Extension professionals have been exploring the use of developing Web-based technologies, using social media networks (Gharis, Bardon, Evans, Hubbard, & Taylor, 2014) and mobile applications (Typhina, Bardon, & Gharis, 2015) to disseminate information to the public, provide educational opportunities, and build communities. They are building wikis to facilitate collaboration (Kinsey & Carrozzino, 2011), using online course delivery software to conduct training and certification programs (Cottle & D'Angelo, 2015), and developing communities of practice to connect with Extension colleagues and provide venues for disseminating digital scholarship (Clevenger & Watters, 2014; Raison, Fox, & D'adamo-Damery, 2014; Stafne, 2013).

Over the past 20 years, university libraries have been developing institutional repositories (IRs)—digital libraries that provide public access to scholarship created by a university's faculty, students, and staff. Although originally focused on journal articles, IRs have grown to include a range of materials, including conference proceedings, theses, dissertations, white papers, and technical reports.

Roberts, Vyhnanek, and Rao (2012) describe some of the technical benefits of using IRs to build archives of Extension research. However, although IRs provide many opportunities for Extension professionals, they remain an underused resource. A recent examination of IRs at land-grant universities found that only five were collecting Extension publications (Becker & Monks, 2013).

Institutional Repositories and the Land-Grant Mission

The development of the Cooperative Extension system enshrined the dissemination of knowledge and access to education beyond campus borders as one of the primary missions of the land-grant university (Rasmussen, 1989). This mirrors the purpose of IRs. IRs seek to increase access to the scholarly record, traditionally only accessible to scholars affiliated with libraries having the resources to subscribe to expensive journals and databases. By providing free, public access to the research and scholarship authored by a university's faculty, staff, and students, including Extension professionals, IRs have the potential to support a university's efforts to meet their land-grant mission. In turn, repositories give Extension professionals a new method to expand the reach of their scholarship to the people they are charged with serving as faculty and staff at a land-grant university.

Opportunities for Extension Professionals

Institutional repositories can catalyze and solidify connections between Extension and academic departments and between applied research and basic research. Participating in IRs provides opportunities for Extension professionals to engage more fully with university libraries, tapping into librarians' expertise in organizing, preserving, describing, positioning, and disseminating information.

By partnering with university libraries to create Extension collections within IRs and to digitize and add historical Extension publications, IRs become digital archives that create increased opportunities for research into the history of Extension. The history of agriculture, human sciences, economic development, and public policy, as told through Extension publications, is also highlighted.

IRs provide many practical benefits for Extension professionals.

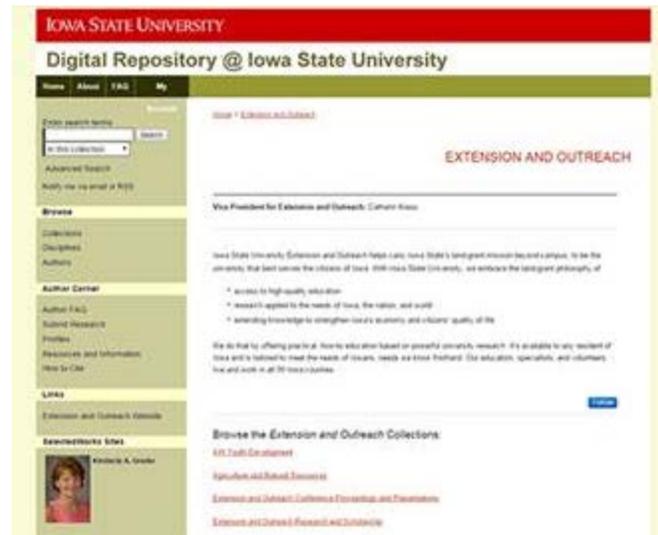
- Librarians can assist in checking the copyright status of Extension materials that have been previously published and seek permission to include these materials in repository collections.
- When Extension bulletins fall out of currency, they are removed from Extension websites. This creates problems if these bulletins are cited or if links are included in Extension professionals' vitae and external websites. IRs provide stable URLs, so links will not break when these publications become outdated or when Extension websites are reorganized.
- IRs may provide authors with readership reports, indicating how many times their publications have been downloaded. These reports demonstrate impact and can be included in tenure and promotion portfolios and other performance reviews.
- By creating inclusive repository communities, connections between a department's applied research and basic research are made visible, and, in turn, Extension work may be more visible.
- The increased visibility of Extension work provided by IRs can also lead to opportunities for speaking engagements, grant projects, and other collaborative connections for Extension professionals.

Institutional Repositories in Action

Since its launch in 2012, the Digital Repository @ Iowa State University (<http://lib.dr.iastate.edu>) has provided a venue to showcase the scholarship of Iowa State University, including its Extension faculty and staff. Like many IRs, the Digital Repository @ Iowa State University is organized into communities that reflect departments and units of the university. Iowa State University Extension and Outreach has its own community page in the repository (Figure 1) featured prominently on its home page.

Figure 1.

The Extension and Outreach Community in Digital Repository @ Iowa State University (<http://lib.dr.iastate.edu/extension/>)



Digital Repository @ Iowa State University has experimented with ways to showcase Iowa State University's Extension and outreach activities, widely disseminate Extension-produced materials, and highlight connections between Iowa State University Extension and Outreach and academic departments. These efforts include:

- Providing a disclaimer to alert users that Extension bulletins may contain outdated information, providing a link to the Extension website where they can obtain current information.
- Providing Extension and outreach collections within academic department community pages to highlight Extension work done by the department's faculty and staff.
- Creating communities for individual Extension programs, bringing together all resources regardless of format. For example, visitors to the Agricultural Health and Safety collection can view Safe Farm Extension bulletins, listen to Safe Farm Minute radio recordings, and read articles reflecting on the success of the Safe Farm program (<http://lib.dr.iastate.edu/safefarm/>).
- Grouping related content, allowing users to download Extension bulletins and related slideshows, videos, and other materials from a single webpage (Figure 2).
- Displaying thumbnails of Extension bulletin covers to make the collections more attractive and engaging for a public audience.
- Providing downloadable statistics that can be used to demonstrate impact in evaluation, performance

reviews, reports to funders, and tenure and promotion portfolios.

- Creating Selected Works profiles for Extension faculty and staff that provide a single point of access for their scholarly output, including Extension bulletins, reports, journal articles, educational resources, and more (Figure 3).

Figure 2.

Supporting Materials Available for Downloads alongside Extension Bulletins
(http://lib.dr.iastate.edu/extension_ag_pubs/209/)

The screenshot shows a digital repository page for a document titled "Animal Housing—Chimney Overview". The page lists three authors: Jay D. Harmon, Steven J. Hoff, and Angela M. Rieck-Hinz, all from Iowa State University. There are "Follow" buttons for each author. Below the authors, there is a "Download Full Text (251 KB)" button. A list of supporting materials is provided with "Download" buttons: "Slide Presentation (304 KB)", "Chimney Talk, SD Video (640x400) (17975 KB)", and "Chimney Talk, HD Video 720p (1152x720) (28974 KB)". The page also includes a "SHARE" section with social media icons, an "Extension Number" (AMPAT 03), and a "Description" stating that the use of chimneys in animal housing systems can elevate odors and increase dispersion with increased wind speed and air turbulence at higher elevations. A note at the bottom indicates that this fact sheet is part of the Air Management Practices Assessment Tool (AMPAT) developed at Iowa State University and funded by the National Pork Board.

Figure 3.

Selected Works Profile of Nancy Franz (http://works.bepress.com/nancy_franz/)

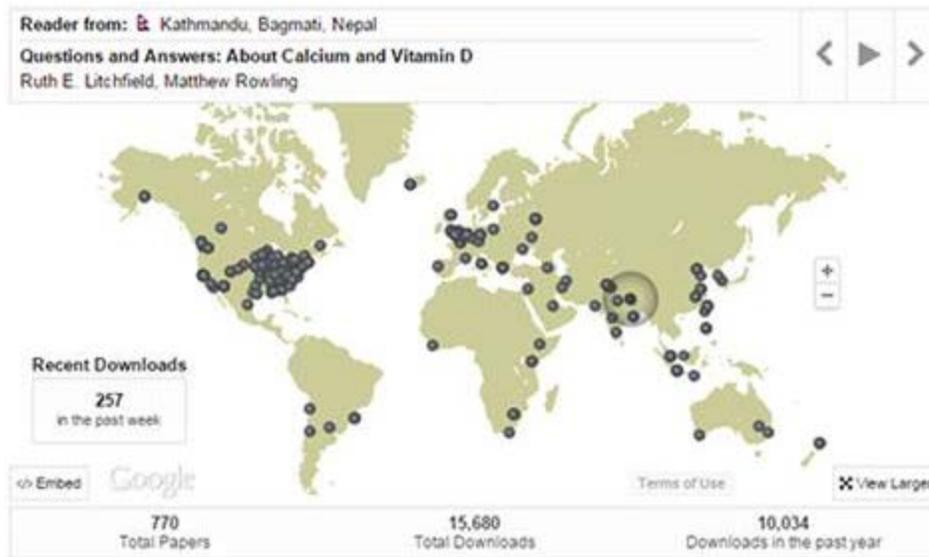
The screenshot shows a "Selected Works of Nancy K. Franz" profile on the Iowa State University website. The profile includes a header with the name and university logo, a navigation menu, and a bio. Nancy Franz is an Emerita Professor in the School of Education at Iowa State University, with 33 years of Cooperative Extension experience. Her research focuses on transformative learning conditions in non-formal educational environments and measuring and articulating university-community engagement. The profile lists several publications, including "Presenting Graduate Student Research in Community-based Research: A Tale of Two Conferences" (2013), "Catalyzing Transformation: Conditions in Extension Educational Experiences that Promote Change" (2008), "Adult Education Theories: Informing Cooperative Extension's Transformation" (2007), "Self-Directed Work Teams: The Antidote for 'Heretic Societies'" (2004), and "Transformative Learning in Extension Staff Partnerships: Facilitating Personal, Joint, and Organizational Change" (2003). A "Public Value of Education" section is also visible. On the right side, there is a photo of Nancy Franz, a "Join My Follower List" button, and a "Sign Up" button. Below the photo, there is a "Nancy K. Franz" bio section with a "Follow" button and a "Contact Information" section.

In April 2015, the Extension and Outreach community in Digital Repository @ Iowa State University

held 770 publications, which have been downloaded over 15,500 times (Figure 4). To begin including Extension publications within IRs, contact the librarian in charge of your institutional repository to discuss the scope and capabilities of the repository and to arrange the delivery of Extension materials to the repository.

Figure 4.

The Readership Map for Extension and Outreach Showing Number of Items, Downloads, and the Location of Readers



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