

State of Nebraska (Nebraska Library Commission)

### **Library Innovation Studios: Transforming Rural Communities**

The Nebraska Library Commission (NLC) is the lead applicant and requests \$520,559, to be matched with \$583,589, to design and implement a replicable Library Innovation Studio Makerspace model to enable rural public libraries to serve as strong community anchor organizations. Based on comprehensive assessment, the model will employ Library Innovation Studios and training resources to engage the community, expand economic development, provide learning, and nurture creative entrepreneurial activities in thirty rural communities. NLC will partner with University of Nebraska's (UNL) Extension and Nebraska Innovation Studio—a prominent Makerspace with a national reputation and a statewide network philosophy. Other active participants include Nebraska Regional Library Systems, local libraries, and community/economic development entities.

**National Need:** The viability of rural communities depends on their ability to compete in a global economy, support a workforce with up-to-date technology and STEM skills, and energize business and entrepreneurship. The resources to meet these needs are often underdeveloped in rural communities. Rural libraries need to be at the center of community revitalization, but they struggle to fulfill the role of strong community anchor organizations that enhance civic engagement, cultural opportunities, lifelong learning, and economic vitality. Rural libraries with limited resources need to see how combining STEM learning and community engagement can help address present-day challenges facing rural America—going beyond acquiring equipment and finding space, to bringing together community partners to meet community needs.

Our model will demonstrate how Library Innovation Studios can be the response to this struggle. The Library Innovation Studio Makerspace model addresses the need for rural libraries to learn how to take advantage of community partnerships and serve in leadership roles to identify and develop essential community resources.

Because 6,953 (77%) of the nation's 9,070 public libraries serve populations of fewer than 25,000 (and in many areas, library service populations tend to be considerably lower), this model will serve the needs of many of our nation's libraries. Nebraska is an ideal site to develop a new, replicable, responsive library programming model since 232 of its 264 public libraries (88%) serve populations of less than 5,000.

This proposal is highly relevant to the IMLS Community Anchor project category and complements the recent IMLS-funded project, *Small Libraries Create Smart Spaces* (OCLC) to assist rural libraries with planning and reconfiguring their library spaces. The **Library Innovation Studios: Transforming Rural Communities** model elevates communities to the next level by extending the OCLC model to incorporate the building of community partnerships for economic vitality. This proposal also expands upon the strategies employed in earlier related projects, including those in Idaho and Michigan and other projects like Do Space and IdeasBox.

**Work Plan:** NLC will use IMLS funding for Makerspace equipment and staffing to develop equipment training curricula and to introduce the rural community engagement tools needed to promote and sustain permanent studios in communities. This multi-faceted effort will 1) establish local teams in 30 rural communities; 2) purchase equipment, materials and consumables for four rotating Innovation Studios; 3) develop instructional materials and equipment certification processes; 4) develop intentional sustainability strategies for permanent studios; 5) provide training on the use of the equipment, including Train the Trainer; 6) assist with local marketing efforts and programming/events, including Open Houses and Maker Faires; 7) disseminate information to enable national replication; and 8) conduct formative and outcome-based evaluation.

Thirty participating rural public libraries will activate community action teams to host an Innovation Studio with Makerspace equipment for up to five months. Each Innovation Studio will feature 1) *electronics* (prototype kits, microcontrollers, robotics); 2) *textiles* (soft circuits, wearable technologies, computerized sewing/embroidery, vinyl cutting); 3) *computers/software* (for planning, design, and fabrication, such as AutoCAD); 4) *digital media creation* (filmmaking/digital photography); 5) *music technology* (recording and music creation); and 6) *digital fabrication* (3-D printing/scanning/copying, laser cutting, CNC routers).

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UNL will take the lead in curricular development and provide online, in-person, and video-based training for certification on safety and utilization of tools. NLC will take the lead in equipment distribution, community engagement training, team building, local programming, marketing assistance (including outreach to local underserved target audiences, e.g., females and Hispanics), and planning for sustainability. UNL will use its considerable research expertise to design and implement the outcome-based evaluation strategy and convene an annual Inventors Showcase. All training, curricula, templates and programming will be developed to meet the needs of library staff, volunteers, mentors, and residents.

All partners will collaborate on dissemination. Deliverables will include a national webinar series, replicable playbooks, community templates, training materials, equipment testing/certification templates, curriculum guides, and a White Paper supported by video case studies. We will disseminate through print, online, social media, and other library communication outlets. University channels will be employed, including those of UNL's Nebraska Innovation Studio and *eXtension*. We will target communication to national library and Makerspace groups. An advisory board will contribute to the project's success, offering guidance and providing formative evaluation. (See Logic Model: <http://nlc.nebraska.gov/IMLS-LM>.)

**Projected Performance Goals and Outcomes:** Projected goals are: 1) rural community residents will be empowered with the tools and guidance to learn, explore, collaborate, create, and invent; 2) libraries will transform their communities through participatory learning spaces while establishing themselves as strong community anchors in their rural communities; and 3) libraries nationwide will have access to a replicable model, allowing more libraries to transform their communities.

Projected outcomes include observable, measurable, intentional changes for rural community residents that result in increased community connection, innovation, lifelong learning, civic engagement, economic development, and human-centered design solutions to local issues. Innovation Studio Makerspaces will lead to innovation through "making," and evidence will be collected to show the growth of STEM learning, collaboration skills, business development, and computational thought processes. The infusion of the Maker culture into rural areas will increase community buoyancy by strengthening services and facilitating local economic development and entrepreneurship.

The principal library outcome is the demonstration of the role of rural libraries as the heart of community vitality efforts. The sustainability of the Innovation Studios and the continuation of this dynamic learning environment reflect what the community and library can achieve when the library serves as a community anchor organization. Outcome evaluation measures will show that the libraries were able to encourage local investment and build a network of shared community knowledge and expertise, energizing local funders, volunteers, mentors, peers, experts, and businesses. Participant communities will report change resulting from experiencing new technologies and techniques essential to the 21<sup>st</sup> Century skills required for success for individuals, and for local economic vitality and community sustainability—connecting them to the outside world.

**Budget:** Grant funds of \$520,559 are requested. NLC and UNL will provide a match of \$583,589 for a total of \$1,104,148 over three years. This includes salaries \$399,086; fringe benefits \$124,389; studio equipment/tools \$112,000; supplies/consumables/shipping \$9,998; travel \$17,800; marketing \$2,615; Partner/UNL's participation \$438,260 (salaries, fringe benefits, travel, supplies, indirect costs). The project team includes two new project staff (Training and Community Engagement)—one UNL and one NLC. Staff match is provided by UNL and NLC, using the talents of seasoned professionals, including the Project Director. These staff have experience implementing other successful technology-rich educational projects and possess the necessary skills, experience, and knowledge to implement and evaluate the project.