

The People's Incubator

Libraries Propel Entrepreneurship

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ABSTRACT

Entrepreneurs and small businesses are widely understood to be engines of economic growth and innovation. Less well-known is how libraries advance entrepreneurship. Libraries meet the needs of aspiring entrepreneurs of all backgrounds, in every part of our nation. Regardless of past experience, an individual seeking to launch an enterprise can use library resources, technologies and staff expertise to engage in business planning, perform market research, seek capital investments, explore community connections, learn about intellectual property practicalities, prototype products and conduct day-to-day operations. Libraries and the public and private sector actors engaged in advancing entrepreneurship should collaborate more to create new opportunities for learning, discovery, growth and innovation across the economy.

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Introduction

Today's libraries are dynamic community cornerstones. The answer to the question "What do libraries do?" has more answers than ever before. Libraries, with the Expert assistance of library professionals, enable Education, Employment, Entrepreneurship, Empowerment, and Engagement – what the American Library Association (ALA) refers to as "The E's of Libraries®." The explicit focus of this white paper is the Entrepreneurship "E". Small business development and entrepreneurship is an area in which library services are robust and expanding. Libraries provide expertise, physical and digital resources, community intelligence, and more to assist entrepreneurs at every stage of launching and operating a business. The following discussion and analysis highlights library leadership in these areas, and underscores opportunities for public, private and non-profit decision makers to leverage libraries to further advance the innovation economy.

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A Brief Historical Context

"To pour forth benefits for the common good is divine."

-Library Company of Philadelphia

In 1727, a young and ambitious printer named Benjamin Franklin formed a group of fellow tradesmen and artisans to discuss questions of business, morals, philosophy and politics on a weekly basis. 1 The group, known as the Junto (or alternatively as the Leather Apron Club), operated on the premise that their discussions would not only improve their own career prospects as businessmen and politicians, but also the intellectual prowess and overall welfare of the general polity. However, the Junto's members lacked the resources and connections to easily acquire reading materials that could serve as fodder for their meetings.²

So, in 1731, Benjamin Franklin drew up articles of agreement for the nation's first lending library: the Library Company of Philadelphia (LCP).3 LCP's early inventory was supplied by members of the Junto, and was supplemented over time with the help of investments by subscribers and monetary and in-kind donations by wealthy benefactors like John Penn - brother of William Penn, the founder of the commonwealth of Pennsylvania. ⁴ The LCP still exists today, and represents the blueprint not just for the Philadelphia Free Library, but for all lending libraries across the United States. The story of LCP's founding illustrates that individual and social entrepreneurship was both the means and the end of the creation of our nation's first lending library. LCP was built with the enterprise and industriousness of a handful of citizens, and was conceived from

those same citizens' collective drive to be their best selves and to solve society's most pressing problems.

Simply put: Libraries were founded in the spirit that still drives innovators to start and grow ventures today. Nothing makes this point clearer than LCP's founding motto: "To pour forth benefits for the common good is divine."



Stipple engraving of writer, printer, Library Company of Philadelphia founder and U.S. Founding Father Benjamin Franklin – from the New York Public Library Digital Collections.

Libraries Represent a Small Business Support Infrastructure for Everyone

There are numerous challenges to success in the start-up world. To bring ideas to fruition, individuals looking to launch a business need workspace, legal counsel, seed capital, marketing guidance, business plan assistance and more. These challenges were compounded during the Great Recession as

the number of new U.S. businesses (less than one year old) dropped dramatically between 2007 and 2011.⁵

Incubators and accelerators are sprouting up to address start-up needs, but these facilities generally lack a footprint outside of urban centers and tend to focus on technology-centric enterprises. Additionally, many levy membership fees that individuals at the earliest stages of launching a business may not be able to afford. Libraries bridge these gaps and complement other mechanisms at the local, state and national levels.

Numerous federal agencies and federal libraries provide varying support for entrepreneurship. The Department of Veterans Affairs and its libraries provide guidance and resources to veterans seeking to start a business and apply for federal contracts; the General Services Administration offers small business counseling, as well as programs assisting entrepreneurs with the contract procurement process; and, through the Small Business Innovation Research (SBIR) program, 11 federal agencies - including the National Aeronautics and Space Administration, the Environmental Protection Agency, the National Science Foundation and the departments of Agriculture, Commerce, Defense, Transportation, Health and Human Services, Homeland Security, Education, and Energy – allocate a percentage of their R&D budgets for grants supporting high-tech small business innovation.

The National Institutes of Health (NIH) Library facilitates the adoption of emerging technologies among biomedical researchers through its Technology Hub The NIH Library staff developed a researcher profile system for use across Health and Human Services to encourage communities of practice.

The Small Business Administration (SBA) is the federal agency that provides the most comprehensive support to entrepreneurs. SBA guarantees small business loans, capitalizes investment funds that finance small businesses, and supports national networks of small business assistance facilities known as Small Business Development Centers (SBDCs) and Service Corps of Retired Executives (SCORE) chapter offices (which together comprise the SCORE Association, a national non-profit organization). SBA administers SBDCs directly and provides funding for SCORE offices.



The National Institutes of Health (NIH) Library in Bethesda, MD. Photo credit: NIH.gov.

Additionally, the SBA is charged with overseeing compliance with the mandate of the Small Business Act of 1953 that small businesses receive a "fair proportion of the total purchases" of the federal government. ⁶ Current law establishes the goal that at least 23% of all federal procurement dollars be awarded to small businesses. ⁷

Further, it establishes goals that at least 5% of all federal procurement dollars be awarded to women-owned small businesses; at least 5% be awarded to small businesses designated by SBA as socially and economically disadvantaged businesses; at least 3% be awarded to small businesses owned by veterans with service-connected disabilities; and at least 3% be awarded to small businesses in areas designated by SBA as Historically Underutilized Business

Zones⁸ (HUBZones).⁹ Given the SBA's central role in supporting entrepreneurs, the library community deeply appreciates SBA Chief Counsel for Advocacy Darryl De-Priest's acknowledgement of libraries as important contributors to the entrepreneurship ecosystem at the ALA's first-ever national policy convening in April 2016.¹⁰

Although a considerable resource, the federal government's small business support system does not reach all its intended audience. For example, an entrepreneur who has never sought funding from external sources may lack the technical skill or knowledge to complete the SBIR application process, and an entrepreneur in a rural community may not be served by an SBDC or a SCORE chapter office. Libraries of all kinds, in every part of the country, can help bridge gaps and provide an on ramp to the innovation economy.

Government decision makers have already begun to leverage the no-fee entrepreneurship services offered at libraries. For example, the City of Dallas' Office of Economic Development has launched an initiative with the Dallas Public Library (DPL) – called the Dallas Business Resource and Information Network (B.R.A.I.N.) - to deliver entrepreneurship literacy and business development services through DPL's branches across the city. 11 The services offered through Dallas B.R.A.I.N. include classes on various business topics and an interactive web portal offering information about, and access to, non-profit service providers, education institutions and government resources. 12 Similarly, the Cuyahoga County Public Library in Ohio offers the INCUBATOR co-working space and is launching entrepreneur Innovation Centers in three library locations in 2016.13

There are approximately 120,000 libraries in the United States, of which over 16,000 are public library locations. 14 According to the 2013 ALA/University of Maryland Digital Inclusion Survey, 95% of public libraries have economic/workforce programs. Of those, about half provide entrepreneurship and small business development services. 15 A report from the Fels Institute of Government on the economic value of the Free Library in Philadelphia found that "8% of survey respondents report that they could not have started, grown or improved their business without the Free Library, resulting in an estimated 8,630 businesses that benefited from Free Library business development services." ¹⁶ Libraries at community colleges, colleges and universities also provide a wide range of informational and creative resources and services related to small business and entrepreneurship.



A conference room at the Innovation Center at the Garfield Heights branch of the Cuyahoga County Public Library. Photo credit: Cuyahoga County Public Library.

The ubiquity of libraries and the lack of user cost associated with their services do not tell the whole story of their contribution to a "pipeline" for community economic vitality. Anyone can have a good idea for a product or service – but many may lack core competencies for full participation in today's economy. All the coding and web de-

sign skills in the world are not enough to make a successful entrepreneur of someone who does not know how to manage a balance sheet or interpret a statement of cash flow.

Alternately, new ventures lacking social media and web skills are increasingly invisible to potential customers. Libraries everywhere offer programs, activities and resources that help people build skills they need to get off the starting block in their efforts to enter the small business space — including computer and financial literacy courses, English-language instruction, personalized assistance, and much more.

Our nation's libraries complement and extend the reach of private and public sector entrepreneurship support mechanisms. An examination of the ways in which America's libraries serve entrepreneurs in today's high-tech, highly competitive start-up economy highlights the vital role these institutions play in facilitating innovation across our country — and point to opportunities for yet greater contribution in the future.



Larra Clark, Deputy Director of the ALA Office for Information Technology Policy, moderates a panel on entrepreneurship during ALA's first-ever National Policy Convening. Discussants included Emily Robbins of the National League of Cities, Rusty Greiff of 1776, Maureen Conway of the Aspen Institute, ALA President Sari Feldman and SBA Chief Counsel for Advocacy Darryl DePriest.

The Value of Libraries to the Entrepreneurship Ecosystem By Winslow Sargeant, Ph.D. 17

I have dedicated my career to bringing ideas for new products and services from conception to fruition. Over the course of my efforts to do so — in both the public and private sectors — I have discovered that good ideas abound in every part of our country. The reach and magnitude of the American people's drive to innovate is a hallmark of our character and a critical piece of the story of our national success. Men and women, young and old, natural-born citizens and immigrants, all harness the power of their experiences to conceive of new ways to drive the innovation economy forward.

How do we give every person the chance to make their mark as an innovator? We must foster a stronger entrepreneurship ecosystem; one that is both sustainable and accessible. As Gallup Chairman Jim Clifton states in his book, The Coming Jobs War, the critical challenge facing our economy is not a lack of innovation, but a lack of entrepreneurship. The library community is well equipped to bring everyone into the ambit of entrepreneurial opportunity. Libraries are everywhere, and so reach people of all ages, perspectives and backgrounds; libraries are points of connectivity to highcapacity broadband – a technology that animates nearly everything entrepreneurs do in the digital age; and libraries have resources and staff expertise that can guide entrepreneurs through every stage of the start-up process. As the people, businesses and government agencies invested in the entrepreneurship ecosystem work to drive the innovation economy forward, they should look to libraries for partnership and collaboration.

Libraries Provide Business Plan Assistance

Completing a business plan is one of the first tasks at hand for an individual looking

to bring an idea to reality. For example, it requires him or her to distill a business mission; consider barriers to market entry; map the steps to acquiring financial support; and perform research on market competitors. ¹⁸ Most investors will not consider supporting an idea that has not been translated into a business plan that includes credit reports, a statement of financial need, and a loan dispersal statement. ¹⁹ Similarly, a thorough business plan is often a prerequisite for receiving assistance from business mentors and attorneys. ²⁰

Libraries offer instruction and informational resources on how to complete this critical document. The 2013 ALA/University of Maryland Digital Inclusion Survey reveals that 6,065 public library outlets (about 38%) provide assistance with the development of small business plans.

In fact, the family of one Maryland entrepreneur credits the business plan assistance she received at her local library with giving much-needed stability – going so far as to say that she may have "gone crazy" without the library's help. ²¹ Lisa Kilby had always dreamed of opening her own ice cream shop. When she finally decided to do it, she relied heavily on the data available at the Cecil County Public Library to write a plan that helped her secure \$50,000 in seed funding. Lisa's Ice Cream store – Kilby Cream – is now open at two locations. ²²

The New York Public Library's Science, Industry and Business Library offers a business plan research workshop, through which participants receive personal, tailored guidance on how to perform the research necessary to craft a plan that meets their needs.²³ In addition to providing patrons with an understanding of the ingredients their plans need to be successful,

Michigan's Grand Rapids Public Library provides patrons with instruction in how to craft a plan using online and physical library resources.²⁴

With women comprising a rapidly growing proportion of America's small business owners, women's small business advocacy non-profit WomenVenture has partnered with the Metropolitan Library Service Agency – an alliance of over 100 libraries in the Minnesota Twin Cities area – to provide nocost small business classes at public library facilities. How to Write a Business Plan, for instance, walks participants through the core components of a plan and why it is essential for success. ²⁶



The Kilby Creamice cream parlor in Rising Sun, Maryland.

Some libraries host SCORE chapters on-site. These include the Mission Viejo Library (CA), ²⁷ the Shaker Heights (OH) Public Library, ²⁸ and the New York Public Library. ²⁹ Others, like the main branch of the Boulder (CO) Public Library, host SBDCs. ³⁰ Visitors to SCORE chapters and SBDCs located in public libraries can avail themselves of both SBDC and library resources to write business plans and complete other important tasks associated with launching a business.

Many libraries offer items in their collections specifically designed to help aspiring entrepreneurs. The Carnegie Library in Pittsburgh offers one of the most robust items of this kind. That library has created a Business Plans and Profiles index.³¹ It offers an A-to-Z listing of types of small businesses - e.g., animals, antiques and collectibles. Under each small business type is either a sample business plan or a field-specific profile or book.³² Through the Eugene (OR) Public Library, anyone with a library card can access a host of online business plan resources. These include business plan classes offered through Lane Business Link - a hub of information on small business for entrepreneurs in the Eugene area - and a Small Business Research Center and Business Plan Handbook offered through Gale, a leading publisher and aggregator of educational content.³³ In fact, countless public and academic libraries aggregate publically

available information on writing a business plan – made available by SBA, SCORE, local Chambers of Commerce and others – on their websites.

Libraries leverage the business planning expertise of their staff and information in their collections to make it easier for small firms to acquire capital.

The Lansing Community College Library offers a "Business Planning: Start-up" guide through its website. This resource provides links to Michigan SBDCs, Michigan's Business One-Stop — a repository of information on the small business support resources offered by Michigan state government — and Gale's Small Business Resource Center database, a collection of reference and periodical content, as well as business plans and other content created by practicing entrepreneurs. 34

The Lippincott Library at the University of Pennsylvania's Wharton School of Business

supports students' efforts to create business plans by offering them no-cost access to market and industry reports, and giving them opportunity for one-on-one assistance from business research librarians related to industry information, customer demographics, competition analysis, and more. Wharton describes the Lippincott library as a valuable resource for participants in its student business plan competition.

Libraries of all kinds are an ideal partner for developing, curating, and disseminating local and/or customized business planning resources.

Libraries Boost Access to Capital

Libraries provide important information to entrepreneurs concerning small business financing. The Hartford (CT) Public Library partnered with the SBA and the Hartford

SCORE chapter to offer small business workshops. A workshop planned for the summer of 2016 will describe strategies for accessing capital and provide a primer on how to prepare a business loan application. ³⁶ In the same vein,

the Los Angeles Public Library offered a workshop on business loans in June of 2015 at its Valley Plaza branch. Hosted by the Mayor's Office of Economic Development, the workshop described how small business owners in the Los Angeles area could obtain the funding needed to make payroll, expand their workspaces and bulk up their equipment and product inventories.³⁷

A 2013 SBA study finds that, "The major constraint limiting the growth, expansion, and wealth creation of small firms— especially women- and minority-owned businesses—is inadequate capital." That

same study finds that because of their size, small businesses often are bank dependent and have no access to funding from public markets.³⁹ It also finds that the challenges facing small firms associated with gaining access to capital have become more significant since the onset of the Great Recession.⁴⁰ Libraries leverage the business planning expertise of their staff and information in their collections to make it easier for small firms to acquire capital.

At least two libraries – the Houston Public Library (HPL) and the Brooklyn Public Library (BPL) - leverage their business planning resources to facilitate access to capital. HPL and BPL partner with financial institutions to administer business plan competitions that provide seed funding to entrepreneurs. HPL makes informational resources available to participants in "Liftoff Houston!" Houston's annual citywide business plan competition. Participants in the competition participate in workshops on a wide range of topics – including the basics of business plan writing and gaining access to capital – and participate in information sessions on City of Houston business resources available through the library. 41 They also receive support from business mentors provided by Capital One Bank and the City of Houston. The competition concludes with each participant presenting a completed business plan, and a panel of judges choosing a winning plan in three separate categories - Product, Service and Innovation. Each winner receives \$10,000 from Capital One. 42

BPL sponsors "PowerUp!" a similar competition through which Citibank Foundation awards seed funding to individuals who use library training to write an outstanding business plan. Participants take classes at

the library on business plan writing, marketing, financial projections, and doing research with library resources. Participants use this training to complete and present a business plan. The library ranks the plans that are generated through the competition and, offers cash awards for First Place (\$15,000), Second Place (2 awards of \$5,000), Merit (3 awards of \$750) and Honorable Mention (3 awards of \$500). In 2015, the first place prize went to Shelly Marshall's plan for "Island Pops," which now delivers tropical-flavored ice cream to customers throughout Brooklyn.

Finally, libraries also a wide range of financial literacy programs and services. While often not specifically targeted to the start-up community, they provide valuable orientation to financial issues and concerns. One of the most robust library-based financial information programs is NYPL's "Money Matters," which offers classes on budgeting, financial literacy, retirement planning and much more. Money Matters also offers credit counseling and is responsible for an annual "Financial Planning Day." 46



Shelly Marshall receives her first-place check for the 2015 "PowerUp! Business Plan Competition, sponsored by the Brooklyn Public Library. Photo credit: Brooklyn Public Library.

Libraries Advance Intellectual Property Knowledge, Market Research and Competitive Analysis

Library professionals and the collections and resources they steward enable entrepreneurs to better understand the challenges of developing, using and protecting their intellectual assets, the state of the markets they seek to enter, and the nature of the competition they will face once in business.

Librarians have been leaders in navigating the copyright landscape during the digital transformation of the music and the publishing industries over the last two decades. Library professionals are therefore well suited to provide entrepreneurs with first-hand advice concerning how to manage their copyrights and licenses in the digital age.

Most libraries of research universities, for instance, have at least one staff person ded-

icated to working with students and faculty on how copyright law and practices impact their work.

Cornell University's virtual Copyright Information Center offers several such tools. Some that entrepreneurs may find useful include a set of guidelines for determining what constitutes a fair use of copyrighted content, an

overview of the copyright law from the Cornell Legal Information Institute and a guide for determining when and how research implicates the copyright law. 47

Similarly, Stanford University Libraries' Copyright and Fair Use Center publishes publically available information on its website regarding fair use and the process for acquiring permission to use copyrighted material, and also summarizes recent important copyright court decisions.⁴⁸



Students study in the atrium of the Albert R. Mann Library at Cornell University. Cornell University Library offers a robust copyright information resource. Photo credit: Cornell University Library.

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Copyright is just one piece of the intellectual property puzzle for entrepreneurs. Copyright protects works of creative expression – like books, musical compositions, paintings and sculptures. Starting a business often involves producing things that are utilitarian in nature – like prosthetic limbs, cooking tools, machine parts, information technologies

and a great deal more items that serve a dedicated functional purpose. These things implicate patent and trademark rather than – or sometimes, in addition to – copyright. Since 1871, the Patent and Trademark Of-

fice (USPTO) has administered the Patent and Trademark Resource Center Program. 49 Through this program, the USPTO designates certain libraries as Patent and Trademark Resource Centers (PTRCs). To be given the PTRC designation, an academic, public or state library must provide access to certain informational tools, and its staff must meet certain training and tracking requirements related to patent and trademark services. 50 Trained specialists at PTRCs can help aspiring entrepreneurs determine whether or not someone else has registered a trademark or obtained a patent for their respective ideas. Although these specialists do not offer legal advice, they can answer questions about the patent and trademark processes. 51 Additionally, PTRCs provide access to, and instruction in, PubWEST and PubEAST, the publically accessible versions of the patent searching tools used by USPTO examiners. 52 These tools provide access to all U.S. patents issued since 2001. To date, about half of all PTRCs are academic libraries, and half are public libraries.⁵³



Resources at the State Library of Arizona's PTRC. Photo credit: State Library of Arizona.

These facilities sometimes offer services targeted to young people. The PTRC at the St. Louis Public Library held a "Kids Inventing Day" in early 2016 during which children, along with their parents, were invited to the Center to learn about different man-

ufacturing processes, the basics of the patent system, and more. Boy Scouts could also gain information on their "Inventing Merit Badge." ⁵⁴

In addition to offering a wealth of information on intellectual property, libraries provide access to and advice about informational resources that facilitate market research and competitive analysis. In many communities, a library card provides free access to pay-to-access databases like ReferenceUSA, a business information database that provides financial and operations data on over 24 million firms; LexisNexis, a primary source legal database replete with information on business regulations and more; BBC Research, a compilation of market research reports on a wide range of industries; and Value Line, an index of information on stocks, mutual funds, options and convertibles. Every library does not offer every research database on the market of course, but all libraries will offer some business-related resources and some capacity to access the resources of other libraries.

Libraries are robust sources of information on community demographics and business trends for entrepreneurs. Libraries provide this information through providing access to data sources, reports and news outlets. One important source is information from the U.S. Census Bureau. In addition to offering insight into local population trends, Census data provides access to an annual data series – the County Business Patterns program - that offers employment and payroll information about business establishments within local geographic areas. 55 The Census can help entrepreneurs analyze and understand the make-up of their customer bases and juxtapose their own operations data with that of their competitors. The

Cincinnati Public Library's website offers a Census Spotlight page, which, in addition to providing access to Census data and explaining how it can be used, also links to repositories of locally-maintained economic and demographic data. The Milwaukee Public Library's "Business Resources" web page includes a Census and Demographics section, through which users can access a variety of data sources.

Libraries are also points of access to reports and other data sources produced by federal agencies like the SBA and the Department of Veterans Affairs, as well as to local and state information about local small business permitting requirements, incentives, demographics, and more. For example, the Oakland Public Library's online business information resource connects visitors to the City of Oakland's comprehensive guide to doing business in the city, and also to several SBA resources, including the SBA Small

Business Start-up Kit and also the SBDC National Information Clearinghouse.⁵⁸

Beyond data and information, entrepreneurs just getting started need signposts to nearby sources of support.

The Dallas Public Library's community information database has detailed information on 75 small business organizations in the Dallas area, including five SBDCs, the Community Development Center of the local Federal Reserve Bank, community lending centers, local chambers of commerce, and more. ⁵⁹

For an entrepreneur seeking to gain knowledge of a market, the search and reference expertise of library professionals may prove just as valuable – if not more so – than the demographic and business in-

formation available at libraries. Library professionals can advise entrepreneurs to find relevant information within datasets, news sources and reports, and then use it in a way that furthers their business goals. Furthermore, library professionals are community connectors. They have relationships with, and knowledge of, nearby ventures and their leaders across industry sectors. They are therefore well positioned to connect aspiring entrepreneurs with blogs, newsletters, social media profiles and other sources of the most current and relevant information about local businesses within the fields they seek to enter.

Libraries Enable Prototyping

Ideas for new products and services are generated all the time. Two major challenges facing any entrepreneur seeking to bring his or her idea to fruition are a lack of access to prototyping equipment and the sig-

nificant cost of producing a prototype. Libraries that offer digital making equipment address these challenges. A rapidly growing number of public li-

brary outlets – over 420, up markedly from about 250 one year previously – offer 3D printing services. 60 School and academic libraries are also increasingly providing this service. 51 Some libraries also offer laser cutters or computer numerical control (CNC) routers. At most of these libraries, with little more than a library card and a brief time investment in completing a training module, entrepreneurs can use digital making equipment and its accompanying design software to bring their ideas into the world. Generally, the only cost associated is a

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modest charge per ounce of material used in the production process.

Recent uses of 3D printing services at the Westport Library (CT) illustrate the utility of the library as a space for product prototyping. A woman with no background in business or entrepreneurship used a 3D printer at Westport to prototype a square-shaped headband that imitates the look of wearing sunglasses atop your head. She has now received financial backing and has begun marketing her headband in a variety of colors. 62 A man also used a Westport printer to a prototype a device that attaches to cell phones and prevents drivers from texting and performing other functions while operating a car. SafeRide is now being successfully marketed as a downloadable mobile app that locks the smartphones of drivers when they are in motion.⁶³



Scott Rownin, creator of SafeRide, shows off his mobile app. Photo credit: Westport Library.

The prototyping activities libraries enable can also stir the professional ambitions of students. Last year, a high school student in Rifle, Colorado, used the 3D printer at her local library to design and print a functioning prosthetic leg for a young girl.

The student is not seeking to mass produce her design in the near future, but the experience of prototyping at the library has encouraged her to study engineering and pursue a career in prosthetics. 64

Libraries encourage and empower innovation in our communities by offering digital making tools that facilitate the process of translating ideas into physical items. As more libraries adopt and provide public access to these tools, the barriers to proving the viability of new products and services will diminish.

Libraries Provide Workspace to Start-ups

The workplace landscape is changing rapidly. A growing number of Americans report self-employment or perform freelance, part-time or contract work. This trend is disrupting the long-prevailing norm of workers leaving their homes for a discrete and defined workplace. More workers than ever are unmoored and working remotely. For proprietors of fledgling ventures, conducting business beyond the walls of a traditional office makes particular sense.

These proprietors often live frenetic professional lives. They frequently find themselves traveling for conferences and other networking opportunities, as well as for meetings with prospective investors. Remote workspaces offer them a flexibility that is well suited to the demands these obligations create. The library is a particularly useful workspace for these proprietors; it affords them the ability to meet their often geographically far-flung obligations while still having access to a home base replete with robust resources and information technologies.

Additionally, a growing number of libraries (more than 1,000 locations as of 2013) offer dedicated workspaces, known as "coworking" spaces. While libraries of all sizes

support mobile workers and startups, a library co-working space offers additional benefits – including opportunities for collaboration with other entrepreneurs and equipped office space devoid of overhead cost.

The Martin Luther King Jr. (MLK) Central Library in Washington, D.C. offers a coworking space known as the Dream Lab. The facility boasts 3D printers, SMART boards (digital whiteboards), videoconference rooms and other workplace tools. One start-up that calls the Dream Lab home is MapStory, an interactive and collaborative tool for mapping change over time. The goal of MapStory is to allow people to harness open geospatial data to better understand the world. 65 Maps generated through this tool include a depiction of the territorial claims of the Islamic State of Iraq and the Levant (ISIL) from July 2014 to April 2015; an illustration of air strikes carried out by the countries allied with South Vietnam during the Vietnam War between 1970 and 1973; and an illustration of the progression of Lewis and Clark's discovery expedition to the Pacific Coast. 66 Jonathan Marino, Map-Story's Director, credits library resources with helping him to get his venture off the ground.⁶⁷ As of last summer, the MLK Central Library had helped MapStory digitize and upload approximately 8,000 maps and allowed Marino to hold informal focus groups with patrons.68

Another member of the Dream Lab at the MLK Central Library is Hola Cultura, which bills itself as "...an online outpost to share news, reviews, opinions and original work by and for Washington's Hispanic community and Latin-culture lovers." ⁶⁹ Hola Cultura has an abiding interest in preserving the Latino culture of Washington, D.C. In pursuit of this goal, the organization partnered

with MapStory last year to create a map that charts all of the Latino murals that currently exist on the streets of the city. The completion of this project is not just a testament to the space and tools available at the Dream Lab, but also to the professional connections and collaboration this facility, and others like it, can facilitate.

One of the newest library co-working spaces is the Microbusiness Center and Coworking Space at the Akron-Summit County (OH) Public Library. The facility, which formally opened in April 2016, is filled with easily movable office furniture, Wi-Fi, a copier and a scanner. 71 It also offers easy access to business librarians, and databases that facilitate competitive analysis and market research. Furthermore, it is under the same roof as the library's audio recording studio and training center, and will soon sit nearby a new makerspace, which will include a 3D printer, laser engraver and vinyl printer and cutter. As of April 9, 2016, the facility had received 18 applications for membership.⁷² One early member is Damian Huising, who partially operates his information technology and cybersecurity consulting firm, Packet Brigade, from the facility. Huising hopes that the facility's open workspace will help his team brainstorm together and network with others.⁷³ Formal and informal library co-working spaces meet diverse informational, networking and technological needs of today's start-up enterprises.



The Dream Lab at the MLK Central Library in Washington, D.C. Photo credit: MapStory.

A Library Co-working Case Study: MapStory

The trajectory of MapStory's growth from a kitchen-table hobby to a flourishing storytelling platform represents a classic dream-to-reality story.

The story begins in New York City in the late 1990s, where Chris Tucker, a Ph.D. candidate at Columbia University, was studying the relationship between geography and technological change. In the process, he was struck with an idea: to create a research database for space and time. Harnessing the power of geographic information systems (GIS), he could build an open platform for the creation and sharing of interactive maps that told the stories of cultural landmarks, historical events, demographic trends, and more. He thought that the interactive and collaborative nature of this platform would animate the learning process.

Tucker worked independently to realize his vision for years, until he caught a break in late 2012: the Army Corps of Engineers (ACE) – the backer of the first-ever GIS project – supported Tucker's work with a grant. With ACE's cash infusion, Tucker hired Jonathan Marino as a full-time content and strategy guru.

One afternoon, while taking a walk to clear his head in the midst of a difficult workday, Marino wandered into the MLK library. While casually scanning the literature in MLK's Information Commons, Marino happened across a brochure for the library's new "Dream Lab" co-working facility. In short order, MapStory was accepted as the Dream Lab's first member.

By 2014, the start-up was operating out of the Dream Lab full-time.

The open and collaborative culture of the Dream Lab makes it the perfect setting for MapStory's day-to-day operations. Marino touts the facility's informational resources, internet access and community connections as crucial to MapStory's work. "When I walk through the door, I'm surrounded by business, culture and community information," explains Marino. The facility has helped Tucker, Marino and their team cultivate local relationships that bolster MapStory's profile and public service mission.

Last summer, with the help of connections they formed at the Dream Lab, the MapStory team partnered with the D.C. Office of the Chief Technology Officer (D.C. OCTO) to host MLK@MLK: a summer program in which nine Washington, D.C. high school students mapped the history of the civil rights movement. The Dream Lab also recently helped MapStory connect with curators of MLK Library's Washingtoniana Collection – a collection of maps, books and articles pertaining to the Washington, D.C. community.

A major focus of MapStory's work at the present time is a website revamp that will consist of a comprehensive aesthetic overhaul, and the addition of a distributed editing feature, which will allow a map's construction and adaptation to be tracked by multiple users over time. Marino touts the Dream Lab as the perfect environment for supporting the communication, coding and design work of the web redesign team as they get the new site ready for launch.

Libraries Promote Innovation and Creativity Among Future Generations of Entrepreneurs

The stories of some of America's most successful entrepreneurs illustrate that the capacity for innovation has no age threshold. Computer magnates Steve Jobs and Bill Gates brought their world-changing enterprises to fruition in early adulthood. More recently, Mark Zuckerberg touched off the social networking maelstrom from a dorm room, and Elizabeth Holmes revolutionized blood testing as a teenaged college dropout. Connecting young men and women to the resources and competencies needed to bring new ideas feeds the innovation economy.

Libraries offer programming to help them realize this potential. In 2015, with the help of a YALSA⁷⁵ Teen Tech Week grant, the Albany (NY) Public Library twice administered "Build-a-Song," a program through which

teens created an original song with digital recording equipment over five days. Using a Mac Mini with GarageBand, several instruments, two microphones and studio monitor speakers, teens worked together to write lyrics, build original rhythms and beats, and

record vocals.⁷⁶ On a more traditional note, the Benjamin L. Hooks Library in Memphis (TN) began partnering with Junior Achievement in 2015. "The entrepreneurship this program will teach our high school students is something we want to see grow," said Amy Cresswell, an assistant vice president and West Tennessee Regions at Work coordinator. "Hopefully, we can train and retain our young talent in Memphis."

Many libraries explore game labs and gaming programming as a way to engage youth in the use of technology. The U.S. Army Europe Library program successfully hosted several gaming tournaments where teens and young soldiers competed. Other libraries, like the Westerville Public Library in Ohio, have game rooms that encourage youth to learn and interact with others through gaming.



Teens participate in the "Build-a-Song" program at the Albany Public Library. Photo credit: YALSABlog.

Libraries offer a wide variety of coding programs and activities for children and teens that build web design skills that are becoming increasingly necessary for participation in the innovation economy.

Libraries also offer a wide variety of coding programs and activities for children and teens that build web design skills that are becoming increasingly necessary for participation in the innovation economy. The Chestnutwold Ele-

mentary School Library in Pennsylvania offers code.org⁷⁸ classes for grades 1-3, thirty minutes of code per week for grade 5, and will be adding coding for Ozobot robots – small robots designed to facilitate robotics and STEM instruction among young children – at some point this year.⁷⁹ Chestnutwold is one of many school and public libraries offer coding instruction for young people.

Additionally, the abovementioned 3D printing services offered at some libraries close the gap between learning and the "real world" for children and teens. For instance, by printing their own jewelry as part of a geologic lesson on rocks and minerals, 3rd graders at the David C. Barrow Elementary School (GA) library experienced how the science they learn in school can be used to create something novel, personal and fun.⁸⁰

Examples abound of young people using creative equipment at the library to explore their own ingenuity. Teen musicians used the equipment at the Harold Washington Library Center in Chicago to produce their early tracks; and a high school student discovered her interest in engineering for social good when he 3D printed a functioning prosthetic hand for a family friend. Thus, libraries are incubators of both skills and ideas for children and teens.

Libraries Encourage Entrepreneurship Among Immigrants

Immigrants play a significant and growing role in the American start-up community. According to a recent report from the Kaufmann Foundation, while immigrants make up approximately 13 percent of the U.S. population, immigrant entrepreneurs started 28.5 percent of new businesses in 2014, up from 25.9 percent in 2013, and 13.3 percent in 1996.81 The growth in immigrants' share of overall U.S. business formation in recent years suggests that the health of America's innovation economy hinges significantly on the ability of the entrepreneurship ecosystem to encourage continued innovation within the immigrant community.

Libraries offer a wide array of programs and activities that prepare immigrants for life

within our borders. Each branch of the Los Angeles Public Library has a citizenship corner filled with materials to help people navigate the process of becoming an American citizen.82 These include a naturalization test brochure; civics flash cards; the application for naturalization; the naturalization interview and test video; and the Citizens Almanac. Through its New Immigrant Project, the Austin Public Library offers English and citizenship classes to immigrants, sponsors instructional English conversations called "Talk Time" and provides immigrants with resources related to social services and the law.83 The Hartford Public Library administers The American Place (TAP) program, which offers English and citizenship classes at no cost, lectures on immigration topics, U.S. passport services, and more.84



The Hartford Public Library – site of The American Place (TAP) program. Photo credit: Hartford Public Library.

Additionally, libraries offer services directly aimed at encouraging immigrants to launch successful ventures and answer pertinent business questions. Through its Immigrant Business Initiative, New York City Small Business Services offers courses at New York City libraries "to help small businesses grow and thrive." The courses are offered in a variety of languages, including Arabic,

Bengali, Chinese, Haitian Creole, Russian and Spanish. ⁸⁶ Last year, New York Public Library held a succession planning workshop for immigrants exploring the idea of selling their businesses. ⁸⁷ Beyond classes and workshops, the Brooklyn Public Library offers an online Immigrant Business Resource Guide, which provides links to city services, community-based organizations and chambers of commerce that offer services to new entrants to the United States seeking to start businesses. ⁸⁸

The library community's active engagement with immigrants makes it an ideal partner for private and public sector actors in the small business ecosystem seeking to encourage and harness innovation within the immigrant community.

Decision Makers Should Include Libraries in Initiatives to Promote Entrepreneurship

U.S. libraries represent a cost-effective, digitally-connected national network that is being leveraged to create opportunities for innovators of all ages and backgrounds in every part of our country – but much more could be done. Decision makers in the public, private and non-profit worlds should look to libraries for collaboration and partnership as they search for ways to drive the innovation economy forward. As illustrated by some of the above-described small business activities involving library resources e.g., partnerships between libraries and such organizations as USPTO, SCORE, SBA Capital One and Citi – libraries create synergies with organizations of all kinds that empower people to develop, fund and market new products and services. Furthermore, many libraries that do not currently explicitly engage in entrepreneurship support activities – collaborative or otherwise – have

the resources, expert staff, community connections and inclination to do so. Thus, library professionals everywhere look forward to new opportunities for working in concert with others to advance the enterprising spirit of the American people.

This paper does not provide specific policy recommendations for moving forward, as the focus here is on the explication of how libraries are an integral component of the small business and entrepreneurial ecosystem. The American Library Association will be exploring and proposing specific recommendations in the latter half of 2016 – in part to support advice and advocacy for the incoming Presidential Administration.

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Between 2010 and 2015, Dr. Winslow Sargeant served as the sixth presidentially-appointed and senate-confirmed Chief Counsel for the SBA's Office of Advocacy. Dr. Sargeant is now managing director of Sargeant and Tlale, LLC, a firm that supports the development of early stage growth companies.

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