

Independent Inventors: Who they are and How they use the PTDLs

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Abstract

This paper discusses the lack of organized formal support for independent inventors. Federal programs such as those available from the Departments of Energy (DOE) and Office of Independent Inventor Programs at the United States Patent and Trademark Office (USPTO) that were most effective at supporting and empowering inventors are mentioned. The paper also mentions the services for inventors that are available at Patent and Trademark Depository Libraries (PTDLs). The paper concludes with recommendations for adjustments and re-positioning that PTDLs need to do to continue provide viable support services to inventors. To remain a viable support to inventors and the business community, the paper suggests that PTDLs start aggressive educational, outreach and training programs aimed at all their users.

Keywords: Independent inventors, Small Businesses, Patent and Trademark Depository Libraries, PTDLs, Information needs, Patents, Creativity, Research and Development

Introduction

The term "independent inventor" conjures up a variety of images. For many, it refers to historical figures, such as Thomas Edison, Alexander Graham Bell and the Wright Brothers. (Messadie, 1991) For others, an independent inventor is a wild-eyed, wild-haired old white man who is concocting potentially dangerous gadgets that threaten to blow up the neighborhood. Some people think an inventor is someone who tinkers but achieves little, if any, success.

The economic power of multi-national corporations overshadows the valuable contributions made by the individuals who have created major technological breakthroughs that became huge commercial successes. Wilson Greatbatch worked in his garage to develop the implantable cardiac pacemaker. (National Inventors Hall of Fame, 2003) Raymond Damadian gladly tested the first magnetic resonance imaging (MRI) machine, which he designed and created with the help of a small team. But neither Greatbatch nor Damadian are household words. And the same is true for Theora Stephens, the inventor of the curling iron, Josephine Conchran who invented the dishwasher, Philo Farnsworth, inventor of the television, (Carey, 2002) Dave Hampton (Furby), Jeff Hawkins (Palm Pilot) and thousands of other independent inventors who

have created products that change our world, create jobs and add to our economy. (Carey, 2002) Independent inventors are the primary users and customers of the Patent and Trademark Depository Libraries (PTDLs).

There are few formal sources of help for inventors. Years ago, the U.S. Department of Energy (DOE) sponsored educational workshops for inventors about product development. These one to two day long workshops were held around the country, exposing the attendees to experts who shared vast amounts of information about patenting, prototyping, market research, marketing, licensing, trademarks and finance. Every question an inventor had was answered. And, the workshops offered unique networking opportunities with other inventors and the workshop presenters. In fact, the program was so successful that it spawned many local and regional inventor organizations, many of which continue to thrive.

But then the plugged was pulled. Funding was cut. Priorities were redefined. The DOE workshops ended. Partially filling the void on a national level was an annual Expo and conference sponsored by the U.S. Patent and Trademark Office (USPTO) and the Intellectual Property Owners organization. The Expo gave inventors a chance to exhibit their inventions and attend educational workshops. Unfortunately, after 26 annual Expos, budget cuts and new priorities put an end to this national program in 2000.

But the demise of the Expo did not mean that the USPTO was out of the business of educating independent inventors. Under the guidance of USPTO Commissioner Todd Dickinson, the Office of Independent Inventor Programs (OIIP) was created in 1999; this new and invigorating program brought more information and networking to inventors than ever before.

The Office of Independent Inventor Programs reached out to inventor groups offering the services of patent examiners from the USPTO who could address their members. Every invention trade show, from Connecticut to Minnesota or from California and Mississippi was sure to feature a booth from the USPTO manned by at least one, usually more, patent examiner(s) representing one or more areas of technology. At many events, Commissioner Dickinson was a featured speaker, and he also generously gave of his time to talk with and counsel inventors.

The outreach of the Office of Independent Inventor Programs exceeded what it seemed possible for its directors to accomplish. Each of the Directors of this Office, first, Donald Kelly who was followed by Richard Apley and then John Calvert, were dedicated and highly experienced USPTO examiners and/or supervisors who inspired confidence in independent inventors and small business owners. These directors supported independent inventors without reserve, often traveling thousands of miles all over the nation meeting inventors and giving presentations at countless inventor workshops and through their writing. (Kelly, 2001) During their tenure, each of these directors counseled thousands of inventors who, finally, had a place at the USPTO to get their questions answered and their problems solved.

Unfortunately, this vibrant positive energy and open door policy of the Office of Independent Inventor Programs no longer exists. "Officially," the OIIP exists but it has no director. It exists virtually with an online presence only. Many requests from organizers of inventor conferences and trade shows for a USPTO speaker and/or exhibitor have been declined.

It appears that the invitations were declined partly because the US federal budget for 2003 was on a continuing resolution and no funds were available. More significantly, inventors have moved down on the USPTO's priority list and the emphasis is now on the agency's web site and fielding questions via the USPTO's Inventors Assistance Program.

The Internet and Inventors

The Internet is an incredible tool. From ordering products, including home grocery delivery, to locating addresses, planning trips, keeping in touch with family and friends and, of course, researching information, the Internet has changed the lives of all who access it.

But if the Internet is such a superb research tool, why do hundreds of inventors exhibit at and visit such trade shows as the Yankee Invention Exposition in Connecticut and the Minnesota Inventors Congress to learn from their peers and from the experts in the field? Why are inventor organizations holding monthly meetings that are extremely well attended? The popularity of these trade shows and inventor organizations is because the Internet cannot replace human contact. As valuable as the Internet has become, there is a definite need for face-to-face communication.

PTDLs have always been an incredibly valuable resource for all inventors. PTDL librarians have taught thousands of people how to do patent searches. Many have opened their doors to inventor organizations to host monthly meetings and special seminars. But how will the Internet affect the future of PTDLs? More directly, do the PTDLs have a future or will they be replaced by the Internet?

PTDLs Use by Inventors

In APRIL 2003, *Inventors' Digest* conducted an informal Internet survey asking inventors and those who head inventor organizations around the country if they have used a PTDL and how PTDLs are likely to be used in the future. The question, "How have you (or members of your organization) used PTDLs and how do you think the libraries will be used in the future?" was sent to inventors, leaders of inventor organizations, and small business owners who are on the distribution list of *Inventors' Digest*. Responses to this two-part question are listed in alphabetical order by state in Table 1. The survey yielded both positive and negative comments about how PTDLs are and will be used by inventors. From these comments, it is easy to glean two distinct observations. One, the

most powerful PTDLs' asset is its people, the PTDL Representatives and PTDL staff. Two, PTDLs are facing extinction.

In the not-too-distant future, today's Internet will be remembered as quaint as the old fashioned, wall-mounted crank telephones of yesteryear. But, even the power of this worldwide communication tool will not eradicate PTDLs if their mission becomes aggressive outreach built upon the experience, knowledge and personalities of their unique ambassadors, the PTDL Representatives and PTDL staff.

Suggestions and Recommendations for PTDLs

The following are just a few of the ways PTDLs can maintain and enhance their viability:

1. PTDL Need Visible Presence on www.uspto.gov

PTDLs and the United States Patent and Trademark Office need to establish a more visible presence of PTDLs on www.uspto.gov. Right now inventors have to know PTDLs exist before they visit the site because it is not easy to find the listing of Patent and Trademark Depository Libraries.

2. PTDLs Working with Inventor Organizations

PTDLs should continue to work with existing inventor organizations by hosting meetings, planning seminars and guiding inventors to these groups for support.

3. PTDLs Establish an E-mail Network of State and Local Inventors

PTDLs should establish an e-mail network of local or statewide inventors. Each PTDL should be known as "the" regional information source.

4. Join Local and State Economic Agencies

PTDLs should work with and become part of the local and/or state economic development agencies. PTDLs provide the much-needed information about intellectual property protection that, all too often, is not known by those who counsel business leaders or by those who are creating small businesses.

5. Network with SBDCs, SCORE

PTDLs should network with Small Business Development Centers (SBDCs), SCORE and other organizations whose mission it is to help fledgling businesses.

6. Outreach to High Schools, Colleges and Universities

PTDLs should establish more aggressive programs of outreach to high schools, colleges and universities, to encourage and promote the use of science, business and legal information contained in patents and trademarks.

7. Knowledge of Commercializing Inventions

PTDLs should become knowledgeable about the economic impact of inventions and how local inventors brought successful products to market thus creating jobs in their local communities.

8. Participate in National Inventors' Month®

PTDLs should participate in National Inventors' Month® in August, during which time libraries around the nation celebrate inventors and encourage both young and old to explore their inventive, creative talents. America's Patent and Trademark Depository Libraries (PTDLs) must continue to educate fledgling inventors and must take the necessary steps to enhance and utilize their most powerful asset, their personnel.

Conclusion

This paper has presented a critical need that exists for formal federal support for independent inventors and small business owners. The paper mentions a special need for inventor workshops and other educational outreach programs that aim to educate the independent inventor on the processes involved in successfully researching, developing, promoting, marketing, and commercializing an idea into a product or service on the market. The key support role that Patent and Trademark Depository Libraries (PTDLs) provide to inventors and small business owners is highlighted, with a call for PTDLs to engage in more aggressive patent and trademark training programs that address the information needs of inventors, students, researchers, small business owners and other user groups of intellectual property information.

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Appendix

Table 1. Inventors Use of Patent and Trademark Depository Libraries

Inventor	Inventor Responses, Comments on PTDL Uses
<p>Inventor 1 California</p>	<p>"The libraries have lost their monopoly on access to patents, but they are still a very viable source of patent and business information (trade books, lists and publications not easily accessible anywhere else). Libraries are certainly the entry doors for many, if not most inventors, who want to take the next step (a much better entry door than the one of a fraudulent invention promotion firm!). Patent workshops/lectures with a 'resident' patent attorney are a permanent feature at the San Diego Public Library. Besides, inventors groups like ours have a spot where meetings and workshops can be announced with usually good response rate."</p>
<p>Inventor 2 Inventor Association California</p>	<p>"PTDLs are horse & buggy UNLESS they can begin providing robust, consistent inventor seminar training programs. They must become the '24/7' regional inventor training locations to augment the too infrequent inventor conferences. "Once the PTDLs begin offering an 'always-on' training resource for inventors, that being a low cost alternative to what inventors must pay to travel across the country for an annual conference, they will begin becoming more active, and more of a valuable resource for inventors. "Sci3 in Sunnyvale needs to be commended for their out-front efforts in this regard - they provide monthly, sometimes weekly inventor training seminars for \$75 or so. "Many PTDLs that I've been to provide courteous assistance to inventors who are trying to search, and that's where their knowledge or interest stops. Their knowledge of invention development is shallow. Invention development training, and their ability to assist inventors beyond the 'ask about searching and I will answer' must be improved. "With the budget cuts happening everywhere, the PTDLs must become more of a contributor to economic vitality and growth - pro-active inventor training is a first step. "Bonus benefit: they will collectively offer a GREAT alternative to inventors who get sucked in to the fraudulent invention promotion companies - but only if they begin high visibility outreach programs in their region."</p>

<p>Inventor 3 California</p>	<p>"Please don't mention my name, but the Sunnyvale [Partnership] PDDL puts on many classes and seminars for a fee. My comment: The fees are rather hefty, typically \$120 to \$175. These fees are prohibitive for the lone inventor. I imagine they are able to set fees at high levels because the attendees are employees of the well-to-do Silicon Valley companies that pay them without batting an eye. I have never asked, but I would hope the PDDL could have a token fee, say \$25, for the independent inventor who doesn't have the financial resources of a hi-tech company. As to how they could be identified as 'independent inventors' perhaps their membership in a local inventors club would do the trick. Otherwise, the PDDL does a great job for all."</p>
<p>Inventor 4 Inventor Association Colorado</p>	<p>"The Internet is the vehicle of choice to do patent and trademark searches. In the days before the USPTO had a good web site, inventors in this area could be found milling about the library looking at Gazettes and sitting in front of terminals. Now, I think the Internet has taken over. The USPTO web site provides great search capability. We at the RMIC give each new member a file to download and print on how to do a patent search on the Internet. The search technique we provide our members uses a combination of key word, class and subclass. It is quite effective. Once a member gets comfortable searching with our tutorial, we offer advanced search training using Issued class, searched class, and wild-cards combined with key words. Usually, if prior art is present it can be found back to 1790 using our tutorial and the advanced search capability of the USPTO site. We also coach inventors on how to use the WIPO and foreign patent search sites when appropriate."</p>
<p>Inventor 5 Inventor Association Florida</p>	<p>"The PDDL is not something to which Southwest Floridians have easy access so the Internet has drawn more attention for searches. Patent attorneys are still relied upon for this service, too. "It seems everyone keeps getting busier and busier even at play. People are motivated to cram as much in a day as possible. If the challenges of using the PDDL appear intimidating, then people look for other avenues relying on others or paying for services. That is an area the might be expanded. Being able to call up and request professional services at the PDDL. The liability issue might inhibit this unless services are spelled out."</p>

<p>Inventor 6 Inventor Association Georgia</p>	<p>"While quite a few members in the Inventor Associates of Georgia (IAG) do preliminary patent literature searches on-line, many still visit Ms. Joanne Tobin at the Atlanta PTDL to get her assistance with top-notch searches by current U.S. Classification. While it's rare that you might ever catch Ms. Tobin when she's not busy, Joanne always finds time to help. I for one am grateful for her assistance to our members, sending those 'budding' inventors to the IAG and for all her help with the Patent Workshop last year at the USPTO library. Even though the on-line searches are available, the personalized preliminary search by librarians like Joanne is much better. I hope she will continue to take an interest in our group so that we may continue to make improvements."</p>
<p>Inventor 7 Inventor Association Minnesota</p>	<p>"The Minneapolis PTDL does get used but probably not as effective for the mom & pop inventors we see. They offer a 1-hour FREE class on patent searching and what the system is basically about - with handouts. IF, and that's a big IF, the inventors grasp what they're supposed to do, all the materials, journals, etc., is at their disposal. "The PTDL is very useful for those searching higher technology. But those who create that technology are Internet savvy and get the information faster that way. In our current state budget crunch, we most likely will be losing our Minnesota Technology agency, which hosts our monthly meetings. Certain staff working with inventors at another state agency located in the northern Minnesota iron range have just lost their positions. In other words, everyone is getting hit. "Elimination of the PTDL's may seem like a crisis in the making but innovation in accessing the PTO with Internet technology can work out as a plus. The real issue is educating the mom & pop inventors (I'm in that group) about the patent system, what it is, its importance and how it fits into the inventing process. Teach them how to search on their own and/or have professionals available to do it for them at an affordable price</p>
<p>Inventor 8 Small Business Development Center Mississippi</p>	<p>"The Mississippi Patent and Trademark Depository Library in Jackson provides a real resource for inventors. The librarians are most helpful in getting the new inventors started on their search since many have no idea how to do a search. I refer inventors to them and they refer them to me for more information. We complement each other. Just yesterday I talked to an inventor, gave him contact info for the library and he called back in a couple of hours to say that he found a patent that covered what he was working on. He had Internet access but with only modem access, doing a patent search takes forever due to slow download</p>

	<p>times for the large graphic files. In rural areas, the phone lines are generally the limiting factor on download speed and many people are lucky to get 28.8 download even though they have a 56k modem. "We also have 4 satellite patent libraries scattered across the state which provide easy access to most all Mississippians and the librarians are most helpful to the inventors. "I think the PTDLs will be needed in rural areas for quite a long time due to the slowness of most peoples Internet download times. Broadband access is still not available in most smaller towns and rural areas and is quite expensive."</p>
<p>Inventor 9 Inventor Association Mississippi</p>	<p>"I will be glad to give you some input on the PTD library located in Jackson, MS., Mississippi Library Commission. We Love It! We love it so much, we know the workers by name, Velma and Indira. "We have had three Invention Conventions over the last 4 years in different parts of the state of Mississippi and all three times they have been invited and participated with a booth and lots of material for the inventor. "They make themselves very accessible to us and we do all that we can to promote their service. Using the Internet for searchers is great, you can do it on your own time, but I firmly believe that it needs to be coupled with a search at the PTD library. It's like both sides of the search coin."</p>
<p>Inventor 10 Montana</p>	<p>"I have never consulted with an inventor who has used the one in our state. It is located in Butte, which is relatively central given the vast spaces of Montana. The head librarian has a very favorable reputation as being helpful to the facility visitors. However, with the accessibility of search options and on-line databases, there is little incentive to trek to the PTDL for research. Times be a-changing! "Like many government services, PTDL needs to shift its role to suit the changing times and to justify its survival. They need to connect with the public through some good marketing efforts. I have no doubt that inventors and researchers would profit from interacting with the very high quality of librarian services provided. For the most part, people just don't know about the PTDL and/or what services are available. Efforts such as offering space and promoting workshops and meetings would be examples of possible marketing efforts. "I work under contract with the MT State Dept of Commerce doing small business counseling for the SBIR outreach office. That office and others related to economic development frequently offer statewide technology and inventors workshops, SBIR training, and other meetings. I don't recall any of the workshops or seminars being located in Butte or at the PTDL located there. Interesting idea for us to explore!"</p>

<p>Inventor 11 Inventor Association Nevada</p>	<p>It's not about how the Internet has affected the PTDL. It's about the needs of the American inventor community and how the PTO is addressing those needs. "Inventors will always strive to improve his or her technology. So whether or not an inventor is computer literate, or has access to the Internet, has little to do with their ability to create. One personal contact at a PTDL has the power to nurture that creativity at any level of innovation -- especially for those shy inventors who need it most.</p> <p>"For example, in our town the PTDL librarian, Pat Ragains, on his own time, gives a full seminar lecture to our inventors' group, on Saturdays, because that's the day we meet. It is not for his convenience, but ours. That sort of unselfish individual outreach effort is the heart of what the PTDL has meant to inventors in the past, and must continue for our future. There is no substitute.</p> <p>"Two other important comparisons of the value of a PTDL over Internet searches, at least in the opinion of this inventor, are:</p> <ol style="list-style-type: none">1. Researching references cited in relevant patents is much faster and more certain in The Official Gazettes than on the PTO web search site, due to the quick judgement call opportunity created by viewing an abstract and image together.2. A library atmosphere is far more conducive to concentration than the distractions at home.3. Personal contact at a PTDL broadens public awareness of local resources and practitioners.
<p>Inventor 12 Inventor Association Ohio</p>	<p>"Our group works closely with our PTDL. The Library provides us with a free room for our monthly meetings, so members and attendees can use the library prior to meetings. One of the librarians gives a short talk at the start of each meeting to inform newcomers about services offered. They also bring in relevant books and other materials for attendees to browse. "The librarians have been very active in helping the Council grow and develop. They pass our brochures to people who come to them for help, and encourage these people to attend our meetings. They have found speakers for us, and even helped to promote speakers through their channels. "While I don't use the specific services very often, I know of a number of people in our group do. But, to answer your question more directly ... for the Inventors' Council of Cincinnati, it's not only the depository services that are valuable to us, it's the knowledge, commitment and enthusiasm of the librarians in the department. While some</p>

	<p>of our members are directly benefiting from the depository, we are all benefiting from the energy and thought these special people have put into helping inventors and our organization."</p>
<p>Inventor 13 Inventor Association Oklahoma</p>	<p>It seems to me that the role of the PTDL is changing as a result of the Internet. As long as there are inventors without Internet access, the services of the PTDL will continue to be needed. However, being able to conduct preliminary patent searches by Internet undoubtedly has cut into the foot traffic for their services. "However searches are conducted, there will always be a need for instruction on how to conduct both patent and trademark searches. The instruction and information normally provided for foot traffic must now be provided via a web page. The need hasn't disappeared; it has just changed form. "As for reduction in need for localized PTDL's, there will always be a need for them. While the basic services may be similar, each one can provide either a list of patent professionals within their state, or a link to another web site with such information. We have one that lists the areas of specialty for each, along with name, address, etc., and that's valuable. ANY resources that are available to the inventor locally should be listed on the PTDL web page. A link to the national fraud center is a must. We are fortunate in having the Inventors' Assistance Service in Oklahoma that does this, but it can be performed by the PTDL in other areas just as well. The role of the PTDL in the future should include that of being a facilitator for networking of groups and resources relating to the invention process. While patents may be their key function, most people inquiring about patents coming to them are in the earliest stages of the invention process, and need all the credible guidance they can get to keep from winding up squandering their time, energy, and resources. There are many services along this line that can be provided by the PTDL in assuring that the [beginning] inventor gets off to a good start.</p>
<p>Inventor 14 Oklahoma</p>	<p>" When I started in '98, the Patent and Trademark Library at OSU Stillwater was very helpful. Started with classification and then output numerous Patent No's. to review. The books on the shelf were interesting and helpful. The copying on site and then later upon fax request was helpful. "The Internet and recent availability of classification and graphics access makes the search via the Internet much easier."</p>

<p>Inventor 15 Inventor Association Texas</p>	<p>"It is our experience with the inventors we know through the inventors organization and our website that the libraries are falling pretty much into disuse. Most people are so busy and many are not physically close to the libraries, so they prefer to search on the Internet. Speaking for ourselves, it has been a huge boon, having the database available from our home computers. We find ourselves in the patent and trademark databases regularly for our own searches and also accessing information for answering questions we receive from inventors.</p> <p>"The library still has a place with inventors who do not use the Internet or those who cannot figure out how to use the USPTO database. The librarians at the PTDL's are noted for being very knowledgeable and helpful. We have a special friend at the Dallas library, Rob Martindale, who has been kind enough to become involved with our organization and attends meetings just to be a valuable resource even when he is not a guest speaker."</p>
<p>Inventor 16 Inventor Association Wisconsin</p>	<p>"I used to go to the PTDL in Milwaukee. Since the online service is available, I have not been there. I still suggest people to check it out though. It is really quite something to experience. I tell people to use the online service frequently. It is a valuable resource."</p>