

**Between a Rock and Cyber Space
Nonprofits, Knowledge, and Technology**

Diana D. Woolis

Ó2003 All Rights Reserved

Knowledge in the Public Interest

Working Paper 2003

kpublic.com

Overview

In 2001, the nonprofit sector—an industry then comprising a whopping 1.6 million organizations and employing 10.9 million workers—received approximately \$29 billion of support from 57,000 foundations. Do these numbers surprise you? They did us, especially since nonprofits continue, both individually and collectively, to run more like cottage industries than the engines of social innovation and service they are.

The results are nothing less than tragic. Vast amounts of knowledge, perhaps the prime product of those billions of dollars in support, escapes. Like steam, we are creating more heat than light, and more vapor than substance. With an economy that increasingly runs on knowledge, the nonprofit sector is losing this valuable resource like an old apartment building with the boiler cranking in high gear while all the tenants have their windows open.

Fortunately, we are at a point in history when we can make significant progress in capturing, sharing, and growing knowledge. The digital revolution has paved the way for radically improving social programs and policies by changing the dynamics of how we create and manage them.

This is one of a series of working papers in which our company, **Knowledge in the Public Interest**, examines this set of circumstances. It's our mission at Knowledge in the Public Interest to **revolutionize nonprofit programs and social policy through the creative use of technology**. Indeed, technology is what drives our efforts. The bottom line of transformation however is not just bits and bytes. It's flesh and blood. To paraphrase the immortal Yogi Berra, **one hundred percent of technology is seventy percent human**. It is this reality which focuses our work.

While our ambitions sound lofty, our goals are highly achievable. They include:

- Capturing community intelligence -- the everyday smarts practitioners use to develop and implement services and policy
- Connect funders and grantees – facilitating information gathering and communication, decision making and problem solving
- Bridge research and practice – promoting scholarly practice and practical scholarship
- Transforming information and insight into actionable knowledge.

Introduction

Pundits and plain folk agree that knowledge itself is the next frontier of the “technology revolution.” Technology is moving beyond the mere crunching of data to connecting people and what they know. Those who “get it” will make productive use of their knowledge assets – the facts, experience, and insights garnered from the work they do. These savvy organizations will be strategic about knowledge and will be the thrivers and survivors in the information economy.

If history serves us, we can expect that the nonprofit sector will be at the back of the bus, traveling on foot, or completely stranded on this technology journey. Nonprofit organizations will be the last to get, the last to go, and the last to benefit. Their knowledge assets are at risk of being privatized, colonized or cannibalized.

This paper is a call to action to help the nonprofit sector address need, avoid greed, and seize the opportunity before them. In it we provide definitions of knowledge and lay out challenges and opportunities for the nonprofit sector in using their knowledge assets. We call for the building of a nonprofit knowledge system and suggest prerequisites for such a system. The paper concludes with a concrete set of recommendations.

The Trouble with Knowledge

Let's start by getting an understanding of what we mean when we talk about knowledge.

Explicit knowledge is that which is written down, recorded or codified in some way. **Tacit knowledge** is the understanding of how we do things. We gain tacit knowledge through experience, observation, personal trial and error, reflection and revision. **Implicit knowledge** refers to our culture and values, norms and customs. These distinctions are critical to addressing the challenges of knowledge in the nonprofit sector because they underlie at least one key problem. As the Pew Partnership observes:

Effective data collection and outcome measurement are significant challenges for many nonprofits...there is a disconnect between funders and nonprofits in terms of the purpose of data collection and what data are useful.¹

Perhaps the disconnect between funders and nonprofits results from differences in their priorities around knowledge. Funders want explicit knowledge, information that can be codified in grant reports, evaluation studies, journal articles and the like. Nonprofits on the other hand, perform best when they have access to tacit (experiential) *and* explicit knowledge. Again from the Pew Partnership:

...nonprofits are hungry for the "real story." They want to hear about the struggles, failures, obstacles, and barriers others faced²

Front-line workers rarely get usable information and, more importantly, rarely get to contribute knowledge drawn from their own day-to-day experiences. Academics and "research entrepreneurs" -- those who carry out studies for both public and private funders -- are simultaneously motivated and constrained by the funding source and the personal interests of the individual researcher. Research rarely values knowledge created as a result of advocacy, program implementation or from the real-life experience of clients. Compounding the effect of this blind spot, researchers often do not acknowledge the value judgments underlying the measures they use. Research consequently can replicate the inequities it means to investigate.

¹The Pew Partnership for Civic Change, *Coming of Age in the Information Age* (2000) http://www.pew-partnership.org/pdf/Coming_of_Age.pdf

² Ibid

The questions researchers consider, the data they collect, and their final analyses pose problems for many practitioners *and* the people they serve because they reflect the goals, perceptions, and realities of the researchers more than those they are researching. As noted scientist Richard Lewontin so creatively describes it,

*Scientists pursue precisely the problems that yield to their methods, like a medieval army that besieges cities for a period, subduing those whose defenses are weak, but leaving behind, still unconquered islands of resistance*³.

These “disconnects”—conflicting ideas about the purpose of collected data; its relevance; and the absence of, or access to, tacit and implicit knowledge— are not insurmountable. They really amount to an opportunity to establish a **shared vision** for a **nonprofit knowledge system**.

Capturing tacit knowledge is mission critical, but we are already drowning in data that render traditional research methods useless. Those methods cannot possibly keep pace with the constant and extraordinarily accessible stream of information and misinformation the Internet churns out by the millisecond. Nonprofits need actionable knowledge—information sufficiently analyzed and synthesized for decision making and problem solving. *Humans* will continue to bear the burden of these tasks for the foreseeable future, but we need new tools and skills. And there’s the rub. Human skills cost more than machine technology, are less predictable, and are a harder sell to stakeholders. But, new **methods and skills combined with new technology is the killer “app.”**

What Nonprofits Need, Don’t Get, and Could Have

Nonprofits and funders alike are hovering in the nether world between information overload and knowledge scarcity. Communities need to identify workable solutions for local programs and share them with other jurisdictions. Real solutions are unique configurations of macro- and micro-strategies. People create solutions—and programs— through trial and error and iterative work. Communities adapt programs and policies to their local environment. Ideally efforts to encourage this cycle would use the best of traditional research and animate it with local intelligence. We should simultaneously apply new methods to capture local action and create global perspectives.

For example, what if a small community-based organization on New York’s lower east side needs to reconcile the stringent employment requirements instituted since welfare reform with those imposed by the child welfare system for clients with substance abuse problems. For guidance, they might turn to a community-based organization in Los Angeles that appears to be running a successful program, or attend a conference in Des Moines addressing these very issues, or perhaps find a good consultant. Even something as simple as a Google search might get some traction. Ditto for connecting with professional associations and good, old-fashioned networking. But where can one find the collective wisdom garnered from all of these perspectives? How do we convert the *broadcasting* nature of current information to a *dialogue* so that the adaptation process creates new knowledge?

³ Richard Lewontin, *The Triple Helix: Gene, Organism, and Environment* (Cambridge, M.A.: Harvard University Press, 2000) p.72

Learning comes from doing. The challenge is to capture this. But many funders try to replicate promising or proven practices *exactly* as they were originally developed in an effort to bring programs to scale. In evaluating these efforts, research entrepreneurs adhere strictly to scientific protocols to “control” the environment, completely ignoring the tremendous contribution of the local context to program success. Program replication and “going to scale,” the gold standards of the nonprofit market, are false objectives, as unsatisfactory as they are financially infeasible. Replication assumes the existence of absolute truths—predictable formulas that we can apply widely and without accounting for variation in the social world. This McDonalds-like pursuit of sameness and predictability is the kiss of death for local programs.

Local adaptation that takes into account local context including the skills and resources of the local community based organization is a *sine qua non* of effective service delivery. Indeed significant progress can be made if learning is captured, shared effectively, used for adaptation from which new learning is again shared so that a rapid fire progressive cycle is established. Nonprofits need knowledge that they can act on and contribute to—actionable knowledge. This is what truly deserves new funding. Actionable knowledge can only result if we have techniques that fuse information from multiple, heterogeneous and multimedia sources. It will take a combination of human expertise and sophisticated technology to achieve that kind of system.

A Nonprofit Knowledge System

*“The object of all science, ...is to coordinate our **experiences** and bring them into a logical system...” Albert Einstein*

A system for nonprofit knowledge will necessarily include **the collection, organization, sharing and use, by practioners and researchers, of vast amounts of digital information**. It will be a powerful tool that complements vital online activities such as fundraising, donor services, and advocacy⁴. Knowledge systems will move the sector beyond merely using technology for automating paper and relationship-building tasks. A large-scale knowledge system can improve the quality of problem-solving and decision-making by capturing the rich “storied” data (tacit and implicit) that make programs and policies tick. Its potential to combine storied and structured (explicit) data will enable insights that, until now, were unimaginable. The holy grail for nonprofits however, is entirely new forms of program design and performance measurement that will be made possible by a robust knowledge system.

If we could narrow the prerequisites for such a system to a single requirement, it would be **sharing information**. Stakeholders of all stripes *must* share information and work together. Currently, funders of social change compete with one another and share little of substance about what works and what does not. For example, there are many successful interventions in communities across the nation and around the globe but there is an inability or

⁴ W.K. Kellogg Foundation, *e-Philanthropy, Volunteerism, and Social Changemaking: A new Landscape of Resources, Issues, and Opportunities* (WK Kellogg Foundation, 2000)

unwillingness of philanthropists and nonprofits to share information about their projects in ways that enable others to be smarter about similar efforts.

This holding of knowledge prevents any sector-wide strategic response to anything. It results in our inability to see patterns and detect trends in any meaningful way. And it ensures that innovation be shared from researchers and foundations “down” to the “field” rather than from the field out because there are no mechanisms to do otherwise. At best, the lack of a practice of sharing information is counterproductive. At worst, the power of knowledge is held by a privileged few at the expense of many.

Data sharing will require **organizational cultures that value knowledge**. These are cultures where resources are spent on, people are rewarded for, and performance is assessed based on sharing information digitally. We propose two prerequisites to launch a nonprofit knowledge system. First, creating a **Content Framework** for the system. Second, creating the conditions that foster the growth of that content —**Cyber Civics** .

Content, Content, Content

People in real estate say, when it comes to value, property is about three things, “location, location, location.” In the knowledge landscape, when it comes to value, its about content, content, content. “Prime” content, the stuff of a high quality knowledge system, will be easy to retrieve, publish, maintain, and recycle for new purposes. It will be distinguished from all existing data bases and knowledge *management* systems in four important ways- its data will be:

1. **diverse** -- storied and structured
2. **multi-media** -- text, pictures, audio, video, graphics in any variety of combinations
3. **“federated,”** --belonging to their creator, *and* to a larger information “ecology”
4. organized using **knowledge models** such as *ontologies*, which define the vocabulary of questions and answers. In creating an ontology, people agree to use a shared vocabulary coherently and consistently.

This very asset also poses significant challenges, not least of which is gathering such enormous stores of data. Only slightly less daunting, but equally necessary, is keeping that content fresh. Content maintenance demands a multidisciplinary approach that is embedded into organizational infrastructures and work practices.

Nonprofit organizations will benefit in the long run by acting *now* as a federated enterprise, i.e. distributing knowledge at the front end rather than sharing information after creating proprietary systems. Most organizations will tend to address their own immediate knowledge needs before reaching out to engage with others to build a large system of which they are a part. It’s a natural instinct, but one that will prove to be costly and frustrating as knowledge technology evolves.

Cyber Civics

Ask not what the web can do for you, but what you can do for the web.

The Internet is the electronic embodiment of the adage “knowledge is power.” It derives its power from people. As more people use the Internet to access information and to post information for others, the Internet becomes more useful and the people who use it become more powerful. Nonetheless, connecting to a large knowledge system can feel intimidating. Among the conditions required to make an Internet-based knowledge system a conducive work environment for nonprofits are:

- availability, accessibility, easy exchange of data
- privacy, security, confidentiality
- productivity
- data reliability

Getting these right means creating a civic structure that makes sense in a networked world. Access is made possible when there is an appropriate technology infrastructure: the hard, soft, and net-ware, and the training and skill development of stakeholders to use it.

Truth and Consequences

Coordination of data into knowledge becomes priceless⁵.

It is a fundamental rule of knowledge systems that there is only the finest of lines between giving and getting data. Both create new data. The beauty of a well structured knowledge system is that every time you give data, you are also getting data—and vice versa. That’s the good news.

The not-so-good news in the short run is that sharing data enables wider public scrutiny and accountability, which may mean someone’s ox will get gored. So, a nonprofit knowledge system will be a double-edged sword. The evaluation community, and research entrepreneurs in particular, will be challenged to do their work in more inclusive and community-relevant ways and to communicate their findings to a much larger and more diverse audience. Their work will become more competitive and they will be pushed to discuss, rather than simply broadcast, their findings. Foundations and community-based organizations that fail to use available knowledge to improve service delivery or share valuable insights will risk violating their own missions and receiving public contempt for doing so.

The upside is that academics will have more and richer data to work with and the opportunity to perform breakthrough analyses. Foundations should more easily recognize, and thus be willing to invest in, true program and policy advances. Meanwhile, community-based organizations will benefit from funding for real innovation or to address clearly defined obstacles. Less tangible but equally important, they’ll finally get a glimpse of the big picture—the data and experiences of organizations with parallel missions as they struggle to jump similar hurdles.

The essential truth is that the *information economy* is bearing down on the nonprofit sector and creating a significant threat – a knowledge divide as wide as all outdoors. The consequences? “Return on investments,” performance outcomes, and even client satisfaction will be determined

⁵ Kevin Kelly, *Out of Control: The New Biology of Machines, Social Systems, and the Economic World*, (Reading, M.A.: Addison-Wesley 1994) .p.200

by what and how well organizations deploy their knowledge assets. Unfortunately the nonprofit sector is ill-equipped to transform this threat into the opportunity that it is.

Conclusion: Knowledge—The Nonprofit Sector’s Renewable Resource

Competition for limited resources will drive the nonprofit sector toward the use of technology and into the world of knowledge. Software applications, methods, and vendors will swirl around organizations, dizzying those who must make important choices. As has been historically and legitimately the case, most funders and nonprofits are setting out in their own directions, looking for a silver bullet. It could be argued that these Lone Rangers will be good for innovation in a Darwinian sort of way. But mostly it will be a costly and disappointing venture. For nonprofits who already subsist on minimal resources it will also be painful. Why? Because knowledge, above all else, is about human experience, social networks, and communities of practice, not about technology. Knowledge cannot be bought cheaply and deployed like Excel spreadsheets. When planning is poor, cooperation low, and agendas unclear, the toll is human and knowledge becomes extraordinarily expensive and nonrenewable.

This paper is a plea to the nonprofit sector to approach knowledge as a sustainable resource. We will only achieve sustainable knowledge when practitioners and researchers can reflect and act upon an ever-changing and abundant world of information. We *must* get our minds around this resource, locally and globally. In so doing, we can begin to create cultural value for knowledge. Without this culture shift, we will not make one significant step forward.

Foundations need to pursue sustainable knowledge with their hearts, minds and money, leading the way to a knowledge system for the nonprofit sector. CBO's and NGO's, for their part, will also need to recast their view of what they do. They are not just in the advocacy, organizing, or direct service business. They are in the knowledge business. Knowledge is not a fad, it is the survival of our organizations and the people we serve.

Recommendations

Recommendation 1: Knowledge Systems Work Group

Convene a sector-wide nonprofit knowledge system work group charged with issuing a knowledge systems assessment, agenda, and action plan. The work should be web site accessible throughout the project and garner feedback from stakeholder groups.

Recommendation 2: Knowledge Divide National Conference

Convene the first national conference on the “knowledge divide” invite economists, technologists, nonprofits, philanthropists, public sector, and researchers (both technology and social science).

Recommendation 3: Research and Development

Create grant opportunities for the development and use of nonprofit knowledge systems. Invest in the development and use of knowledge systems designed explicitly for the nonprofit sector.