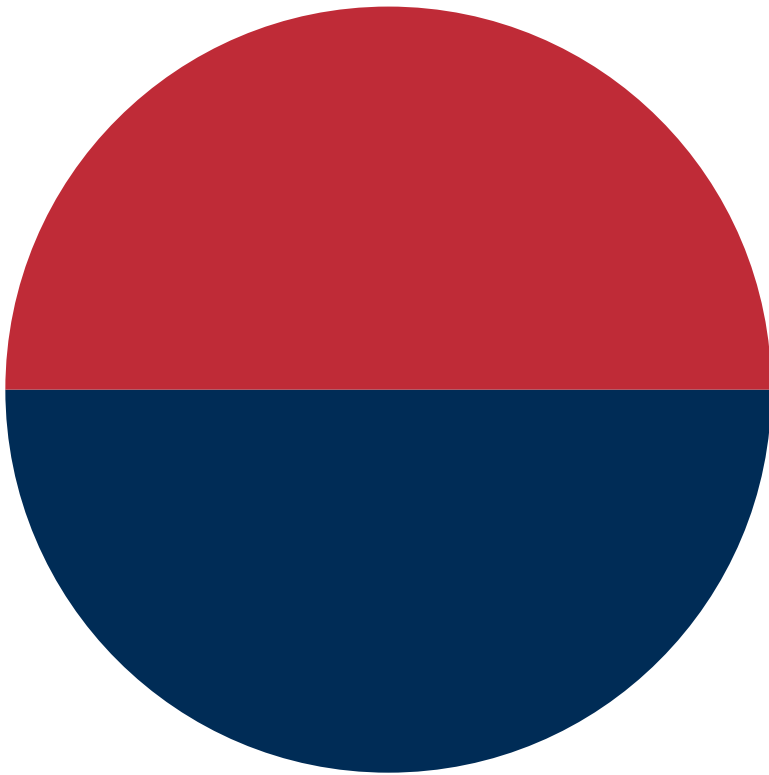

More Than Bit Players



SURDNA FOUNDATION, INC.

A family foundation established by John E. Andrus in 1917.

More Than Bit Players:

How Information Technology
Will Change the Ways
Nonprofits and Foundations
Work and Thrive
in the Information Age

A Report to
The Surdna Foundation

by

Andrew Blau
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Foreword

The Internet is transforming all aspects of society and the nonprofit sector is no exception. Today's networked economy operates under a new set of rules. Nonprofit organizations – and the foundations that support them – need to adjust their practices to accommodate these new realities.

To better understand how the networked economy will affect nonprofits, Surdna commissioned this study from communications policy expert Andrew Blau. According to Blau, one of the most important aspects of organizational behavior on the Internet can be summed up in two words: "size matters." Commercial enterprises like Amazon.com have demonstrated that larger and larger Internet efforts often triumph in the marketplace, because consumers are inclined to use the services that have the most complete inventories and the largest number of users.

The same opportunity exists for a small number of the larger nonprofit organizations. New technologies allow groups to deliver information, products and services to a much larger audience across a much larger geographic territory and at greatly reduced costs.

Conversely, there is a downside for smaller groups that cannot afford to build sophisticated websites and employ new technologies. Traffic patterns on the Internet will give some larger, more familiar nonprofits a big edge in fund-raising and membership development.

Big organizations will have the resources to grow even larger. As a result, Blau warns, “e-philanthropy will do to nonprofits what Wal-Mart has done for local retail.”

The managers of Wal-Mart may not care that their enormous financial success has left countless small towns and villages shuttered in their wake. But nonprofits and foundations operate with values that go beyond the bottom line. We should care what happens to smaller organizations and smaller communities. We want to sustain diverse voices in the new economy. Among nonprofits, as in society, there is a growing danger of “digital divides.”

This does not mean we should avoid building large, powerful nonprofit Internet projects. But it does suggest we should find ways to give small groups equal access to the tools of the new economy.

One way is to support high-impact websites that provide their services equally to all groups, large or small, wherever they operate. The VolunteerMatch website, run by ImpactOnline, is an excellent example. Any nonprofit organization in the country is free to register its volunteer opportunities on the website.

Another way to help small and diverse organizations in the networked economy is to support intermediaries that deliver technology solutions to nonprofits’ problems. Surdna has made contributions to support a number of these efforts. Among them:

- ▶ A grant to CompuMentor helped the organization design and launch its TechSoup website. TechSoup is a comprehensive

guide to nonprofit technology resources, including hardware, software and humanware.

- ▶ Several small grants to nurture the development of the Nonprofit Technology Enterprise Network, a venue where all nonprofits will be able to share and develop technology solutions.

Taken together, these grants represent the Foundation's modest efforts to correct the digital divide that exists between for-profit enterprises and nonprofit groups, as well as the inequity between large and small nonprofits. They reflect a realization that information technology can unleash great potential among nonprofits, if they can only gain access to the latest and best tools.

We hope this report helps other foundation officials - and the nonprofits they support - to make wise choices in obtaining the most empowering technologies.

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Introduction and Background

When most people think about the nonprofit sector, they probably think about soup kitchens or art spaces, human rights work and homeless shelters, and the grants made by foundations to thousands of worthy causes. But scratch the surface, where we see a wide range of sizes, missions, and operational styles, and a shared truth emerges: information is the lifeblood of nonprofit work. Foundations are awash in it, created by grant seekers, grantees, grant managers, program officers, and evaluators. Nonprofit charities, whatever their stated function or service, also create, process, and produce information at every stage of their work.

So, will the information age be a boon for the sector? It doesn't feel that way to either nonprofits or foundations. Nonprofits feel behind the curve, unable to acquire or use information technologies (IT)¹ at the same rate or with the same results as their for-profit colleagues. Foundations feel wary of requests to fund expensive technologies when the effect seems more a matter of hype than science, and the need for which never seems to end. Yet they are committed to being effective agents in the fields in which they invest, and they seek to make the best decisions they can against this changing background.

This paper describes the changes in the nonprofit sector created by the infusion of IT into the economy and the society at large. It looks

1 For the purposes of this discussion, IT includes not only computer hardware and software but computer-based communication networks that connect people and organizations.

at key elements of the emerging environment in which nonprofits work and tries to draw some lessons from the experience of the for-profit sector, which has spent billions of dollars to find ways to succeed under the conditions these technologies create. And it concludes that information technologies won't act like silicon steroids, strengthening and quickening all who start using them. As these technologies shift costs, extend markets, expand information flows, change the borders of organizations, and enable new levels of customization and responsiveness, they will initiate significant structural changes, not just in the organizations that use them, but throughout the fields in which they are adopted.

More strikingly still, these changes will come neither smoothly nor evenly. As organizations initially adopt new technologies, the information flows that nonprofits have cultivated will go faster and farther, and the early successes may suggest that IT will strengthen all who use it well. But there will come a point where adding more technology won't simply amplify what we see today. It will induce a re-ordering of the field, a structural shift that flows from the very strengths of the technology. The challenge, then, is not just to describe how IT changes the capacity to create, manage, transport, manipulate, and project information, which many have done quite well. The real work is to imagine the profound structural changes these technologies will bring about in the sector and to consider how they will remake what it means to be an effective nonprofit and an effective grantmaker.

Of course, it may be tempting to think that one could find a way to embrace the benefits that IT brings while avoiding the difficult issues these technologies raise. But as this analysis describes, the benefits that accrue to organizations that adopt IT come as part of a package of broader changes. As a result, one can't simply take the desirable parts – the speed, the lower costs, or the global reach – without the parts that can disrupt the way an organization works – the increased feedback and shorter response times, the new competition across geographic and sector boundaries, or the promotional burdens and likelihood of a small number of real successes. The real payoff will come for those who capitalize on how information technologies affect whole organizations (and their relationships with the organizations around them), not just functions within organizations.

Finally, we do not yet know all the changes that will be brought about by IT, and this account can neither tell the history of a period safely past nor act as a cookbook with recipes for success. At best, we can look for likely consequences and telegraph early warnings, drawing in part on the experience of the commercial sector, which has a head start in learning about networked markets. Moreover, the nonprofit sector is no monolith. It contains many types of organizations, working in distinct fields with different types and sources of funding as well as different relationships to users. While they all rely on information, they make many different uses of it under many different conditions. Similarly, while both foundations and

nonprofit charities are nonprofit organizations, they respond to different motivators from one another, and the incentives and pressures of a networked economy will play out differently for these two types of organizations.

With that in mind, this report might best serve as a guide to the key questions for foundations and nonprofits as they think through technology-based projects and their strategies for participating in a fully networked marketplace for noncommercial services. This paper can't offer "one size fits all" answers for these questions – there are none – but should lead to a more informed consideration of the following issues:

- ▶ Is IT being used to build an increased, accelerated, or amplified version of a current product? Or will it offer a feature or service that can only happen with networked tools?
- ▶ Does a project that expects to thrive on the Internet take advantage of the Internet's decentralized architecture and distributed intelligence? Or does it build from a centralized model of creation and control?
- ▶ What would be the cumulative effect if others in the same field did the same thing? Is there anything that would keep them from doing so?
- ▶ What place will the project have in its field? Are there prospects for positive feedback that could catalyze widespread adoption? Can it survive "winner take all" effects and emerge either dominant in its field or desirable at a smaller scale?

- ▶ What mechanisms exist for finding adequate distribution and for promoting the project to its desired audience or base of users?
- ▶ Can the organization accommodate success? If the implementation creates new levels of feedback or new demands for fulfillment, can the organization withstand it? Can the organization scale with the implementation?
- ▶ Can the implementation generate revenue? Should it? What are the hard and soft, fixed and incremental costs of generating those revenues (setting up secure systems for ecommerce, managing collections and fulfillment) and what scale is necessary for those costs to be justified? If it can generate revenue, to what use will that revenue be put? Does it suggest a PRI strategy where money returns to the funder, or does it offset costs in other areas?
- ▶ Can the project be sustained, either by creating revenues, by transferring internal spending, or by attracting other supporters? If only a small subset of market participants can achieve sustainability (*i.e.*, either the market is only large enough to support a few participants, or the economies of scale and the presence of positive feedback loops point to only 2 or 3 participants left standing), is the organization able to make it to that point, and is the funder willing to support the project to that point?
- ▶ Most broadly, is the goal of a grant (or a grantmaking program)

to preserve organizations that might otherwise get overwhelmed, or is the goal to hasten a restructuring to align the sector with the broader trends in the economy?

This report lays out a way of thinking about IT and the nonprofit sector, looking first at how IT changes the way that organizations, including nonprofits, work, and the effects this will have on grantmaking strategies. Next, it offers conclusions about how to assess proposals for projects based on information technology and addresses the issue of how to put the costs of successful projects into a wider context for those who want to invest in them. Lastly, the paper offers a handful of parting considerations – issues for further conversation about the sector, the lasting effects of technological change, and the long-term vigor of nonprofit work. These spring from fundamental challenges that arise from the very strengths of the technologies we adopt, and the patterns of success they will generate.

How Technology Changes the Way We Work

What feels to many like a revolution of the last few years is in fact the flowering of changes in technology and the economy that go back decades: the growing power and efficiency of computer-based technology, and the growing importance of products and services made primarily of information.

Most important among the technological changes were the rapid

evolution of the microprocessor (which became about 65,000 times more powerful over the last 25 years while falling in price just as dramatically); the deployment of fiber optics and communications satellites (which made the cost of communicating great quantities of information across any distance almost negligible); and the development of “packet switching,” the underlying communication model of the Internet and other modern networks that made data transmission much more efficient over any medium. By changing how information could be made, moved, and managed, computer technologies on the desktop and in the network changed how firms of all types, including nonprofits, would operate. Key factors include:

- ▶ falling costs for ever more powerful computer equipment, which in turn drives down costs for services based on that equipment (including data processing, storage, and transport);
- ▶ short lifecycles and rapid obsolescence of technology-based products; and
- ▶ the economic advantage that develops for decentralized information systems.²

But the information revolution also reflects the growing importance of products and services based on information, which have characteristics quite unlike those for more traditional, physical products or services. Of particular importance is that for

2 In a network where processing power is scarce and expensive, it makes sense to put the processing power within the network, where all network participants can share it. As processing power becomes cheap and widely available, it makes increasing sense for that power to migrate toward the edges of the network where the users are. Not only does each member of the network end up with more computing resources under his or her control, but the small, cheap devices at the edge of the network can be upgraded much more easily and cheaply than centralized, mainframe computers in the core of the network.

information-based products, once the first copy has been created, each subsequent copy can be recreated at little cost. For example, Microsoft's Windows 98 operating system cost many millions of dollars to create, but reproducing it on a CD-ROM for distribution costs very little. One implication is that, unlike physical objects where the cost of creating a million items is significantly higher than the cost of creating one, the costs of information products occur in the creation stage. In other words, products where information is the main raw material have potentially large up front costs combined with very low reproduction costs.

The nature of networked markets

Electronic networks dramatically ease and accelerate the flows of information among participants in a market. This has two sets of consequences. First, it changes participants' experience of distance as well as their experience of time, and it increases the volume of communication or feedback. By changing those factors, a second set of characteristics come in to play that create pressures for scale ("network effects") and conditions for dramatic success ("tipping"), although not for everyone ("concentration"). As a result, the efficiencies of networked markets don't benefit all participants equally. (For more information, see box, "Six Features of Networked Markets.")

Six features of networked markets

Extending geographic reach. Since communications technologies have made distance almost inconsequential, some traditional physical limits on a market or a community disappear. In addition, since the marginal costs for information goods are so low, it makes sense to expand the size of the market as widely as possible, since it costs relatively little to make these goods available over a wider area. Similarly, geographically dispersed communities can link up to tap the potential of being a larger, and therefore more desirable market. (Of course, once a physical object has to be delivered, the costs of distance reassert themselves.)

Time doesn't matter but speed does. Global electronic networks change their participants' experience of time by creating unbounded expectations of availability and immediacy. A market or merchant can operate without reference to the local time for either the seller or buyer. Conversely, since distance no longer slows communication, participants in networked markets expect fairly immediate information about events regardless of distance. Failure to meet these expectations can disqualify a participant from the market, regardless of the quality of the service offered.

Increasing rate and scale of feedback. In part because networks allow markets to grow physically (and thus include more participants), to expand across time, and to decrease the time between signal and response, they create the conditions for more and faster feedback.

Network effects. One key characteristic of any network is that its value to any participant increases with the number of people on it. As a result, people trying to choose between networks often opt for what they perceive to be the larger one because the value to each user grows with the number of others who share the same network.

Tipping. Related to the presence of network effects is the prospect of "tipping": competition begins vigorously, but enters a spiral where the product seen as more successful at attracting more users attracts still more users, which in turn signals subsequent customers to side with the emerging winner, which only strengthens the effect.

Concentration. The very efficiency of networked markets can result in marketplaces that tend to become more concentrated rather than more competitive. Network effects encourage consumers to side with the biggest provider, thereby reinforcing that position and spreading that perception. Once a market tips, smaller players find it very difficult to compete at all, as the feedback loops reward success by generating further success. Moreover, firms that use ICTs more intensively and extensively gain much greater benefits from the trends described here. Their costs fall more dramatically, and their efficiencies rise more significantly. As a response, some organizations may choose to develop a finer niche, although each new niche is likely to become concentrated as well.

The new operating environment

We can now begin to see a series of forces that shape the operating environment for nonprofit organizations as much as for commercial firms.

New costs of doing business. Information technologies are resource intensive. They entail significant purchase costs, require significant training and upkeep, and yet become obsolete quickly.³ Even as costs for hardware and software drops, overall spending on IT has grown significantly and now substantially outruns other capital expenses by U.S. industry. According to a recent report from the U.S. Department of Commerce, "Real business investment in IT equipment and software more than doubled between 1995 and 1999, from \$243 billion to \$510 billion"⁴ and is now the largest single element of equipment spending.⁵

These are significant costs, and they don't include the cost of training, maintenance, and administration. Nor does this spending automatically translate into measurable performance gains. The Commerce Department's Economics and Statistics Administration's analysis of productivity in various industries from 1990-97 found that "IT-using service industries actually showed a negative growth rate of 0.3 percent a year, compared to 1.3 percent annual productivity gains by non-IT intensive service industries." They attribute this

3 This has caused some pressure on accounting systems: at least some organizations have moved their computer equipment purchases from "capital expenses" depreciated over time to "supplies," the cost of which is written off in full immediately.

4 Department of Commerce, *Digital Economy 2000*, p. v.

5 *Digital Economy 2000*, p. 28.

finding to the difficulties of measurement in the service sector, a problem that is even greater in the nonprofit sector.⁶

Technology requires change to produce change. Recent research suggests a crucial but often overlooked factor for organizations seeking to benefit from IT. Studying firm-level data on productivity, Brynolfsson and Hitt concluded: the greatest benefits of computers appear to be realized when computer investment is coupled with other complementary investments; new strategies, new business processes and new organizations all appear to be important in realizing the maximum benefit of IT.⁷

Later in the same paper, they conclude “firms can actually be worse off if they invest in computers without the new work systems.”⁸ (That is, productivity was worse than if they had done nothing.) In this light, nonprofits may be investing in rapidly depreciating technologies without being positioned to take advantage of what they are buying.

Accessing a network is easy. Accessing an audience is hard. As the costs of network access fall, accessing a network becomes easy and cheap. As a result, networks become more densely populated with many more participants, sources, and services vying for users’ attention. As a result, the problem for anyone trying to mount an online project isn’t getting access to a network with millions of users; it’s getting access to the attention of any one of those millions.

⁶ Cited in *Digital Commerce 2000*, p. 40.

⁷ Brynolfsson, Erik, and Lorin Hitt. *Beyond the Productivity Paradox: Computers are the Catalyst for Bigger Changes*, June 1998, at p. 3. Available at <http://ebusiness.mit.edu/erik/bpp.pdf>

⁸ *Ibid* at p. 9. Emphasis in the original.

Hollywood studios have long recognized this. They can get movies into distribution, but their challenge is finding (or creating) audiences. As a result, studios routinely calculate that for every dollar they spend to produce a film, they will spend an additional dollar-and-a-half on marketing and publicity.⁹ Nonprofit service providers will similarly find that without an effective strategy for outreach, even an expertly produced web presence will be unlikely to establish a significant user base.

Winners keep on winning: the role of category killers. When feedback loops increase in speed and size, and markets tip in favor of one organization, we see the conditions for “winner take all” markets in which, as economists Hal Varian and Carl Shapiro point out, “growth is a strategic imperative.”¹⁰ In these conditions, one participant in a market will keep growing, attracting new adherents who choose the dominant player, thereby solidifying its position while others fall further behind. The tendency for this to happen creates “category killers” – firms that become so dominant in their sector or niche that there is little room for any competitor. In web markets, this appears to be the rule, not the exception, and it can happen both with individual services, such as Amazon for books, or with portals or aggregators, such as AOL or Yahoo! Recent reports from market analysts such as Forrester Research predict that no more than three companies will survive in each major ecommerce category.¹¹ Of

9 See Mitchell, Elvis. “Be Afraid, Be Very Afraid,” *The New York Times*, July 9, 2000, Section 4, p. 4.

10 Shapiro, Carl, and Hal Varian. *Information Rules: A strategic guide to the network economy* (Boston: Harvard Business School Press), 1999, p. 14. For an overview of how winner-take-all markets arise and their implications, see Arthur, W. Brian. “Increasing Returns and the New World of Business,” in *Harvard Business Review*, July-August, 1996.

11 See Olsen, Stefanie. “Stagnant market hastens demise of some Net firms,” *CNET News*, May 16, 2000, <http://news.cnet.com/news/0-1007-202-1883834.html>.

course, that very size can create opportunities for smaller players to develop distinctive services or to cultivate finer niches that the largest firms ignore, but even the smaller niches will tend to consolidate around a very small number of leaders. Similar forces could affect nonprofit categories, such as nonprofit portals or content aggregators, environmental sites, or human rights sites, resulting in the vast majority of users in each segment clustering around just one or two sites.

The end of geographic protection. Since technology has brought down communication and coordination costs to a tiny fraction of what they were a few years ago, the cost associated with geographic distance has fallen dramatically. As a result, an organization can serve a much larger geographic market without an equivalent rise in costs. One result is that firms, including nonprofits, that had been protected “naturally” by geography suddenly find themselves facing new regional or national competitors. Local newspapers have already discovered that their readers can not only increasingly get “national” editions of papers such as *USA Today* or *The New York Times* delivered to their doorsteps, but that people interested in news can get it from various online sources as well, including newspapers online around the globe and portal sites with AP or Reuters feeds. On the nonprofit side, local nonprofits providing volunteer matching services, for example, will increasingly find that what had been their local “franchise” now faces competition for users from national volunteer matching sites.

Customers become collaborators. The increasing rate and scale of feedback, combined with the demands for speedy delivery of new products, has created a new dynamic: Rather than perfect a product before release, as is necessary when production tooling is complex and expensive, firms increasingly circulate “beta” versions, engaging their users as collaborators in the process of improving the product. As a result, organizations get products into users hands more quickly, harness the intelligence and experience of those users, and since information-based products can be modified easily and cheaply, respond continuously to feedback from users. The “open source” movement in software development makes this dynamic the core of a process that enables thousands of loosely coordinated people around the world to produce complex, robust, and stable products.¹² According to Michael Schrage, co-director of the e-Markets Initiative at MIT’s Media Lab, “Treating customers and clients as entities that can add value – as potential partners in innovation ... is precisely the great opportunity” that today’s networked technologies encourage.¹³ Nonprofits with online services could take advantage of similar dynamics if they could engage their users as collaborators or contributors in building, refining, and improving the service. An environmental service could allow its users to contribute information, creating a site that mirrors the evolving interests of environmental activists themselves. An ASP

12 As Professor Steven Weber explains, “The key element of the [the open source] process is that the public or general user base can and does propose ‘check-ins’, modifications, bug fixes, new features, and so on. There is no meaningful distinction between users and developers.” Weber, Steven. *The Political Economy of Open Source Software*, BRIE Working Paper 140, June 2000, p. 13.

13 Schrage, Michael. “Knowledge Review: Open for Business,” in *strategy + business*, issue 21, page 105.

focused on nonprofit clients could allow the technical staff of the participating nonprofits to propose and implement modifications and adaptations to the services that the ASP offered.

Under one roof, or over one network? IT and networks change the costs of doing business not just among firms and customers but within organizations. As communications and information management costs fall, contracting out for services formerly done in house becomes more attractive, especially where other costs, including real estate, labor, or developing special expertise, are rising. Banks and customer service help-desks pioneered this by moving “back office” administration and call centers to rural areas where labor and real estate were cheap and using data and voice networks to make the distance as invisible as possible to people in or outside the organization. More recently, the emergence of Application Service Providers reflects the same principle. Since the costs of maintaining and upgrading sophisticated software and the expertise to manage it around the clock are rising, while the costs of data transport and communications for administrative purposes are falling, ASPs install the software on their own servers and sell access to it over a network. The clients pay a fraction of the total cost of software and maintenance because they are sharing it with others, yet they get reliable access over a network that has made the cost of distance from the desktop to the server insignificant. Nonprofits can similarly take advantage of such strategies, and a group of ASPs focused on the nonprofit sector, including NPower and

ASpiration, are emerging to exploit these new economies for noncommercial organizations.

E pluribus unum. At the same time that the economics of networked markets causes some in-house functions to get spun off to outside vendors, a complementary set of forces encourages firms to link forces, if not to merge altogether. The costs of marketing in a crowded or “noisy” information environment goes up, for example, so firms have incentives to share the costs of attracting audiences. Similarly, rather than fight head-to-head with a larger, better financed competitor (often over a suddenly larger market territory, as well), a group of smaller firms will link arms to share costs and present a larger collected inventory than any one of them could have achieved at the same cost. Taken to the next level, these forces encourage mergers and other forms of consolidation, often described as the mandate to “Get big, or get out.” The same forces will play out for nonprofit charities, which may conclude that partnerships, such as the environmental community’s “Partnership Project,” allow them to mount efforts collaboratively and reach a desirable scale or visibility that no one of them could achieve alone. SaveOurEnvironment.org, an “activism portal” created through the Partnership Project, creates a springboard from which a user can search for and learn about issues and connect to members’ sites without having to know first which organization focuses where. OneWorld.org also demonstrates that by aggregating the efforts of 400 partners and marketing one name, participating nonprofits from around the world can gain

visibility with people that might otherwise never know to look for them.

Pressures for increased user satisfaction. As networks change the experience of distance and time and allow for both more and faster feedback, they create new assumptions among users. In a growing number of settings, customers expect quick attention on their schedule, and they can provide feedback directly to the service provider (through email, for example). Individual donors, members, subscribers, or members of the public seeking a service provided by a nonprofit organization will expect the same responsiveness they've experienced with commercial organizations that are making effective use of IT. The increasing use in the commercial world of software to automate responses and increase the ability of an organization to respond to users may be useful to nonprofits as well.

Impact on Foundations

While the previous section focused on the effects of IT on the projects of nonprofit service providers, the new costs, new needs, new dynamics, and new timelines of networked markets and network-based projects will also force change on foundations, especially those that seek to support effective technology efforts. These factors require grantmaking strategies attuned to these new conditions. They also raise additional considerations for foundations as organizations created to promote charitable purposes. While not all of these

strategies and tactics are likely to be adopted, IT, and the pressures they create, will provoke some foundations to at least review, if not fundamentally change, their grantmaking practices.

Grantmaking strategies and other considerations

If nonprofits need to move quickly, so do their supporters.

Commercial and nonprofit sites both must vie for the attention of users, but commercial firms raise tens of millions of dollars to mount and promote a web presence in the time it normally takes a nonprofit to raise a few thousand dollars. If foundations want to support nonprofits that can establish an online presence and compete for the attention of the desired users, they need to be able to move far faster than they normally do, because the nonprofits they support need to move far faster than they traditionally have if they are to establish themselves in their niche. Extended review periods, with multiple staff reviews before board consideration, are too slow if they cause a nonprofit to enter an online arena well behind other organizations, either for profit or nonprofit. One alternative strategy would be to get a pool of money released into a larger discretionary fund earmarked for Internet projects to give staff greater flexibility within defined parameters. This speed and flexibility can be matched with at least as much accountability as the current system if board members are briefed regularly, and evaluation, tied to well-defined metrics, begins early and happens frequently. Another alternative would be to hold

more board meetings so that the reviews can conclude more quickly, or to create mechanisms for board approval that don't require meetings (through the use of a secure Intranet, for example).

Learning from feedback is not a mistake. One increasingly effective trend is to allow users to become collaborators, as their feedback on products or service becomes the basis for ongoing improvements. One implication is that rather than work privately to perfect a product, organizations release products still in development and allow users to become partners in making it better. However, traditional incentives in the nonprofit sector are to propose a fully formed service and to assume that any deviation from the plan is a problem that requires explanation if not resolution. As a result, actors in the nonprofit sector lack the flexibility to respond continuously to the feedback the technology makes possible and the changing dynamics of networked markets. The speed with which market conditions change, and the potential for feedback to support continuous modifications to a product, suggest that the traditional proposal and evaluation model may keep nonprofit technology projects from being able to respond quickly and confidently to changing conditions.

No half measures. The high upfront costs of IT-intensive projects require more substantial financial commitments, or they risk starving the very grantees the funder is trying to support. Since a foundation's total funds for grants are not likely to change, the necessary trade-off may be a smaller number of larger commitments.

Whose winner takes all? Since there is an increasing body of evidence of winner-take-all characteristics in web markets, it becomes increasingly important to support projects against the assumption that over time, just one or two sites will garner the lion's share of users. Just like the high upfront costs point to more substantial commitments, winner-take-all dynamics point to bigger bets, with resources focused on fewer targets, in the hopes that the funder's choice will emerge as the one who comes to dominate its sector or niche.

Need for complementary investments. The evidence from the commercial sector is that money spent on IT without investments in organizational change and training, for example, is wasted. Grantmaking strategies should include these costs in their calculations. Conversely, grant seekers who don't account for these costs may be insufficiently equipped to succeed in this environment.

Foundations need new expertise. Analyzing technology-based proposals requires specialized expertise that few if any foundations have. The skills and experiences that program staff have are rarely from the world of web markets or networked communities, even if some foundations are fortunate to have staff with experience in building and maintaining IT systems. It will be interesting to see where the next generation of program staff comes from and what skills they can bring to evaluating proposals. In the meantime however, while non-profits have discussed the need for a "Tech Corps" to help them get the expertise and capacity they need to adopt IT effectively, it may also be worthwhile to consider how foundations themselves could

develop their own technical assistance or advisory units. The expertise for these units could be drawn perhaps in part from the commercial sector itself, from the new millionaires who have made their money in this marketplace, or from the ranks of research analysts and venture fund managers who are also looking to “give something back.” As valuable as their money can be, they can leverage their expertise to create an ongoing transfer of knowledge from one sector to the other, thereby making more dollars more effective.

There will be expensive failures. If the current environment requires larger upfront investments and more “swing for the fences” approaches, while the track record of almost 20 years of high-tech IPOs includes only a few stand-out performers and over 50% with disappointing returns, then we have to infer that these strategies will surely generate some expensive failures. If they don’t appear to, either our accounting is flawed and we are not recognizing the unsuccessful projects we are supporting, or our bets are so conservative and our expectations are so modest that our rate of success actually points to a larger failure to exploit the technology well. A philanthropic strategy consistent with these conditions will have to develop a tolerance for real risk, and a willingness for board and staff alike to acknowledge, share, and learn from failures within a framework of honest accountability.

IT will not only change organizations, it will change the field. As suggested above, “successful” strategies won’t feel successful for

everybody in the nonprofit sector. It is increasingly possible that when even a few nonprofits are successful in a fully networked marketplace, that part of the sector will experience significant disruptions in the way services and support flow. It is not hard to imagine scenarios where some organizations begin to lose support, or find they can no longer compete effectively in the delivery of their service in their area. If in response to the conditions described here, foundations choose to focus on a smaller number of organizations, then some organizations must be turned away. Individual giving is also likely to become more concentrated rather than more dispersed. Some organizations may choose to merge into others. Some may cease operations. It is possible that the nonprofit landscape will come to feature a smaller number of larger, better financed organizations, more adept at negotiating the networked noncommercial marketplace. Because private foundations can set their own terms of success, they can choose whether their actions hasten this outcome or attempt to preserve the ability of some organizations to withstand these broader economic pressures. But the sector itself is likely to be restructured in the very process of taking advantage of the opportunities these tools provide.

Funding Technology Projects

While all nonprofits will be affected by changes in how information is created and managed, some nonprofits seek to pursue

their mission through projects that are fundamentally technology based. That is, rather than using IT to enhance a current feature at a nonprofit, the grantseeker proposes a new service or function that IT makes possible.

Based on the above discussion, we see that successful projects have the following characteristics: ability to achieve the requisite scale, secure the necessary distribution, attract the appropriate level of attention, cope with the likely feedback, respond quickly and flexibly to changing conditions, and incorporate new work processes and management structures consistent with the new information costs and flows. But the question remains what strategies will get these results? This section addresses the strategies that foundations and nonprofits can use to put IT to work in pursuit of philanthropic goals.

In considering those strategies, however, the section also begs a more fundamental question: is the role of the foundation to preserve organizations that might otherwise not exist in an information age economy, to counteract the trends and pressures created by the larger commercial society? Or is the foundation's role to cultivate change in the fields to which it is committed, perhaps even accelerating some trends that will undermine other institutions in an effort to achieve the foundation's goals? Both are plausible philosophically, but foundation strategy must be guided by a clear commitment to one role or the other, at least at the level of the individual grant if not more generally in its grantmaking.

Assessing information technology-based proposals

By changing production and distribution costs, expanding market reach, accelerating feedback, and easing some elements of coordination, the Internet has enabled a host of novel strategies for providing goods or services.¹⁴ These changes have in some respects created wholesale shifts in many markets and for many organizations that have adopted them. Some lessons have begun to emerge from the many experiments that firms have tried. Some of those lessons look to be basic to the dynamics of a networked marketplace, while other lessons seem to reflect the nature of commercial investment and the returns expected by current investors. All of them are relevant to nonprofit projects for information-based products or services.

Advertising revenues are not sustaining many sites. Strategies that depend on advertising revenues for core support are not working in more than a handful of instances, demonstrating in part the importance of Zipf's law,¹⁵ which describes how web traffic is extremely unevenly distributed.¹⁶ While exact measures vary, it

14 Mary Meeker, an influential analyst at Morgan Stanley Dean Witter, identifies eight "Internet Commerce Models" (product website, shopping destination, portal with shopping, web auctions between merchants and buyers, person to person web auctions, lowest price destination, buyer names the price, and best price searching) as well six business to business ("B2B") models (auctions within a sector, distributors, enabling services, exchanges, information aggregators, and software that supports B2B commerce). Her analysis doesn't address important models for Internet exchange that aren't based on buying and selling, including peer-to-peer sharing services such as Napster, or viral marketing successes such as Hotmail, which are also changing how firms can provide or receive a service, nor the range of business models for maintaining a web-based service. Meeker, Mary, *et al. The Internet Company Handbook*, Morgan Stanley Dean Witter Equity Research, North America, June 1999. Available at www.msdc.com/techresearch.

15 George Zipf was a Harvard linguistics professor who noticed that a handful of words were used very frequently while most words were used only rarely. He showed that this pattern of word use could be described mathematically by a power law where frequency is inversely proportional to rank (*i.e.*, the second most frequent word appears only 1/2 as often as the most frequent one, and the 100th most frequent word is used 1/100th as often). Zipf's law describes not only word use but also phenomena that range from city sizes to earthquakes to Internet stock prices. See, for example, Surowiecki, James. "Is There Method in the Net-Stock Madness?" *The New Yorker*, May 8, 2000, p. 58. A website devoted to Zipf's law and its many applications is at <http://linkage.rockefeller.edu/wli/zipf/>.

16 For a useful study of how web traffic is disproportionately bunched up among only a few sites according to a power law, see Huberman, Bernardo, and Lada Acamic. *The Nature of Markets in the World Wide Web*, available online at <http://ecommerce.mit.edu/forum/papers/ERF138.pdf>.

appears that 1% of web sites account for about 56% of web traffic. As a result, only a relative handful of sites are in a position to sustain the level of traffic that many advertisers want. Moreover, evidence suggests that web-based advertising either doesn't work to change behavior or is increasingly ineffective. Taken together, this means that for most web projects, strategies that rely on advertising revenue to provide significant support for a site appear unlikely to be effective as currently conceived. Nonprofits may also attract sponsorships or underwriting, but this is unlikely to be a useful strategy for more than a few cases.

The subscriber model is only successful in a handful of places.

Strategies that count on people paying fees for a service on a subscription basis have not delivered significant revenues except in a handful of cases where either immediacy is of high value (e.g., financial and sports information) or where the product is of high value and has a pre-existing loyal base of paying users (e.g., Consumers Union). The *Wall Street Journal* has both, and is one of the only journalism sites to have more than a token number of paying subscribers.

Retail rarely supports content. E-commerce features have proven to be far less successful than originally forecast, even for commercial sites with significant backing. CBS Sportsline and Oxygen, for example, both folded their e-commerce operations, finding that the revenues were inadequate to sustain the effort. A spokesman for an entertainment company that laid off its entire

e-commerce staff last year observed, "E-commerce was the most expensive portion of the business, which accounts for shipping, warehousing, fulfillment, handling and product costs. That ate away at any potential profits." That same news report concluded, "Once highly fashionable, running a retail operation on the Web has become something of a dog, especially for those that started in another business entirely."¹⁷ There are tools to help nonprofits and others keep costs down, such as ccnw.com to offer credit card services for electronic transactions and Amazon's "Z-shops," which provides a platform for ecommerce services for firms that do not want to build their own. Nevertheless, while e-commerce can provide some revenue, it rarely provides enough support to offset the costs of a major web presence.

Decentralized networks call for decentralized projects. As has often been observed, the Internet is a fundamentally decentralized network. The "intelligence" (both computer power and human intelligence) is at the edges of the network, while the network core is kept very simple. That decentralized architecture is key to the Internet's success, and successful Internet-based projects take advantage of the "many-to-many" strength of the Internet as a medium. For example, websites such as Slashdot.org, where users of the site create much of the content, are popular and easily as informative as sites with a centralized facility developing content that use the Internet as an extension of traditional, centralized broadcast

¹⁷ Olsen, Stefanie. "Dot-coms close e-commerce doors under cost pressures," *CNET News*, June 28, 2000, <http://news.cnet.com/news/0-1007-202-2167276.html>.

formats. Just as importantly, the decentralized approach reduces content development costs.¹⁸ While it raises concerns about editorial control, the advantages of a decentralized approach that takes advantage of the Internet's basic shape are often formidable. Amazon has also used this approach to excellent effect by encouraging users to post reviews (and even encouraging readers of those reviews to rate them), allowing the user base to continuously create content that adds value to the site.

“They can” doesn’t mean “They will.” A number of Internet-based efforts have faltered on the gap between something being possible and something being desirable. Interactive television, for example, has failed repeatedly as companies have discovered that just because a viewer can interact with the program in no way means that he will. Shopping for groceries online also seems to be experiencing growing pains. While the products are widely standardized and thus don't have the same hurdles to customer acceptance that clothing, for example, seems to, customers have yet to respond in great numbers to being able to shop for these things online. Simple replacement of an existing feature or service seems to be inadequate to win widespread acceptance; something that enables people to do

18 Robin Miller, editor in chief of the Open Source Development Network, which owns Slashdot, recently compared the costs of a centralized news organization to Slashdot: “I remember looking at the excellent (now bankrupt) APBNews site, and marveling at its 142 staff members, 400+ freelance stringers, and extensive use of multimedia presentations. It was a fine-looking site, but according to my profitability calculations, its audience – several tens of millions of pageviews per month – would only support 10 or 15 editorial staffers and, perhaps, 20 or 30 stringers. By contrast, Slashdot.org, one of the sites I oversee, has a total of 10 full-time workers. Slashdot generates about 30 million pageviews per month, which makes it one of the world's most popular ‘tech’ web sites.” See “How to make money with an online news site,” in *Web Informant #237*, 9 February 2001, <http://www.strom.com/awards/237.html>.

something they couldn't do before, or to do it better, faster, or cheaper seems necessary.¹⁹

Build it and... you will have spent money building it. One of the implications of Zipf's law is that putting up a web site or other Internet-based service hardly qualifies as a guarantee of impact. If, as we are now commonly seeing, a relative handful of sites get most of the users, an Internet-based project can easily become lost amid the competition for the time and attention of the desired audience or user base. As such, the oft-repeated *Field of Dreams* motto, "Build it and they will come," has been proven wrong time and again. Indeed, the existence of an Internet-enabled strategy is unlikely to be compelling to prospective users without significant outreach and promotion.

Hang together, or hang separately. For projects without significant marketing clout, strategies for linking with larger, more visible sites that can drive traffic (such as AOL or Yahoo!), or participating in various aggregation efforts where marketing costs can be shared, such as OneWorld, become key for success.

Spending may happen on Internet time, but sustainable success happens in real time. One of the clichés of this era is the notion of a hyper-fast "Internet time," where speed and responsiveness are all. But while the Internet has sped up some systems enormously, long-term success, including sustainability, may take longer than these

19 See also, Shirky, Clay. *Don't Believe the Hype* (undated). "The first question to ask yourself when looking at new technology is not 'Will it run on my server?' but rather 'Would I use it?' ... We already know what people using networks want: they want to do what they do now, only cheaper, or faster, or both. They want to do more interesting stuff than they do now, for the same amount of money." Available online at www.shirky.com/writings/dont_believe_the_hype.html.

accelerated time frames imply.

The collapse of the dot-com “bubble” since the spring of 2000 has put this issue in a clearer light. As investors grew impatient with Internet ventures whose valuations had been based on future returns that were not materializing, they withdrew their support for many of the commercial models they had invested in earlier. Some might ask whether this invalidates previous conclusions about Internet dynamics and the strategies to respond to them, but it would be more accurate to suggest that it invalidates previous assumptions about real business sustainability for Internet-based businesses (while reinforcing the prediction that only a handful of sites in any market segment will survive). It is still the case in networked markets that growth is a strategic imperative, and that many of the money-losing strategies were efforts to reach scale. What isn’t the case is that investors are willing to tie up their money in these efforts indefinitely. One lesson is not to confuse what networked markets do to participants’ sense of time with what they do for investors’ sense of time.

This raises a corollary question in the nonprofit sector: since foundations do not generally give with the expectation of financial returns²⁰, are foundations more or less free than commercial supporters to put money into “unprofitable” ventures in the quest for scale? Under what conditions could foundation support maintain the sustained costs involved in getting an Internet-based project to scale, on the assumption that it could then develop revenues adequate to become self-sustaining?

²⁰ Except in the special, limited case of Program Related Investments (PRIs).

Costs and contexts for technology-based projects

Internet-based projects bring high risks. They entail high start up costs, they often depend on products that are easily reproducible, they operate in winner-take-all markets where only a few are successful, and they rely on expectations about what users will do that are often unproven or changing rapidly. As a result, the commercial world has provided high rewards for at least some of these ventures.

However, these returns are very unevenly distributed. Of the over 1,200 high technology IPOs between 1980 and 1999, 5% generated 86% of the wealth.²¹ More broadly, as of December 31, 1998 (that is, during the period of great exuberance in the market for technology stocks), the split between tech stocks that were up over their IPO price versus those that had sunk below the initial offering was 58% to 42% – slightly better than 50/50, but even then reflecting a significant number of disappointments. (By June 1, 2000, the split had gone to 45% above, 55% below.) While portfolio managers expect this, in the noncommercial money market the fact that there are likely to be very few great successes has a different flavor. Since there is no monetary reward, there is no way for the “winners” to cover the costs of the “losers” as commercial investors can hope. It may be that when foundations put up money for technology projects, they are less like movie studios and more like movie goers: we pick a film based on the best available evidence we

²¹ Meeker, Mary, et al., *The Internet Company Handbook*, June 1999.

have, but we can't expect the good movies to pay us back for the costs of seeing the bad ones.

Internet based projects also often entail high costs for the nonprofits that seek to develop them, which creates expectations of high rewards. It is true that IT allows its users to do more, and those who invest more in IT tend to reap more benefits from it. But there are limits to this equation that the simple question of "how much must one spend?" will miss.

Not how much, but when? The same investment at different times has different implications. In particular, the high costs that a sector's first mover incurs can be seen as risky, and the return can be dramatic. But later investments by other firms can often be understood as efforts to simply stay in place: to meet the new competitive threat or to retain a position in their sector that, hopefully, will not be too different than before. As a result, the same high costs when incurred by a later actor are costs incurred to keep from falling behind. There is far less risk in that strategy, and as a result, far lower reward. The same holds true in the nonprofit sector. The early adopters and innovators can look for significant improvements in performance and efficiency, while later adopters and followers hope to be able to hold their own in comparison to others in their field. For example, efforts to move advocacy efforts online allowed the early adopters to gain a comparative advantage over their offline competitors for legislators' attention, because they were able to mobilize far flung constituencies and generate more correspondence with legislative staff at lower cost

than the older methods had allowed. Later adopters could not enjoy similar gains in their efforts to reach legislators, because rather than gaining an advantage, they were simply trying to keep pace with what others were using well.

Not how much, but what else? As Brynolfsson and Hitt's²² research suggests, investments in technology without concomitant investments in other human and organizational factors can be all costs with few or no benefits. Thus, the simple scale of the investment is unrelated to the scale of the reward. The key is to align the technical capacities created with appropriate management structures and work processes, to factor in the training and administrative costs, and to ensure that the information flows created by the new tools can be accommodated by the organization that is expected to process them. Without those complementary investments, large commitments to IT can result in very low rewards or even penalties.

Not how much, but how much more? The sustained pace of technological innovation carries with it new support, training, and maintenance costs as well as rapid obsolescence. Thus, starting down this path entails not only ancillary costs of staffing and support, but predictably puts one on the path of needing upgrades or newer capacities, which in turn require further training, maintenance, and support. As a result, rather than higher spending producing greater rewards, higher spending can easily lead to more and higher costs.

Not how much, but how much is enough? The relationship between scale and reward is not linear: One more unit of support will

²² *Beyond the Productivity Paradox* at footnote 7 above.

not translate into one more unit of success. In other words, one can spend more, even much more, without getting commensurate returns until one hits some threshold that enables the investment to pay off. The winner-take-all nature of Internet markets suggests that the big returns go only to those who can dominate their market, commercial or noncommercial. Thus, spending more without spending enough to make a project dominant in its sector will not likely result in returns that are in any way proportional to the investment. Of course, as organizations seek narrower niches and more finely tuned offerings, the scale should become more modest and the outreach and management costs may scale down as well, so it is certainly possible to imagine successes that operate on a smaller scale.

Not how much, but how much will change? In many cases, neither a firm nor an investor can achieve greater than average success if they assume that firms will do the same things, only more efficiently, while in other respects the firm and the field it is in are undisturbed. The real rewards flow to those who prepare for, or even catalyze, new mechanisms for delivering services that are uniquely possible with these tools. In terms of assessing the risk of an investment, then, one consideration must be “is this project premised on incremental improvement, or will it accommodate a transformation in how this service is delivered?”

Parting Considerations and Questions

Having looked at success as a desirable goal, we must also consider its costs – not just the financial costs implied above, but what else will change as we pursue our goals. Successful projects will raise difficult questions for those committed to the health and vitality of nonprofits. Not only will they disrupt the fields in which they operate, they will raise issues and tensions beyond the borders of the organizations that adopt them.

Success for some will create new competition for resources: money, clients, and information.

The loss of geographic protection due to lower costs for managing information systems remotely, the advantages that accrue to firms that have made investments in IT, and the presence of positive feedback loops in networked markets are likely to cause significant instability for many nonprofit service organizations.

Nonprofits that had been the sole local provider of information or service may find that larger regional nonprofits that use IT can deliver similar services at lower unit costs, and may be able to develop marketing advantages if users aren't particularly committed to the local institution. This may work especially well for some noncommercial information providers (e.g., information and referral services, various social service hotlines, and volunteer matching

services). Nevertheless, even local providers of social or health services may find that ambitious regional providers may be able to lower the administrative costs of providing those services, which may allow them to make compelling cases to funders, both individual and institutional. By realizing the benefits of IT for administrative efficiencies as well as communication and coordination functions, a nonprofit could lower its own costs and expand its service area, even as the direct point of service remains local.

In particular, given the efficiencies that accrue to those who can make effective use of IT, and the potential for greater donor support as a result, it is likely that we will see new head-to-head competition emerging in the nonprofit sector. Some examples already exist: ImpactOnline began as a Silicon Valley-focused volunteer matching service, similar to other local or regional efforts. Subsequently, its management realized that a larger database made the service more attractive, and that the fixed, upfront costs of creating the matching system could be amortized over a much wider range of clients/users if the scope was bigger. As a result, they have taken a local service and made it a national one, thereby competing with other volunteer matching efforts that had remained local. And while costs have certainly risen, they have in no way risen proportionately with the growth in the scale of the database or the scope of the service area. Finally, by breaking out of a local base and creating the largest database of volunteer opportunities, ImpactOnline ignites a positive feedback loop that positions the service to become even harder to

compete with by local organizations.

The emergence of e-philanthropy creates another set of conditions likely to create new forms of competition in the sector. E-philanthropy promises to create a more efficient, networked marketplace where prospective donors can find information about giving opportunities, compare potential recipients along various criteria, and make gifts online. This rationalization of the philanthropic marketplace, especially for individual giving, meets a real need among individual givers. It is also a good example of the Internet supporting the creation of new middlemen to broker information and relationships.

However, e-philanthropy is also likely to cause new competition among nonprofits for donor support, and could foreseeably create winner-take-all effects in the market for individual donations. Depending on the metrics available to potential donors, these systems could insert distorted incentives into the donor/recipient relationship, rewarding, for example, those charities that understand best how to exploit the customer satisfaction elements of the web-based marketplace distinct from the levels of satisfaction among the users of the nonprofit service. E-philanthropy also creates conditions where a group of nonprofits providing similar services are likely to come into much more direct competition for donor dollars, especially when they can be compared side by side.

As a result, e-philanthropy creates the likelihood that not all participating nonprofits will benefit equally. Instead, the power of networked markets to generate positive feedback can create what

can be called “swarming”: the initial success of one service provider can generate public perceptions that that provider is the most successful in its field. (If it is successfully using IT, it can also likely generate greater efficiencies, which are likely to show up in some form of performance rating, thereby reinforcing its position.) Once that perception of success catches on, new users are increasingly likely to follow the lead of previous donors, thereby reinforcing the success of the dominant charity. The result is like a swarm, a socially created effect that guides the behavior of the participants in a single direction.²³ The likely effect of this rationalized market for donations is a reduced number of beneficiaries. If the pool of dollars is directed toward a relative handful of organizations, the remaining organizations either wither for lack of support or consolidate with more successful organizations.

Another resource that nonprofits rely on is information, and the development of e-philanthropy portals suggests new sources of competition for this resource too: the portals themselves. Who will control the information they collect, and will they, as a result of their position, have the best vantage point on the information and resources flowing through the nonprofit sector? Lucy Bernholz points out “In many cases, when a donation is made online, the nonprofit is *not* the organization that gathers data on the donor, rather the

23 Macolm Gladwell’s *The Tipping Point* reviews comparable situations that arise off the web, where for various reasons, a social phenomenon is set in motion that makes a product, service, or other entity suddenly enormously popular. The point here is that the Internet essentially provides a kind of silicon spray that lubricates the process by increasing the speed and distance of communication and the immediacy of the feedback loop.

24 Bernholz, Lucy. *Foundations for the Future: Emerging trends in foundation philanthropy*. Paper presented at the Forum on Philanthropy, Public Policy and the New Economy, University of Southern California Nonprofit Studies Center, December 1999, at page 12 (emphasis in the original).

intermediary organization owns the information."²⁴ This has enormous and troubling implications for nonprofits seeking to manage their relationships with their supporters based on crucial information that the charity itself would traditionally collect and benefit from. If e-philanthropy portals can maintain this arrangement,²⁵ then they end up with the most detailed information on the donors themselves and the relative draws of participating grantees. Having the best overview of who is giving what to whom in a sector, region, or market can become a powerful position that nonprofits should not abandon. While the analogy may seem remote, a truly successful e-philanthropy portal can become like the operating system for e-philanthropy: the crucial interface for every transaction.

Will networked economies bring together or drive apart the interests of nonprofit donors and nonprofit clients?

Nonprofit organizations serve two constituencies – their clients and their funders – whose interests and experiences are not necessarily aligned. A networked marketplace for philanthropy could create unwanted outcomes from that split. For example, the key to efficient computer-based matching systems between individual donors and grantees is better information for the donor. This creates a set of incentives for the nonprofit to improve service to the donor, but there

²⁵ This may be a big "if"; there is already some question as to whether this business model can survive. Nevertheless, the larger issue of the value of this information remains, and so does the fact that the evolving marketplace for donor information can yield gains as well as losses in access to data.

is no necessary link to the experience of the person receiving the service. This could lead to the success of organizations that maximize the “customer service” aspects of the donation experience separate from the actual quality of the underlying service. It could also lead to the success of larger organizations with lower administrative costs over smaller organizations, which may starve in this new information ecology. It also suggests a broader change of making a philanthropic culture increasingly a consumer experience.

It is also worth noting that for the most part, nonprofit clients are rarely able to make use of the feedback mechanisms that networking enables. While donors, members, or subscribers may increasingly be able to enjoy increased communications channels with nonprofits, the beneficiaries of nonprofit service may not necessarily enjoy the same feedback opportunities. When the person paying for the service and the person receiving the service are the same, the feedback is based on the full experience as the customer and the beneficiary. When those two functions are split, as they often are for nonprofit services, the conditions are created for the main part of customer service to focus on donors. One question for further consideration is what mechanisms would structurally align the interests of those who pay the money with those who get the service? And what mechanism could reliably create feedback from the beneficiaries of nonprofit services for the benefit of funders and nonprofits alike?

What are the implications for place-based giving as networks remove the constraints of geography?

Many donors have chosen to focus their giving in particular places. Whether through a strategic decision to concentrate one's efforts for greater effect, or because the bequest of a donor specified a commitment to a place, a local or regional focus has been a convenient way to organize grantmaking. Similarly, many nonprofit efforts are committed to delivering benefits in specific places, and are neither committed nor organized to deliver services on a wider scale. Yet operating on a global network inherently removes the limitations of place and the ability to easily control where a benefit appears. Users from around the world can get information provided for a local place. Projects created to serve a specific community can be enjoyed by others far away. In some cases, this might be seen as a benefit – the freedom for smaller, local organizations to be visible and helpful regardless of distance. But the inability to control who benefits from a program once it goes online may conflict with an organization's mission. Can a funder committed to a place support programs when the beneficiaries may be anywhere? What changes will place-based funders have to consider if they want to support the technology needs of the places and issues they are committed to?

Can success at one level require failure at another?

This picture of noncommercial success in the networked environment raises the prospect that success within the system we are headed toward will entail certain losses in the larger ecology of noncommercial organizations. In particular, a networked economy appears to favor large efficient organizations at the expense of smaller ones, unless an ever-finer niche can be found. And if history is a guide, the larger geographic markets and lower communications and transportation costs that IT makes possible generally result in greater uniformity among the services offered, not greater diversity.²⁶ What is lost corresponds in some important respects to important values of the noncommercial sector and the rationale for many for supporting noncommercial organizations. While many digital utopians describe a new wealth of diverse services, experience suggests that networked markets are likely to become more concentrated and perhaps more uniform, not more diverse and more decentralized. It may also be that there will be greater concentration among large firms and greater diversity at the margins, but the pressures of attention and the limits of time suggest that this apparent diversity may have few practical consequences. What losses can we tolerate in our efforts to succeed, and how can the imperatives of success be balanced against the value of what may be left behind?

26 For example, better transportation and more efficient food distribution systems certainly delivered a steadier stream of fresh food over a wide area, but the resulting loss in the availability of diverse, local produce and local food producers was severe. Lower transportation costs and wider geographic markets for building materials earlier this century led not to more diversity in building design and appearance but less, as the same materials could now be used everywhere. See Mumford, Lewis. *Sticks and Stones: A Study of American Architecture and Civilization* (New York: Dover Press) 1955 (2nd revised edition).

What will cause change in the nonprofit sector?

This analysis has suggested that long-term, structural change is just over the horizon for the nonprofit sector, carrying with it the potential for significant changes in how both nonprofits and foundations do their work. Yet the question might reasonably arise, “what would cause change in a sector that is by design separated from the pressures of commercial life?” There are three likely and overlapping sources of change. One comes from pressures generated among nonprofits themselves; another comes from the largest group of supporters for nonprofit services, individual donors; the third comes from the organized force of the sector’s biggest funders, institutional philanthropy.

The first likely source of pressure for change comes from nonprofits themselves. When some nonprofits invest in IT and improve their services, extend their reach, or develop new products, they inherently pressure other organizations in their area to keep up, either to reach more clients or to keep pace in seeking support. At some point, there is a transition from the technology and its associated changes being a discretionary expenditure made to gain advantage to a necessary expense needed to avoid disadvantage. Once that tipping point, or critical mass, is achieved, the field will pursue these tools of their own accord, whether or not the organizational leaders fully appreciate the fundamental changes they are likely to bring. We may be in that period now.

The second likely source of change will be driven, as it often is, from the evolving expectations of those putting up the money, in this case the funders of nonprofit efforts. Here it bears noting that of the \$190 billion of charitable giving in 1999, individual donors gave nearly \$144 billion while nonprofit foundations gave just under \$20 billion.²⁷ Thus, while uncoordinated, the total amount of spending by individuals dwarfs that of foundations, and so the signals they send to nonprofits with their money are likely to be powerful. In particular, look for organizations with large numbers of individual donors to lead some of these changes in their efforts to anticipate the interests of their main sources of support.

Finally, the growing technology-based wealth and trends in organized philanthropy itself will precipitate some changes. As Lucy Bernholz points out, California has replaced New York as the base for the greatest number of new foundations, suggesting a changing landscape for the locus of philanthropy and the number of living donors with wealth created in this economy.²⁸ As organized forces that can strategically deploy larger chunks of money more regularly than individuals can, these funders will also create pressures for change. As noted above, that wealth can be used as a bulwark to protect organizations that would otherwise be likely to be lost, or it can be used to cultivate change. It is likely that both will happen. But

27 American Association of Fund-Raising Counsel. "Total giving reaches \$190.16 billion as charitable contributions increase \$15.80 billion in 1999," (*Giving USA 2000* press release) May 24, 2000. Available at www.aafrc.org.

28 Bernholz at p. 18. See also "West Coast Philanthropy Grows in Size and Influence," in *Philanthropy News Digest*, Vol. 7, Issue 1 (January 3, 2001), which notes "the shift in influence from established East Coast foundations to giving vehicles created by the software and high-tech tycoons of Silicon Valley, Seattle, and other Western tech centers." Moreover, it adds "the innovative, and sometimes controversial, giving strategies of various technology millionaires also drew the philanthropic spotlight westward in 2000." Online at <http://fdncenter.org/pnd/20010102/003871.html>.

as has always been the case, long-term success will require harmony with larger social and economic trends. To meet philanthropy's major goals for impact, it will be necessary to leverage trends, not ignore them.

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Andrew Blau is a program designer and strategist working with foundations and other organizations developing programs at the intersection of technology and society. Building on 15 years as a policy analyst focused on the social and policy impacts of the Internet, telecommunications networks, and digital media, he launched Flanerie Works to help foundations assess these technologies and their effects on public interest values.

Previously, Blau was Program Director at the Markle Foundation, and prior to that he directed the Benton Foundation's program in Communications Policy and Practice. Blau also analyzed Federal and state telecommunications and Internet policy for leading public interest groups including the Electronic Frontier Foundation and the United Church of Christ's communications policy program. In 1990-1991, he was a senior member of the research staff at Columbia University's Institute for Tele-Information (CITI).

At the request of the Clinton administration, he was the principal organizer of the first national meeting to bring together leaders from nonprofits, foundations, and the White House to discuss public interest policies in communications. He has testified before Congress about the role of nonprofits in the information age, participated in scores of regulatory proceedings before Federal and state regulatory agencies, and published and lectured internationally on developments in U.S. telecommunications policy. In 1998, the National Research Council appointed him to its committee on "The Internet and the Evolving Information Infrastructure." That committee's report, *The Internet's Coming of Age*, was published in October 2000. He is a member of the Program Committee for the 2001 Telecommunications Policy Research Conference, the nation's foremost interdisciplinary gathering focused on telecommunications and Internet policy, and he chairs the President's Task Force on Digital Inclusion for the American Library Association. He has also been an advisor on technology projects to many organizations including the U.S. Department of Health and Human Services, the Center for Children and Technology, the National Endowment for the Humanities, the City of Seattle, the City of New York, Independent Sector, and the Microsoft Corporation.

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