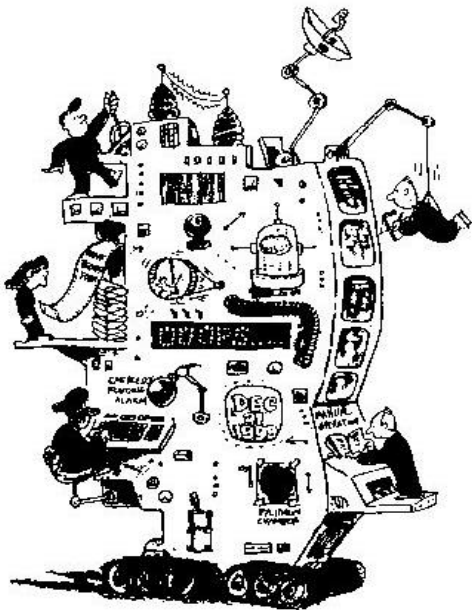# Foundation
NEWS & COMMENTARY

Technology Planning for 2001 and Beyond

Thirteen things foundations need to consider when looking at near-term technology needs.

By Martin B. Schneiderman

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One thing that never changes is the fact that everything changes.

Foundation board members and staff charged with planning for 21st-century philanthropic information systems must consider that in a few short years, grantmakers will be using technology in new ways that have probably not even been considered yet. Their challenges are: (a) to identify how best to use emerging technologies, (b) to build teams to work together on the necessary changes, and (c) to develop realistic plans for managing the ongoing support of new systems.

The next century is going to be all about digital communications—that is, information services such as the Internet and powerful applications that link to each other. Following are my views on 13 things foundations should pay attention to as they look into the not-so-distant future.

1. **Integrate systems to improve efficiency and productivity.** Aim to improve efficiency when upgrading information systems. Eliminate duplicate information, automate routine functions, and do away with re-keying whenever possible. The idea is to streamline operations by using integrated applications that share data that is stored in a common format. This is as important to a family foundation experiencing rapid growth as is to a corporate giving programs that are being downsized.

2. **Get the "big picture."** One of the greatest advantages of integrated systems is the ability to get the "big picture." A solid understanding of a giving program's past and current practices will help you make better decisions about future directions. But this requires that all related information be merged or linked, complete, and classified in a consistent way. Through the use of ad hoc query and reporting tools, you can also get answers to very specific questions. For example, you could quickly produce an up-to-the-minute report showing all grants from 1990 to 1997 made to North American elementary and secondary schools serving disabled minority children, with the results subtotaled by city and state.

3. **Get systems talking to each other.** Organizations with large volumes of grants, checks, matching gifts or contacts should establish automated import/export links between grants management, accounting, check processing, matching gift, and other systems. This can dramatically reduce manual labor, enable faster processing, and reduce errors.

   The AT&T Foundation's grants management system was designed with this in mind. It has links to multiple external systems. It receives an electronic feed of employee gift information from the Matching Gift Center each quarter. The data are merged with all other foundation and corporate grant information to provide an overview of AT&T's total commitments. There is also a two-way link with AT&T's corporate accounting system for check processing, and another with a corporate contact database.

4. **Buy for the future**. Making purchasing decisions becomes more difficult as changes come to technology faster and faster. Here are some good rules of thumb for avoiding "analysis paralysis":

   - You shouldn't be on the "bleeding edge" of new technology, but unless you're close to the "cutting edge" you'll be using "trailing edge" technology by the time it gets installed.
   - Buy workstations that have fast Pentium processors and a minimum of 32MB memory. The latest generation of the most popular application software suites and commercial grants management software requires this to run effectively.
   - When upgrading hardware and software, verify compatibility of applications and data whenever possible.
   - Budget for ongoing support services and plan to replace computers every three—yes, *three*—years.

5. **Replace or fix systems that aren't year 2000-compliant**. Many older custom database applications, grants management software packages, and some IBM compatible computers are not year 2000-compliant. These programs and hardware may stop working correctly by January 1, 2000 due to a problem that causes errors in date and financial calculations.

   How serious is this problem? Very. With less than 24 months to go, if you don't know whether you face this predicament you should immediately contact your software developer. It might be best to migrate to a new certified year 2000-compliant system rather than trying to fix your current one. One thing is certain: The deadline for resolving this problem is midnight on December 31, 1999, or as soon as your system encounters a date in 2000. Whichever comes first.

6. **The trend is your friend**. When you are purchasing hardware and software, I recommend that you stick with proven mainstream technologies. About 90 percent of newly purchased computers are IBM compatibles running Microsoft Windows 95 or NT. Microsoft's dominance of this market will continue when they release Windows 98 next year. New sales of Apple Macintosh computers have been declining steadily and now represent about 9 percent of the U.S. market. As a result, no vendor of commercial grants management software reports any new product development for the Mac.

   Microsoft's strength extends to applications software too. In the Council on Foundations' 1996 *Grantmaking Technology Report*, grantmakers reported their most popular word processor, spreadsheet and database products were Microsoft's Word, Excel, and Access.

7. **Consider commercial grants management software**. The latest generation of Windows-based commercial grants management software is more powerful, flexible, reliable, and easier to use than ever before. The developers of these products indicate that grantmakers with custom-developed, DOS-based, and Macintosh systems are now migrating to Windows in record numbers. The Council's technology report notes that MicroEdge and Blackbaud are the two dominant vendors.

   MicroEdge is the current leader in the Windows market, with over 400 grantmakers having selected its GIFTS for Windows software, which was first released in 1994. Within the last two years, Blackbaud purchased Riverside Software and two other companies—TracStar and Audit Trails Systems—that specialize in products for community foundations. In August 1997, Blackbaud released the first generation of its all-new Windows-based Award product. Bromelkamp is another leader in the foundation market.

   A particular strength of the best packages is their tight integration with the most popular word processing, spreadsheet, e-mail, computer fax, accounting, check and report writing software, as well as with matching gift service bureaus and the Internet. I recommend that you select products from vendors that:

   - Have qualified staff with *experience* in grant administration.
   - Have a substantial installed base of clients with needs *similar to yours.*
   - Offer products that can meet all of your current and *future* needs.
   - Provide a *full range* of implementation assistance, data migration, training and customization services.
   - Have a track record of providing first-rate *technical support.*

8. **Explore outsourcing services**. A growing number of corporate grantmakers are turning to service bureaus to administer their matching gift and volunteer programs, major annual campaigns, and in-kind donations. Over the last three years, the JK Group and the Matching Gift Center report a 250 percent increase in the number of companies that have selected them as matching gift service providers.

   The major attraction of these services is improved processing speed, accuracy, checking of institutional eligibility, continuity of operations, and data links with other applications. For example, the JK Group has developed the capability to provide secure matching gift status information to employees via web browser software.

9. **Use the Internet**. Back in the early days of philanthropic web sites (circa 1995), there was widespread concern that foundations that ventured onto the Internet would be inundated with mailbags of unsolicited proposals. But this just does not happen, as the real experience of hundreds of funders has taught us. Instead, Internet e-mail and the World Wide Web are becoming preferred venues for grantmakers to share information with each other, collaborators, grantees, and grantseekers.

   The Council's technology report cites that, last year, over 60 percent of staffed grantmaking organizations with assets over $1 million had access to the Internet. Of these, about 90 percent have both e-mail and web access. The primary reported uses are:

   - Communicating with off-site staff.
   - Sharing program information and grant guidelines with other organizations and grantseekers.
   - Linking organizations with similar programs.
   - Inquiring about other organizations.
   - Collaborating about program development.

10. **Implement interactive applications**. Forward-thinking grantmakers and philanthropic organizations are now developing and using interactive computer-based applications.

    This year the Foundation Center conducted a large-scale survey of its online services using powerful web and e-mail survey software. It is one component of an ongoing program evaluation funded by the W.K. Kellogg Foundation. Once survey responses were received, the application automatically tabulated the results, did cross-variance analysis, and produced reports in a variety of graphical formats. Feedback from users will inform the Center's site design and future service offerings.

    The Carnegie Corporation of New York's Starting Points initiative has implemented a program web site and a password-protected, Internet-based, workgroup conferencing system—yes, it's a mouthful—to make it easier for a national network of grantees to communicate with one another. The Forum of Regional Association of Grantmakers currently has a similar project underway that will link its 26 member organizations.

    The St. Louis Regional Arts Council accepts grant proposals using an electronic application form. The form is available on diskette and downloadable from the World Wide Web. Completed forms are sent to the council via e-mail or regular mail and loaded directly into their Bromelkamp+Co. HOBIE/PC grants administration system. C.K. Analytical Services' GEMS software has similar capabilities.

    "We're ecstatic about using the electronic application form," says Dan Tierney, the arts council's assistant director. "It's easy. The electronic form completes all budget calculations automatically—we no longer need to check the figures with a calculator." Signed documents are sent separately to meet legal requirements.

11. **Make telecommuting easier.** A growing number of organizations are implementing systems that provide remote access. Generally speaking, telecommuting allows geographically separated staff to collaborate on projects. But it specifically addresses the flexibility needs of working parents, staff who travel, and staff who work off-hours.

   The GTE Foundation recently started using a new centralized grants management system that links their headquarters with seven regional offices nationwide and with PCs in key staff members' home offices. This was accomplished using their corporate wide area network (WAN), the client/server version of MicroEdge's grants management software, and appropriate security measures. Cheryl Hardy, GTE's grants manager, reports, "For the first time all data is in one place. Queries and reports run extremely fast and we now have the capability to expand access to other GTE staff nationwide. The response time over my home modem is good, too."

   A third way to access a remote database is via the Internet. Later this year Blackbaud will offer web browser access to its Award system for organizations that have their own secure web server.

12. **Invest in training**. Grantmakers report that lack of training is the most significant barrier that prevents them from using computer-based information and communications systems effectively. You won't succeed unless staff are proficient users of their computers and applications software. This means funders need to establish a training budget, attend conference seminars, and participate in hands-on courses. I often hear people make excuses that they haven't attended training because they're "too busy." The truth is, they're probably too busy *because* they haven't attended training.

13. **Get it going smoothly—and keep it going smoothly.** It's complicated to install and fine-tune a network of software that links products of different vendors. This should be done by specialists. Without outside help at this stage, there may be enormous difficulty in resolving problems, frustration, and finger pointing.

   Eighty percent of grantmakers report that they have no computer or communications professionals on staff, according to the Council on Foundations. Most rely on consultants and vendors for these services. While these providers may know about the latest hardware, they are less likely to know much about your specialized system requirements. I recommend that you speak with colleagues, and get referrals of experts with a demonstrated track record configuring and supporting similar applications.

   The Internet and floppy diskettes are major vectors for computer viruses. One organization's virus problem was so bad that they referred to their PCs as "digital petri dishes." Don't overlook installing top-rated virus detection software—and keeping its files of virus fingerprints up-to-date.
   If you've learned your lessons well, then you may not encounter the same problems that the astronauts did in Arthur C. Clarke's "2001: A Space Odyssey," where the malfunction of a computer named HAL leads to disaster. But you can be sure that on the dawn of the millennium I'll be on the lookout if my computer greets me with an ominous, "Good morning, Dave."

Commonwealth Fund Gets the Word Out

This year the Commonwealth Fund will spend more than $1.5 million to spread the word about its work. The large New York-based health funder kept the importance of its outreach function in mind when it made recent improvements to its information systems. It ended up with one integrated database that is now used for grants management as well as dissemination, replacing multiple incompatible applications that held many duplicate records.

Two years ago the fund set up a web site for the specific purpose of sending out hundreds of publications (http://www.cmwf.org). Many Commonwealth documents can be viewed online and printed locally, and hardcopy versions of larger documents can be ordered using a web-based publications order form that get sent, via e-mail, directly to the fund's outside fulfillment house.

Commonwealth chose the networked version of GIFTS for Windows. It now stores information about 35,000 organizations, requests, contacts, and activities. Details—such as organizational affiliations and mail list codes—are maintained on over 20,000 individuals, enabling the system to print custom mail-merge correspondence and mailing labels.

The fund's MIS manager, Sean Montague, developed a custom application that made it faster and easier for staff to get retrieve up-to-date name, address, phone, fax, and e-mail information from the master database. This was developed in-house using Microsoft Access, which stores data in the same format that GIFTS for Windows does.

At the outset, the project team questioned whether one application could accommodate so many different functions. In practice, they discovered that response time is largely a function of the speed of the PC's processor, not the size of the database or the number of concurrent users.

"More than any of the technological challenges," says Mary Lou Russell, "the most critical factor in the success of the project was getting all concerned parties working together."