25 TIPS FOR EVALUATING (AND WRITING) SUCCESSFUL TECHNOLOGY GRANT PROPOSALS
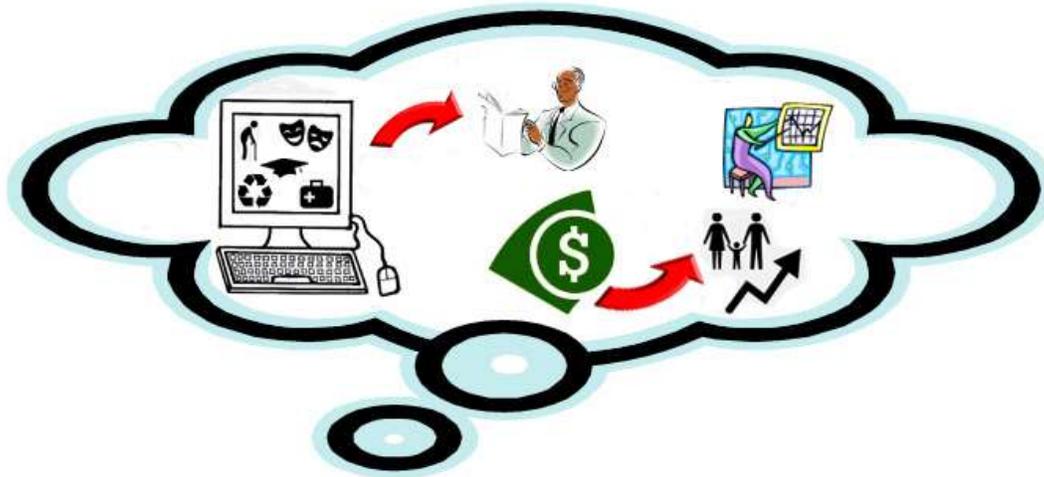
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INTRODUCTION

It's been about half a dozen years since my book, *The Dynamics of Technology for Social Change: Understanding the Factors that Influence Results* was first published. In that time, social networking and social media have become an increasingly dominant and important force in information and communication technology for development (ICT4D); although they really did not exist in any significant form when I first published the book. Clouds also dominated the skies and not the networks. Such is the speed of major technological transformation. Given these significant changes, it felt like a good time to update lessons learned, and to do it in a free, easily readable guide that mimicked my *popular 20 Tips for Strategic Grant Seekers.* That free manual presented individual challenges and solutions to grant seeking in a one-page-per-challenge format, with online reference links provided where appropriate. Having written for grant seekers previously, my target audience for this manual was the program staff at institutions evaluating technology-focused proposals. However, as I wrote the manual, it became clear the tips were also useful to those producing ICT proposals for support as well. This manual describes what to include and avoid in a proposal, and that is relevant to both grant-seekers and funders.

ICT continues to pervade more and more areas of our life through traditional computing and the digital devices most of us now carry. It's therefore not surprising that proposal evaluators in all the issue areas (health, education, environment, etc.) covered by funding institutions are increasingly seeing more ICT support requests being made. Early on in the World Wide Web's development many large funders had separate technology-focused program units that evaluated these types of proposals and worked with the individual issues area portfolios on them. However as the Internet became more ubiquitous in our lives, these specialized areas disappeared in many funding institutions. Individual issue areas portfolios were left to evaluate these proposals on their own, often without the requisite technical expertise to go along with the transfer of responsibility. Having spent over a decade evaluating and supporting technical proposals as a Program Director and CIO at a large funder, I wrote this manual to share some tips and tricks I learned evaluating technology proposals and implementing ICT projects globally.

Every proposal is different, and individual program issue areas have different priorities. So the ICT challenges and tips presented are necessarily at the meta-level. They cut across issue areas and are valid for both the traditional ICT circumstance as well as the Web 2.0 world of social networking and mobile access. If you notice some redundancy between tips it's because they are related, and are designed to build on and reinforce each other. The tips loosely move from design, implementation, budgeting and sustainability to specific topics of software development, social networking, mobile applications, content creation, licensing and project evaluation. If you require further support in this area or consulting on evaluating, writing or implementing ICT proposals please contact:

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*This manual is respectfully dedicated to **Rob Stuart**, a fellow foundation traveler and founder of Evolve Strategies, NPower PA, TechRocks (a supporting organization to the Rockefeller Family Fund where he worked), and Grant makers for Effective Organizations -- to name but a few organizations. Rob had a passion for technology, nonprofits making effective use of it, and donors supporting it appropriately. His work lives on in the community he loved, and his legacy is carried on by all of us who remember him.*

TIP #1: EMPLOY A PILOT TO AVOID A CRASH

These recommendations are not in any priority order except for this one, which I maintain as the golden rule in both granting and administering technical projects. ICT is often expensive and many projects fail. So for nonprofits with big technology plans, but limited budgets and organizational experience building and managing these sophisticated rollouts -- the operative word is "pilot". There is nothing more frustrating than investing in a multi-year, six or seven figure project with limited assurances it will work because the assumptions and ability to operationalize it were not tested first on a smaller scale. Pilots provide necessary experience and a better understanding of a larger implementation's challenges.

This is *essential* for proposers with little or no prior experience implementing and maintaining large technology roll outs. ICT projects are often more time consuming, costly and complicated than everyone thought they would be originally, even for old hands at it. Nonprofits typically do not have the ICT expertise in-house for what they propose, and often have to rely on third parties to create what they need. This dependence just adds another layer of management and communication coordination on top of an already sophisticated-to-implement technology project.

Recommendation

Before supporting a large scale roll-out, try to make sure a proposed technology solution has been executed on a smaller scale to test the viability of the idea, overall demand for it, and critically -- the proposer's ability to successfully manage and operationalize a technology project rollout. Large scale ICT failures don't just hurt the donor-investor. A costly failure may also create so much cognitive dissonance for the NGO that it may shy away from future technology projects necessary for organizational growth. Asking for proof of concept before a major investment is good practice for all involved. Technology evolves quickly, and the pilots provide a variety of benefits including:

1) Testing both *design assumption* and *operational ability* on a small scale before spending lots of time and money on a full scale implementation and then discovering all the problems. As an ICT person I cannot stress enough how beneficial it is to test first on a smaller scale, and better understand and fix a lot of the inevitable problems that surface. Knowing what to expect makes the larger and costlier full implementation process go that much more smoothly.

2) In the course of testing a pilot, new or alternative ICT solutions that cut time and costs or enhance outcomes may become available. Something better and cheaper is often on the horizon. It makes far more investment sense to pilot first and use a better or more practical solution, *if appropriate,* for a larger rollout -- before everything is already invested in the original technology solution. ICT investments quickly depreciate and a full investment made up front leaves no more funding to implement better solutions later. *This is not a recommendation to flit through different technologies as they become available.* It a strategy to remain flexible and open to potentially better solutions using the pilot-first-then-full-production methodology.

3) Sometimes shiny new technology projects obscure the lack of audience demand for the solution proposed; pilots often help determine if demand is real and the ICT solution is appropriate.

TIP #2: THE PROPOSAL: CHRISTMAS LIST OR PERSONAL EMPLOYMENT CONTRACT?

Beware of the well-reasoned proposal describing a variety of objectives, but with a budget that looks more like Santa's wish list from NORAD. It features a shopping list of hi-tech goodies with little relation or resources devoted to those wonderful high-minded objectives described in the rest of the proposal. The alternative to this is a similarly thoughtful proposal, but with a budget whose primary goal seems to be paying the salary of the proposer or surrogate. If you think you're reading a shopping list or employment pitch masquerading as a proposal…. My advice is, "If it walks like a duck, and quacks like a duck, then it's a duck".

If a proposal discusses software development, implementation, skills building, content creation, knowledge transfer, project management, project promotion, etc. all these items have a cost attached to them. A budget featuring a Christmas list of equipment or focused on the salaries of one or two folks rather than outputs defined in the body of the proposal is typically a clear tipoff that the rest of a proposal is really just a diversion. The real focus is on new ICT toys or covering someone's salary. On the flip side, where naïveté rather than proposal-Three-Card-Monte is the issue, an alternative version of this problem is a well-intentioned proposer that doesn't have a practical plan of execution and instead falls back on a budget featuring the tangible IT products or salaries the proposer expects will be needed for the project.

While this should sound obvious, I have seen some really solid proposals come across my desk that were quite persuasive -- if the budget didn't belie the proposal's actual objective or was a tip-off that is was long on ideas and short on implementation expertise.

<u>**Recommendation:**</u>

Some straightforward questions relating to how each piece of equipment meets proposal objectives will quickly determine if the proposal is more than a shopping list; as will questions related to exactly what [highly] paid personal in the proposal will actually be doing. In addition, ask how each of the proposal objectives will be met if few budget resources are actually devoted to them.

If the problem is one of naïveté, you will be doing the proposer a tremendous favor having them justify how the vision described in the proposal will practically be accomplished. ICT proposals with budgets that don't match the words are often indicative of projects whose practical execution will not match the vision either. As discussed later, proposals that are long on vision and short on practical implementation expertise can lead to costly disasters. Sending the proposer back to the drawing board to justify and demonstrate a practical implementation plan is beneficial for all involved.

TIP #3: RELATED TO COSTS, IT'S ALL RELATIVE

A great difficulty in evaluating technical proposals is the potential difference in costs associated with meeting the same objective in different ways. You can ask three technicians to build the same network to meet a need and have one cost $10,000, another $50,000 and the third $100,000. The difference in cost is often between what's absolutely necessary and what's possible – be it more bells and whistles, a higher level of data reliability or more functionality built into it.

None of these configurations is necessarily wrong even if there is a significant difference in cost between purchasing the gold standard with maximum functionality and simply purchasing what's required with room to expand. However, there is a very good reason to focus on purchasing *what's required* and then adding or upgrading to what's best from there. Why?

Using pilot implementation logic again, it's often best to see what works and what does not and then expand from there. There is also a trend that seemingly goes in only one direction. Most are familiar with Moore's Law, named after Intel co-founder Gordon Moore, which holds that the power of microchip technology relative to its price doubles roughly every 24 months. Most ICT gets better, faster, cheaper and more useful as it evolves. This also means that buying everything at a gold standard level all at once will inevitably result in all the technology, together, becoming obsolete within 3-5 years. So if an ICT project has the capacity *and the resources* to scale its purchases, then it should.

Recommendation

The layman evaluator can limit this cost differential problem and come up with a reasonable scale of costs in a number of ways. For example, I managed a global program where I paid for the International connections and the last mile Internet connection to a network (where I knew the cost for the part of the technology I was paying for), but not for building the local network where the costs were extremely variable. I typically treated local area network building as a shared cost requiring proposer or third party support. I maintained flexibility in doing some local network financing in particular cases where costs were reasonable and the issue was justified. However I maintained the rule to standardize around costs I knew and let the local proposer build their network to the size and configuration they wanted or could afford.

Another way to achieve the same result is to define whatever hardware or software configuration would be *necessary* to meet a predefined need, and then ask an expert (like internal IT staff or consultants if they exist) to cost each item, (taking differences in pricing for each country into account, of course). When evaluating proposals to meet the same need, compare costs to the recommended configuration and request more detail and justification if the costs and hardware/software differ significantly from it. They may be valid, but the evaluator will have a base to compare against and the proposer something to justify against as well.

TIP #4: THE "EXECUTION THING"

Following on the golden rule of pilots as well as the last couple of budget recommendations, ensure that proposal makes the case for both proper vision *and* well planned execution. Many proposals fall short of understanding all the moving parts necessary to make a technology project work; particularly from nonprofits that don't necessarily have lots of experience implementing sophisticated multi-step ICT initiatives. There are issues of design, user demand and feedback, changes in work flow processes, programming and/or hardware implementation, testing, training, documentation, promotion, feedback/evaluation loops, interfacing between users and technical implementers, project management, etc. All these have to be taken into consideration.

If the technology solution is being implemented by a third party for the nonprofit, is it a reputable well established entity or a one or two person shop working out of their basement? Many NGO's tell similar stories of failing systems designed by lone outside consultants that long ago abandoned them. A reputable developer/implementer doesn't just build an application; it can warranty, support and upgrade it after the fact. If the application being implemented is on software as a service (SaaS) platform with someone else managing the ICT, it should be with a stable, well–recognized vendor as well.

Recommendation:

An ICT proposal must provide a clear indication that the proposer has a handle on these nuts and bolt issues. Aside from demonstrating these areas have been considered and planned for, there should also be a clear indication that the resources are actually there, and budgeted for in the proposal. That includes the human resources and expertise with the appropriate execution skill sets, along with the creative vision being proposed. If long term maintenance of the technology solution is necessary, which it typically is, there must be some indication of the longer term resources that will exist to accomplish it.

Some generic elements to look for in a proposal to determine if execution is well thought out:

- How are requirements being defined? Are all the right people involved?
- Who is managing the project and do they have any experience with software or hardware implementations?
- How is the technology being selected?
- Who is actually doing the programming and/or hardware implementation?
  - Is it in-house staff, and if so how many? Do they have backup people for support?
  - Is it a third party consisting of one or two consultants or an experienced ICT vendor?
- What plan is there for piloting, testing, promoting the system and training people to use it?
- Are the execution timelines reasonable for what is being proposed?
- What criteria are being used to determine demand, and if it is successfully met?
- What criteria are being used to determine success?

TIP #5: ARE THEY IN IT FOR THE LONG HAUL?

Expanding on an important point in the last tip, any ICT project must account for the inevitable upgrades required to stave off obsolescence and maintain relevance in an increasingly fast changing environment. Whatever is built typically has a shelf life of less than half a decade before significant change or replacement is required. NGOs developing their own ICT projects must appreciate they are in it for the long haul related to maintenance and the inevitable upgrade/replacement of hardware and software.

Equipment becomes obsolete and must typically be replaced every 3-5 years. Software replacement or upgrade may be needed in even less time. Of course that can have a significant cost depending on the project. As soon as people start using software for a task, they almost immediately start thinking of what changes or new functionality would make it more effective so their work can be more efficient and productive. As the saying goes "All software projects achieve 90% completion and then are continuously upgraded". Typically software is designed in a particular coding language (example: PHP), it often accesses a database (example: MySQL) and sits on an operating system (example: Linux). It may use libraries and add-ons to perform specific functions as well. Maybe it uses a specialized report writer or GIS mapping application embedded in it. All these layers of software are also subject to continuous upgrading; to fix bugs, adapt to new hardware, or because people using these underlying tools also think up new and better features. Changes to any underlying layer of software can affect the user software developed on them. The question is, does your grantee recognize this or are they proposing a solution that will be designed once, without a plan for maintaining it over the long haul?

Recommendation:
Although the grant term may expire before equipment or software needs replacement, it's still useful to ask what the plan is for maintaining and replacing costly equipment if the grantee is implementing a technology project in-house. At the very least it will demonstrate if the grantee is thinking ahead and understands the long term requirements of a technology project. It may also provide a clue of how strong their implementation planning is if they haven't thought about it yet. These technology-specific sustainability questions are part of following up on general project sustainability.

For software projects, ask what the plan is for collecting new user requirements at consistent intervals for future upgrades? How will they be accomplished and with what technical staffing? Is there a hardware or software maintenance agreement? If the grantee is using a third party to develop software are they reputable, properly staffed and experienced? So many nonprofits use 1-2 person consultancies to develop technology only to see them disappear after a couple of years -- leaving them to maintain someone else's proprietary work, which is notoriously more difficult for another programmer to step into. Determine if they are really developing from scratch or using/adopting a standard platform like Drupal and customizing it for their needs. Standard platforms are typically easier for others to maintain with a large pool of requisite programming talent to take over maintaining it.

If it's an online project that expects a growing audience, be sure they have a plan for upgrading servers and bandwidth. Even the most popular sites can go down after a surge of activity, and there is nothing that can kill a project like a slow unresponsive server impacting a user's online experience.

TIP #6: IT'S NOT MAGIC, IT'S TRAINING

In earlier days of computing, it was not uncommon to see proposals that underestimated the necessary training required for people to effectively use the often expensive systems proposed. It seemed as if by magic all one had to do was put the technology in place and it would take care of everything by itself. Of course nowadays applications are more sophisticated and easier to use. The younger generation is savvier and more experienced with technology, etc., right? This false sense of security is *exactly* why training should still not be underestimated or underinvested in!

Technology is "a process" that makes certain jobs more efficient by changing the underlying mechanisms for doing them. User technology training has always been about understanding the marriage between the new technologies being deployed and how they affect and modify the traditional workflow and processes people *are used to*. So there is often a step of relearning or unlearning required not just the technology but the workflow underlying it.

This may all sound intuitive, but in my experience many projects in this sector fail do to a lack of initial training and/or ongoing support. One day the equipment stops working or a necessary function can't be performed because people don't know how to do it. That ends interest in the project and the technology as people move on and use other means to accomplish their tasks. Alternative means are far more plentiful now than they used to be, and this may create a situation where people using a bunch of different, non-standard solutions to accomplish a task, create a whole new set of problems in the form of compatibility issues.

Recommendation

The message here is, "Don't take training in a project proposal for granted". If a project calls for significant changes in the workflow people are normally used to, be certain the proposal has the requisite amount of training included to ensure people can use whatever is implemented. If the project depends on online context sensitive help, (which the lay users often don't use unless they are technicians themselves) is the project rollout really simple enough for that to suffice? Here are some useful questions to ask:

-   Will classes be required?

-   How will new people be trained after the fact?

-   Will a train the trainer approach suffice?

-   Will there be written documentation in the form of an online manual?

-   Is there a YouTube instruction video available?

-   What type of post-support will be available (help desk, etc.)?

TIP #7: BUT IS IT *REALLY* SUSTAINABLE?

Most online entrepreneurs will tell you that an easily replicable uber-model for sustainability (like corporate sponsorships or advertising in traditional media) has yet to be found in the online world. That being said, one can point to online platforms *that do* make money, like Reverbnation, YouTube, Google, Huffington Post, etc… The examples noted are often well branded to begin with; serve a clientele willing to pay (ex. Wall street journal); or were first to market with an idea that amassed a huge amount of eyeballs online, coupled with a flexible advertising platform that attracted advertisers. Even Facebook, with 900 million users, is having trouble figuring out how to monetize them.

Beware the nonprofit project that has a sustainability plan out of the gate that depends on iPod download revenue or what it will make as an Amazon affiliate or with Google ads. Most will make supplementary revenue from these channels at best, and will often be surprised and disappointed with the results. It takes some years to build a brand and amass the accompanying online eyeballs. Nonprofit platforms like Idealist, VolunteerMatch, GuideStar and TechSoup all with successful revenue models now took some years to develop. Moreover, there is typically only one or two "best in breeds" for a particular online platform serving a niche need.

That's not to say it's impossible for a nonprofit with a breakout idea and a saleable product or service to have a workable online 3-5 year sustainability plan. Realistically however, projects with "sustainability" models that rely on online ad or similar types of revenue must typically count on other sources of support as well to be truly sustainable in the short and medium term. This is particularly true if the discussion is about *real* sustainability, meaning relying on real revenue versus alternative channels of subsidy support.

Recommendation

Determine if the proposer really understands what it takes to generate revenue on the web for true sustainability, or if they are relying on traditional notions of what they think generates income on the web (e.g. Google ads, Amazon affiliate programs, iPod downloads, etc.) as their basis for a plan. These often generate very limited amounts of revenue for small and mid-sized NGO's who don't have significant audience or branding already.

There are a number of more sophisticated online sustainability models that have proven successful. For example, providing free intellectual property (e.g. digital content) in exchange for promoting/selling some tangible good/service, (tickets, t-shirts, access to artist) etc.. Another sustainability model involves offering "Freemium" services -- Providing a significant share of intellectual property for free but more premium value-added services to a narrower audience at a price that covers the free services offered. Still other options include offering paid services at small incremental pricing and collecting revenue on volume purchases of said services; or offering paid information services like detailed metrics for a particular issue area that are hard to collect otherwise. Finally if an entity provides a unique service, it may be able to reasonably charge a small commission fee as a fraction of the total cost of the service.

TIP #8: JARGON MAY NOT BE A BARGAIN

Don't let technical jargon in a proposal intimidate you. The technical field loves using acronyms as shorthand to quickly define two or three word technical terms which themselves act as shorthand for defining more sophisticated concepts. An example already used is "SaaS" to define "Software as a Service" which relates to offering software developed and maintained elsewhere as a service to users over an [Internet] network. This term replaced "ASP" or "Application Service Provider" which essentially defined the same thing… And on it goes; every methodology, process, hardware and software standard seems to have its own acronym and jargon.

Proposal evaluators can often easily spot and question proposal jargon relevant to their own issue areas, like health or education, but may get stumped or intimidated by unfamiliar ICT technical jargon. The evaluator should appreciate that new ICT and correspondent acronyms are quite literally invented almost every day. New technology can also be trumpeted as the greatest thing since cream cheese one month only to be discarded as out-of-fashion and not living up to its hype six months later. All this to say, don't be intimidated by what you don't know *because it's probably new to most people*. And don't allow jingoist terms to obfuscate a proposal's relevance. *Resources exist to research what you don't know and you can always ask for more explanation without feeling intimidated.*

Recommendation

The Internet functions as a huge library and there is no shortage of technical term definition and example sites. A quick check of these and other sites which define acronyms and explain the underlying technology they describe will get a proposal evaluator knowledgeable enough to have an intelligent conversation rather quickly:

- Webopedia Technology Terms
- Wikipedia Technology Acronyms
- Tech Terms

If you don't know, ask, and let the proposer explain what the solution is and why they have chosen it. You'll quickly find out if they know what they are talking about or if they are seasoning their proposal with technical jargon that simply makes it look like they do. Unfortunately, there are still nonprofits that rely on their technical advisors to fill in proposals without fully understanding the underlying technology they are asking others to support.

TIP #9: FASHION OVER SUBSTANCE -- SELECTING THE RIGHT TREND

Technologists love new technology even more than they love creating new jargon to describe it. New software, hardware and methodologies are developed almost daily and promoted as the latest and greatest thing since cream cheese. Some become main stream, many do not, and inevitably almost all become obsolete. The trick for the proposal evaluator is to separate technical fashion from substance in a proposal. While it may be hard for the layman to select successful, long term technology trends, the evaluator should nevertheless be sure the proposer knows about the technology they are proposing and exactly how it will be utilized to meet an objective.

For example, social networking tools are now quite fashionable. Online social networking has defined how an entire generation communicates and socializes (just as the phone and email did for us older folks). So we can reasonably be sure it's not going away, but it is *evolving*. The popular MySpace of literally almost yesterday gave way long ago to the more popular Facebook of today, ("long ago" defined as less than half a decade in ICT years!). The media is promoting Twitter heavily but almost 60% of users stop using it after one month[1]. Will it fade, become a niche application for reporting news on the spot and what celebrity think of national events, or will it be supplanted by another technology? Hard to say right now what things will look like in five years, let alone ten – Remember blogging as the end-all?

Recommendation

Apropos to the technical jargon recommendation, if a proposer comes to you with a project heavily sprinkled with terms like Web 2.0 or 3.0, social networking and Twitter, they've proven they know what's popular. Now ask *how* they are going to use it to achieve tangible results, (and see social networking tips 16 through 19). As with ICT jargon there are also a variety of resources that help one understand how to effectively use different technologies like social networking in a nonprofit context:

- How Nonprofits Can Effectively Use Social Media

- Using Social Media Effectively to Power Social Change

- Nonprofits and Social Media, It Ain't Optional

It is well worth repeating that the Internet is a vast, googleable library and you can ask questions like "What is X?", "What will X disrupt?", "Compare X to Y", "Review of X", "trends for X", "X used in nonprofits". More often than not, relevant answers will appear, so don't be lazy – use it! You want academic research? Then try Google Scholar for research on nonprofit social networking. Not surprisingly, the Internet is particularly good at discussing technology and technology trends. With the appropriate motivation, it will not take long for the evaluator to educate him or herself on a particular technology in order to have an appropriate conversation with a proposer.

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[1] Nielson Wire: Twitter quitters post roadblock to long term growth

TIP #10: LEADING EDGE, NOT BLEEDING EDGE

Related to technology that *is* in fashion, in a perfect world, nonprofits would make use of new ICT in innovative ways. That said, the depth of any nonprofit's technical expertise, comfort level and operational experience with ICT should be thoroughly assessed in any large scale technology rollout, particularly when making use of very new and potentially untested technology.

There is a qualitative difference between innovative and new uses of *tried and tested technology* and deploying newly released technology whose benefit/stability/reliability has not yet been proven in large production environments. This is *especially true* in nonprofit environments with both limited budgets and hardcore in-house ICT expertise, where the effects of any major technology failure may seriously impact future attempts as well. It is best to have more deep-pocketed entities test a really new technology first and to learn from that experience. No organization ever failed because they took a few months to evaluate other's use of a new technology. However, a few have made big bets on new technology that failed or did not become established. Do you remember OS/2? Apple III, Friendster.com? New Deal PC's for nonprofits? – I didn't think so. ;-)

The problem is that technical trade publications are notorious for trumpeting what's new and different for the first three months of a new technology product rollout followed almost inevitably by horror stories of grand technical failures of these same technologies in the months that follow. Some technologies simply fade away because they never catch on.

Recommendation:

The prudent choice for nonprofits without deep pockets or technical expertise is to stick with technologies that have been tried and tested. That doesn't mean these technologies have to be five years old or even one year for that matter. However, there should be entities they can point to that have used the technology successfully, with some positive track record behind it. If a proposal trumpets using something new and different, make sure a case for its success elsewhere can be made.

I'll say it again; ICT is typically not a one shot deal. Even tried and true technology must be maintained, upgraded, etc. An organization with shallow resources or limited ICT experience is inviting yet another layer of sophistication and potential failure working with *untested* technologies that they own but aren't prepared to maintain or trade out in the event of a problem.

One of the benefits of the Software as a Service solution is that someone else is buying and investing in the infrastructure and developing the application. The nonprofit is only using the service and can change vendors with little downside of losing a significant technology investment if it doesn't work out, (appreciating fully that even just moving data from one platform to another can still be quite disruptive and resource intensive).

TIP #11: USING ALL THE ARROWS IN THE QUIVER

There are *a lot* of issues to look out for in evaluating and implementing ICT successfully, particularly because the field is constantly evolving, and doing so more quickly than ever. If you are working for a large or medium sized donor, chances are you have a technology staff, or at least an outside consultant advising on *internal* versus programmatic technical matters. They are often untapped resources for the proposal evaluator that doesn't always think to ask these "back office" ICT folks to help in evaluating a program proposal chock full of ICT-related issues.

Surprisingly, this situation is more typical than not, and internal ICT staff are often not consulted when program-related grant proposals are evaluated – even though they can add a lot of expertise and experience to the process. In such a rapidly changing discipline, chances are they are trying to stay on top of the latest trends themselves.

Recommendation

Your operations technology staff or internal ICT consultant may not know about your particular issue area, but they do know how about technology operates within it. They can assist by:

- Explaining the technology being recommended to you.
- Evaluating if a proposed solution is valid or mainstream.
- Evaluating if the resources exist to realistically implement and maintain it.
- Assessing realistic costs because they typically purchase these types of materials.
- Assessing the technical human resource expertise required.
- Explaining alternative solutions.
- Identifying additional sources to research and obtain information from.

This tip assumes you have a technology operation or ICT staff to depend on. If this is not the case, it is still a good idea to have a third party tech advisor you can turn to. Good advice on a technology proposal at the start can lead to significant savings in time and money; an increased chance of success; and far less heartache later on. This manual is designed to provide you at least some basic tips should no advisor be readily available. And remember the vast library that is the Internet -- with answers, particularly on technology, often just a search term or two away.

TIP #12: AN "OPEN" QUESTION

Moving right along into software development, this is a controversial tip because Open Source technology has become so synonymous with the nonprofit ethos over the last decade. First off "Open Source" means different things. It's an ideology, a methodology and a technology. Certainly, there are a lot more Open Source tools to choose from then there used to be, especially to meet particular nonprofit requirements. There are also more Open Source developers satisfying the sector than there used to be, if the price is right. However, over the last decade orthodoxy has developed around Open Source tools and methodologies suggesting they are the *only* legitimate choice for nonprofits and the public sector.

I beg to differ. Having actually managed enterprise-wide systems in the non-profit and private sector context I am completely agnostic on this issue because of the reality of today's ICT environments in most institutions. It is a mix of technologies -- of both proprietary and Open Source tools. In fact, a hybrid mix of technologies has been the rule, not the exception since I began working in ICT even back in the *mainframe days* when operating systems, software languages and processors were mixed.

The mandate of the proposal evaluator is to insure the technology solution being offered meets the primary objective of the project and can do so over time. In the final analysis, the objective is not the platform but rather how well it satisfies the constituent needs it is designed to address, and how well it can be maintained over the life cycle of the application.

I don't worry about whether Software as Service platforms are Open Source or not (see next tip) because it is the vendor's responsibility, not the nonprofit proposer, to maintain the applications and underlying ICT infrastructure.

Recommendation:

For a donor promoting a grant objective that includes software technology development, I recommend focusing on meeting the needs of the project as the first priority. If it makes sense to use Open Source methodologies or tools in clear support of that business case, then use it as criteria for receiving a grant. If the objective can be satisfied by proprietary or Open Source applications then leave the door open to receive both types of proposals. Given the rate of technology project failure and cost, particularly to nonprofits, what should drive the choice of application development are the underlying *business requirements they are designed to meet, not ideology* – full stop.

In the case of a proposal promoting its use of Open Source tools or methodologies because that is the politically correct case to make, be sure the proposal has all the other elements discussed above to insure it can succeed and meet user requirements. If it does and the use of Open Source enhances its impact or provides a value-added benefit, that's fine. However, if it is used to paper over other proposal deficiencies impacting project success, then it is not.

TIP #13: IF THEY BUILD IT, THEY BETTER HAVE A GOOD REASON

Building on the Open Source and leading versus bleeding edge tips above, be particularly thorough with software development proposals. Build, Buy or Modify [software]? This has been the core question to answer since the ability to design software first became widespread. As you might expect, the need to build something that does not already exist has dissipated over time. Much has already been built and also made available online, even for the nonprofit sector in terms of core applications and office productivity products. This was not as true fifteen or even five years ago, and the need to totally build from scratch continues to dissipate as applications evolve further.

The uber-trend in current computing is for software to be delivered as a service (SaaS) by a third party online in a so-called "cloud". A cloud is basically a remote but accessible network often consisting of underlying hardware infrastructure, software and technical expertise delivered over the Internet. The client no longer has to worry about maintaining all this in-house, and nonprofits often cannot afford to do this in the first place. The objective of the cloud is to allow users to focus on satisfying their business objectives while letting others worry about maintaining the underlying technology that powers it. ReverbNation, Salesforce, Paychex online and even Facebook and YouTube are all examples.

The failure rate of software development projects is still extremely high[2] even in the private sector. In the nonprofit sector there is the additional burden of chronic organizational capacity limitations that can affect these projects greatly. Building the software platform is only the first step. As noted above, it has to be maintained and upgraded consistently to stay relevant with evolving needs. Once users get their hands on any platform, *their needs do evolve*. One critical question to answer: "Where are the human and financial resources to upgrade and maintain nonprofit-developed software coming from?"

Recommendation

Be sure the proposer has done the research evaluating similar systems that might be used before funding what may amount to a costly "vanity" development project. The proposer must reasonably justify why new software needs to be built versus buying or customizing what already exists. Here are a few resources and communities around nonprofit software development in addition to peer research:

- Social Source Commons (nonprofit community of tool builders/users)
- Global Eriders (nonprofit technology provider's network)
- Npower Guides (Resource guides)
- Idealware (Software evaluations and resource guides)
- TechSoup Stock (discounted NGO applications and forum)

Most of these sites have communities around them that can recommend applications as well. Just as most generals try to avoid war, most systems directors do everything they can to buy versus build new software. The proposer needs to have a clear understanding of what exists, including what its peers are using, and should demonstrate previous successful experience building and maintaining software.

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[2] Statistics referring to IT project failure rates are as high as 50%. The Standish 2009 CHAOS Report puts it at 24% with 44% of additional projects being "challenged" late, over budget or with less features/functionality than originally required. Standish indicates only 32% flat out succeed.

TIP #14: PORTALS TO NOWHERE

Portals are also part of the software development issue, but deserve their own tip. Web portals were in particular fashion around the turn of the 21st century, but proposals still turn up from well-meaning nonprofits wishing to build and manage some kind of aggregated site that speaks for a large part of a particular issue area. There are a number of challenges with such a project technically, operationally, organizationally, philosophically... actually in just about every way. In the first place, they often start off with a top down vision to build and manage a platform, some of whose content may be produced and managed by other organizations that haven't even brought into the idea. Other issues include:

- Their expense to produce.

- The resources necessary to manage, upgrade, and moderate them over the long term.

- The continued need of both content producers and content users to maintain the platform over time by seeding it continually with relevant and useful information.

Many portals have been built with significant donor dollars only to become unused virtual ghost towns because someone had an idea to organize and aggregate information without getting the buy in from the people needed to populate, maintain and use it. It turns out that if you build it, they won't necessarily come – leaving only the need to find a way to maintain/sustain what has been built.

Recommendation

The most successful "portal" projects are actually hubs. What's the difference? Typically an awareness that one institution does not have all the answers or can act as the keeper of the platform or the data without clear initial buy-in from many stakeholders who are participating in the design of the platform to meet their constituent needs. So the first tipoff is if the hub is being proposed by a group of stakeholders that are reacting to demand *OR* one organization suggesting a supply-side solution.

Unlike portals typically designed with a philosophy around tightly controlling, managing and broadcasting content, hubs act as coordinated conduits [or platforms] for information passed between organizations or individuals that see a need to consolidate and facilitate some of it. Facebook works because users own their own data and participate on their terms albeit on a structured platform provided by Facebook which is extensible / modifiable. Facebook doesn't overly manage the data, or tell people how to interact with each other except for developing some overall rules of the road. They don't broadcast much of their own data but rather *facilitate* users reacting to each other and sharing what's important. Nor can they change policies without stakeholders reacting to them.

If a nonprofit approaches your organization with a proposal to develop and completely manage a platform that aggregates data from others, be sure they fully describe stakeholder buy-in; how it will be populated and managed going forward; and most importantly, *how and why people will use it*. Make sure a *demand* exists and that it's not simply a well-intentioned need for the organization to consolidate/control information because they think they can do it better than their peers.

#15 SEEING IS BELIEVING

Mapping and reporting on social challenges and solutions geographically is a *powerful* way for nonprofits to make their point, promote their cause, and solicit support and partnerships. Data visualization is much more user friendly in conveying a message than long written reports or dry numbers presented on a spreadsheet. For many years, GIS was a powerful yet onerous, expensive and difficult to master tool for nonprofits, requiring specialists to create sophisticated visualizations. However, geographic Information Systems (GIS) have finally taken their rightful place as mainstream tools in the nonprofit technology toolbox, along with social networking, mobile devices, SaaS, Open Source and virtualization/cloud technology. GIS has been popularized and made easier to use thanks to free applications like Google Maps and Google Earth. Global positioning systems (GPS) now built into many smart phones have popularized it even further, allowing anyone the ability to easily plot and map their coordinates. So, beware the proposer who comes to you with a project to build its own specialty GIS application because it's now popular and they feel a driving need to reinvent the wheel.

Recommendation:

Many easy to use and powerful online and offline GIS tools now exist to do geographic visualization. Some also allow the user to import and export the data to different applications and even publish results on the web. A number of applications use Google mapping as the underlying technology and then build an easy to use user interface over it for those who have a difficult time using the Google mapping application or its data files directly. I just completed a rather sophisticated project for a client that used the relatively inexpensive iMaBuilder and both Google and non-Google mapping technology to generate geographic maps online and off. There are a variety of powerful tools out there for nonprofits if your proposer requires them:

ArcGIS from ESRI - Is a more sophisticated GIS tool, and has historically provided nonprofit discounts.

TechSoup **-** lists a number of GIS software tools and other GIS resources specifically for nonprofits.

Greeninfo.org - is a nonprofit that consults with other nonprofits to use GIS tools.

Ushahidi.org **-** Born in 2008 out of the need to map emergency and crisis data in real time from mobile and static devices to an online system Ushahidi now offers its platform and assistance.

GIS for Nonprofit Resource Page - Is a general non-profit resource page pointing to other GIS resources.

TIP #16: AVOIDING SOCIAL NETWORKING GHETTOS

Also a part of the software development issue but worth its own tip is the need to *build* social networking platforms for specific niche groups. Every time a new technology becomes fashionable, someone feels they have to reinvent the wheel rather than use what is already exists. While social networking technology is no exception, it is far more of an oxymoron to build this because the antithesis of social networking is to create a platform that ghettoizes a small niche group from others in an underutilized application.

Any entity that proposes to *create* a social networking platform must provide an exceptional reason for doing so, because I frankly cannot think of one compelling reason offhand given what already exists. Anyone that takes on such a project must have the expertise and resources to build and maintain a platform for a very diverse audience. Additionally, they must also be able to promote the platform effectively enough for people to divide their time between the existing social networks they are already on and whatever new platform is being built. Since most nonprofits don't specialize in either software development or marketing, this is an extremely high bar to clear.

Recommendation:

If you're being asked to support the creation of a new social networking platform, approach the proposal with the appropriate dubiousness. Ask why any number of currently available social networking platforms cannot be used or incorporated into a project. The benefit of doing so is that the nonprofit can concentrate on its strength – its mission offerings -- while letting others worry about managing the platform and even attracting users to it. It's a lot easier to get people to join a social network like Facebook which already has many of their colleagues on it, than it is to attract them to a new platform without that user population. If a proposer really needs to focus on a niche group of users in a social network, Facebook provides groups. Failing that a number of niche social networks already exist. Here is an A-Z list courtesy of from Wikipedia with number of registered users for each of them:

If this list is not exhaustive enough, the need to develop any platform from scratch is still extremely questionable with made to order platforms available. Here are eight of them (Ning, KickApps, CrowdVine, GoingOn, Groupsite, PeopleAggregator, Haystack, and ONEsite) with reviews.

To reiterate, a significant benefit of using social networking is leveraging the five years the best of breed networks have had to mature their platforms and attract an already large base of users to them. A smart nonprofit is far better off figuring out how to leverage that to its advantage than it is going beyond its core competence and building and maintaining a new one.

TIP #17: BEING SOCIAL IN A MILLENIAL WORLD

Do your proposers have the right knowledge and staff to do a social networking project effectively? More importantly do they value and use ideas generated by younger staff in this area? There are a number of cultural memes that distinguish Baby Boomers and to a lesser extent, Generation Xers immediately after them from the millennial generation. The pre-Internet generation was taught to function more individualistically, question authority and value their privacy. The Millennials have been taught to work collaboratively, share information ubiquitously -- and they even respect their parents!

These crucial differences affect the way the generations perceive and use social networking and to what extent they trust and employ it. There are far fewer Baby Boomers that would see the benefit of tweeting on their mobiles that they just left Starbucks on 3rd street and would recommend the latte, -- first and foremost being the issue of broadcasting their whereabouts at any given time! It's a seemingly flippant example but gets at the heart of the level of trust and sharing that in large part distinguishes the generations and their use of social networking. Having been in technology all my life I use social networking for a variety of my endeavors (blogs, tweets, Facebook, LinkedIn, etc.), but I know I take a more utilitarian approach to it than 20-somethings and spend less time on it as well.

Social networking is to Millennials what phones were to Baby Boomers -- and a large part of the latter generation would still prefer calling or emailing while Millennials text. Millennials have adapted social networking as a part of their DNA. It *is* what they used in their formative years to learn communication and socialization skills, and they have shaped the way it is used by society today.

Recommendation

The Millennial' s native understanding of the power and potential of social networking platforms, even in the workplace, may be far deeper than their older and more experienced non-profit peers -- and older bosses who are defining organizational strategy and creating proposals. Are these younger voices part of the discussion and strategy that define whatever social networking strategy is being proposed? Insure proposals with heavy social networking components employ young staffers advising, assisting and/or managing the implementation of these projects. That's the best way to insure the people who are shaping the broader use of this technology are also leveraging the proposer's use of it to maximum benefit. There are some excellent resources and best practices in the use of social networking in nonprofits to review:

- Beth Kantor's The Networked Nonprofit & Measuring the Networked Nonprofit
- Social Media for Nonprofits
- About.com 12 Social Media Tips for Nonprofits
- Craigconnects Presents How the Top 50 Nonprofits do Social Media

TIP #18: IT IS NOT YOUR GRANDDADDY'S SOCIAL NETWORK

Following on the last point, but on the flip side, evaluators not of the social networking generation may be confronted with proposals that challenge many of their own notions of what they know works for their generation, but are completely intuitive to millennial proposers. As discussed previously, social networking is part of this new generation's communication and collaboration DNA. They have been brought up in an environment of ubiquitous information sharing and in a culture where the convenience of the *consumer* often trumps the protection of the *citizen*. As a result, this generation has a different notion of privacy, and freely sharing information that differs significantly from the Baby Boomer generation. The Millennial's comfort level with sharing private information coupled with their notions of what intellectual property they should legitimately have free access to and use of is challenging to many over a certain age.

However, appreciate that the trend is irreversible – this new generation will inevitably outlive and replace the older generation's cultural memes and will in turn be replaced by their kid's memes. Remember too that the cultural memes of older folks are also changing to conform to these new realities. The new generation has parents, grandparents and co-workers who they in turn influence to change *their habits* – not every one of the 900 million folks on Facebook is 20-something.

Recommendation

Remain flexible in your thinking and prepared to abandon some of your preconceived notions and cultural memes you were brought up with to better appreciate the ideas of younger proposers. That said, it may be useful at times to impart wisdom and remind a proposer form a different generation that there may be older constituents that don't share the same sensibilities and must be satisfied as well. However, remember that it is incumbent on those trying to reach a younger audience *to satisfy their sensibilities* as an objective, rather than seeking to change them. Millennial' s are not all going to start reading offline newspaper's en masse, no matter what project a donor supports!

One area I have found useful discussing with younger proposers is how digital information can be researched and repurposed by others once it is digitally available, sometimes with unintended consequences. Because of the generational difference in the conception of privacy and information sharing, some Millennial' s seem less aware or concerned with the public square nature of online social networking. It is useful sometimes to remind people that scammers abound as do online investigators and that often not only the people they assume are watching are doing so. I have seen public Facebook images that would make any employer cringe. Using another meme more common to this generation, it's worth reminding every generation that information, once posted on the Internet, is as difficult to completely remove as a tattoo!

TIP #19: NOT JUST A MONOLOGUE, BUT A DIALOGUE

The last two social networking tips focused on what to look for. This one focuses on what to avoid. Beware of proposals that use social networking tools in the same way the proposers are used to using T.V. and Radio – e.g. as a new way to blast their message out to their constituents in a one way conversation. The point of social networking is that it is interactive and immediate -- a way to start a conversation, take the pulse of ones constituents, allow them to participate in shaping processes, etc…

Nonprofits are often resource poor. The valuable things they do own are their mission, content and messaging. It's not at all surprising that they guard these precious assets and are more comfortable shaping and broadcasting their perspective through control of the medium and the message. However, in this new interactive world we live in, people are far more interested in participating, being part of and shaping the message. They have been given the tools that encourage them to do so both personally and professionally through platforms like Facebook and Twitter. Nonprofit proposals that use social networking as just another way to broadcast and interact with constituents in a single direction are not using the tools to their fullest advantage. More importantly, they often are left with underutilized platforms when they do so.

When the World Wide Web first became popular, many nonprofits took some time to appreciate the revaluation of proprietary information they had spent time and money painstakingly collecting pre-Internet. This information lost much of its value once the means of accumulating the same data became more easily available online. It took a number of years for it to become obvious to those still over-valuing their information that sharing and aggregating it created far more value than hanging on to it. I would argue the same behaviors are at play with some nonprofits that are new to social networking and overvalue control of the messaging while undervaluing the benefits of interacting with their constituents to help shape it.

Recommendation

One of the best ways to determine if a proposer is using social networking correctly and to its best advantage is by applying the broadcast test. Is the messaging only going one way, or is the medium truly being used in an interactive way to engage constituents? This is a textbook example of where generational differences, what people are used to doing, and the ways they use traditional media, all conspire to make applying the broadcast approach to social media challenging.

A trickier issue to spot is a proposal paying lip service to social networking interactivity by using all the right jargon when in fact most of what will happen is a one way broadcast. If the proposal doesn't clearly demonstrate an appreciation for the interactive nature of social networking with examples showing how it will be deployed, then follow up with a few questions. Determine if the proposal really will exploit the interactive, two-way communication benefits of the medium:

- How will users be able to input to the process?
- What type of feedback and evaluation loops will there be?
- How will their responses be integrated into what it being proposed?

TIP #20: TECH ON THE GO – AND WHAT TO KNOW

Mobile devices continue to become more powerful, increasingly running sophisticated and fully functional applications and taking on tasks once reserved for desktop computers. They also have the added distinction of being almost indispensable whenever/wherever communication tools for an entire generation. In the developing world, the limitations of local national telephone services, combined with high taxes on PC's in some countries, and illiteracy in others made mobiles a natural alternative to PC's long ago. They have been used in development work globally for the last decade.

Ironically, the US was behind in this area for a long time because it had a reliable, reasonably priced national *wired* phone system; PC's were relatively cheap and not subject to high VAT tax; and multiple wireless mobile carriers competed with incompatible technologies, making ease of consolidation more difficult. Enter the iPhone…. And now we are as advanced in mobile technology as most of the rest of the world, including using it for domestic development projects.

Because mobiles are less sophisticated, less expensive and easier to use than standard PC's, it would be a mistake to assume any development project employing them will be significantly faster cheaper and easier to do as well. I did a client evaluation for a foundation that gave one year grants to a number of organizations creating mobile applications, and the majority missed their deadlines and some their budgets taking more than the allotted time to deploy them. Folks, this still takes time and planning.

Recommendation

Smart mobile devices and their apps are no doubt a boon to development. However deploying any technology requires planning, design, workflow changes, programming, logistics support and training. Here is *some* of what to look out for in a proposal that expects to deploy mobile technology:

- If designing an app for a popular platform, keep in mind it needs to be approved by the vendor first. That can take time, it may be rejected or require modification. As with any application beware of fly-by-night development support. If the nonprofit expects to generate revenue be sure the developer used allows it or doesn't require revenue sharing in exchange for development.

- If the mobile device is being used to report data in the field back to headquarters, be sure the appropriate infrastructure, logistics and workflow/training exist to insure the process flows smoothly.

- Is security an issue? What measures are being taken to insure it in a dangerous situation? Mobiles are far more easily breached in a variety of ways from listening in to outright theft or loss of the device.

- If the mobile is being used for financial transactions, be sure the appropriate financial infrastructure exists to process them, be it by subscription, pre-paid cards etc.

- Ensure the basics of a developing world project have been covered, e.g. literacy, mobile maintenance, charging batteries, reliable wireless, the type of service needed for the project exist like SMS, etc…

- Beware of roaming charges that explode with data transmission, particularly of large or video files.

TIP #21: IS HIGH PRODUCTION VALUE, HIGH PRIORITY?

Speaking of generational differences, they also exist in expectations related to the production of digital media that can significantly impact costs, audience acceptance and diffusion. Pre-Internet generations were raised on high end, high production value content that only expensive equipment and specialized expertise could produce. However, in the do-it-yourself digital reality that we live in today -- where people produce their own movies online with nothing more than a cheap laptop, digital camera and some editing software -- high production value has taken a back seat to easily accessible digital content. If you question this you haven't met Annie, the Fifth grader who can fly courtesy of a Dell Laptop and some editing software).

I've heard more than one client discuss spending much time and money on high quality digital content only to have its audience prefer consuming the lower end media content they produce on YouTube. These producers were raised on high production value content and expect their audience wants the same thing. However, that may be a significantly incorrect assumption, especially if the age of the constituent audience skews younger.

The Millennial generation is far more interested in content that is accessible 24/7 from whatever mobile platform they are using and wherever they are using it then they are in costly, high production value digital content; especially if the way the content is produced in any way restricts it from being accessed, downloaded and shared… *easily*. Lower quality content may have the added benefit of residing on more readily available software platforms that the majority of the proposer's intended audience visits.

Recommendation

If confronted with a proposal that requires the production of costly digital content question the reasoning and the intent to ensure it is necessary.

- On what platforms can it be shared?

- Who is the audience? What are their demographics?

- How has demand been assessed?

- Are there any clear metrics or indicators that demonstrate users are far more interested in high end digital content then they are in more easily accessible lower end offerings?

Lower end options may not only reach more of the intended audience, they could easily save significant equipment, production and time costs. Moreover, if the lower end options are successful, they make for a very good pilot for determining what people want more of, particularly if coupled with social networking to *interactively* ask them. This allows for higher end content to be developed based on objectively measured demand, making a better case for it. It may even result in a viable strategy to monetize the higher end content while giving the lower end content away for free.

TIP #22: TAKING LICENSE

As intellectual property becomes more ubiquitous on line, so do content licensing issues. Unfortunately the law is usually way behind the technology. However, nonprofits can be tripped up by a variety of copyright issues from playing commercial music in the background of an amateur production posted on YouTube, to unintentional violations of the Digital Millennium Copyright Act. Let me tell you how easy it is to get tripped up; YouTube will send out warnings for using some default audio musical pieces included in your editing software to produce a video and post it online. How a piece of intellectual property is defined and deployed after the fact can often affect how it is legally used and if the creator needs to be compensated. For example, is the piece a performance, excerpt of something larger, or a media piece?

Many nonprofits that assume a public good think they can make use of digital intellectual property only to discover later that there are licensing issues they didn't spend time doing due diligence research on. Improper use can range from aggregating some content without permission to innocently pulling an image down from Google and using it only to be slapped with a notice from the copyright holder for improper use of intellectual property.

Another aspect of this issue is how the proposer intends to copyright the intellectual property it produces. Will it be proprietary in any way, or is it expected to be shared? Do you as a donor have rules and policies around these issues?

Recommendation

If your proposer has an exceptionally neat idea to produce aggregate and/or share content online, be sure they are aware of the legal issues surrounding use of the content and have done their homework.

- If publishing to an online social networking platform are they aware of its rules of intellectual property use? Some issues are straightforward while other are not and might get content pulled, (for example the use of that commercial background music in videos).

- If aggregating the content of others on its platform has the proposer gotten legal advice or the appropriate permissions?

- If developing an app for the iPhone, Android or other mobile device with content, has the proper research gone into any legal licensing requirements those platforms or vendors might have?

- If the proposer is publishing its own work online will it be proprietary, or is the proposer applying one of the Creative Commons licenses? These are often the preferred method for donor-funded work.

TIP #23: THE TRUE MEASURES OF SUCCESS

Social return on Investment (SROI) is the holy grail of the nonprofit sector and typically hard to measure for socially responsible projects. Within the sector, most appreciate the real human benefits of SROI are very difficult to quantify because they often occur years after the transaction has been made and are often peripheral to it. Fortunately, technology projects often natively incorporate some sort of objective measurement statistics, like reporting or log files built into the software or hardware. Logging what's occurring, rates of access and who's doing what is an integral part of many technology tools.

This means that *elements* of SROI around the immediate transaction as well as longer term effects are easier to gather with technology proposals. They can be maintained and collected over long periods of time as a function of simply using the technology once it's been set up. While they certainly don't cover all the SROI statistics everyone is after, they do provide some, and often a lot, of comprehensive and useful user information *over time*. This can be analyzed to determine other, more useful SROI measures.

Recommendation

Be sure the proposer is making use of these tracking tools and ask what type of objective measurements they can provide of project success for any technology initiatives they propose. Consider measurements for:

- Type and amount of content produced
- Type and number of user accesses
- Determining the viral nature of what's being developed (e.g. measuring how well it is spreading)
- Facilitating long term user feedback
- Determining most used features

Is the proposer applying free tools like Google Analytics to its site? This tool provides an extremely detailed view of ongoing online performance, and measures more variables than most people will ever need. In addition to these objective tools, ask the proposer if online technology and social networking is being utilized to engage users in the evaluation process. Are they being allowed to comment, review, rate and take online polls and surveys? This only helps accumulate ROI and SROI data. There is also a follow-on benefit to these tools in that they *should* inform the further development and evolution of whatever is being proposed.

The reality is that true social metrics are often limited by the grantor's time frame and tend to focus on the grant transaction or deliverables, while the collateral change in human lives that is the real objectives of most grants often occurs years after it ends. At the very least, technology projects capture metrics that allow for easier objective tracking. Linked with more subjective surveying and user feedback over social media together these provide powerful , low cost and less time consuming ways of tracking progress over long periods of time

TIP #24: GUARANTEEING THE CAPACITY TO SUCCEED

This second to last tip is devoted to my hobby horse of supporting the capacity of nonprofits to ensure that can achieve their objectives. Most would immediately recognize the limitations of a corporation without the resources to invest in its own organizational development to meet its business objectives. Unfortunately, this is almost the definition of a large part of the nonprofit sector, which is often expected to implement its mission even while investment in organizational growth is limited by donor funding criteria in the form of restrictions on general administrative support. The dirty little secret is an organization that cannot invest in its own institutional development is often not as efficient -- meaning that donors who limit this support on the front end are almost assured of losing some percentage of every grant they make to inefficiency on the back end. I distinguish *efficiency* from *efficacy*, because in the nonprofit context, the latter is often satisfied by a driven passion for the mission rather than dollar investment. However great the passion is, lack of investment in efficient processes and infrastructure can still lead to waste, and sometimes failure in the case of ICT project.

Recommendation

I often remind clients that ICT project investment is not a cheap date, and one that really never ends once the investment is made, because of a continuous cycle of necessary upgrades to hardware and software, and ongoing technical support. The reason the investment is made in the first place is to increase efficiency, productivity and even efficacy -- and that justifies both the later upgrades as well.

Many of the tips herein are designed to reduce the cost of technical project investment, like the suggestions to use products and services that already exist rather than developing them from scratch. That being said, investment is still required, and limiting what is required simply increases the odds of failure. Failure in turn increases the possibility and associated cognitive dissonance that might limit a nonprofit from further investing in ICT down the line.

So for all the tips in this manual about evaluating ICT proposals, my strong suggestion is not to skimp on funding what's necessary to insure the project succeeds. Just be sure:

- The project has the appropriate vision, and that it has been *vetted for demand;*

- That thought has gone into the design process;

- That someone with the skills to manage and implement the technology project exists;

- That an understanding of the technology and alternative options exists, with pilots and contingencies built into the project;

- That there is an appreciation for any change or new workflow an ICTY project precipitates and that the appropriate logistical support and training exists for it.

TIP #25: THE [ONE-SIDED] CHANGING OF THE GUARD

The last tip is more of an insight relating to the changing dynamics around ICT that has occurred in the donor/nonprofit relationship over the last decade. Back in the 80's and 90's technology was more accessible to deep pocketed donors than to nonprofits. Because foundations did not have outside influences or pressures forcing them to compete or survive like corporations or nonprofits, they often were not on the cutting edge of technology or using it as tool to maintain competitiveness. However, they could afford to employ what they needed and as a result, often had a knowledge edge over their nonprofit grantees in this area. They could also nudge their grantees to adapt new technology through their funding.

Over the last decade, the Internet and social networking have changed that dynamic drastically. While foundations can still afford to employ technology and have been getting better at it, many of the nonprofits now have an edge over them because they are being pressured to compete, be more productive with their donor dollars and demonstrate efficacy. About forty three thousand new nonprofits are created each year[3] despite the fact that private giving topped off at just over $300 billion in 2007, and has been under that since then as a result of the financial crisis. As technology becomes cheaper, more ubiquitous and tailored to nonprofit needs, they have begun to make better use of it, and at lower entry costs to meet mission objectives. Nonprofit technology organizations like NTEN, Techsoup, Aspiration, Idealware and others have also sprung up to support them.

Ironically, a former challenge to nonprofits has ironically become a strength, at least in the ICT area. Nonprofits typically hire younger staff because of budgeting constraints. Staff often leave as they age, start families, progress in their careers etc. In turn they are often replaced by younger, affordable staff again. These are precisely the people with the most social networking expertise and skills in using these tools. By contrast, foundations typically hire and can afford older, more experienced people in their field -- those who may be less familiar with the full benefits of using the new technology to its fullest advantage.

So for the first time there is a generation gap between foundations and nonprofits that favor the nonprofits as technology leaders. Their human capital is more attuned to it, outside pressures force the need to use it, and it is far less costly than it used to be. Meanwhile foundations are still not moved by outside pressures to compete and deploy the latest technology, nor are their senior management or even middle management in many cases, of the generation most comfortable with the new social networking tools.

It's anyone's guess how this will play out over the next twenty years with the resource providers (donors) being less comfortable with the new technology than the implementers (nonprofits). The latter are now the real innovators in this area for the first time, driving the foundations to change in order to keep up with their grantees. This challenge concerned me enough to write this manual to help evaluators better vet the ICT projects they receive.

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[3] http://philanthropy.com/article/Start-Ups-of-New-Charities-See/65102/