Making grants for technology more effective

The middle ground between traditional grant-making and venture philanthropy

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Executive summary

The impact of technology on student performance often has been disappointing, despite significant funding from both private and public sources. In many cases, the software and the hardware have performed as designed, but the deficiencies have been on the human side of the equation. Many districts do not realize that a significant commitment of time and resources to understand the problem, to understand the environment, to find the right solutions, to manage the implementation, to train users, and to develop the essential components that are not packaged with the product, is necessary to make the investments in these systems pay off. Their grant requests are often heavy on product but light on services, especially on project management. Foundations that have not adopted the high engagement model sometimes known as "venture philanthropy" still can improve the impact of their grants by taking the initiative to include sufficient funding to pay for the necessary services, whether for external consultants to fill skills that might be missing from district staff, such as project management, or for internal staff to take on additional responsibilities such as technical liaisons. Districts that have the capacity to follow the kind of procedures listed in Appendix A will greatly improve the effectiveness of the systems they buy.

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It takes more than good product to make a good system

Technology can be, and in many districts should be, a key component of its strategy to improve student performance, but many district leaders do not appreciate what it takes to make technology effective. Often, districts make purchases without an adequate analysis of the issues, or a clear understanding of their needs; they sign vendor contracts before they have explored the options, and they are unprepared for the commitment of district resources necessary to make the purchases really useful.

Good project management is vital

For most systems, implementation is the key to success, but many districts do not follow a structured project management framework; projects slowly meander through time, without a crisp schedule of deliverables and milestones. There are no verdicts on whether these systems succeeded or failed because meaningful evaluation criteria were never established, but most observers know things could have turned out better.

Some leaders are aware of these dangers, but facing difficult budgets, their districts do not have the staff to adequately manage the projects and the results have been just as disappointing.

The business world has had its share of angst over technology, constantly questioning whether the returns have justified the investments. The results of many projects have not met expectations. An emerging trend is towards tighter project management practices, from concept to implementation. There are established project management frameworks that can guide the due diligence, decision-making, product selection and all the other things that have to be done before and after the product is purchased.

Foundations should adequately fund project management and other services

Education can piggyback on the experience of business to reap better results for its investment in technology by adopting these frameworks, and foundations can take the initiative by ensuring that districts do not have to scrimp on project management. With sufficient resources to study and plan their projects, districts will be able to identify all the pieces that need to come together to make the technology effective, and to plan their resources accordingly. Most projects will require significant commitments of staff time from departments in addition to Technology, and for some teachers to take on additional responsibilities, and good project planning will alert everyone to the need at the onset.

Foundations should scrutinize grant requests to make sure the cost of services has not been underestimated. Districts tend to trim the services budget rather than buy less software or hardware capability. Sometimes, districts will buy more than they can reasonably use, but leave themselves unable to adequately fund the project management, training, curriculum development, data cleansing and other activities that should be integral to the project. Many software vendors do not help the cause; they try to sell as many licenses and as many modules as the district will buy, regardless of the district's capacity to use the software. The pricing structure adopted by most vendors, which establishes a stream of annual maintenance fees calculated as a percentage of the purchase price for the product, motivates them to quote for services only after they have exhausted what they can charge for product.

Even small grants can make a big difference

Smaller foundations that want to participate in helping districts use technology, but whose grants may be too small to fund district-wide projects, should consider funding the project management necessary to implement systems that are being financed by federal or state grants such as Title I or Title IID. This is an excellent way for a relatively small amount of money to make a big difference. While government grants often stipulate that a certain percentage must be spent

on professional development, there is seldom a corresponding provision for project management. Without budget for project management, districts simply try to do without, and poor implementation usually results in systems that do not live up to expectations. Relatively small amounts of incremental foundation funding for project management can help districts use their federal grant money much more effectively.

Foundations need to ensure all the factors are in place for success.

Districts may underestimate the work it takes to make technology effective, but foundations should not make the same mistakes; they should help districts fill out the missing pieces, much the same way venture capital firms will provide the missing skills that they think are essential to the success of a business startup. If funds are a constraint, they should help districts budget for an affordable and appropriate balance of product and services, staging a project over several years if necessary. Foundations that do not have the staff to guide districts through all the project steps should provide sufficient funding in the grant for the district to augment their internal capacity to do the work, or to hire external consultants to guide them through the process. Many districts that have been facing financial crises have tended to treat project management as an unaffordable luxury and will need external consultants to help them build or rebuild capacity. By structuring their grants to prescribe a mix of services as well as product, foundations will make their own grants are more effective, and help districts learn how to better use their technology dollars in the future.

Appendix A

High level technology project checklist

Project team formation

1. Establish a team that includes representatives from departments who have to implement and support the system (e.g. Curriculum & Instruction, Technology etc), and representatives from the user groups (e.g. principals, teachers, etc):
    - Team members must be able to make decisions (or be close enough to senior management to expedite decisions).

2. The team must have the appropriate level of sponsorship:
    - For district-wide systems to improve teaching and learning, the most critical sponsor is the Chief Academic Officer or equivalent cabinet level academic leader.

3. The team must set high standards for itself, be committed to making the project successful, and hold itself accountable for the results.
    - Establish a practice of following through on promises;
    - Identify and track indicators that can measure success.

4. Team members must prepared to commit resources to implement and support the system:
    - Much of the hard work and costs to make the system effective occur *after* the product is purchased.

Before talking to vendors

1. Reach consensus on the vision for the system that can set expectations with all stakeholders:
    - Identify all the user groups;
    - Understand the problems to be addressed;
    - Describe the desired outcomes;
    - Describe how the system will fit into the District's strategic plan.

2. Document the high level requirements for the system:
    - Sort requirements into "must have" and "nice to have" so that the decision-making criteria can be weighted accordingly.

4. Identify the technology options that are consistent with the district's technology strategic plan:
    - If necessary, update the district's technology strategic plan with an audit and analysis of the existing systems and establish a blueprint for the target architecture;

- Define how the project might be staged so that each new piece builds upon the existing foundations and moves the district towards the target architecture;
- Identify any skill gaps in the Technology organization that may need to be temporarily or permanently filled.

5. Establish the selection criteria and process.

6. Establish an approximate budget and timeline:
   - Identify any potential sources of funding

<u>During vendor search and selection</u>

1. If the team feels confident it has a good grasp of the capabilities of the pertinent product category is very clear about what it is looking for, prepare a written RFP and ask potential vendors to respond.

2. If the team is less sure about what it needs and unfamiliar with how technology might help, send out a Request for Information (RFI) and/or ask several vendors to present to the team.

3. Apply the selection criteria to narrow the vendor list down to a short list of two or three:
   - Users need to try out the systems and the team needs to consider their feedback in the selection process;

4. Take the time to perform the necessary due diligence on each vendor on the short list.

5. Document the evaluations of each vendor.

<u>Preparing to sign the vendor contract</u>

1. The team needs to understand all the variables that will factor into the final price, including:
   - Number of licenses (how is this number calculated?);
   - Type of license / ownership (e.g. annual subscription, perpetual license etc);
   - Amount of functionality (usually number of modules);
   - Hardware;
   - Cost of initial setup and customization;
   - On-site technical support;
   - Training of technical personnel;
   - Professional development for non-technical users (e.g. teachers);
   - Project management (this is a subset of the project management required for the overall project);

- Helpdesk.

2. The team should estimate the cost to implement and support the system, in addition to the services provided by the vendor, including:
    - Cost of overtime or substitutes to allow teachers to attend training sessions;
    - External consultants or contractors to fill temporary gaps such as project management or specialized technical skills (e.g. SQL);
    - Salaries or stipends for staff to provide ongoing technical support;
    - Additional custodial services when facilities need to be used for training or meetings outside normal school hours;
    - Cost of meals or refreshments for meetings and training sessions;
    - Incremental salaries or stipends for internal staff, or payments to consultants or contractors to develop resources that are essential to make the system effective (e.g. training manuals, web-sites, lesson plans, item banks etc).

3. The team should be clear what are the initial and future financial obligations to the vendor, and what the district gets for its money:
    - Define the cost and nature of ongoing services, including annual subscriptions or maintenance fees;
    - Clarify the roles and responsibilities of the vendor and the district for implementation and providing ongoing support;
    - Ensure the terms and conditions to terminate the vendor contract are acceptable.

4. Discuss the funding needs with the CFO and the executive responsible for managing grants and identify the potential funding sources to cover the obligations to the vendor, and the other costs to implement and support the system.

5. The district should initially purchase only what it has the capacity (budget, time and resources) to implement. If there are financial constraints, they should consider reducing the number of licenses or the amount of functionality rather than leave itself unable to pay for all the services needed for a successful implementation:
    - Consider staging the implementation and therefore, ramping up the amount of functionality and/or the number of licenses, over an extended period;

6. The district should consider running a pilot before making a district-wide commitment:
    - The scope and duration must be chosen so that the pilot provides useful data that can be extrapolated to the whole district;
    - The pilot must be carefully managed and monitored so that it provides reliable data that can help with the go/no-go decision;

- The implementation of the pilot should not push the district past the point of no return – the cost of the pilot should not be so large that abandoning the system would be out of the question.

7. The team should ensure it has the support and commitment of all the key stakeholders for its proposed course of action:
    - The system should be part of the operational plans for all the key stakeholders, such as Technology and Curriculum & Instruction.

<u>After the purchase</u>

1. Reconstitute the project team to include representation from all the departments that need to contribute towards the implementation and support of the system.

2. The team should follow best practices in project management, including:
    - Assigning clear roles and responsibilities, including a project manager;
    - Creating and maintaining a project plan that encompasses all the pieces that have to come together to make the system effective (such as professional development, development of content etc); the project plan should be a dynamic document that is updated and augmented as new information comes to light and as circumstances change;
    - Establishing a realistic schedule of dates, milestones and deliverables;
    - Maintaining a log of issues as they arise, and following a disciplined process for prioritizing work, assigning responsibilities, setting deadlines, and closing issues as they are resolved;
    - Providing reports, at least monthly, that can communicate-at-a-glance the progress of the project, the work still ahead, and the risks that might jeopardize success;
    - Scheduling regular team meetings, with written agendas, minutes, and a disciplined process for follow-up;
    - Scheduling regular project reviews with the project team, and with the project sponsors.