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IT’s in the Plan!-- Integrating Institutional & IT Planning
(lessons for faculty advocates, planners, technologists, CIOs, … and presidents)

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ABSTRACT

Can we achieve the elusive goal of integrating institutional and information resources planning? Can the mutual frustrations -- of CIOs and IT leaders, and of institutional planners resulting from the frequent lack of inclusion of IT in institutional plans, and lack of institutional planners involvement in planning for information resources -- be alleviated? And why, where planning for information resources has been integrated with institutional planning, does this seem to happen at small colleges?

Hartwick College, a liberal arts institution of 1,460 students, has integrated institutional planning and its planning for information resources, and this integration is enabling the College to achieve its other strategic goals. This presentation focuses on the institutional and IT planning process at the College; what has been achieved; the roles of the president, the CIpO, faculty, and information technology professionals; and key lessons from our experience that should be considered by any institution.
Introduction

At Hartwick College, “information systems” is one of eight strategic initiatives identified by (literally) the entire campus community. These initiatives are designed to achieve the goals of the College’s (ambitious, institution-values-based yet straightforward and only eight pages) Five Plus Plan. All of the College’s operational planning occurs within the context of this overall institutional plan, IT not excepted. IT’s directions support and enable planning outcomes: a “countless computers” program which provides every student with a notebook PC system, a campus-wide voice/data/video network, satellite links, staffing, and a new administrative computing system were driven by programmatic institutional priorities, not trends in IT or the desire to be technologically cutting edge. IT is central to Hartwick’s achieving its objectives, whether it be our technology initiative which provides pervasive tools and access to information resources, or our Interdependence Initiative which relies on IT for forging institutional links with colleges and universities world wide.

How did this come to be?

Hartwick College is a selective residential liberal arts college in the Catskills Region of New York State -- an area of mountains, trees, lakes, streams, and more cows than people. Founded as an academy near Cooperstown in 1797 and then becoming the first Lutheran seminary in the U.S., the undergraduate college was created in Oneonta in 1928. Enrolling about 1500 students, and now fully independent, it has a long-time commitment to “education for the future.” More than a decade ago it adopted Curriculum XXI (meaning “a curriculum for the 21st century”), as its curricular commitment to the long-standing Hartwick tradition of educating people to be contributing citizens for the world of their future.

In January, 1993, six months after the arrival of a new president, a trustee planning retreat, which included faculty and student leaders was held. Its purpose was to clarify Hartwick’s fundamental educational values, and then to assess how those values could be better fulfilled through programmatic initiatives. This retreat, and the focused and intense planning activities which followed it, resulted in a complete institutional five-year programmatic, facility, and financial plan for the college which has guided all decision making since that time. It also made the subsequent agreement by the board of trustees to invest heavily in information resources and other components of the plan relatively straightforward. The new
planning paradigm represented a new model for planning and implementing information resources at the College.

**Information Resources Planning at Hartwick Before 1993**

Implementing information resources at Hartwick before the emphasis on institutional planning did not follow a formal plan. Rather, advocates of improvements in IT at the college found they were most successful in proposing IT enhancements on an incremental basis, using *Curriculum XXI* as the opportunity for building and enhancing IT resources. The process of seeking and receiving funding for separate projects was essentially idiosyncratic and outside the normal budgeting process. Senior administrators were persuaded on the merits of each project, and once persuaded, allocated funds to proceed. Further, approval for each stage of development came under widely varying sets of circumstances, depending on the parties involved and fiscal conditions at the College. Each project had a specific goal and a budget that reflected its purpose. Hence, any planning for system integration and institutional upgrade paths could only be an implicit part of each project. It was up to those responsible for implementing these projects to ensure compatibility and flexibility for future upgrades while maintaining separate financial accountability for each project.

**July 1, 1992: The Start of a New Era**

*(aka: then there was the new president)*

In late 1990, Hartwick began to plan the search for a new president who would lead Hartwick past its 200th birthday and into the new millennium. A strength of this new president would be the ability to lead a strategic planning effort.

Robert Moyer, trustee and then Chair of Hartwick’s Board, recalls the selection of the new president for the College in January 1992: “The campus selected and the Trustees elected Richard Detweiler as the new President of Hartwick College. He came to us with a liberal arts background, strong planning skills, and the experience of having designed and implemented a personal computing component for the students at his former college. However, this last strength was not the primary reason for his selection. In fact he made it very clear to those who would listen, that we would plan first for Hartwick’s needs and not just implement what others had done.”

The trustees were clear with the new president. Trustees believed that it was essential that Hartwick begin thinking and planning strategically. Their reasoning
in this regard was certainly not unusual given the context of higher education in the mid-1990s; what was unusual was their deep belief that the outcome was centrally important to Hartwick. They liked what Hartwick was, what it stood for, and what it had accomplished; they also understood that standing still was, over the long term, likely to be the road to failure. They were prepared to commit significant institutional assets if there were clear plans which made sense -- clear plans with accountability.

The Opportunity of a New President
The Reality of the New President’s Thinking

Faculty and information technology staff who had been instrumental in securing resources for IT-related projects with the “incremental method” were excited about the prospects of the new president, particularly because of his experience in campus computing and networking. They expected that President Detweiler would, in very short order, catapult this college far forward into the information age, ending their long struggles.

Several weeks after his arrival at Hartwick, President Detweiler met with Reid Golden, then Assistant Professor of Sociology, and Davis Conley, then Director of Computer Services. They had great expectations, and the next project ready to go. President Detweiler told them that his arrival was both a blessing and a curse -- that he believed that it made sense to invest in information technology only if it is an integral part of a college plan, is central to the College’s future, and is justified for programmatic reasons. President Detweiler recalls that Golden and Conley were stunned and indeed more than a little angry; their dreams for a glittering technology future seemed to be crumbling.

President Detweiler challenged them: if they believed that information technology made sense for Hartwick, then they needed to begin talking with their colleagues about why information technology had educational value and why it was important to the future of the college. If information technology really had educational value, and this was understood by their colleagues, then the role of information technology would be a natural priority in the upcoming planning process.
The New Planning Agenda: “Root Values” and *Five Plus*

The strategic planning process, which was not the traditional “SWOT/mission statement development-start” process, started slowly. It began with a focus on the long-held values of the College -- those root-values upon which Hartwick had grown. These were identified from responses by trustees, alumni, parents, faculty, staff, and friends of the college, to the question: “What attributes of the College do you most celebrate?” The responses were consistent: a Hartwick education prepared people exceptionally well for the challenges of the life people actually lived; it had provided this educational experience in an intensely personal, individualized way; and it had accomplished the goal of the liberal arts and sciences by educating thinking, principled, contributing citizens.

At the January 1993 retreat a broad cross-section of the College community sought to answer two questions. First, “Do our root-values still make sense as we look at a competitive higher education marketplace and a rapidly changing world?” Affirmation of these resulted in a simple statement of purpose (rather than a mission statement): Hartwick’s purpose as a liberal arts college is to educate people who are prepared to thrive in and contribute to the world of the future; people who are prepared to meet the personal, intellectual, and social challenges of a rapidly changing and increasingly interdependent world. Second, “How can we better fulfill these values in the future?” We described the world of our graduates’ future as one which will be increasingly global, increasingly interdependent, and increasingly one in which information technology is a normal, routine, and necessary part of everyday life -- both personally and professionally. We identified ways of better educating people for this context.

After the retreat dozens of task forces were created to follow up on the brainstorming concepts. Each had a specific charge and a general time line; each was told that the work would be enormous but each task force would evaporate as soon as the charge was fulfilled. Each task force was open to all who were interested. All reported back periodically to a planning coordinating group which included the chair of the board, several other trustees, and senior administrators and faculty and student leadership. Regular written updates kept everyone informed of developments.

From these meetings, over a 16 month period, the campus community began to develop a plan, a plan that was embroidered with considerable risk. We would
maintain and enhance a residential campus education and life experience while preparing our graduates to live in a global village driven by technology and information, sweeping societal changes, and increasing interdependency. The plan included a series of program “initiatives” designed to enhance the curricular and co-curricular life of the college (including a new approach to global programs, the development of a center for student “professional” development as a replacement for the traditional career center, and a commitment to information technology); the identification of primary facilities and human resources needs; the development of a financial plan to support both the continuing and the new; and the development of a number of monitoring ratios to keep us accountable for fulfilling our plan. We would bring together all elements of the campus to accomplish this plan, and we would do much of this in just over five years.

The replacement of a retiring administrator with a senior administrator with the title “chief information and planning officer” was needed to make all of this come together. With the encouragement of both trustees and faculty we also developed an “oops” plan which described what actions we would take if the plan did not work financially: we would reduce staffing levels rather than scale down our programmatic objectives. Using a highly consultative (but not consensus) approach, this whole plan was repeatedly circulated for comment with adjustments made as warranted. Ultimately the plan, labeled *The Five Plus Plan* was adopted by the Board.

**The Information Resources Initiatives in a Five Plus Agenda**

Hartwick’s *Five Plus Plan* identified “Information Systems” as a strategic initiative to attain the College’s educational goals. The objective of the Information Systems Initiative is to create on campus a pervasive implementation of information processing tools as an everyday part of life. The Information Systems Initiative included three major components: a “computer as a tool for everyday life” program, a comprehensive campus network, and an institutional information system (administrative systems).

The Hartwick community did not wait to complete the plan before beginning implementation of the most compelling parts of the emerging plan -- and information technology was one of the first and most compelling initiatives.
Immediately after the January 1993 retreat, a planning task force, chaired by Reid Golden, began work on the more specific information technology issues: what does it mean to make use of information technology within the context of the liberal arts and sciences?; how can we do a better job of educating people to be effective in the world of their future? Discussions about these questions led to two primary conclusions. First, information technology should be looked upon as a method of leveraging the human mind; it is a method of accessing information, processing information, and communicating information. Second, information technology must be implemented pervasively, that is, if it is to be a normal part of everyday life, then indeed it must be present whenever and wherever a person normally works or thinks.

Our goal, then, was to design and implement a system which would give every person the opportunity to be more effective in thinking and working -- all of the time and everywhere. Given this concept of pervasiveness, we concluded that equipping every person, rather than every place, with a notebook system was our definition of pervasiveness. The student could work equally well in their room, in a classroom, in the library, under a tree, or at home over Thanksgiving break.

The task force recommended that we implement a “countless computers program” by issuing every student, faculty member, and staff member a computer. They had a good, mission-based rationale and strategy, and the outline of a financial plan. This recommendation was a surprise to no one because lots of information had been disseminated and gathered during the process.

There was plenty to be worried about – the normal technical issues of platform, software, training; curricular issues of “fit” with Hartwick’s purpose, our educational goals, and integration into the curriculum; and nuts-and-bolts issues of making it work financially, coping with a five-fold increase in the number of computers on campus within a few months, re-deploying computer staff. The Trustees agreed to increase tuition (about $550) to make this program work (given our plan, computer technology is an integral part of the Hartwick educational experience: just as the cost of
the library is a part of the cost of attendance, so the mission-based cost of computer technology should be built into the cost of attendance).

Many issues of importance to a successful academic implementation were explored and decisions made. By Fall 1993 we had in fact issued or put in place about 600 new personal computers, including one to every member of the new entering class, one on every faculty desktop, and most staff desktops. With each subsequent year we have given systems to every member of the entering class such that by the fall of 1996 we have a ratio of better than one computer per person. To support this massively increased use of information technology we reorganized and reallocated staff time dramatically, developed and implemented training programs, established a software library, encouraged faculty to begin integrating the information technology into their pedagogy, and so forth.

The Campus-Wide Network
Processing power in each person’s hands without the ability to access information and communicate realized only half the dream. The next set of issues had to do with the deployment of a full campus network. We needed a system which would link people to people, and people to information wherever it was, on campus or around the world, and regardless of mode -- data, graphics, video, or voice. We began working quickly on a complete and pervasive network system.

A three person team (Ellen Falduto, Chief Information & Planning Officer, Reid Golden, and Davis Conley) coordinated the efforts of a larger group of staff and faculty in assessing numerous technology solutions. After nearly 18 months of work and with repeated attempts to involve technology partners in the implementation of a far-reaching and forward-thinking system, we ultimately selected a single vendor partner who understood our way of thinking about this network and information technology to help us design and deploy our network communication system.

Our goal was to provide every person with her or his own set of connections which would provide high speed (computer) data, video, and voice (with voice mail) -- again, a pervasive system. To accomplish this we needed to invest about $1,000 per user, or two million dollars total, including: all new external and internal wiring for data, voice, and video; fiber
optic links among 28 buildings; all new network hardware and management software; a new digital PBX; a voice mail system; an upgrade to our central computing systems, and a video control and distribution system with satellite dish farm.

The implementation of this network was a clearly defined step in *The Five Plus Plan*. The trustees endorsed the concept. But as we came closer to needing authorizing action from the Board greater concern was expressed. Whereas buying individual computers was a stepwise process -- if it wasn’t worthwhile it could be eliminated anytime -- the pervasive network investment was a one-shot process. We would be investing a lot of money up front and would be stuck with that large expense even if it turned out to not be worthwhile. In addition, everyone had heard the stories of enormous cost overruns during typical implementations due to the need to redesign, solve unanticipated problems, or because things just didn’t work. Questions were raised about alternatives. How about just using telephone company services? Why not just do a few buildings? Can we eliminate some of the services? Ultimately the logic of the mission and plan prevailed and the Board approved.

Fees were increased by $400, this time primarily in room rate. For this students receive, at no charge, telephone service with voice mail, cable television service including foreign language and educational programming, and a high speed data connection which links them to the world (with services like e-mail, access to our library system, Internet, etc.).

With strong leadership and the enthusiastic help of many people, in a period of only eight weeks, we put all new voice, data, and video wiring and fiber optics both between and within 28 buildings. A network switching system and nodes, digital PBX, voice mail system, video distribution system, and seven satellite dishes were installed. Our central educating computing systems were upgraded. We re-negotiated all our service provider contracts. We provided network connections in classrooms as well as in all offices. We became our own phone and cable TV company. Some technology and facilities staff members gave up the rest of their lives during this process, and many faculty, staff, and family members volunteered to help with the work during evenings and weekends. And the project came in on budget!
The result: we now have put place our campus-wide pervasive information technology infrastructure. People do indeed use it -- to not use it when everyone else does quickly marginalizes a person.

**The Institutional Information Systems Project**

The network project and its concept of information access allowed an important institutional domino to fall: the legacy administrative computing software system. The system required a large staff to keep current; it was not designed on the premise that administrative operations needed to be integrated (and therefore that information should be integrated); and it was not designed with the assumption that all kinds of people may need to access various parts of it. While the staff said, rightly, that “this system can do anything,” the fact was that most “anythings” required a new programming effort. The reality was, we did not know what information we would want linked tomorrow, but when tomorrow comes we wanted to be able to do it, right then, without waiting for someone to write a new application.

As the campus-wide understanding that “information is a resource” grew, as the interest in information access dramatically increased, and as President Detweiler challenged his Cabinet to re-think institutional operations and services, we asked the question: “Given the fact that information is now an institutional resource to be actively used in decision making and management, given the need to provide greater access to integrated information, given the need to provide additional administrative software features, and given the need to improve the effectiveness and efficiency of our services -- what choices are available to us?” President Detweiler was explicit that he would not accept a single recommendation but wanted more than one alternative from which to choose.

The process entailed the obvious selection issues as well as people issues. The system had to minimize long-term cost of ownership and have a reasonable implementation timeline. People issues were the most difficult and remain issues as we implement the system. The process will not only implement new software, but change our operational thinking (from line oriented to integrated systems thinking), give more control to end users, and
require us to restructure rather than replicate operations. We needed to deal with what we term “the love of the legacy,” and as part of the process computer center staff put together a proposal for an in-house enhancement of our current system; it was in competition with proposals from software system vendors. We needed to strike a balance between technically superior and operationally superior systems. And we needed to address individuals’ fears about the process and its outcomes.

After nearly a year of work by a committee of computer center staff and administrative users we had a complete list of strengths and weaknesses of each of the alternatives. President Detweiler asked Ellen Falduto and Davis Conley to pull together the total cost for each alternative, (including software, hardware, staffing, and maintenance) and to negotiate contract options. Based on both functionality and total cost President Detweiler selected an externally supported system. This made some angry, but at least everyone knew that they had an opportunity to be heard. Because of the staff savings resulting from this new system, we will reassign three-fourths of the staff in support of network, educational applications, and user support. Implementation is underway, with a 12-month timeline.

The Lessons We Learned
Balancing Multiple Perspectives

From our planning efforts, and from the implementation of these three initiatives, we have learned several lessons. While there may be agreement on the “title” of the lesson, there are conflicts of perspectives within each. The lessons follow from the perspectives of the president, a faculty member, an information technologist, and the chief planning officer.
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<th>Lesson</th>
<th>Perspective</th>
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<tr>
<td><strong>President</strong></td>
<td>Faculty Member</td>
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<td>Information technology implementations must be mission driven.</td>
<td>Information technology is simply a resource to help fulfill the educational mission of the institution. It is rational and reasonable to adopt information technology if it is mission based. If root-values and information technology are inconsistent, then to not confront this issue means investments will be wasted; however to confront it risks institutional devastation.</td>
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<td><strong>Standardization is key.</strong></td>
<td>The costs of non-standardization is too high; achieving a critical mass of users of a particular system is necessary before use really grows -- it is the sharing, comparing, and mutual supporting that makes information technology work in higher education.</td>
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<td>Focus on people, not technology.</td>
<td>The key to success is to look at information technology implementations as human endeavors, and to provide the appropriate training, support, and reward systems to foster appropriate use.</td>
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<td><strong>Information technology investments are a leap of faith.</strong></td>
<td>It is clear that teaching strategies in particular courses can be changed with positive impact, yet there is not yet convincing evidence that education in its broadest sense is improved nor that costs can be lowered.</td>
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Our experience suggests that while perspectives on any planning process, plan, initiative, or planning-related implementation will uniquely reflect the role and perspectives of individuals within the institution, the benefits from thoughtfully linking information technology (or any other programmatic) implementations to the institutional mission far outweigh the investment in balancing these perspectives. It is in the balancing of these perspectives that successful implementations result, as many viewpoints and issues are considered. The ultimate moral to the Hartwick story is “make choices based on your institution’s values and sense of purpose; if the values and sense of purpose are good ones your school will
thrive.” In the end, as one of our trustees noted, “if you don’t have a plan for serving and providing services to students, you can forget the technology.”

Endnotes:


4 Individuals wishing more information about Hartwick College’s Five Plus Plan may contact Ellen F. Falduto, Chief Information & Planning Officer (faldutoe@hartwick.edu).

5 Robert Moyer, *op cit*