Thoughts on Self-Study: Traditional Student Group

The Proposal for a Focused Self-Study (rev. 2/129/96) stated that "some of the most substantive issues currently faced by Virginia Tech relate to the ways in which the institution must position itself in order to carry its complex set of missions forward into the next century." The topic of the self-study is "Transforming Virginia Tech for the Information Age." As the proposal continues, "the use of technology in the learning environment is a key topic," focusing on the learner as the center of the educational process.

The subcommittee structure of the self-study designates "traditional four-year undergraduates" as one central set of learners. Traditional students in this context may be the population of undergraduates that have been the largest component of Virginia Tech in the past: 18 to 22 year-olds in transition between high school and career. This group has been largely residential in nature, living either on campus or nearby in the small urban setting of Blacksburg. Included in the population of learners for this subcommittee is a growing variant of this group: for example, residential students who may take distance-learning courses in the summer; students who may spend time away from campus in co-op programs or exchange programs or service-learning programs; undergraduate students who may be significantly older--or younger--than 18-22.

In focusing on this broadly defined group of "traditional students," we already begin to make assumptions about the future of traditional students. Some pundits have forecast the end of residential learning environments, with the advent of revolutionary networks for information transmittal and interpersonal connections. The Update to the University Plan states that Virginia Tech "will remain a predominantly residential university, continuing to attract about 25,000 students to Blacksburg while also offering a range of programs off campus." The Update speaks to the next five years: it is clear that this statement will have significant validity for the five years after that. Thus the goal of the subcommittee on traditional students is to explore the ramifications of the information revolution on learners who comprise a residential communities of learners.

Strategic question: In an era of distributed education that seems to obviate needs for residential campuses, how can Virginia

* "Residential" in the Blacksburg setting includes both students housed in on-campus residence halls, and off-campus students who reside in apartments and other housing in the Town of Blacksburg, predominantly with other students, and predominantly not with their families.
Tech capitalize on its residential programs to serve the Commonwealth of Virginia?

[Subtheme: Across the United States, public institutions have frequently been located in pastoral communities. For land grant universities, there is the obvious connection to rural landscapes and agriculture, but an even more pressing reason has been the safety and serenity of small towns and rural places as a respite from the busy and dangerous big cities. Blacksburg, Virginia, has certainly fit this mold. The relationship between the urban growth of Blacksburg (its likely designation as a metropolitan area by the 2010 Census), and its comparisons to the changing fortunes of other urban places in potential recruiting areas will impact the course of the university over the next decades.

Data needs: What has been the recent quality of life in and around the Blacksburg campus: crime statistics; injuries; health]

Strategic question: Why would someone want to become a full-time, degree-seeking residential campus student?

[Possibilities: to make connections with other students; to make connections with faculty; to experience "college life"; to access the most current knowledge; to participate in the creation of knowledge; to be guided toward deeper intellectual development; to establish life-long friendships; to articulate one's own identify; to enrich one's education with varied media and experiences].

Data needs: Why do students choose to come to Virginia Tech now? What are the most positive remembrances that alumni have of their Virginia Tech education? How rich are the educational and intellectual experiences of students on the Virginia Tech campus? What IS the role that instructional and information technologies play in that richness of experience?

In beginning this task, the subcommittee looks first to factors and influences in the environment external to the university that will have an impact. Clearly the very development of information technologies is a key factor (a development largely external to the university, although Virginia Tech is itself a significant actor in this development). Rapid change in the corporate structures of these industries will have ramifications for the ways that the
university will be able to structure its own technologies for learning. The expectations that our various publics and clientele have about information technology, and how these expectations change, are within this list as well.

**Strategic question:** What changes in instructional information technologies do we forecast for the coming 5 years? Next 10 years? Beyond?

**Data needs:** What has been the recent history of changes in use of information technologies in education? How have we experienced them at Virginia Tech? Specifically, how many students now have computers? What use do they make of them? What are the uses of computers and multimedia in courses? In extra- and co-curricular activities? How media-literate do students become?

Broad social trends in "who our students are" intersect with the standards and expectations we set for admissions, from the numbers of students, the traditional/non-traditional mix of students, the in-state/out-of-state composition of students, and the students' presenting academic credentials (SATs, high school GPAs, etc.), to the socio-demographic and economic characteristics of students and their families. Changing political and economic factors must be considered, including the expectations of employers of college graduates. National perceptions of the role that college plays in an individual's life, as well as in the social fabric of communities must be considered as well.

**Strategic question:** What changes do we foresee in the nature of students who will access a Virginia Tech education by coming to Blacksburg as full-time, degree-seeking students?

**Data needs:** What trends have we seen to date? Do employment and demographic forecasts help us predict the future trends? What legacy applicants are we likely to see coming to the university, based on previous graduates?

A different sort of external factor that must be considered as we reflect and project on the relationship between residential learning communities and information technologies is the very state of knowledge ABOUT learning. Virginia Tech is not alone in finding that our faculty have knowledge about learning based on an apprenticeship model of learning to teach by watching our teachers, nor are we alone in having fairly low levels of explicit knowledge about how people learn. This gap could, in theory, be remedied. But we are constrained by what experts in cognitive psychology and learning...
theory know about learning. Virginia Tech contributes to this global state of knowledge, of course, and should structure efforts to improve learning in a inquiry mode capable of expanding what is known.

Higher education has traditionally had a monopoly located within institutions of higher education. Increasingly, corporations are entering the field, in part to serve their own employees with pre-service and in-service training, and increasingly to serve wider sets of clientele. The structure of these industries must be within the scope of any considerations we make as we consider the world beyond Virginia Tech.

**Strategic question:** How can Virginia Tech become more expert and professional in instruction?

**Data needs:** How much do faculty know and practice about the way people learn? How much do faculty know and practice about the cognitive development of people? How do uses of instructional technology intersect with this knowledge?

**Strategic question:** How will students’ education be affected by information technologies?

**Data needs:** How have instructional technologies to the present affected higher education? In which areas has Virginia Tech been a leader?

*How will students’ career opportunities be affected by information technologies? What information management education does every student need? What information management and technology areas need to be accessible to particular student populations?*

**Data needs:** What are employment forcasts with regard to use of information management and information technology?

*How will students’ access to education be affected by information technologies?*

**Data needs:** What changes have we seen in the mix of residential course-taking patterns with non-residential, among the same student groups (e.g., summer courses via network; asynchronous learning while on-campus)?
How will instructional facilities need to change? Explicit learning environments--buildings, classrooms, faculty offices? Structures to administer and manage "learning": credit hours, teaching assignments?

Data needs: How have classrooms changed over the past 10 years, both in number, in quality, and in facilities? What changes have we seen in management of credit for certification?

How will learning change with information technology?

Data needs: "Literature review" of the state of knowledge about learning, and the relationship of learning and technology.

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