Is the College Cave Age About to End? (Part 2)

By Mark C. Taylor - May 20, 2012

Excessive specialization has created a culture of expertise that has distorted higher education and had a negative impact on faculty members, students and the broader society.

While global transportation, communications and information technologies have created interconnection, academic disciplines and fields have, paradoxically, become more fragmented and isolated. Universities boast of their global expansion and vision, but they are mostly siloed institutions ill-adapted to a networked world.

While academic specialization has long been decried and ridiculed, insufficient attention has been paid to the influence that narrowly defined research has had on undergraduate teaching and the structure of colleges and universities. With online education taking off at traditional institutions, the hope is that learning breaks out of these cocoons. But as we have already discovered in the political arena, increased connectivity can create new divisions that deepen social discord. The rise of online learning may create more rifts in fields and curricula, or it may reorganize higher education for the better.

Hyper-specialization has both natural and external causes. As knowledge evolves and expands, it diversifies and in some cases leads to beneficial results, as with innovations and discoveries in medical research, engineering, information and communications technology, for example.

Subfields Hurt Learning

But the downside is that as disciplines divide and subdivide, the curriculum expands without planning or oversight. In the department where I teach, there are 11 faculty members and eight subfields, some of which are further divided into as many as four sub-subfields. Until recently, the entire education of a graduate student from admission through comprehensive examinations to thesis was restricted to a single subfield or subfield within a subfield. This situation is not unique.

An important contributor to academic fragmentation is the pressure on faculty members to produce and publish original research, a development that took off in the 1970s. The pressure is greatest at research universities but is felt at all universities and colleges. When I started teaching at Williams College in 1972, many of my senior colleagues who were superb teachers and genuine intellectuals had never published a single word. By the time I came up for tenure a few years later, I was expected to have published a book and several articles.

What changed was the job market, which suddenly dried up in 1970. With fewer jobs and increasing competition among candidates, colleges and universities needed new ways to evaluate faculty members. Research and publication became the gold standard for hiring and promotion and spawned specialized conferences, journals and book series intended to encourage communication among people with the same interests. More people started publishing because they had to, rather than because they had something to say.

The system of peer review -- in which articles and books are evaluated exclusively by other specialists in the field -- has also worsened the over-specialization problem. The same procedure is used for promotion and tenure. The tenure process at Columbia, for example, requires letters of assessment from 20 to 25 experts in the candidate's field or subfield. It is standard in academia that someone from another subfield or discipline is regarded as unqualified to judge a person's work. While nominal attention is paid to teaching ability and other qualities, the judgment of these specialized scholars is critical in making personnel decisions.

Echo Chambers

Life in the intellectual silos makes it more difficult for people working in different fields and disciplines to communicate with each other. There are always exceptions, but for the most part scholars remain in echo chambers talking to themselves. This system is self-perpetuating and resistant to change.

A familiar complaint is that as the importance of research and publication has increased, the value of teaching has tended to decrease. At research universities, prestige is often measured by how little you teach. This creates an incentive for faculty members to design courses that are closely related to their research. Many fine teachers are devoted to the needs and interests of their students, but too many courses are based on what the professor wants to teach rather than what the student needs to learn.

Facing professional pressure, faculty members are not able or eager to guide and advise undergraduate students to craft a coherent education.

When education is more and more about less and less, it becomes counterproductive. Universities have moved at a glacial pace but change is now occurring at warp speed. The way knowledge and institutions are structured is not set in stone but changes with new technologies of production and reproduction.

Just as a networked infrastructure transformed financial markets for better and worse, so the networking of higher education will transform how teachers teach and what students learn. Disciplines will need to be reconfigured. Departments can be transformed or abolished. Research and teaching that encourage faculty members and students to approach problems from multiple perspectives must be encouraged and rewarded. The wall separating the university from the world has to be torn down to produce students with the knowledge and skills they need in the rest of the 21st century.

In the final article in this series, I will consider the implications of these changes and describe what wired higher education will do to colleges and learning.

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