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Measuring Successful Scholarship of Application

Abstract

Western Carolina University has adapted its definition of scholarship to now include the scholarship of application. As initially proposed by Boyer, the scholarship of application must be an application of disciplinary expertise with results that can be shared with and/or evaluated by peers. When theory and practice come together, then engagement becomes scholarly. For universities concerned with the application of engineering and technology for the economic development of their communities, this is a critical form of activity for the faculty. For a uniform tenure and promotion process, a method of peer review is needed to validate this area of scholarship.

While it is great that faculty and students are engaged with improving the lives of the people in their region, it is important to distinguish the scholarship of application from community service or service learning. One widespread view of scholarship is that it requires dissemination of the results. When working with industry, dissemination of proprietary technical results is not possible. However, incorporation of such technical results in a manufacturing setting certainly has involved a comprehensive peer review. Can the economic advantage of job creation be sufficient proof of scholarly achievement?

Comprehensive universities now have major roles in the economic vitality of their regions. As the scholarship of application becomes an accepted and desirable form of scholarship for tenure-track faculty, uniform measures of success are necessary.

Introduction

This paper seeks to develop a rationale for the scholarship of application within the context of engagement for the purposes of economic development. The issues that will be explored are:

- 1) Why is it important for faculty to be engaged with the community at large and to what purpose?
- 2) If it is accepted that engagement is important, how does it fit in the metrics by which tenure track faculty are measured and rewarded, namely scholarship, service and instruction?
- 3) In scholarship of application as defined by Boyer and focused on economic development, how should the needs for peer review and broad dissemination be met?
- 4) What peer review options are available beside the traditional publication in journals?
- 5) How could dissemination be evaluated particularly in the context of proprietary information?

The opinions of this paper are not meant as definitive answers to these probing questions but rather are intended to spur discussion within the academic community and explore solutions.

University Engagement

In today's global economy, all possible resources at the country's disposal need to be applied to stimulating the economy and bettering the lives of people. The academic community is one of

the most powerful resources available to the community at large. In the case of state supported institutions the investment by the taxpayers is enormous and the impact of this investment is expected beyond instruction. In a March 2008 report from the Council on Competitiveness¹, the role of the university is poignantly stated:

“In the conceptual economy, higher education is more important for America’s regions than ever. Universities and colleges are a principal source of high value-added human capital and intellectual capital”. For the university to realize its potential in the new economy, “regional development must become an institutional priority”. The university must become a catalyst for innovation, producing a graduate steeped in the new culture of innovation and become engaged with the outside community in building and generating economic growth.

While it is being recognized that universities need to expand their role in the economic health of the region and that this priority must start at the top in the chancellor’s and president’s mission, the need for transformation of the reward and performance measurement systems for faculty is not being clearly recognized. The traditional metrics of scholarship, service and learning, if left unmodified, do not stimulate and encourage engagement. If, in fact, a faculty member is being measured by these same standards, engagement by faculty in general will remain the exception and not the rule.

Scholarship of Application or Engagement

In 2007, Western Carolina University adopted, in its faculty handbook⁶, the model of scholarship expressed by Ernest Boyer^{2,3}. In Boyer’s work, *Scholarship Reconsidered*, three additional forms of scholarship were identified besides the traditional scholarship of discovery or basic research: scholarship of integration, scholarship of teaching and learning and scholarship of application or engagement. In the discussion that follows, the scholarship of application or engagement will be used interchangeably. The four types of scholarship from Ernest Boyer’s model include⁶:

- Scholarship of discovery. Scholarship of this type includes original research that advances knowledge and may involve publishing journal articles, authoring/editing books, or presenting at conferences. This type of scholarship also includes creative activities such as artistic products, performances, musical, or literary works.
- Scholarship of integration. Scholarship of this type involves synthesis of information across disciplines, across topics within a discipline, or across time. Textbooks, bibliographies, and book reviews are examples of this type of scholarship.
- Scholarship of application. Sometimes called engagement, the scholarship of application goes beyond the provision of service to those within or outside the University. To be considered scholarship, there must be an application of disciplinary expertise with results that can be shared with and/or evaluated by peers such as technical reports, policy statements, guidebooks, economic impact statements, and/or pamphlets.
- Scholarship of teaching and learning. Scholarship of this type is the systematic study of teaching and learning processes. It differs from scholarly teaching in that it requires a format that will allow public sharing and the opportunity for application and evaluation by others.

Peers and Dissemination in the Context of Scholarship of Application

An important issue left unaddressed in Boyer's work is who are these peers? Does engaged scholarship dictate a broader set of peer evaluators than other academics? The traditional standards of scholarly work are clear goals, adequate preparation, appropriate methods, significant results, effective presentation and reflective critique⁴. Sandmann succinctly organizes these standards into purpose, process and outcomes⁵. If the purpose of the scholarship of engagement is economic growth, then the measurement of outcomes would include jobs created, markets opened, sales increased...the typical economic impact indicators and not in the domain of most engineering academics. For engineering faculty, the scholarship of application frequently takes form through collaborations with external institutions such as companies and industries. Who then are the most appropriate peers to evaluate the clarity of goals, appropriateness of methods, significance of results, effectiveness of presentation and evaluative critique?

The authors propose that the community of peers for scholarship of application in engineering disciplines must include, if not be dominated by the recipients of the scholarship, for example, business and engineering leaders in the outside institutions served, and economic development personnel from the region served. These external practitioners are intimately connected to the process of continuous reflection, feedback and adaptation essential to the collaborative engagement process describe by Sandmann⁵. The authors contend that evaluation of scholarship of application must be driven by external practitioners.

To that end, Western Carolina University has incorporated in the collegial review process an external engagement committee to provide both initial planning feedback to faculty before they enter into external projects as well as final evaluation of the scholarship at its completion. This committee is composed of members internal to the Kimmel School as well as external academic, business and engineering leaders from the region. The structure of the committee has stable membership at its core which is supported and enhanced by an adhoc membership providing the technical expertise needed to evaluate the specific suite of projects being proposed. For the Kimmel School with its two departments of Engineering and Technology and Construction Management, the expertise varies considerably from engineering research disciplines to accounting and finance for example. This diversity of subject areas is covered through the adhoc membership.

The requirement for broad dissemination is more problematic for the scholarship of application. The issue is of course the protection of proprietary information vital to the success of the business. But what purpose does broad dissemination serve and to whom should this broad dissemination occur? Let us return to one of the basic purposes of scholarship of application and engagement: the creation of economic prosperity. The measures of economic growth such as jobs created or productivity improved do not depend on the specific technologies developed or the technical knowledge involved in the activity. So what is the essence that must be broadly disseminated? The authors propose that answer is that the result was achieved and that the same result is possible for the reader or audience. And to whom should this result be communicated but to the companies and institutions in the region which the university serves. It is essential that external companies realize that this result can be replicated for them.

Summary

The academic community is being asked to engage... to engage and be a vital partner in the economic transformation of their region. The authors suggest that the metrics used to reward and assess the performance of faculty must also be transformed. Scholarship of application within the context of economic development demands different standards for excellence and a different community for the evaluation of effectiveness. The standards are those measures of economic growth such as jobs created and sales expanded. The assessing community should not come from the academic world but should be composed of the external practitioners and collaborators of the region.

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