

Ph.Digital? Lessons from the history of the doctorate and the dissertation

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Our purpose today is twofold: first, to place discussions about electronic theses and dissertations in the context of the history of the doctoral degree and the dissertation; and second, draw from this history some lessons for how to talk about and promote ETDs. After briefly reviewing the history of the ETD movement, we will look at a fairly long history of debate about the Ph.D. and the dissertation – with an emphasis on the North American perspective. We will go on to suggest some ways that ETD programs might be aligned with broader goals of reforming graduate education.

The ETD “movement”: A brief history

In a 1996 article in *D-Lib Magazine*, Ed Fox and colleagues touted the benefits of ETDs including increased access to research, cost savings for students and institutions, and potentially greater expressiveness of the digital format. The article called for development of software, building of consensus around ETDs, and strengthening of technical infrastructure for the management of ETDs. There has been notable progress in all of these areas. For example, ETD management software and institutional repository software have become available. The Networked Digital Library of Theses and Dissertations (NDLTD) has been incorporated as a non-profit educational organization. OCLC is an OAI data provider for over 100,000 ETD records from institutions around the world. ETDs are now more widely accepted as the official version of the dissertation, and in some cases are required.

Individual ETDs have gained recognition for communicating ideas in novel ways. Matthew Kirschenbaum (2004) calls these *multigraphic* rather than monographic works.

Virginia Tech features what it calls “whiz-bang” ETDs on its website. The first ETD awards were announced a couple of days ago.

So progress has been made on many fronts. Yet looking back on at least 100 years of discussion about the modern form of doctoral education, we see a different set of questions being taken up, questions we believe must be brought into the scope of what we talk about when we talk about ETDs.

The Ph.D. and the dissertation: a hundred years of hand-wringing

The first doctorate appears to have been granted in 1150 at the university in Paris (Noble, p. 8). The word “doctor” derives from the Latin word *docere*, to teach, and in its earlier form the doctorate was recognized as a teaching credential rather than a rite of passage to a career as a researcher. From the early 19th century, partly due to reforms of Wilhelm von Humboldt, an influential German model of doctoral studies emerged, placing emphasis on original research. Many American students crossed the Atlantic to pursue graduate studies in Germany during the 19th century. The first three doctoral dissertations in the United States were awarded by Yale in 1861, among them a six-page document written in longhand, in Latin. In 1876, Johns Hopkins, the first American university focused on graduate-level research, was founded. By 1893 some graduate work was required for permanent appointment at most institutions (Veysey 1965). As Bernard Berelson notes:

“By 1900, in a short twenty-five years, the university was firmly established in America and was leading the educational parade with its professional character, ...its stress on advanced learning, its new subjects of study, its seminars and laboratories and dissertations, its growing attraction for a new class of students—all capped by the earned Ph.D . . . The face of American education would never be the same again.” (Berelson, 1960)

Not everyone was happy with the new regime. In 1903 Harvard professor William

James, in a famous address called “The Ph.D. Octopus,” offered a scathing critique of credentialism. Of the emerging “Doctor-Monopoly in teaching,” he said, “In reality it is but a sham, a bauble, a dodge, whereby to decorate the catalogues of schools and colleges.”

Between 1916 and 1960 ten critical studies on graduate education appeared (Berelson, 1960, pp. 31-32). Notable examples since then include: Berelson's *Graduate Education in the United States*, published in 1960; Mayhew's *Reform in Graduate and Professional Education*, appearing in 1972, and Bowen and Rudenstine's *In Pursuit of the PhD* published in 1992. There has meanwhile been a steady trickle of journal articles, conference presentations, and published commentaries and letters, ranging from statistical analyses of faculty perceptions, to articles with such loaded titles as “Ph.D., translated, means ‘piled high, densely.’”

There are also several recently completed or ongoing studies of graduate education in the United States. Jody Nyquist of the “Re-envisioning the PhD” project observes that in the debate, there is “a much broader constituency than in the past -- national organizations, government and private agencies, professional societies, foundations, individual institutions, and individuals inside and outside the academy” (Nyquist, 14). The environment has changed, with assertive graduate students, vocal employers unhappy with graduates, and foundations, disciplinary societies, and government agencies suggesting innovative ideas and alternative models.

Three initiatives are of particular interest:

1. Re-envisioning the PhD, funded by the Pew Trust and centered at the University of Washington. This initiative posed the question: “How can we re-envision the Ph.D. to meet the needs of the society of the 21st Century?” It began with an inventory of stakeholder concerns and added a clearinghouse of promising practices. The website lists many examples of innovative effort and various conversations focused on how to effect change based on a new

vision of the Ph.D.

2. The Responsive PhD, sponsored by the Woodrow Wilson National Fellowship Foundation. This initiative aims to organize the findings of previous studies into recommendations for change, focusing on three areas: paradigms, practices and people. These are broadly construed as: new paradigms of interdisciplinarity and scholarly citizenship; new practices of professional development and pedagogical training; and new people through diverse populations and a diversification of the curriculum.

3. The Carnegie Initiative on the Doctorate, sponsored by the Carnegie Foundation for the Advancement of Teaching. This multi-year research program aims at enriching and invigorating the education of doctoral students. The initiative focuses on the preparation of “stewards of the discipline.” Stewardship is seen as discipline-specific and the CID studies doctoral training in six disciplines. A goal is to provide models for experimental doctoral programs.

The Carnegie initiative resonates with concerns echoed in the journal literature. By focusing on six specific disciplines they are providing a forum where people in the humanities, sciences and social sciences can address their respective concerns. This acknowledges another point emerging in the journal literature, that the language and style of dissertations vary in the sciences, social sciences, and the humanities. Disciplines are important in shaping the dissertation.

Five of the concerns identified in these initiatives are of relevance here:

1. Doctoral study is too long, too narrow, and too campus-based
2. It is not matched to students’ aspirations
3. It is “disconnected specialization”
4. Doctoral education does not encourage interdisciplinarity
5. Attrition rates from doctoral programs are too high.

As for recommendations, the Re-envisioning the PhD project summarized themes from more than 15 recent national studies. Three stand out:

1. Provide explicit expectations for doctoral students
2. Balance the deep learning of the disciplinary doctorate with a variety of interdisciplinary challenges
3. Encourage more creative and adventurous research

The Re-envisioning the PhD site lists ETDs as one of the “promising practices” of the profession. There are allusions in the journal literature to innovations in form, to multi-author dissertations, and to a more rigorous employment of technology by doctoral students. But nowhere do we find the suggestion that an electronic dissertation might address any of the problems identified. While numerous changes to doctoral education are being proposed, the form of the dissertation does not seem to be on the table. Are there any points of connection between dialogue about ETDs, and dialogue about the Ph.D. and the dissertation?

Points of connection

I’m going to review some lessons that come out of this history, and ask some questions that follow from these lessons:

1. Pay attention to the middle ground of department and discipline (ties into comments of Cliff Lynch yesterday morning). Hamilton (p. 48) wrote, “Almost all the studies recognize that to an appreciable degree the characteristics of individual disciplines (or groups of disciplines) determine the distinctive role and nature of the dissertation.” We believe this level has been underemphasized in the ETD community. While the graduate school level and the grass roots are undeniably important, it is in the middle ground of the discipline and field that some of the most important negotiations about doctoral study, the dissertation, and academic hiring are happening.

In the ETD community, many of us come from backgrounds in librarianship, archives, computing, and information science. As such we are attuned to the information systems perspective, to concerns of workflow and efficiency, and to the value of innovative individual ETDs. We are perhaps less attuned to nuances of individual disciplinary cultures which are so critical in shaping theses and dissertations.

A question: How can the ETD community get in touch with the diverse disciplines of academia?

2. ETDs will not be “one size fits all disciplines.” Parry points out that language, argument structure, references to other research, and even paragraph structure differ systematically in the sciences, social sciences, and humanities. Here are a few classes of dissertations which might be good candidates for ETDs but call for very different uses of technology and document designs: first, disciplines which take mediation and textuality as their subjects, such as English and Communications; second, fields making reference to large data sets, such as Statistics, History, and Political Science; third, fields whose main objects of study are non-textual, e.g., Archaeology, Film Studies, Architecture, Applied Mathematics; and fourth, as Cliff Lynch and William Clark of Ohio State mentioned yesterday, the performing arts such as dance and music.

Since people write different sorts of dissertations in different fields, perhaps intermediaries are needed. One possible model is the Gutenberg-e initiative in history. In Gutenberg-e, authors compete for fellowships and then work with technology specialists to adapt their works to the online environment. A prestigious fellowship would allow scholars to further their careers, while creating models for new media scholarship.

Perhaps, also, respected scholars in the humanities, social sciences, and sciences could act as ambassadors to their colleagues.

3. Conservative forces around the form of the dissertation are real and necessary.

Our review of the literature suggests that the dissertation is not seen as a place for creative self-expression and innovation in form. Rather, it is a site for intense negotiation among author, committee, and disciplinary methods and traditions. Dissertations are building blocks for academic fields and careers alike.

The conventionality of the dissertation has been called a strength. One author (Hamilton) points out that alternative formats raise a concern about lowering of standards. Duke and Beck write (p. 35): “We must be certain that whatever alternative format students choose for their dissertation, they have plenty of models to follow.” Who can create these models and how can they be disseminated?

4. Multimedia theses and dissertations have been around for a long time. It is all too easy to caricature print theses and dissertations as “linear,” rigid, text-only, hopelessly outdated. We found a dissertation at NC State from the 1930s, in the field of Agronomy, which included pasted-in photographs of detailed diagrams. We have not been able to look in depth at print dissertations; however we believe people have been testing the boundaries of print dissertations from well before the first conversations about ETDs. A retrospective study of print dissertations might identify fields in which boundary-testing has already begun to occur. These fields might be most amenable to the possibilities of ETDs.

5. There is less satisfaction about the doctorate in the humanities and social sciences (Berelson, Ziolkowski). These disciplines may be particularly interested in involving ETDs in a renewal of the doctoral experience.

6. To authors, ETDs may appear to be yet another hoop to jump through. In the literature, concerns have been expressed about time to degree, topic selection, and attrition. If ETDs are seen to pull people away from their critical path to the degree, they will not be well-received.

7. ETDs should be considered in the next major re-evaluation of graduate education and/or the Ph.D.

Conclusion

In conclusion: we have briefly reviewed the history of the doctorate and dissertation. We believe this history provides necessary context for ongoing planning and development of ETD programs. As newcomers begin to consider adoption, we believe it will be important to come to grips with the forces of history and academic politics which have operated on dissertations for a very long time, and will continue to operate, whether they are submitted in paper or electronic form. So I'll end with a question: how can dialogue in the ETD community be brought into alignment with broader debates about graduate education and the nature of the dissertation?

References

[To be added.]