The nontraditional doctorate is a relatively recent development in the long history of the doctoral degree. Understanding what makes a doctoral degree "nontraditional" requires describing its key features in relation to those of the traditional doctorate and embedding this analysis in a historical context.

The Emergence of the Nontraditional Doctorate: A Historical Overview

Douglas Archbald

Introduction

I earned a traditional doctorate. In my late twenties, I entered graduate studies with ambitions for an academic career. I entered a PhD program in Educational Policy Studies at the University of Wisconsin. It was a full-time pursuit, including teaching assignments, mentored and independent research, and postdoctoral study. I am now a university professor—I teach, do research, advise graduate students, coordinate a program, and participate in a variety of service activities related to education.

My story is typical of many "traditional doctorates." This volume, though, is about nontraditional doctorates. Take, for instance, the case of Jane Thomas. She is in her late thirties, a registered dietitian, and supports two young teenagers. She lives ninety miles from the nearest university, but is matriculated in a doctoral program—a clinical doctorate in dietetics. She does much of her coursework online, is part of an online community of peers, has regular contact with her instructors, and engages in periodic meetings with her academic peers at designated times and locations, during the evening or on weekends. Jane is pursuing what we today call "the nontraditional doctorate" because who she is and how she is earning her degree deviates from centuries of tradition in doctoral education.

To give us a context to explore and understand nontraditional doctorates—what they are, why they exist, and whom they serve—it is helpful to understand what they are an alternative to. This chapter, then, provides a historical and epistemological context for subsequent chapters in this volume.
How Did the Traditional Doctorate Begin?

European universities—Oxford, Cambridge, Paris, Bologna, and Berlin among the more notable—were the forebears of American universities. These European institutions educated most of our prominent education leaders who in the 1600s and early 1700s created our nation’s first colleges—places like Columbia, Harvard, William and Mary, Penn, and Yale. These institutions started out awarding only baccalaureate degrees mainly to prepare teachers and ministers.

The American doctorate-granting university did not develop until the last half of the nineteenth century. Before this, America’s top college graduates traveled abroad for advanced graduate study. Most went to German universities, attracted by their strong reputations in science and scholarly inquiry. America’s graduate schools ultimately adopted the German model of doctoral education.

Outside of Germany, most other European universities’ missions were built around transmitting received wisdom. In these institutions, doctoral education was mainly lecture, reading, recitation, and reproducing others’ writings. Curriculum was organized around “the four faculties”: philosophy, medicine, law, and theology. Students interpreted theological texts, philosophers’ essays, Euclid’s mathematical axioms, Hippocrates’ medical theories and practices, and the intricacies of Roman law.

At the German universities, doctoral study was oriented toward scholarly inquiry and research. During the eighteenth century the growth of science was leading to revolutions in knowledge, bold new discoveries, and powerful new technologies—and this inevitably challenged the traditional orthodoxies of knowledge and teaching through lecture and recitation. Growing numbers of scholars, particularly German, began to view the role of graduate study as training students to think critically, empirically, and creatively.

The birth of the graduate seminar in Germany was a prime manifestation of this view. The graduate seminar and its epistemology of inquiry and discovery became a staple of the German university and then spread throughout European and American higher education. Professor Charles Kendall Adams (Michigan) is credited with offering the nation’s first course called a “seminar” in 1871; however, seminar-like graduate instruction was emerging at a number of leading universities at this time (Adams, 1905; Horton, 1940).

American’s First Doctoral Programs. Throughout the 1800s, American political leaders, college presidents, and education reformers discussed prospects for universities in the United States. Advocates pressed the need for home-grown scientists, educators, inventors, and scholars. Some fledgling initiatives emerged, but nothing happened until Yale in the 1850s, following the German model, created our nation’s first Doctor of Philosophy program, conferring three doctorates in 1861 (Storr, 1953).

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Berelson (1960) describes the last quarter of the nineteenth century as "the coming of age of professional learning in this country" (p. 14). These were the formative years of doctoral education in the United States. In this time, fifteen major scholarly societies were established with affiliated scholarly journals. By 1900, doctoral programs had developed in "three kinds of institutions: new ones like Hopkins, Clark, and Chicago; strong private colleges like Harvard, Columbia, Yale, and Cornell; and such strong public institutions on the rise as California, Michigan, and Wisconsin" (Berelson, p. 9). These programs were small, with doctorates offered in only a handful of fields; about 250 doctoral degrees had been awarded by 1900.

Features of the Traditional Doctorate

By the turn of the century, three main attributes of American doctoral education were well institutionalized, attributes we now consider "traditional."

The Traditional Disciplines. The core disciplines of graduate education in the mid-nineteenth century were the "four faculties"—philosophy (encompassing the arts and sciences), medicine, law, and theology (Walters, 1965). This traditional framework of graduate education, brought from European universities, started changing toward the end of the nineteenth century, influenced by America's expanding industries, diversifying culture, burgeoning interest in the sciences and technology, and growing college population. Interest in new domains of professional education at the same time was growing rapidly (while interest in theology as a subject of doctoral study waned).

Expansion of American universities and academic diversification created more complex organizations, but the distinction between academic studies and professional studies remained. Typically, the academic disciplines—what we broadly label liberal education—were organized into structural units (departments) tied to specific academic disciplines; professional studies became separate "schools" or "colleges" within the university. The pattern that emerged at the doctorate-awarding universities was a division between academic education and professional education—that is, between doctoral study in arts and sciences (encompassing the humanities, social sciences, life sciences, and physical sciences) and doctoral study in the major professions.

A Full-Time, Campus-Based Program. By the early 1900s, the main structural features of the doctoral program were established. Housed in an academic department with classrooms, lecture halls, and faculty offices on a "brick and mortar" campus with libraries, laboratories, student centers, and residence halls, the doctoral program required full-time matriculation (residency), two to three years of coursework, and several years writing a dissertation. Typically, doctoral funding subsidized students in apprentice-like research or teaching assistantships to cover costs of living. This traditional structure has hardly changed at all since it developed.
An Early-Career, Young Adult Clientele. The traditional doctorate's function is thought of as preparation for a career that lies in the future. ("Commencement" ceremonies denote "the beginning" of one's adult, professional life.) Hence, the traditional doctoral applicant is typically young and "pre" career, therefore justifying the subsistence-level funding and the full-time commitment to graduate studies and research. The average time-to-completion varies widely among disciplines; five to seven years is common for students pursuing traditional research PhDs (Wendler and others, 2010).

Departures from the Traditional Doctorate

No single period identifies the emergence of nontraditional doctorates. A major driver was the shift to mass education beginning in the early 1900s. At the turn of the century about 2 percent of eighteen- to twenty-four-year-olds went to college (Snyder, 1993) and only 15 percent of fourteen- to seventeen-year-olds went to high school (Snell, 1965). By mid-century almost 20 percent of eighteen- to twenty-four-year-olds went to college and about 80 percent to high school (Snyder, 1993). Demand rose rapidly for graduate credentialed college instructors; more professions adopted college credentials for licensure. As described below, doctoral education, particularly in the last half of the century, expanded with new and nontraditional fields of study, pedagogies, and clientele.

New Fields of Study and Practice. What we define as a nontraditional area of doctoral study depends on our vantage point in the historical timeline. One decade's new and nontraditional field can be, two or three decades later, an established subject. Consider that centuries ago, biology was a new field—a specialization within natural history. Then, with research and new knowledge, biology branched into specializations: zoology, botany, physiology, and anatomy; then into still more specializations (for example, biochemistry, ecology, epidemiology, genetics, microbiology, and toxicology).

Computer science in the 1950s was a ground-breaking, nontraditional discipline. Now it is a standard major in all universities and includes manifold specializations inconceivable fifty years ago. One major new specialization is education technology—the subject of about 750 doctoral theses in 2009 (dissertation abstracts). This field has revolutionized distance learning, as shown in subsequent chapters of this volume.

New fields have continuously emerged over the last century, multiplying the subjects of doctoral study. In 1900, U.S universities awarded doctoral degrees in just a handful of subjects. Now, there are hundreds—292 fields of research-focused doctoral study are shown in one survey (National Science Foundation, 2009). However, this number is markedly conservative because the study excludes professional doctoral degrees. "Dissertation Abstracts" (Proquest, Ann Arbor, MI) now has 492 different subject codes available to conduct searches of its database of doctoral theses.
Professional fields also have multiplied. Once, only medicine, law, and theology were university-connected professions. But discipline-based scholars seek applications of their research, practitioners seek a university-based foundation for their practice, and this symbiosis bears new professional fields. Decade by decade, newcomers join the academy.

The EdD degree, first conferred in 1921, was once a newcomer (Callahan, 1962). Until the late 1800s, academic qualifications for teaching and school administration were minimal, not even a college degree. Mushrooming high school enrollments in the early 1900s generated demand for college-educated teachers and administrators; graduate courses and programs; and education scholarship on teaching, management, leadership, and policy in education (McCarthy, 1999; Richardson and Walsh, 1978). During this formative period groups with common interests in education—both scholarly and professional interests—coalesced into professional associations. In 1948, the American Association of Colleges of Teacher Education was established. In the 1950s, the National Committee for the Advancement of School Administration, the National Council for Accreditation of Teacher Education, and the University Council for Educational Administration were instrumental in molding and promoting the discipline (Griffiths, 1959; Gregg, 1969; Murphy, 1992).

Joining education as one-time newcomers are a host of other professions with associated doctorates: accounting, adult education, architecture, business, demography, dentistry, engineering, food science, forestry, home economics, information technology, journalism, librarianship, nursing, pharmacy, physical therapy, public administration, social work, urban planning, and veterinary medicine.

Adult education, as a subject of study, grew with the rise and institutionalization of professional education in the university. In the mid-1920s, philanthropic foundations were key promoters of adult continuing education. The Carnegie Foundation, for instance, supported a series of regional meetings of adult education workers from a variety of fields and agencies. These meetings produced the American Association for Adult Education (AAAE) in 1926 (Knowles, 1977). In 1929, with support from Carnegie and the AAAE, Teachers College at Columbia created the nation's first adult education course, degree program, and academic institute—the Institute of Adult Education. Between 1945 and 1959, the Kellogg Foundation subsidized "Centers of Continuing Education" at major universities (for example, the University of Chicago, Georgia, Michigan State, Nebraska, and Oklahoma). These were precursors to adult/continuing education graduate programs, which grew as more middle-aged adults returned for advanced degrees (Stubblefield and Keane, 1994). The first continuing education doctorates were conferred in the early 1970s, with 2,000 doctorates conferred per decade thereafter (National Science Foundation, 2006). Continuing education is today represented by associations including the Adult Higher Education Alliance, the
American Association for Adult and Continuing Education, the Association for Continuing Higher Education, the Council for Adult and Experiential Learning, and the University Professional and Continuing Education Association.

Universities now confer a large array of doctoral degrees, a variety of which are shown in Table 1.1.

**More Part-Time Students, More Distance Learning.** We associate the traditional doctorate with young adult, full-time students enrolled at a “brick and mortar” campus, someone toiling in full-time study and destined for a profession for which the doctorate is an entry requirement. Now there is a new nontraditional population created by the enormous expansion of adult continuing education, the information technology revolution, and the rise of new online universities.

In the last half of the twentieth century, enrollments in graduate education soared and have since increased steadily. A major force, as noted above, was the rapid growth of new academic specializations and professional fields. Steadily, the proportion of doctoral students in the “traditional” category declined as the numbers grew in professional education and, inexorably, in part-time programs because of the need to accommodate a growing

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**Table 1.1 Types of Doctorates**

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
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<tbody>
<tr>
<td>PhD</td>
<td>Doctor of Philosophy</td>
</tr>
<tr>
<td>DA</td>
<td>Doctor of Arts</td>
</tr>
<tr>
<td>DBA</td>
<td>Doctor of Business Administration</td>
</tr>
<tr>
<td>DDes</td>
<td>Doctor of Design</td>
</tr>
<tr>
<td>DEng/DESc/DES</td>
<td>Doctor of Engineering/Engineering Science</td>
</tr>
<tr>
<td>DFA</td>
<td>Doctor of Fine Arts</td>
</tr>
<tr>
<td>DHL</td>
<td>Doctor of Hebrew Letters</td>
</tr>
<tr>
<td>DMA</td>
<td>Doctor of Musical Arts</td>
</tr>
<tr>
<td>DME</td>
<td>Doctor of Music Education</td>
</tr>
<tr>
<td>DML</td>
<td>Doctor of Modern Languages</td>
</tr>
<tr>
<td>DNSc</td>
<td>Doctor of Nursing Science</td>
</tr>
<tr>
<td>DPH</td>
<td>Doctor of Public Health</td>
</tr>
<tr>
<td>DSc/ScD</td>
<td>Doctor of Science</td>
</tr>
<tr>
<td>EdD</td>
<td>Doctor of Education</td>
</tr>
<tr>
<td>JCD</td>
<td>Doctor of Canon Law</td>
</tr>
<tr>
<td>JSD/SJD</td>
<td>Doctor of Juridical Science</td>
</tr>
<tr>
<td>STD</td>
<td>Doctor of Sacred Theology</td>
</tr>
<tr>
<td>ThD</td>
<td>Doctor of Theology</td>
</tr>
<tr>
<td>JCD</td>
<td>Doctor of Canon Law</td>
</tr>
<tr>
<td>MD</td>
<td>Doctor of Medicine</td>
</tr>
<tr>
<td>DDS</td>
<td>Doctor of Dental Surgery</td>
</tr>
<tr>
<td>DVM</td>
<td>Doctor of Veterinary Medicine</td>
</tr>
<tr>
<td>PsyD</td>
<td>Doctor of Psychology</td>
</tr>
<tr>
<td>DMin</td>
<td>Doctor of Ministry</td>
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</table>

**Note.** Based in part on National Science Foundation (2006). The last five are examples of professional doctorates, which were not included in National Science Foundation study.
professional adult clientele—people who wanted advanced education and a better station in life but did not want to (or could not afford to) quit their jobs.

Advances in information technology have greatly increased access to graduate instruction. The Internet, World Wide Web, and powerful new teaching tools enable teaching and learning without the need for participants to be physically in the same space. The convenience and sophistication of distance learning technology improve constantly; every year there are new tools for information searches, interactive communication, content delivery (podcast and graphical and presentation software), group collaboration, and data management and analysis (Bold, 2006; Falk and Drayton, 2009; Zolezzi and Blake, 2008).

Imagine our dietetics graduate student (Jane Thomas) studying from her home. At her computer, she watches and listens to an instructor demonstrate data analysis with Excel. The upper half of Jane's computer screen is the instructor's computer screen; Jane watches her instructor's demonstration. Then Jane hears, "OK, what do these results show?" The instructor pauses while Jane and other students in their homes type responses, which the instructor observes on a section of his computer screen. The instructor continues with verbal clarification and then instructs the students to open a designated practice file and work on their own. After ten minutes, the instructor asks selected students to show results; Jane and the others observe and discuss these results.

Liberated from weekly in-person class attendance, students now can live far from campus. About half of graduate students today are enrolled part time (Choy and Cataldi, 2006), many living far from a university. Like Jane, they log in at designated times, view lectures, submit online assignments, and get online feedback and grading. Depending on the nature of the course or the program, they may meet as a group in periodic face-to-face sessions, very rarely, or not at all.

Online study in just a few decades has become a major part of doctoral education. In four years, from 2002 to 2006, online enrollment in degree-granting postsecondary institutions doubled, growing from 9.7 to 19.8 percent (online enrollment as a percentage of total enrollment) (Allen and Seaman, 2007). The percentage of public four-year institutions offering distance education courses has reached 89 percent; the figures are 53 percent of private not-for-profit institutions and 70 percent of private for-profit four-year institutions (U.S. Department of Education, 2008).

Doctoral faculty, courses, and programs are now vastly more accessible. Students can enter doctoral study without residency requirements, without facing hundreds of hours of annual commuting, and without quitting their jobs or relocating. The barriers, costs, and risks associated with the decision to pursue doctoral study have substantially diminished. Thus, doctoral study can now be realistically contemplated by vast new swaths of the adult population—the mid-career adult wanting to advance in his or her present
field, enter a new field, or embark on a journey of intellectual growth and enrichment. Continuous learning is essential given the constancy of change in jobs, technology, and the global economy.

**Growing Diversity of the Doctoral Student Population.** At its inception, graduate education was populated mostly by children of the rich and social elite; almost all graduate students were male and white. Diversity grew with the expansion of graduate schools, but not rapidly until after World War I. According to Berelson (1960, pg. 27), during the decades of the 1920s and 1930s, “The graduate student body changed for good—away from whatever remained of the nineteenth century’s genteel tradition of social elitism, toward primary concern with simple intellectual quality.” The Graduate Record Exam (GRE) was established in 1937, giving doctoral admissions committees one way to pass over the merely socially advantaged and to seek out academically promising applicants, irrespective of their social pedigree.

Decade by decade, the socio-demographic composition of the doctoral student population grew more diverse. In the early 1920s, about 12 percent of doctoral students were female; now about 46 percent are (National Science Foundation, 2009), a figure that may underestimate if all new non-traditional doctoral awardees are factored in. The share of doctorates going to minorities has also grown: about 8 percent in 1975–1979, about 14 percent in 1995–1999 (Hoffer and others, 2006), and about 23 percent in 2008 (National Science Foundation, 2009). (These figures reflect “research doctorate”; minority representation is likely even higher because the study may not have fully sampled newer online programs.)

**Growth in Professional Doctorates**

Interest in and demand for professional doctorates will almost certainly grow. This volume, for instance, describes programs for mid-career professionals in organizational leadership, health care, education, and business. These types of programs respond to forces and market changes in society at large: rapid changes in information-based technologies; growth in knowledge-based jobs, service professions, and high-tech industries; a more interconnected global economy; and chronic fluctuations and uncertainty in the labor market, both on the demand and supply sides. These conditions create demand for education adapted to these realities, education that is affordable, practical, relevant, and accessible throughout the lifespan, as well as accommodating to the learner’s schedule and changing circumstances.

Demand for advanced professional education comes also from the professions themselves. As occupations seek professional status, they follow an established template. The template is not a linear, lock-step process, but it has these interrelated elements: developing a body of codified knowledge founded in scholarly disciplines, requiring a college degree for employment in the occupation, requiring a doctorate for faculty instructors who train
new candidates for the occupation, and requiring a doctorate for the most high-ranking positions in the occupation. For example, Khurana and Nohria (2008), writing in *Harvard Business Review*, make the case for a business professional doctorate:

Typically, true professionals undergo an intense three- to four-year postgraduate program. On graduating, they then have to obtain a formal license to practice by passing a comprehensive state or federal exam designed to test their mastery of the body of knowledge their educational degree ostensibly conferred. Once they pass this test, they have to invest in a certain amount of clinical training and continuing education to stay abreast of evolving knowledge. In some fields, licensed professionals must periodically pass further exams in order to recertify their licenses.... Managers don't face such challenges. Although the MBA has been the fastest-growing graduate degree over the past 20 years, it is not a requirement for becoming a manager. (p. 72)

Societal events can also spur demand. For instance, the obesity epidemic in the United States focuses attention on the field of dietetics and nutrition (Crouse, 2010). Along with obesity are other diet and nutrition issues connected with consumption of salt, unsaturated fats, and chemical additives. These are concerns of a broad range of stakeholders—health-care professionals, health educators, insurance companies, businesses, and politicians—and are creating calls for more research and education, more demand for credentialed clinicians, and more interest in the field of dietetics and nutrition. Thus, we see rising demand for advanced study and clinical education in dietetics and nutrition and growing interest in graduate studies and graduate degrees (American Dietetic Association, 2008; Skipper and Lewis, 2006; Touger-Decker, 2005). If the field grows, we will see more opportunities for educators, researchers, clinicians, and administrators.

Above and beyond the value of education itself is the independent value of the credential. The doctoral credential serves a useful personnel selection function within business, industry, health, education, and other service professions. Large organizations need a rational basis on which to select and allocate employees to different offices, roles, and functions; many positions require advanced knowledge and skills and particular dispositions that not all people have. A position may have ten applicants; other things equal, applicants with higher credentials have an advantage. The credential provides one piece of evidence to make and justify selection/allocation decisions. Increasingly, for instance, position announcements for college instructors state “doctoral degree required” or “doctoral degree preferred.”

**Reflections on the Meaning of “Nontraditional”**

From its medieval origins to today, the doctoral degree has never stopped evolving. As the number and variety of degrees, programs, pedagogies, and
institutions has grown, the distinction between the traditional and nontraditional doctorate has become more blurry and multi-dimensional. As a term, "traditional doctorate" will probably remain in the lexicon of higher education but with at least two meanings: one fixed and one relative.

The term can be affixed to the degree archetype: a full-time, residential, four- to five-year, research-focused graduate program in the sciences or humanities culminating in a dissertation and a PhD. This centuries-old model is probably the image evoked for most people by the term "traditional doctorate."

However, as a category of doctorates, this archetypal doctorate is a shrinking proportion of all doctorates granted annually. Soon (and we may have already reached this point), most doctorates will fall outside this category. Ordinarily, when we refer to a new "nontraditional" type of something, the count of cases or objects in the category is small relative to the traditional category, which is largest and dominant. Today, the nontraditional category may be larger, especially if we include the large number of doctorates with the newer types of professional specializations and credentials (Table 1.1 shows many) and doctorates from part-time programs and with substantial online coursework.

Another meaning of nontraditional doctorate is more relative. "Nontraditional" need not be juxtaposed against the fixed archetype. Rather, nontraditional is relative to what existed decades ago and was new then but not new anymore. There will always be older institutions and newer institutions, older disciplines and newer disciplines, older professions and newer professions, and older pedagogies and newer pedagogies; but the institutions, disciplines, professions, and pedagogies in these categories will change. Indeed, by the next century, the programs and institutions discussed in this volume may no longer be considered nontraditional. In this sense, the nontraditional doctorate is distinguished by being new and different, and thus departing from current practice.

Conclusion

It is imperative for the entire enterprise of higher education that all institutions place a high priority on effectiveness and rigor in their programs. The one attribute that has consistently defined the doctorate throughout the ages is its signification of advanced intellectual accomplishment. The degree certifies its bearer has achieved the highest level of formal education and training in a particular discipline or profession. Preserving the validity of this certification is critically important for higher education, and this requires attention to the effectiveness and rigor of degree programs.

There is nothing inherent in being an adult learner, a part-time student, or living off campus that blocks the success of education. Research shows distance education can be successful and that carefully designed curriculum...
can be a powerful force for adult learning and professional development (U.S. Department of Energy, 2009). Programs must provide curricula that effectively balance coursework and fieldwork; that engage the learner in planning, problem solving, and decision making; that apply learning to practice; that require reflection on practice and feedback; and that appropriately scaffold learning with sequential assignments (Cree and Macaulay, 2000; Dick, Carey, and Carey, 2008; Dooley, Lindner, and Dooley, 2005a, b; Scheckley, Donalson, Mayer, and Lemons, 2010). It is not easy to consistently deliver programs with these qualities of curriculum, but with capable leadership and committed faculty it can be done.

The challenge for nontraditional doctoral programs is to maintain a strong and steady commitment to designing, implementing, supervising, and evaluating instruction. Universities conferring nontraditional doctorates and bearers of nontraditional doctorates do not want “nontraditional” to become a pejorative label. University leaders must guard against what the Council for Graduate Schools (2007) calls a “competitive race to the bottom [by] responding to revenue pressures by churning out credentials for willing buyers” (p. 1). The meanings of nontraditional discussed in the preceding section imply a degree that is different, as in an alternative or a departure from past practice but without necessarily implying a loss of the defining attributes of the credential. That is, the doctorate can be nontraditional but should still signify that its bearer has dedicated himself or herself to a rigorous program of learning and achieved intellectual capabilities consistent with recognized standards of the discipline or the profession for the doctorate.

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