

Professionalism: The Golden Years

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Abstract: This paper presents a detailed exposition of professionalism, carefully situated within the social, theoretical, and temporal context of the decades immediately following World War II. This classic conception of professionalism involves three attributes—*knowledge, organization, and the ethic of professional service*. Such an approach presumes a functionalist view of society specific to the middle years of the Twentieth Century, a time characterized by a high degree of occupational specialization, shared norms and values, stability, and the tendency to maintain equilibrium in the presence of social change. A clear picture of this classic view of professionalism is the first step toward understanding the contemporary meaning of professionalism for today's engineering education and practice issues.

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Introduction

Scholars of the professions, engineers included, regularly acknowledge difficulty in defining *professionalism*. A sampling of the literature illustrates this point: “Ambiguity is present in the very notion of professionalism” (Broadbent et al. 1997, p. 5). “Neither practitioners nor academics have precisely defined what acting in a professional manner entails” (Kalbers 1995). “The definition of professionalism for engineers is vague” (Oates 1993, p. 44). “The usage of the word [profession] is highly confused, and its definition for purposes both of scholarship and social accounting [is] a matter of wearisome debate” (Freidson 1973, p. 19). “In spite of the growing number of studies of particular professions and the frequent attempts at theoretical evaluations, the very term ‘profession’ remains elusive... . Seldom does a concept remain as slippery as does the concept of ‘profession’” (Perrucci and Gerstl 1969a, pp. 6–7).

Confusion about the meaning of professionalism is a justifiable cause for concern in the engineering community. Consider a practical illustration—senior professionals mentoring younger engineers with regard to appropriate norms and behavior for professional practice. Such activity is clearly ill-conceived if the senior engineers are vague about what professionalism means. Like a confused pastor trying to lead a lost flock, it will not work: “If there is mist in the pulpit, there is *fog* in the pew” (Hendricks 1990). Similarly, on the academic side, while the claimed goal of engineering education is to prepare graduates for professional engineering practice, academic programs are seriously flawed if the outcome of instruction cannot be clearly identified. To paraphrase

William Thompson (Lord Kelvin), knowledge that cannot be adequately expressed is “of a meagre and unsatisfactory kind” (Thompson 1894).

In contrast to the vagueness and confusion associated with the common, contemporary understanding of professionalism, in this paper I seek to demonstrate that during the middle years of the Twentieth Century—a time I refer to as “the golden years” of professionalism—the concept of professionalism had a relatively clear meaning. Technically termed the “functionalist, ideal-typical” model, a profession in the decades following World War II was commonly described in terms of its quintessential characteristics, or attributes, which include knowledge, organization, and the ethic of professional service. My thesis is that in order for engineers to understand professionalism today, they must have a clear view of this “classic” definition of professionalism that dominated America in the middle years of the Twentieth Century.

The argument of this paper builds on several presuppositions. The first presupposition, already mentioned, is that professional engineers today find it difficult to understand and adequately explain professionalism, and this is a bad thing. The second presupposition is that although a century of civil engineering literature discusses the meaning of professionalism in fairly uniform terms, this literature fails to capture the societal context implied in such definitions, and this obscures rather than clarifies the meaning of professionalism. The reason is that professional work and roles reside within a broader social network, and as society changes, so too does professionalism. Thus, the third presupposition is that professionalism has not remained static, but has changed over the years. Ultimately, then, to understand professionalism in contemporary terms requires not only a clear picture of the classic view of professionalism, which is my thesis, but also an appreciation of how professionalism has changed, and this is the fourth presupposition. In sum, this paper lays the groundwork to help engineers understand and appreciate contemporary professionalism by showing them from whence it originated.

The concept of professionalism discussed herein prevails in the United States and, to a lesser extent, Great Britain. Regarding subject matter, the scope is broad in that I describe professionalism in such a way that the term might apply to any of the occupations we call a profession. Intertwined with this, I lift out illustrations and applications specific to engineering. Although much

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of this paper deals with professionalism as might be applied to any professional occupation, all of it is directed toward helping engineers, particularly civil engineers, understand the meaning of professionalism for their occupation.

Principally, this paper opens a window to the post-World War II era—the time I refer to as the golden years of professionalism—and explains professionalism within that context. My method is to present a brief historical account of professionalism up to World War II, and then sketch the context for analysis by discussing social theory and formal analysis of the professions. I then develop the attributes of professionalism in detail and explain their meaning and implications for civil engineers during the middle years of the Twentieth Century. Against this background, I review civil engineering's definitional literature on professionalism, and I close by illuminating the strengths and the limitations of the civil engineer's traditional view of professionalism.

A word about my use of the phrase, the golden years: This has nothing to do with business opportunity or the morality of the engineering profession, and I am not suggesting that the best days of professionalism, or the “good old days” of engineering practice, have already come and gone. While some may hold such a view, I do not. Certainly times have changed, but when I refer to the golden years of professionalism, I specifically mean that, unlike today, there was an era when professionalism was commonly understood and could be clearly explained, and for the engineer who wants to understand the contemporary meaning of professionalism, that is indeed a golden occurrence.

Brief History of Professionalism up to World War II

The etymology of *profession* is theological; the word in English stems from the Latin verb *profiteri*, denoting “to declare publicly, own freely, acknowledge, avow” and until the Sixteenth Century it was used only in a religious sense (Kimball 1995, p. 19). Historical studies of the professions trace the origins and early development of professionalism in America to the class position and occupational preferences of the landed gentry of Sixteenth through Eighteenth Century England (Haber 1991, p. ix). The gentleman of this era was characterized by formal learning amplified with Christian ethics and with notions of courtesy derived from the medieval tradition of knighthood (Kimball 1995, pp. 6–7). This “gentleman” became the archetype of a liberally educated person, and work suitable to his station in society resided in the classic professional occupations of theology, law, medicine, and university education.

From these roots, professionalism developed and matured through theological, political, and scientific phases such that a “professional ideal” coalesced in the United States in the 1910s (Kimball 1992, p. 323). According to the ideal, a profession was a dignified occupation espousing three fundamental attributes—knowledge, organization, and the ethic of professional service (Kimball 1992, p. 16). In this same time frame (early Twentieth Century), sociologists began to study professionalism analytically and theoretically, seeking to understand and explain the meaning and significance of professionalism for their world. In what many consider the seminal work on the subject, the British scholars A. M. Carr-Saunders and P. A. Wilson observed that the term profession “clearly stands for something” but they explicitly refrained from offering a definition. Rather, they noted that “...the typical profession exhibits a complex of characteristics” (Carr-Saunders and Wilson 1933, pp. 3–4, 284).

The Carr-Saunders and Wilson method—i.e., not to define professionalism *per se* but instead to describe profession in terms of “a complex of characteristics”—became common analytical practice during the middle years of the Twentieth Century (Rothstein 1969, p. 73; Hall 1972, pp. 143–145; Macdonald 1995, pp. 2–3). Such work resulted in an enormous body of literature comprising hundreds if not thousands of articles and books on the professions (Mok 1973, p. 107; Kimball 1992, p. 309), with this being only a subset of a much larger body of social research on work and occupations (Ritzer 1972, p. 48; Abbott 1993, pp. 188ff.). It is this literature that provides a rich exposition of the nature and meaning of professionalism, and offers the social context that can help engineers more clearly understand professionalism.

Social Theory and Analysis of the Professions

Social Theorist's View of Professionalism

To fully appreciate professionalism in the middle years of the Twentieth Century, one must be aware of functionalism, the pre-eminent social theory of that era, whose period of dominance spanned from the 1940s through the 1960s, give or take a few years on either end (Turner 1986, p. 57; Ritzer 1996, pp. 68–69, 115). Extraordinarily complex, functionalism can be described as a consensus theory where society “is conceived as a system of interrelated parts in which no part can be understood in isolation from the whole” (Theodorson and Theodorson 1969, p. 167).

The key issue for functionalism is the manner in which the social system addresses a disturbance; functionalist theory presumes there will be a tendency to restore equilibrium, or normalcy (Wallace and Wolf 1999, p. 18). Functionalists also tend to use shared values or generally accepted standards of desirability as a central concept. In other words, they assume that individuals will be *morally committed* to the functioning of their society (Wallace and Wolf 1999, pp. 18–19). This social environment enabled scholars to explain professionalism in relatively clear, value-laden language (Parsons 1951, pp. 428–479; Ritzer 1996, p. 104). For our purposes, the important thing is to recognize that when engineers define professionalism in functionalist terms, this introduces a time-bound element to the concept, and such definitions of professionalism presume much of the social circumstances of the era.

“Ideal Type” and Occupational Continuum

Sociological analyses of the professions commonly make use of a concept known as the ideal type to describe phenomena in the social world. Not an average, *per se*, the ideal type involves an accentuation of typical properties or courses of conduct so as to lift out what is significant (Coser 1977, p. 224). To express the concept of *profession* in terms of an ideal type is to identify its quintessential characteristics. These characteristics thus constitute the standard by which any occupation's claim of professional status can be measured, analyzed, and judged.

Analysts in the middle years of the Twentieth Century postulated that occupations exist along a continuum ranging from the nonprofessional (e.g., farm labor) on the one end to the established professions (e.g., medicine) on the other. They tend to reject a simple dichotomy between nonprofessions and professions (*variation in essence*) and subscribe to the notion that occupations differ in their makeup and strength relative to the group of core characteristics (*variation in degree*) (Ritzer 1972, pp. 48–52).

Early theorists described this continuum only at the occupational level; that is, they restricted their analyses to the occupations themselves and did not necessarily concern themselves with measuring the professionalism of individual practitioners. However, more sophisticated models explicitly recognize professional variation at two levels—the occupational level (also termed the *structural* level, since it depicts professions as part of the overall structure of the social system) and the individual (or *attitudinal*) level (Hall 1969, pp. 78–82; Moore 1970, pp. 4–6, 18; Ritzer 1972, pp. 53–56, 63–65). Thus, in its developed form, the ideal-typical concept of a profession holds that for an occupation to be a profession, it must exhibit all of the requisite occupational characteristics and possess each characteristic to a high degree. In addition to this occupational level, analysts also use the ideal type to establish whether an individual practitioner holds all the requisite professional values (attitudinal characteristics) and to measure the degree to which he or she personally inculcates or demonstrates these values.

The point of the discussion is this: As the very standard by which professionalism is measured, the ideal-typical concept of profession necessarily defines the high end of the spectrum. While allowing for less than ideal actualities (such as quasi professional occupations or marginally professional practitioners), the standard is intentionally *high*. The attributes of a profession represent this standard.

Cast of Characters

Before presenting the ideal-typical attributes of a profession, it is appropriate to identify certain other ideal types—the cast of characters—that form much of the context for the functionalist view of professionalism. These include the practitioner, the client, and society itself. Idealized concepts for each role go hand in hand with the ideal type of profession in the functionalist view, and to gain an accurate picture of professionalism in its golden years we must take all of these interrelated roles into account.

Regarding the *practitioner*, the functionalist view looks to a professional image and ideology derived from the small-scale entrepreneurial economy of the Nineteenth Century (Rossides 1998, p. xiv). The practitioner is the autonomous, self-reliant, hard-working “free professional,” a person who is either self-employed or perhaps practices as a partner in a small firm (Hughes 1965, p. 9; Perrucci and Gerstl 1969a, p. 95; Ritzer 1972, p. 86). His or her commitment to professional service as well as professional authority is at a maximum.

The *client*, in contrast, is viewed as being dependent and vulnerable. Lacking the specialized expertise, organization, and resources necessary to deal with the matter at hand, the client is clearly in a subordinate relationship (Moore 1970, pp. 100–101). “The client is not in a position to judge for himself the quality of the service he receives. He comes to the professional because he has met a problem which he cannot himself handle... He has some idea of what he wants; little, of the means or even the possibility of attaining it” (Hughes 1958, p. 141). The client needs help.

American society in the middle years of the Twentieth Century, as already mentioned in the discussion of functionalism, was characterized as an integrated, stable system with high levels of role differentiation and definition. Individual members of a functionalist society share consensus on social norms and values. Faced with a problem, the emphasis falls toward maintaining health, safety, and well-being. Social stability is prized and is

viewed as “normal”; this is the social environment of professionalism.

To sum up—*free* practitioners, *dependent* clients, *stable* society; these idealized roles provide the context in which the functionalist attributes of a profession have their clearest application and meaning.

Attributes of Profession

Following the approach of Kimball and others (Kimball 1992, pp. 323–324; Barber 1965, p. 18; Jackson 1970, p. 8; Vollmer and Mills 1966, pp. 1–19), I will use three attributes to depict the professional ideal—knowledge, organization, and the ethic of service—this in the belief that these three attributes subsume the detail ordinarily intended and expressed by expanded lists. More explicitly, my conceptualization of the professional ideal consists of the following:

- *Knowledge*, as expressed and reflected in a body of theory, professional authority, and higher education;
- *Organization*, as expressed in professional associations, monopoly and licensing, and professional autonomy; and
- *The ethic of professional service*, as expressed in the service ideal, codes of ethics, and the career concept.

These attributes derive from the era when the definition of a profession was the focus of extensive scholarly effort. To clarify and sharpen our understanding of professionalism, the detailed exposition of the ideal-typical attributes of professionalism in the following paragraphs overtly links the classic meaning of professionalism to its social and temporal context. It is to these attributes of professionalism that we now direct our attention.

Knowledge

Body of Theory

The tasks of professionals are human problems amenable to expert service, and functionalist theory requires that these be problems of universal, or at least widely experienced, social concern. A profession’s claims to jurisdiction over these problems involve three parts—claims to classify a problem, to reason about it, and to take action on it. Theoretically, these are the three acts of professional practice, and such practice is tied directly to a system of knowledge that formalizes the skills on which the work proceeds (Abbott 1988, pp. 35–58). This expert knowledge or *body of theory* amounts to an internally consistent system of abstract propositions that describes the classes of phenomena comprising the profession’s focus of interest. Theory serves as a base in terms of which the professional rationalizes his or her operations in concrete situations (Greenwood 1957, pp. 68–69). It is the linking of professional skill with the prior or coincidental mastery of the underlying theory that is the true distinction of a professional (Harries-Jenkins 1970, p. 74).

Professionals, then, by definition, are knowledgeable (Barber 1965, p. 18; Ritzer 1972, p. 56; Freidson 1973, p. 30). They own expertise, so much so that one analyst (rather tersely) defines professionalization as “... an attempt to translate one order of scarce resources—special knowledge and skills—into another—social and economic rewards” (Larson 1977, p. xvii). Professionals work with an unstandardized product (Hall 1969, pp. 75–76): Their knowledge focuses around areas that, although capable of being classified by science, retain mysteries—hidden elements. Access to those is privileged, and these mysteries can only be penetrated (if at all) by the professional’s esoteric skills. Such

skills afford the view of professions as being a class apart (Perucci and Gerstl 1969a, pp. 10–11). In the words of Bledstein, “...The professional person penetrated beyond the rich confusion of ordinary experience, as he isolated and controlled the factors, hidden to the untrained eye, which made an elaborate system workable or impracticable, successful or unattainable” (Bledstein 1976, pp. 88–89).

Professional expertise is a mixture of several kinds of practical and theoretical knowledge, both the standardized variety (that which can be *taught*) and the “cognitively indeterminate” (that which is *caught*) (Larson 1977, p. 41). The optimal base of knowledge for a profession has been described as “...a combination of intellectual and practical knowing, some of which is explicit (classifications and generalizations learned from books, lectures, and demonstrations), some implicit (“understanding” acquired from supervised practice and observation)” (Wilensky 1964, pp. 149–150). The profession’s body of theory is like a reservoir from which the professional draws as needed. Although professionals do not directly use much of their abstract knowledge in normal day-to-day practice, society expects professionals to possess a high degree of knowledge and be able to muster all of their knowledge for a crisis—or at least have it on call (Goode 1969, pp. 282–283).

Professional Authority

Professional *authority*, while conceptually distinct from knowledge, is intimately linked to the profession’s body of theory. “The authoritative air of the professional is a principal source of the client’s faith that the relationship he is about to enter contains the potentials for meeting his needs” (Greenwood 1957, p. 70). Stated another way, the client finds a sense of security in the professional’s assumption of authority. We do well to ask, “From whence comes professional authority?”

In the classical sense, authority signifies the “rightful, actual, and unimpeded power to act;” it is power that is in some sense legitimate and justified, and therefore compels trust or obedience (Packer 1982, p. 108). In the professional-client relationship of the Functionalist Era, it is the professional who possesses authority, with the client being in a subordinate position; thus, professional authority is an expression of social control. Historically, professionals drew authority from their high social position (Haber 1991, pp. 5–6). But in the mid-Nineteenth Century, the fundamental source of cultural inspiration and legitimacy shifted to science, and scientific knowledge increasingly began to dominate intellectual and professional life (Kimball 1992, pp. 200–211).

Although professional authority retains some vestiges of status authority, in the Functionalist Era the principal basis for professional authority was scientific expertise. This scientific authority rests on two sources of social control—legitimacy and dependence. As for legitimacy, academic knowledge legitimizes professional work by clarifying its foundations and tracing them to major cultural values, typically those of rationality, logic, and science (Abbott 1988, p. 54). Thus, through their expertise the professions appropriate the cultural validity and authority of scientific knowledge. With regard to dependence, the kind of authority claimed by professions here involves not only skill in performing services, but also the capacity to judge the experience and needs of clients. Control is expressed, in part, by the client’s dependence on the professional’s superior competence, with the client’s acceptance of authority signifying “a surrender of private judgment” (Starr 1982, pp. 10–11). The distinction between *customers* and *clients* illustrates this point:

A nonprofessional occupation has customers; a professional occupation has clients. What is the difference? A customer determines what services and/or commodities he wants, and he shops around until he finds them. His freedom of decision rests upon the premise that he has the capacity to appraise his own needs and to judge the potential of the service or of the commodity to satisfy them. The infallibility of his decisions is epitomized in the slogan: “The customer is always right!” In a professional relationship, however, the professional dictates what is good or evil for the client, who has no choice but to accede to professional judgment. Here the premise is that, because he lacks the requisite theoretical background, the client cannot diagnose his own needs or discriminate among the range of possibilities for meeting them (Greenwood 1957, p. 70).

Professional authority calls for voluntary obedience; it is usually enough that clients recognize they ought to follow their professional’s advice in awareness of the foul consequences that will befall them if they do not. Stated another way, the authority of the professional is “...more than advice and less than a command, an advice which one may not safely ignore” (Starr 1982, pp. 9–10, 14). Symbols of professional authority—diplomas and certificates, the number of technical aids in an office, the number of articles and books on the professional’s résumé, and the like—serve to inform and reinforce the client’s awareness of his or her dependency (Bledstein 1976, p. 96).

Professional authority suggests a relatively wide knowledge gap between the client and the professional; it highlights the layman’s comparative ignorance and need in contrast with the professional’s knowledge and competence (Parsons 1951, p. 439; Ritzer 1972, p. 57; Greenwood 1957, p. 70). This gap between professional and lay knowledge constitutes the historical and logical basis for two well-known professional taboos—advertising and fee-bidding for professional services. In both of these instances, professional ideology holds that clients lack the ability—the discriminating capacity—to capably select from among competing practitioners or forms of service based on such information (Greenwood 1957, p. 70). In fact, this ideology views advertising and fee-bidding as contrary to the client’s best interests, if not potentially reckless—even dangerous, since by their very nature these actions tend to reduce the complexities of professional work to secondary if not surface-level concerns (self-acclaim or money), while giving the appearance of substance and insight. Such tricky practices can dupe clients into assuming they know the relevant factors that ought to be considered in a decision (a false sense of security), when in fact they do not, and possibly cannot. The ideology holds that these judgments should properly be left to the professional who alone possesses the requisite knowledge to advise the client as to “what ought to be done.”

Education

Prior to the Functionalist Era, from the mid-Nineteenth Century through the first decades of the Twentieth Century, engineering experienced a gradual shift from “rule of thumb” to “rule of science” (Haber 1991, p. 296). During this period, education became the institutional locus for the cultural ideal of science, but engineers only reluctantly embraced it—ostensibly because of the value they placed on “practical know-how” as opposed to “book-learning.” Nevertheless, by the beginning of the Functionalist Era (1930s–1940s), higher education and professionalism for engineers were firmly emplaced.

Inasmuch as universities and graduate schools are the producers of professionals and the producers of professional knowledge

(Larson 1977, p. 50), the link between higher education and professionalism cannot be stated too emphatically. The primary purpose of the professional schools in American universities is to transmit formally a body of expert knowledge that will enable the professional to practice his or her skills at an acceptable level of competence (Freidson 1994, par. 20). A secondary purpose of higher education—not always acknowledged because it is achieved not through formal instruction, but through contact with faculty and peers—is the transmission of values, attitudes, and commitments that serve to assimilate the novice to a set of professional attitudes and controls, professional conscience, and solidarity (Hughes 1958, p. 33; Perrucci and Gerstl 1969a, pp. 55–56).

In addition to transmitting professional knowledge and values to students, an equally important responsibility of the university is to develop new and better knowledge and theory on which professional practice is based (Barber 1965, p. 20; Mok 1973, p. 108). Thus, a division of labor exists between the practice-oriented and the theory-oriented person, with the latter devoting his or her professional career to scientific investigation and theoretical systematization. This spawns accelerated expansion of the body of theory and increased specialization (Greenwood 1957, p. 69).

By way of application, it is appropriate to note that, unlike the classic professions of medicine, law, and the clergy, educational requirements for professional status in engineering are met by an undergraduate degree. From the first decades of the Twentieth Century when engineering education became normative, on to the Functionalist Era at midcentury, and even now at the dawn of the Twenty-First Century, the baccalaureate degree alone has been viewed as sufficient for professional status in engineering. This said, the on-going debate regarding the first professional degree (Russell et al. 2000, pp. 54–63) can only be favorably impacted by a more informed understanding of what professionalism means. In fact, given the historical and logical precedence of the profession to the university (namely, the university as servant of the profession and not the other way around), by all rights the more fundamental issue of professional identity should be addressed first: Engineers must agree on “what they want” before they decide “how to get there.” These and other professional issues depend to a large degree on the second attribute of a profession, its distinctive *organization*.

Organization

Professional Associations

Professional occupations have their own unique forms of organization and control, with the professional association, or society, being one obvious example. The professional associations constitute an expression of group consciousness and unity borne of members' common vocational experiences, interests, and aims. Their broader purpose is to strengthen and elevate the profession's status, which they do through defining professional issues and priorities, maintaining standards of performance, and controlling access to the group. Associations seek to serve the internal needs of their professional members while also offering a united front to the various external interests and public entities that interface with the profession.

Typical association activities internal to the professional community promote communication—calling meetings, holding conferences and conventions, presenting papers on intellectual and professional concerns, taking unified action on matters of common interest, and publishing technical journals; each of these

serves to enhance communication among professionals. For “whatever else a professional association does as a collectivity, it provides formal (and persistently informal) means of communication among its constituents” (Moore 1970, p. 158).

The professional associations seek strong—ideally, *full*—membership from the practitioners such that, externally, the associations may profess to speak for the collective interests of the group. Because the professional person is strongly oriented toward his or her peers, even when he or she competes with them for clients and for public and professional prestige, there exists a high potential for networking and establishing professional relationships. Younger members have the opportunity to see the acknowledged leaders in their chosen field, and perhaps meet them informally. Rank and file members, elite practitioners, and the isolated professional who has no colleagues in his or her department—all may participate in the business of their society through presenting, listening to, or discussing technical papers, sitting on committees, and the like, and as such they may affirm their identity as representatives of their chosen profession (Moore 1970, pp. 158–159).

The professional association offers a clear expression of the professional culture, which consists of its values, norms, and symbols (Greenwood 1957, pp. 74–75). According to Greenwood, the values of the group are its “basic and fundamental beliefs, the unquestioned premises upon which its very existence rests.” Commonly held professional values include the essential worth of the profession's service to society, authority over clients, self-control, and the values of rationality and neutrality in the professional's science. Professional norms are its guides to behavior in social situations: Professions have a system of role definitions that covers “every standard interpersonal situation likely to recur in professional life.” The symbols of a profession reflect the culture and include such meaning-laden items as its “insignias, emblems, and distinctive dress; its history, folklore, and argot; its heroes and its villains; and its stereotypes of the professional, the client, and the layman.” The idea of a professional culture can be expanded to view the profession as a community because its members are bound by a common identity (Ritzer 1972, p. 63). One of the association's more gratifying community functions is to recognize and honor its members for distinguished service and contributions to the profession and to society.

Apart from the preceding general discussion, the development of professional associations in engineering warrants specific mention. *The Revolt of the Engineers* (Layton 1971) exposes the inherent tensions between business and professionalism for engineers, and describes how engineering professional associations have taken different views on this fundamental issue. Layton states, “The balance between ‘business’ and ‘professionalism’ has been one of the most important forces in the formation and evolution of engineering societies in America. Most American engineering societies represent compromises between business and professionalism” (Layton 1971, p. 25).

Monopoly and Licensing

If professional associations are the obvious case of professional organization and control, only slightly less obvious are the monopolization aspects of professional work. Professions seek the formal sanction of society—a *de facto* monopoly over their particular area of jurisdiction (Greenwood 1957, pp. 71–72). Pointing to the legitimate authority of their knowledge and expertise as well as their ethic of professional service, the professions establish institutions that make society's judgments of secondary importance and the profession's judgments paramount (Hughes

1958, p. 141). Society grants this degree of power to professionals because they are persuaded that "...no one else can do the job and that it is dangerous to let anyone else try" (Goode 1969, p. 279). The profession's official monopoly exists through the profession's control over its training centers, use of the professional title, the professional license, and other privileges and powers.

As already noted, the university is inextricably linked to professionalism. Professions are prominently involved in the process of higher education through the customary practice that both professional associations and individual practitioners participate directly in the accreditation process, thus influencing the curriculum, instruction, and overall standards for professional education and training. This is a distinctive characteristic of the professions: "Only one professional can train or judge another" (Ritzer 1972, p. 60). Another aspect of the profession's monopoly over knowledge and education is its use of technical jargon. The fact that professionals communicate in a sometimes "closed and esoteric vocabulary" perpetuates the art and mystery of their knowledge base and supports their monopoly of skill (Brown 1992, pp. 21–22).

Legal controls also figure in the professions' monopoly. As a means of maintaining credibility and control, the professions hold that no one should be allowed to wear the professional title who has not been conferred it by the appropriate authorities (Greenwood 1957, p. 71). They seek legal protection of the professional title, particularly when the area of jurisdiction is not clearly exclusive (Wilensky 1964, p. 145). "Engineer" is a case in point: It is explicitly defined and can only be used as specified by law.

Professions seek monopoly over their jurisdiction through state licensing laws that regulate professional practice. Interestingly, this is one of the weaker forms of control, since, of necessity, the state only distinguishes the "...qualified from the unqualified, and it has not as a rule concerned itself with nice refinements or degrees of professional skill which might blur this fundamental distinction" (Carr-Saunders and Wilson 1933, p. 352). The profession's *standard of care* is a similarly defined legal matter. The point is that, given the esoteric nature of scientific expertise, it is important not to penalize errors of opinion, or to frighten practitioners into always "playing for safety," but instead to encourage professionals to apply their knowledge and skill toward solving admittedly difficult if not sometimes unsolvable problems (Carr-Saunders and Wilson 1933, p. 400). Thus, legal standards for professional practice only address the minimal level of competence. And although this is appropriate as a legal standard, practitioners (in the Functionalist Era, anyway) looked to norms developed by the professional group that were more stringent than those with a legal basis: "Thus, the real source of control over an individual professional lies in the hands of the profession, with society's (legal) control being weaker. This mechanism allows the profession to maintain its autonomy" (Hall 1969, p. 77). As we shall see, *autonomy* is the key indicator of professional control.

Professional Autonomy

The normal definition of autonomy is "...the quality or state of being self-governing; especially: the right of self-government" ("Autonomy" 2000). For the professions, autonomy means that the profession considers itself the proper body to set the terms in which its particular aspect of society, life, or nature is to be thought of, and to define the general lines, and even the details, of public policy concerning it (Hughes 1965, p. 3). On the personal (attitudinal) level, autonomy is related to the feeling that the professional is free to exercise his or her judgment and discretion in professional practice (Hall 1969, p. 81).

Autonomy must not be confused with professional *authority*. Recall that authority is the professional's legitimate and justified power to act in the affairs of the client on matters within the professional's jurisdiction and competence. This authority derives from both the professional's honorable character and status and, more directly, the professional's mastery of and ability to apply scientific knowledge. Professional authority compels the client (who is in a state of dependency) to trust the professional, in the belief that the professional can do the job and will look out for the client's interests. Therefore, "authority and trust go hand in hand" (Marquand 1997, p. 146). The professional *has* to be trusted if he or she is to do his or her work (Goode 1969, p. 296). It is here that autonomy enters the scene: Autonomy corresponds to the degree to which trust actually occurs in the professional-client relationship. In other words, autonomy indicates how much the client (or society) actually believes the professions' authoritative claims. For example, the client might completely trust the professional's skill and competence (at the individual level) as well as the larger professional structure, including its development of theory, educational and training centers, licensing process, professional ideals, and the like (the occupational level). Such complete trust will translate into full autonomy for both the individual practitioner and the profession; they are free to act, with the only proviso being the expectation that they do what *they* think is best. But, for a number of reasons, the client might not fully trust in the ability of the profession or a particular practitioner to capably handle his or her affairs. In this case, the client will grant only limited autonomy and will require other reassurances besides the word and acts of the professional. Of course, our concern here is with the ideal-typical profession, where authority will be completely valid, trust will be high, and, correspondingly, autonomy will be full.

One illustration of autonomy is that a true professional, according to the ideology of professions, is never "hired." Rather, he or she is retained, engaged, consulted, etc., by someone who has need of his or her services. Thus, the professional has, or should have, almost complete control over what he or she does for the client (Hughes 1965, p. 9; Haug 1975, p. 207). Professional autonomy means freedom—freedom for the professions "to regulate themselves and act within their spheres of competence" (Wilensky 1964, p. 146), otherwise known as financial autonomy and technical autonomy, respectively. The complexities of autonomy become apparent when one realizes that autonomy exists at the occupational and the individual levels, as well as both internally and externally to the profession. Different analysts have studied different aspects of this issue (Hall 1969, p. 81; Perrucci and Gerstl 1969a, p. 12; Daniels 1973, pp. 41, 52; Fridson 1973, p. 33), but whatever the forum, freedom to self-regulate is the key:

Students of the professions have pointed out that the autonomy granted to professionals who are basically responsible to their consciences (though they may be censured by their peers and in extreme cases by the courts) is necessary for effective professional work. Only if immune from ordinary social pressures and free to innovate, to experiment, to take risks without the usual social repercussions of failure, can a professional carry out his work effectively.... The ultimate justification for a professional act is that it is, to the best of the professional's knowledge, the right act. He might consult his colleagues before he acts but the decision is his (Etzioni 1969, p. x).

Such freedom is not without obligations. The professions exercise great care to explain why professional autonomy is not a matter of self-interest, but is a requirement for offering the best possible

service in the *public's* interest. These explanations reside in the professions' ethical codes, which "...stand as the sign of the type of self-policing the professional group offers when justifying its desire for autonomy" (Daniels 1973, pp. 45–46). Thus, we now direct our attention to the third attribute of a profession, the *ethic of professional service*.

Ethic of Professional Service

Service Ideal

As we consider the ethic of professional service, it will be helpful to briefly review the professional attributes discussed thus far. First, a professional is a person who owns expertise, who has mastered a body of knowledge, including both practical know-how and esoteric theory. He or she usually gains this mastery through formal, university education and extended training. Such knowledge is the primary source of professional authority, which legitimately places the professional in a position of control over the lay client. Second, distinctive forms of organization and control characterize the professions, with such organizational forms also reflecting the profession's unique expertise. Professions establish professional associations, they seek a monopoly to practice in their area of jurisdiction through licensing and related means, and, most important, professions possess a high level of autonomy—the freedom of self-regulation. The writer introduced the key point that the nexus of authority and autonomy is trust, for autonomy exists only to the extent that vulnerable clients believe the authoritative claims of individual practitioners and the professions. The trust relationship places moral obligations on the professional, which brings us to the third attribute of a profession: the embodiment of these moral obligations as "the ethic of professional service"—or, alternatively, "the service ideal."

The service ideal expresses the notion that "the technical solutions which the professional arrives at should be based on the *client's* needs, not necessarily the best material interests or needs of the professional" (Goode 1969, p. 278, emphasis mine). In other words, the service ideal obligates professionals to place their client's needs above their own and to perform well in arenas where they generally are immune to their client's oversight (Bachner 1991, p. xii; Hall 1969, p. 75). In contrast to the norms of business—where commerce is among traders and *caveat emptor* (let the buyer beware) is the rule—the service ideal recognizes and accounts for the dependent and vulnerable position of the lay client and embodies a different, more genteel, rule: *credat emptor* (let the buyer trust) (Hughes 1965, p. 3).

We may ask, How did the service ideal come into being? Have professionals always had this obligation? In response, apart from much recent scholarship that takes a skeptical if not cynical view of the service ideal, two explanations have merit. One view places the origins of the service ideal in the honorable and dignified bearing of the landed gentry of Eighteenth-Century England (Haber 1991, p. ix). The second, that of Bruce Kimball, traces the service ideal to the clergy of Colonial America and what has been called the *Protestant ethic*—this in turn deriving from Christ's dialectical servant claims as recorded in the Gospels of Mark and Matthew [Mark 10:42–45, especially vv. 43–44: "...But whoever wishes to be great among you shall be your servant; and whoever wishes to be first among you shall be slave of all" (Kimball 1992, pp. 32–33, 103)]. The point is that the ethic of placing someone else's interests ahead of one's own, especially when that someone else is in a weaker or subordinate position, has been around for hundreds if not thousands of years. Regarding the professions, this was viewed as fully consistent with the notion of profession-

alism and became subsumed by it, so much so that the terms "professional" and "ethical" have been used interchangeably (Greenwood 1957, p. 72).

As a norm of behavior, the service ideal of the Functionalist Era provided the basis on which trust was erected and thus enabled the institutionalization of trust between the client and the professional. This formalized protocol was particularly important in times of crisis when, as is often the case, the relationship between practitioner and client was among strangers (Perrucci and Gerstl 1969b, p. 15). The service ideal was thus the preferred means to regulate professional-client relationships. Consider, for example, what would happen if the service ideal did not exist:

The client is peculiarly vulnerable; he is both in trouble and ignorant of how to help himself out of it. If he did *not* believe that the service ideal were operative, if he thought that the income of the professional were a commanding motive, he would be forced to approach the professional as he does a car dealer—demanding a specific result in a specific time and a guaranty of restitution should mistakes be made. He would also refuse to give confidences or reveal potentially embarrassing facts. The service ideal is the pivot around which the moral claim to professional status revolves (Wilensky 1964, p. 140).

Aspiring practitioners internalized the attitudes and values embodied in the service ideal during professional training, so that appropriate behavior became "natural" and external social controls would not be required later: "The professional is taught to monitor himself" (Daniels 1973, p. 43). Internalization of the service ideal at the individual level also was expressed as a group phenomenon: "...Members care very much about each other's good opinion" (Daniels 1973, pp. 43–44).

Although the service ideal is complex and has been viewed in different, not necessarily compatible, ways (Kimball 1992, p. 316), the key point is that the service ideal embodied acceptable norms of behavior that the professions of the Functionalist Era saw as a form of internalized self-regulation. For many years *internalized* was indeed the operative word, for not until the dawn of the Twentieth Century did the professions expressly write out their ideals of service in the form of codes of ethics.

Regulative Code of Ethics

Between 1904 and 1922, practically every established profession in existence developed a code of ethics (Wilensky 1964, p. 143; Adams 1993), with civil engineering adopting its own code in 1914 (ASCE 2001). Even though the service ideal was clearly accepted as part of professional ideology, codes of ethics did not follow as an obvious necessity, and some engineers viewed them with deep ambivalence:

There has been much discussion by engineers of the need of adopting a comprehensive code in order that the ideals of the profession may be presented clearly to the young engineer. On the one hand, these efforts have been scoffed at; indeed, in the case of one of the national engineering societies, it was "decided that no gentleman needed a code of ethics, and that no code of ethics would make a gentleman out of a crook" (Newell 1922, p. 133).

But beginning with electrical (in 1912), followed by mechanical and civil (both in 1914), these three founder engineering societies adopted ethics codes (Layton 1971, p. 70), with the goal being to outline generally approved ways of accomplishing the "universal" good (MacIver 1955, p. 52). "Through its ethical code the profession's commitment to the social welfare becomes a matter

of public record” (Greenwood 1957, p. 72). Ethics codes were commonly understood as *not* self-enforcing. Professional associations, being nominally a society of equals, adopted other procedures to enforce discipline; often an internal, quasi judicial body commonly known as a “committee on ethics” reviewed complaints and, if necessary, recommended disciplinary action (Moore 1970, p. 116).

Among other things, codes of ethics of the Functionalist Era place significant restrictions on the financial and competitive aspects of professional practice: They hold service to humanity as paramount and relegate financial gains or rewards to a subordinate consideration (MacIver 1955, p. 51). For example, the codes forbid specific forms of indirect remuneration because they might lead to a conflict between duty and self-interest (Carr-Saunders and Wilson 1933, p. 432). These and other restrictions affect the professional’s relationships with both clients and colleagues. In the case of clients, the functionalist view was that professionals ought to give maximum caliber service: “The nonprofessional can dilute the quality of his commodity or service to fit the size of the client’s fee; not so the professional” (Greenwood 1957, p. 73). Colleague relationships, in a similar vein, were to be “cooperative, equalitarian, and supportive” with intraprofessional competition being “a highly regulated competition, diluted with cooperative ingredients which impart to it its characteristically restrained quality” (Greenwood 1957, p. 73). Furthermore, professional ideology held that these types of ethical behaviors were “good business” and inherently practical: “A reputation for honesty and competence enhances the desirability of a practitioner to his clients and thus the rewards available to him in his professional career” (Daniels 1973, p. 44).

As would also be expected given the professions’ tie to expertise, competence was viewed as not only a technical but an *ethical* issue. Going beyond the minimum standards for admission to a profession, competence also incorporated the maintenance and improvement of both personal and collective skills and practices. “Despite the patent difficulty of doing so in the contemporary world, the professional is supposed to keep current with developments in his field, so that his clients do not seriously suffer relative harm from his failure to do so... . Competence is for a purpose: conscientious performance” (Moore 1970, pp. 13–14). Such high demands and intense commitment to the profession resulted in the professional career being termed a “calling.”

Professional Career

In a manner similar to this discussion of the ethic of professional service, the idea of the professional career being a calling also has theological roots in the Protestant ethic of the Seventeenth and Eighteenth Centuries. Simply put, a calling carries the idea that one’s worldly vocation is the realization and fulfillment of one’s spiritual vocation (Kimball 1992, pp. 33–34). It enshrines “an avowal to a higher purpose” (Wittlin 1965, pp. 91–92): “The very idea of professional *callings*... suggests that individuals who enter professions are called by inner promptings to provide some service to humanity, their country, or God” (Daniels 1973, pp. 42–43).

That the professional career of the Functionalist Era was viewed as a calling carries significant implications. One is the intensive level of commitment involved—this being reflected in how the profession constituted a lifelong career and elicited strong identification with the work (Perrucci and Gerstl 1969b, pp. 12–13). A profession was typically the terminal occupation for its members; the financial and temporal investment in the occupation was such that the trained professional typically did not

leave the profession (Hall 1969, p. 77). Another implication of calling was the professional’s dedication to the work and the feeling that he or she would probably want to continue in the occupation even if fewer rewards were available (Hall 1969, pp. 81–82). Long years of preparation to enter the profession and long hours of practice to do the work of a profession were the norm (Moore 1970, pp. 7–9). Identity is yet another: A person’s work was one of the more important parts of his or her social identity and of the self (Hughes 1958, p. 43). Thus, “To the professional person his work becomes his life” (Greenwood 1957, p. 75).

Engineering Views on Professionalism

I have thus far described in detail the ideal-typical attributes of a profession, claiming that these attributes are bound up with the functionalist view of society that dominated America in the middle years of the Twentieth Century. This clear and detailed picture of classic professionalism carefully situated within its societal context is the first step to unlocking the contemporary meaning of professionalism. But given all that has been written about professionalism, why was this necessary? The answer lies in the presupposition that a century of civil engineering literature discusses professionalism in similar terms, but without capturing the social implications of such definitions. Evidence for this claim follows.

Civil engineering literature dating from the origin of ASCE publications in 1867—the transactions, proceedings, and *Civil Engineering* magazine—contains hundreds of papers and articles on professional issues. However, ASCE literature does not robustly and specifically address the topic of professionalism until the 1930s. The first four cumulative indexes of ASCE transactions (published in 1908, 1912, 1921, and 1934) do not even contain an entry for the word “professional” in the subject index. The category “professional standards” first appears in the 1948 cumulative index, and here only as a heading to direct the reader to the established heading “engineers and engineering.” Prior to the 1930s, references to professionalism mainly appear in the president’s annual address to the society, but beginning in 1930 (the first year of *Civil Engineering* magazine), ASCE began to devote more attention to the topic. Publications picked up momentum in the 1940s, and interest in professionalism appears to have reached a peak in the 1950s: ASCE first published the *Journal of Professional Practice* in 1958.

As a subset of published articles on professionalism, civil engineers have written explicitly on the definition of professionalism, as shown in Table 1. By covering all decades of the Twentieth Century, Table 1 is highly selective, in that the articles identified therein either define professionalism outright, or reference prevailing definitions of the term, or describe professionalism in general terms such that the idea is to communicate what professionalism means. As such, the entries in Table 1 are among the more clear presentations of the definition of professionalism as determined by a systematic search and selective review of ASCE publications.

The most significant aspect of ASCE definitional literature on professionalism is that the papers referenced in Table 1 by and large describe professionalism only one way—in terms of the ideal-typical traits common to functionalist social theory. As already noted, society has since moved on to other, more cynical and conflict-oriented views of the professions and of life, but in contrast, the civil engineer’s view of professionalism depicted in ASCE publications is relatively constant. With a few notable ex-

Table 1. Articles in ASCE Transactions, Proceedings, and *Civil Engineering Magazine* on the Definition of Professionalism, 1867–2000, Grouped by Decade

Decade	Title of paper or article	Author
Before 1900	None	—
1900s	“The engineer of the Twentieth Century” “The engineer as a professional man”	Moore (1902) Benzenberg (1907)
1910s	“The philosophy of engineering”	Parsons (1914)
1920s	None	—
1930s	“Professional status of the engineer” “Trends in engineering as a profession in the United States of America”	Wickenden (1930) Eddy (1934)
1940s	“Standards of professional relations and conduct” “On the meaning of ‘professional’” “Defining the ‘professional engineer’” “What is professional recognition?”	Mead (1941) Dougherty (1943) Harvey (1944) Dougherty (1947)
1950s	“Is the practice of engineering a profession or a business?” “The engineering profession in evolution” “The paradox of professionalism in engineering education” “Elements of professionalism for the engineer” “Methods of accomplishing professional development”	Baker (1950) Finch (1953) Wilbur (1955) Chandler (1958) Dougherty (1959)
1960s	“The professional engineer as an employee” “Effective teaching of professionalism”	Butrico (1961) Taylor (1962)
1970s	“Professionalism in construction” “Professionalization—and a relevant code of ethics” “The ethical dimension of professionalism”	Meyer (1973) Schrader (1974) McCuen (1979)
1980s	“Professionalism and building systems” “Putting professionalism in a professional career” “Ethics of professionalism” “Professionalism: Is it going or coming?” “Professionalism and the civil engineer”	Ellifritt (1981) Reed (1983) Muspratt (1985) Kennedy (1986) Gobas (1988)
1990s	“Professionalism” “Need for ‘professional’ education for professional engineers” “Engineering and professional responsibility” “Practice of professionalism” “Ethical responsibilities of the engineering profession”	Bell (1990) Fenske and Fenske (1990) Baker (1991) Oates (1993) Holliday (1994)

ceptions (Bachner 1991, pp. 1–24; Harris et al. 1995, pp. 27–33), general engineering texts that define professionalism appear to follow this same static trend (Canfield and Bowman 1948, pp. 269–271; Nord 1956, pp. 262–264; Mantell 1964, pp. 123–125; Beakley and Leach 1977, pp. 115–117; Kemper 1982, pp. 96–100; Martin and Schinzingler 1996, pp. 24–27; Johnston et al. 2000, pp. 571–579).

So despite more than *10 decades* of civil engineering scholarship on the definition of professionalism, most of what has been published about the topic was already known by the 1950s, and most of the work that has appeared since the 1950s is essentially unchanged from that time. Why, then, is the definition of profes-

sionalism vague for today’s engineer (Oates 1993, p. 44)? My argument is that social norms, common knowledge, and engineering literature in the 1940s through the 1960s did a good job of explaining professionalism to the engineers of that era, but because society has changed, this is no longer the case. Understanding professionalism today by reading the literature is like a genealogical search for family likeness through examining reproductions of old and faded photographs, some of which may never have had high image quality in the first place. Part of the meaning of professionalism is now obscure or lost; descriptions of the traits are reduced to simple lists, professional roles are confused, and implications of the traits for professional practice

lie buried and unrecognizable. And this is all inexorably complicated by the fact that professionalism has not remained constant, but is changing, even as society has changed. The result is that the contemporary meaning of professionalism is now out of focus.

Summary and Conclusions

Knowledge, organization, and the ethic of professional service—these, then, are the attributes of a profession that set the standard for what professionalism meant in the middle years of the Twentieth Century. In contrast to the ambiguity, tension, and change inherent in today's professional world, in the post-World War II era, professionalism could be defined in reasonably certain terms, and this is the reason why I chose to call this period the golden years. Even today, such ideals can inform much of professional education and practice, for vestiges remain. But we must all be careful to realize that, indeed, times *have* changed. The professional ideals described herein apply to concepts of society, clients, and practitioners that no longer match much of Twenty-First Century reality—and in the case of civil engineering, perhaps some of them never did.

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