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COMMENTARY

A Perspective on the Proposed Global Professional Credential

Robert K. Elliott

Robert K. Elliott is a Partner in KPMG LLP.

You have no doubt heard of the proposed global professional credential, under such placeholder names as XYZ or Cognitor, that would supplement the CPA. At this writing, the AICPA and state societies are in the midst of a program to inform AICPA members sufficiently about the new credential to enable them to determine their interests and vote on whether to pursue the project to conclusion. The purpose of this article is (1) to put the project in the context of market forces affecting the accounting profession and all other knowledge-work professions and (2) to present my view of the appropriate skill set for a holder of the new credential.

The need for a new credential is separate from the specific proposal to create one now under consideration. New economic conditions are having profound effects on the knowledge-work professions. As a result, and whether the accounting profession goes ahead with the new credential concept now facing a ballot, one way or another the forces affecting our marketplace will have their effects on the profession's opportunities and viability. The validity of the new credential concept must be seen in light of these circumstances.

This article is not intended as an indirect entrance into the debate about the new credential, but it does put me squarely in the camp of supporters of the multinational initiative. My position is consistent with my part in the initiative from the start. I contributed to the project's development. Nevertheless, what I have to say here is broader than most of the debated issues, is my own interpretation of the historic role of the new credential, and presents my own view of the body of knowledge that should define the needed professional.

A few words of background for those readers unfamiliar with the proposal: The AICPA and Canadian Institute of Chartered Accountants initiated the project for a new credential. The conception was at all times international. AICPA representatives worked with members of a consortium of accounting institutes from around the world. All agreed that the profession could not ignore certain market trends without inviting peril or other trends that represent unprecedented opportunities. The reach of the current CPA and CA credentials as brands creating market permissions for new services was approaching its limits. All also agreed that a new, broad international credential was the right response.

The credential would be wholly private (that is, wholly nongovernmental), owned by a global institute, and granted by national credential-granting organizations in participating countries. The national credential-granting organizations would be established by institutions the global institute enfranchised as partners. The AICPA or an affiliate would be an enfranchised partner. The global institute would create ethical and performance standards for member professionals and control the credentialing qualifications, which would be the same in all participating countries. In this sense, and because of the international component of the knowledge that will define the credential, it will be international. (Additional details are available at <http://www.globalcredential.aicpa.org>.)

THE NEW MARKETPLACE

Demand for business services has grown astonishingly over the past generation. The CPA profession's prosperity during this period owes much to that demand. Other professions benefited as well. Moreover, the market for business services promises to grow still further in the future.

Causes

The chief source of the new demand for these services has been the information revolution. It has transformed the economy from industrial to post-industrial—that is, to the so-called “knowledge economy.” The revolution is far-reaching and ongoing. More than anything else, the information revolution created the need for additional business services and service providers and the incredible opportunities that await them. In particular it created a need for professionals who could provide *information services*.

The information revolution is still young, but the role of information in economies has a very long history. Information technology and information products and services go back to the beginning of mankind: language is information technology, and myth is an information product. Accounting information and law are also information products that go back to ancient times. Audits are information products with centuries' worth of pedigree. For most of history, information products and services were essential to wealth-creating structures, but they were not the primary way in which people earned their keep, maintained themselves, and contributed economically to society. Agriculture and later manufacturing were the dominant generators of wealth and well being. Only recently have knowledge work, products, and services become the dominant form of wealth creation.

Some feeling for the chronology is provided by identifying when our society became aware of the information economy. Porat's (1977) book, which defined the information economy and attempted to measure it, is a useful starting point.

Porat (1977) acknowledged his intellectual debts to predecessors, notably Fritz Machlup (1962), and Peter Drucker began using the expressions “knowledge work” and “knowledge worker” in the 1960s. Even so, the view Porat presented did not suddenly become widespread. A few years later, a *Wall Street Journal* article referred to “a viewpoint newly gaining some prominence...a trend as fundamental as ever to have transformed the U.S. economy—the switch to an ‘information economy’ from one based on manufacturing” (Janssen 1981, A2).

The concept is broader than computerization. Computers pre-date Porat by many years. IBM led the way in the era of punch-card computers and mainframes, and by 1977 we were almost poised to enter the personal-computer era and a new generation of computing marked by stunning advances in computing power. Apple was formed in that year; Microsoft organized as a partnership in 1975 and incorporated in 1981; Compaq



came along a year later. The microprocessor had been invented in 1971. But Porat (1977) was not talking only about the electronic manipulation of data and its transmission to other computers, networks, or terminals—what we are familiar with as the drivers of the information revolution. He included in the information economy all the resources consumed in producing, processing, and distributing information goods and services. Intellectual capital included typewriters, telephones, copiers, computers, and satellite dishes. Information workers included secretaries, clerks, personnel directors, designers, managers, accountants, and lawyers. Information goods and services included not only paper, other office supplies, and telecommunications equipment, but also business consulting and legal advice.

Today most of the noncomputer knowledge-work activities Porat (1977) described are heavily influenced by computers and telecommunications, if not absorbed by them, just as some tax and accounting activities have been taken over by software. The computer-telecommunications revolution now led by the Internet became the mainspring of the information economy, with growing online sales and services, dramatic bandwidth advances, and new and changing relationships among businesses, employees, customers, and suppliers. The Commerce Department recognized the importance of Internet business last year by unveiling a new index to track its retail sales and the Department's plans for business-to-business e-commerce data (Dreazen 2000, A2). Meanwhile, computer-aided design and production processes already have a record of success, and people have become accustomed to ever more powerful computers in ever smaller compartments and to getting increasingly more computing power for each dollar spent. The information economy has transformed the business environment. Innovation comes faster; competition is stiffer; and penalties for stasis are greater. The economy relies less on physical capital and more on intellectual capital.

Effects

Because knowledge has become a basic resource, organizations must determine how to make effective use of the knowledge they have and how to create new, productive knowledge. Peter Senge and other writers created a literature about how to enhance an organization's capacity to learn. Meanwhile, the accounting community is wrestling with the problem of intangibles unreported by GAAP, including corporate knowledge that can be turned to profit. Extreme differences between corporations' book and market values are attributed in part to unreported intangibles. Both organizational-learning needs and the problem of unreported knowledge "assets" are signs of how dependent our economy has become on knowledge (information) and knowledge (information) systems.

This dependency means that information-service providers have opportunities never before possible. Moreover, the information economy has been in its dominant position a relatively short time, compared to the millennial dominance of agriculture and the centuries-long dominance of manufacturing. Dependency on information and information systems will grow as the information economy matures. There may be plateaus and period-to-period differences in the rate of growth, but the long-term trend is clear. The needs generated by the growth of the information economy represent opportunities for information-service providers.

Information services do not grow uniformly. Their variety has already strayed beyond the formal market permissions of the CPA credential. If CPAs want to gain wider permissions in the expanding business-information-services marketplace, they need to add breadth to their credentials.

It is true that CPAs do varied work today—systems work, litigation support, and so on. But the varied work is not within the scope of a CPA credential rooted in protecting the public from defective audits. The convergence of knowledge-work professions means the new markets will, over time, become increasingly more competitive. Neither CPAs nor others have a unique claim to those new markets. No group has a credential that attempts to establish such a claim, even though it will be more of an advantage as the competition intensifies.

It is also true that accounting firm brands, created by long years of reliable service in the marketplace and ever-increasing diversified offerings, have helped their specialists sell different types of information services effectively. However, firm brands can benefit from credentials for their service providers that elicit wider market permissions. All firms competing in markets beyond the reach of the CPA credential can benefit from a credential that matches the scope of their markets.

To summarize, competition and service opportunities are growing; no group has a credential conveying market permissions for the widening set of the evolving services; and opportunity will turn to threat if current branding cannot keep up with the marketplace.

THE CONVERGENCE OF KNOWLEDGE-WORK PROFESSIONS

Other professions are being influenced by the same forces that are transforming accountancy. Information technology has changed the way all knowledge-work professions perform their services and the kinds of services they are capable of providing.

The transformation of the economy has put a premium on knowing how to use information technology to deliver services and achieve objectives. Therefore, although providing information, information-systems, and information-integrity services has always been mainstream work for the accounting profession, other professions' services have been taking on related characteristics.

There is ample precedent for an overlap in services. Tax services delivered by attorneys are as much information and information-integrity services as those delivered by CPAs. Systems work performed by a non-CPA is as much an information service as it is when performed by a CPA. As time goes on, these overlaps should increase.

In addition to the movement of other professions toward accountancy's mainstream functions, there has been for some time an expansion of the CPA's body of knowledge to incorporate what other professions and lines of work treat as part of their own. To illustrate by traditional examples, CPAs have long learned commercial law, and understanding the auditee's business is a long-standing requirement. However, CPAs have been expanding their knowledge of business and information technology. This is reflected in educational efforts to revise the curriculum. Another aspect of the movement within the profession toward other disciplines is CPA services that are performed by non-CPAs. Management consulting contains an expanding variety of services also performed by non-CPAs, and many industry CPAs have responsibilities that non-CPAs also perform. In these ways the reach of other professions toward accountancy is complemented by a reach of accountancy toward other professions.

Putting these points in the jargon of the day, there is a trend toward the convergence of sets of knowledge-work specialties. The set that provides services to improve organizational effectiveness includes CPAs, corporate attorneys, economists, actuaries, risk managers, finance experts, and consultants in such areas as human resources, marketing, engineering, and information technology. Organizations need multidisciplinary approaches to achieve their objectives. Tunnel vision that ignores collateral effects and alternative

sources of advantage cannot create value as well as a multidisciplinary approach. New-economy organizations, their markets, and their constituencies are too interrelated and too complex to maximize value creation without coordinating a high proportion of the elements that can contribute to achieving objectives. This is becoming a standing condition. All professions and business specializations are reacting by some measure of added breadth, and in this way they are converging. They cannot do otherwise if they want to remain competitive and useful.

Convergence is a haphazard process. It is not designed to protect the public or to expand market permissions uniformly. It is not based on a shared foundation of knowledge, ethics, and other requirements to ensure the quality of the services. The economy and the public will benefit if the converging service providers are given a shared foundation.

THE BODY OF KNOWLEDGE

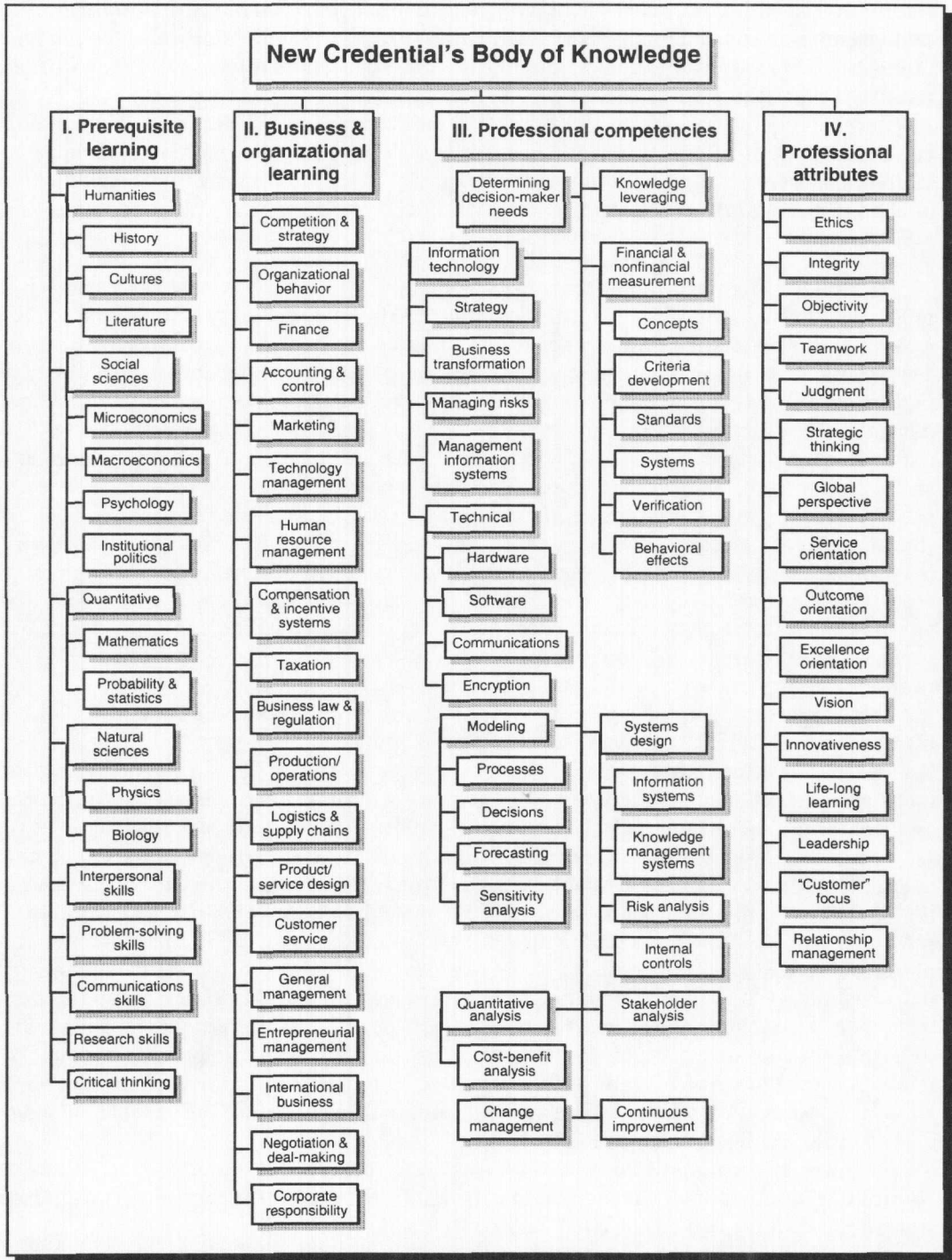
The planned international credential is designed to signify a new profession that meets a wide swath of the information-service needs described above. Ideally, it will be a new profession in the following sense. It will have an identifiable body of knowledge. There will be important continuities and overlaps between the body of knowledge signified by a CPA and the one signified by the new credential. However, the planned credential will signify a body of knowledge with a required breadth that neither the CPA nor any other profession now has, and that breadth will be recognized in requirements and in other features of a profession. The CPA's body of knowledge would be encompassed within the planned credential the way in which a medical specialty, such as thoracic surgery or dermatology, is encompassed within the physician's body of knowledge. It is simply a matter of treating the broader body of knowledge as the general identification and the more particular body of knowledge as the specialty. Thoracic surgery and dermatology are narrower than what is learned to become a physician, but the "MD" signifies above-layman expertise in all ailments, including those calling for thoracic surgery and dermatological procedures.

Time and the ongoing development of the planned profession will make this distinction clearer, even if it is less so in the planned profession's early years. The publicly discussed transition phase seems the reverse, with the specialists (CPAs) acquiring the more general international credential. Ultimately, and at all times conceptually, the new credential would signify possession of the more general body of knowledge.

Even though it has no official name yet, the profession corresponding to the new credential can be defined. It would be linked to the historic role of the CPA and accounting in that it would help people or organizations achieve their objectives through the strategic use of knowledge and knowledge-management systems. Members of the planned profession would combine broad business knowledge with distinctive abilities in knowledge leveraging. In an efficient organization, all workers contribute to achieving the organization's objectives. Certainly the typical chief executive uses knowledge to help achieve the entity's objectives. Thus, working for entity objectives does not by itself distinguish a professional service provider. What will distinguish the professional with the planned credential is the unique combination of broad business knowledge and abilities to leverage knowledge.

The new professional's body of knowledge, as I perceive it, is outlined in Figure 1. No final set of skills and knowledge has been defined by the international consortium working to develop the new credential's conceptual base.

FIGURE 1
The Body of Knowledge



Across the top of Figure 1 are four categories: prerequisite learning, business and organizational learning, professional competencies, and professional attributes. This division means the new professional would not claim that matters properly part of the general education received as an undergraduate are distinctive capabilities. Research, problem solving, communications, and critical-thinking skills are located in the prerequisite learning branch. Those who have not acquired some level of skill in these have not had the fundamentals of a college education. What people appear to mean when they ascribe those four skills to professional education is that they should be sharpened and taught in the context of the profession's body of knowledge, professional situations, and real-world challenges.

The professional attributes branch on the far right of Figure 1 contains qualities accountants associate with professionalism—ethics, integrity, objectivity, and life-long learning. Other professions also value these qualities. All the attributes in this branch are essential to qualifying for the planned international credential, but they are not in themselves distinguishing.

Figure 1's two middle branches are the crux of understanding the definition. Branch II, to the left, is called "business and organizational learning." The skills and knowledge beneath are what is meant by broad business knowledge. The planned profession's competencies in the right-hand side of the two central branches, branch III, include information technology, measurement, systems design, modeling, quantitative analysis, and knowledge leveraging (which is explained further in the next section). As a package, the competencies in branch III are distinctive, but combined with broad business knowledge they are even more so.

The new professional should have integrated, not compartmentalized, knowledge. Figure 1's branches are not hermetically sealed, as the boxed words reveal. For example, "Strategy" appears under branches II and III (under "Information Technology"), and "Modeling," which is separately given in branch III, is also relevant to strategy. The professional's competence in strategy would be expected to include the ability to articulate viable business models, to optimize risk and reward, and to identify competitors' strategic intent, as well as how to treat strategy as a dynamic process—which necessarily includes knowledge of information technology—because sound strategy depends on timely information relevant to needs and opportunities.

The planned profession's body of knowledge will evolve over the years, just as any other profession's body of knowledge must respond to change.

The set of competencies may appear daunting or even unrealistic. It helps to see them in light of the analogy mentioned above between the MD and the new credential. An MD has general knowledge about the other specialties, and all the specialists (thoracic surgeons, dermatologists, and so forth) are MDs who know about medicine in general. No one is surprised when the specialist has MD knowledge and the MD has specialist knowledge.

Another analogy can be taken from the observations of the AAA's (1986) Bedford Committee: "Accounting services are becoming both broader and more specialized." The Committee's report called for increased breadth in accounting education and a broader view of accounting. We can reasonably assume the Committee foresaw the accountant with professional breadth as a person with knowledge of the specialized services the Committee foresaw on the increase, but not necessarily providing all of the specialized services individually or being prepared to provide them all. That is why the Committee stated, "Certain specializations have developed sufficient bodies of knowledge to be

recognized as functional areas within accounting, and others may emerge in the future....Specialized accounting education follows the attainment of the broad introductory knowledge and skills spanning the entire spectrum of the accounting discipline and included in general accounting education" (AAA 1986, 169, 172, 183). There is nothing surprising about specialization within fields of expertise. However, it is a great challenge to achieve the right educational and professional balance between the field itself and the specialties it contains.

KNOWLEDGE LEVERAGING

Knowledge leveraging, the single most distinguishing competency in the planned professional's set (branch III of Figure 1), is not the same as using knowledge to solve a problem. As pointed out above, the typical chief executive uses knowledge to help achieve the entity's objectives, which includes solving problems. Nor is it the same as information technology, which is given separately in branch III of Figure 1. Knowledge leveraging includes the strategic integration of knowledge, integration of the sources of knowledge related to generic problems and defined objectives, and creating new knowledge. More fundamentally, it is knowing *how* to use knowledge to solve problems and achieve objectives. The "how" encompasses all the techniques by which the right kind of knowledge is identified or developed and effectively brought to bear. CEOs who regularly apply knowledge to solve problems do not therefore have knowledge of the full set of techniques that create a knowledge-rich environment designed to ensure, for example, that when problems arise the knowledge needed to solve them is available in a timely manner with consistency.

The "how," to continue, includes knowing how to structure knowledge access for important decisions. For example, it includes knowing how to ensure that knowledge pertinent to the tax consequences of a significant transaction is both identified and available in a timely manner to affect the decision as to whether the transaction should go forward. It includes knowing how to get networks to serve organizational needs for creative thinking, knowledge sharing, and knowledge "harnessing." The latter point, "harnessing" knowledge, means the active application of knowledge, not the quality of being informed and ready because of knowledge sharing.

In a maximally effective organizational network *all* the relevant knowledge within the organization should be able to be brought to bear whenever it is needed. In such a network, knowledge is a resource to be accessed and applied, with appropriate synergies and feedback loops, whenever it helps meet entity objectives. This depends on the understanding and willingness of networked individuals. Knowledge leveraging therefore includes behavioral skills. It is not mechanical, much less prefabricated. Its effectiveness depends on a proper evaluation of an entity's relevant circumstances, including personal and group relationships, habits, and attitudes. Networks are social as well as electronic arrangements (Brown and Duguid 2000).

Knowledge leveraging, safe to say, is not now a separate academic discipline. However, it is analogous to the current and desperately needed academic emphasis on learning to learn. Every course in an ideal college education should enhance one's capacity to learn on one's own. The student learns vocabulary, facts, concepts, and techniques, such as mathematics, research, and inductive and deductive reasoning. These are needed to understand and develop new knowledge, and thereby to acquire it. Those who know how to leverage knowledge know how to empower individuals and organizations with knowledge, techniques, and knowledge systems that enhance their capacity to use knowledge to solve problems and achieve objectives.

At the least, this will require an understanding of decision science and decision models, how model decision steps apply in real-world situations, and how to make knowledge serve decision steps. The competency can help establish the outer limits of information relevant to the decision maker. For example, applying a decision model that specifies the elements of a decision-problem, including the potential solutions that can maximize the decision maker's utility, creates indicators of information relevant to the decision. The other skills in branch III of Figure 1 also play a role. In this sense, knowledge leveraging is the "capstone" branch-III competency, the one that integrates the others into a powerful tool. The knowledge-leveraging competency is admittedly new and awaits further development through research and practice.

Nevertheless, try now to imagine all of the knowledge and skills in Figure 1 as a single set possessed and commanded by individual professionals. The whole would be more than the sum of its parts. The individual who combines this group of competencies is a professional who knows how information and knowledge can be used to help people create value.

The need for knowledge leveraging is put in perspective by its relationship to the increasing dependence on knowledge in the information economy. Increasing dependence does not mean, without qualification, that information or knowledge is more important than it once was. Knowledge has always been vital, whether it was knowing how to make a fire, how to use logs to roll a boulder to a construction site, or what time of year to sow seed. Knowledge of terrain and enemy movements determined the outcome of battles centuries ago. What is different today is that the role of important information is more pervasive in a more complex and faster changing environment. Competitive advantage, for example, derives from generating useful ideas rapidly and applying them without delay, and this means at least obtaining the kinds of information that are input to useful ideas and developing the know-how and systems to take advantage of those ideas. Cycle times for product development are far shorter than they once were, and the number of characteristics that make an item salable is greater than it once was. Design, market research, and customer service have taken their place beside utility, while the types of materials, components, processes, and financial resources for new products and services continue to multiply. In these circumstances, the need for the techniques by which the right kind of knowledge is identified or developed and effectively brought to bear is great and growing.

CONTINUITY AND CONVERGENCE

Accountants have the oldest claim to being knowledge-work experts for business. The notion that accounting is the language of business could never have come about otherwise. Accountants expanded their work enormously since their origins. In recent decades, as we have seen, the movement into new areas of knowledge-work took place during a convergence of different knowledge-work specialties. That helps explain why it is to be expected, as the convergence continues, that non-CPAs would be attracted by the idea of becoming holders of the new credential. CPAs are, of course, the primary population of new credential candidates, both because of the link between their heritage and knowledge-leveraging and because accountancy bodies are taking the initiative. Nevertheless, membership by non-CPAs can be anticipated.

Mere membership by persons from other professions would be nothing new. Multiple credentials are long precedented. There are attorneys, for example, who are also CPAs and CPAs who are also attorneys. Professions are open to people who meet the requirements. Any other policy would be overtly discriminatory and illegal. So there is

nothing extraordinary about saying the new, knowledge-leveraging profession would be open to any party who could meet the requirements, including non-CPAs. However, the link between a new knowledge-leveraging profession and non-CPA professions can be closer than the attraction of multiple credentials.

Facing Common Threats

The new credential would provide a shared professional foundation for services and skill sets stretching beyond the boundaries of any one of the current knowledge-work professions. In trying to understand this point, it helps to focus on the difference between a discipline and a profession. Some knowledge-work disciplines, like accountancy and law, are professions. They have credentials with a long history and have been self-governing and guided by ethical codes for a long time. Other knowledge-work disciplines have fewer of these characteristics. The terms "information technology" and "consulting" can include a variety of knowledge-work disciplines, some significantly different from others and some with fewer characteristics of a profession than others. If brought within the planned profession's framework, then all would be equally "professionalized" in the formal sense. All would be subject to continuing education requirements, ethical standards, and enforcement mechanisms to help ensure quality in the interests of the public and in the interests of the new profession's reputation.

The new credential can also help combat the convergence of threats to knowledge-work professions. Knowledge-work professions are threatened by software and the Internet, even though software and the Internet can be an advantage and an opportunity for new services. Software has replaced some tax and accounting tasks. Software is a threat to all compliance services, and the Internet is a threat to the provision of basic professional information. *Business Week* (2000, EB 62), for example, reports that in 1999, 24.8 million adults searched the Web for health information. Higher education is affected by online schooling, which is less labor-intensive and could affect the demand for professors.

The encroachment of software on knowledge-work professions has a business message: some response to the threat from software and the Internet to compliance, data-gathering, and information-provision services makes good business sense. Knowledge-work professions should want to move increasingly toward advisory services because they will be more remunerative, but the threat of software and the Internet to compliance, data-gathering, and information-provision services is of more immediate concern. The strategic and advisory nature of a knowledge-leveraging profession is likely to appeal beyond the CPA profession because of the common threat to older forms of knowledge services.

Marketing constraints are another threat. As knowledge-work professions extend the range of their services, they tend toward the limits of their credentials. In the case of CPAs, there is even a question whether the credential can be stretched to cover all of the services in the profession's Vision.¹

For example, how could CPAs be accredited in the international services mentioned in the Vision? Auditing and financial and managerial accounting expertise are not expertise in international services. CPAs do perform some information services that can be described as international—from international audits to advice on doing business in foreign

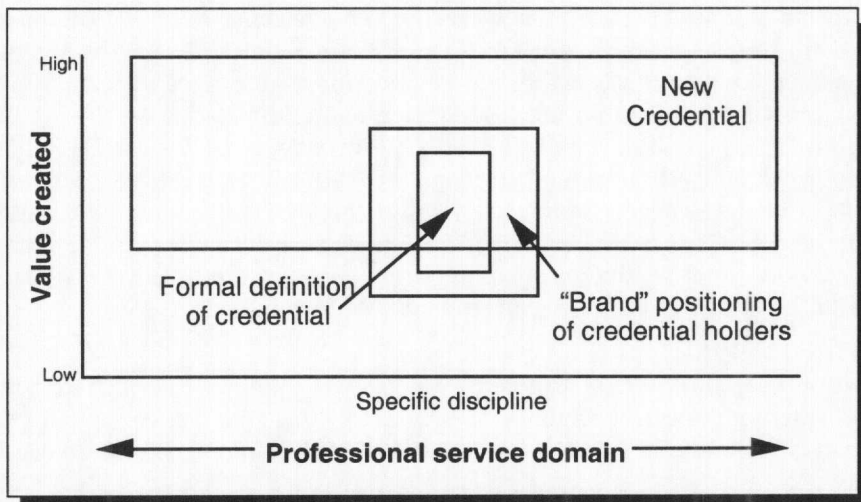
¹ Reeb and Cameron (2000) argue that the AICPA's Vision, which was developed by so many members that it is the *profession's* Vision, cannot be fulfilled without the planned credential. The Vision is given at <http://www.aicpa.org/vision/index.htm>.

countries to accounting for multinational operations to Internet services that are international because the Internet is international. However, there is no definition of international services, as opposed to services that have an international element, and regardless of how they are defined, the profession is just starting out in this service area. The knowledge set underlying this element of the global credential is, at this stage, more planned than detailed. It is suggested by the services that have international elements and the advice on doing business in different countries, but not yet in a full or structured form. Nevertheless, a new credential that is clearly international, with requirements for expertise on international matters, could make the claim for market permissions. The planned professional credential would be clearly international. It would be based on internationally set and maintained requirements emanating from a supranational body. There would be no need for the concept of reciprocity, because the credential would be global. This feature strongly supports the image of a provider of international services, and it should appeal to all potential members of the planned profession.

Visualizing the Potential Marketplace

The relationship between the move toward more valuable and more viable service types and the planned professional credential is illustrated graphically in Figure 2. Its vertical axis is the knowledge-work professional-service value chain. Its horizontal axis illustrates the range of knowledge-work professional disciplines, including architecture, engineering, consulting, risk management, accountancy, law, advertising, and public relations. Three overlapping rectangles represent market ranges for a generic knowledge-work professional credential, such as an engineering degree or a law or CPA license. The rectangles increase in size in this sequence: (1) the legal or formal market range of the credential, (2) the market range of the credential as stretched by advertising and by the standing won from the performance of services beyond the credential’s formal purpose, and (3) the envisioned market range of the planned international

FIGURE 2
New Credential’s Market Range



credential. The planned credential's target is both high on the service-value axis and broad on the disciplinary-range axis. This illustrates the strategic argument that no profession can get so great a market range by further stretching existing credentials or the claims of noncredentialed disciplines.

Figure 2 should be thought of as a visual metaphor, not as a precise version of the real world meant to be parsed or measured. It should be understood for its message: Knowledge-work professions will not be able to extend their market permissions indefinitely without well-recognized, broader credentials.

Mutually Reinforcing Credentials

The establishment of the new credential and the continued stretch of the CPA and other knowledge-work professions would occur simultaneously and be mutually reinforcing. The market range of the CPA credential, for example, would continue to expand through advertising and the performance of new services, even though there is reason to believe we are approaching its limits.² Meanwhile, the planned credential would be established for the knowledge-work professionals who choose to take advantage of it. The credibility of the stretched CPA and other current credentials would help establish the credibility of the planned credential, just as the credibility of the planned credential would add luster to the CPA and other knowledge-work credentials.

Put another way, this is not a zero-sum game. The planned credential would not diminish any other by its success. People with multiple credentials do not obtain the second with the goal of undermining the first. Quite the opposite, they see the addition as a mutually reinforcing enhancement. Moreover, there is linkage between the standing of one profession and the standing of professions in general. The notion of professionalism is broader than the idea of any individual profession, and the status of professionalism has ups and downs (Freidson 1994). Professions have an interest in the effectiveness and reputations of other professions, even though they can also compete with one another.

Sadly, this is most obvious when considering charges of decline. Writing in 1987, the historian Walter P. Metzger described the decline of professions and professionalism, evident from "attacks on the ethics of professionals and the virtues of professionalism." This description was delivered during Metzger's criticism of historical interpretations that attributed undesirable historical trends to the rise of the professions and the weaknesses of professionals. He concluded by trying to make sense of the continued growth of professions in the face of the criticisms. One of his reasons was that "as the amount of knowledge increases, so too does the relative amount of ignorance" (Metzger 1987, 18).

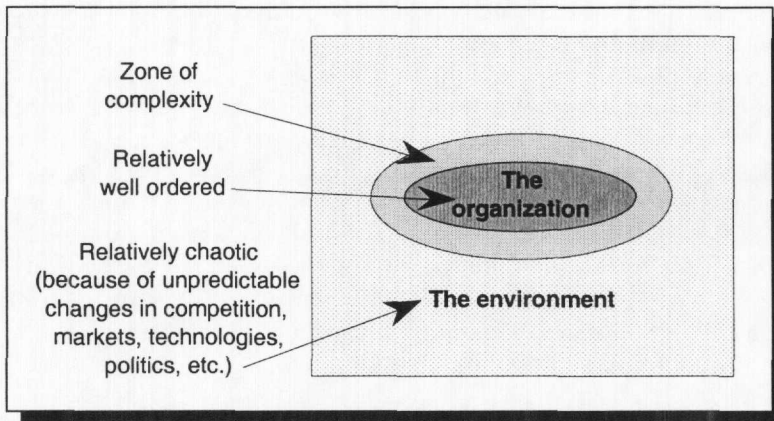
The notion of relative ignorance fed by increasing knowledge can be applied to the situation awaiting a well-developed knowledge-leveraging profession. It helps explain the scope of the opportunities and the logic of trying to grasp them. The knowledge needed to thrive in the new economy is sweeping, hard to identify or create, and at least as hard to deploy effectively. This too often generates relative ignorance in the face of decision-making needs. Reducing such ignorance directly affects the creativity and productivity of the economy and the welfare of our society.

Visualizing the Effect on the Economy

The situation just described can be viewed from the perspective of chaos theory. Figure 3 illustrates an organization in its environment, with an intervening band signifying the "zone of complexity." This zone is the locus of interaction between the organization

² See the cited research findings at the global credential web site.

FIGURE 3
A Chaos Theory Perspective



and its environment. Success or failure for a business organization depends on its interaction with its environment.

The organization is relatively ordered compared to its environment's chaotic events. It has defined boundaries, procedures, relationships, and structures that make its operations relatively stable. However, the organization also has relationships with the external world, is influenced by those relationships, and depends on those relationships. Organizations must adapt in order to preserve and build desired relationships to the external world and develop new ones from which they can benefit.

When technology and other economic and social influences speed up the rate at which the environment changes, the rate of change makes it increasingly difficult for companies to adapt and achieve their objectives. The greater the need for adaptation, the greater the need for services that help the organization adapt. The greater the pace of needed adaptation, the more likely the organization is going to "outsource" the skills they need. That is, they are more likely to acquire the skills in the form of purchased services. These potential purchases represent opportunities for knowledge-work professionals. Depending on the pace of change and managerial policy, organizations will undergo increasing and decreasing proportions of in-house and "outsourced" services to assist in adaptation. For example, over the past generation organizations hired corporate finance professionals, insourcing what external CPAs had done for them generations ago. They also hired house counsel when it was obvious that legal advice was a continuing necessity. Nevertheless, as the demands for adaptation grow, there is generally pressure to outsource. A relatively chaotic environment creates more knowledge-work service opportunities, and the business environment is increasingly chaotic. It appears likely that rapid change and seeming chaos have become permanent features of the business world.

Increasingly, the health and productivity of the economy depend on the quality and range of knowledge-work services available in the complexity zone. If there are inadequate services, then those without them will lose market share to competitors who have access to required skills.

CONCLUSION

Figure 3 can also be used as a metaphor for the predicament of the CPA profession and other knowledge-work professions. If the practicing CPA profession is considered an organization, then it too must adapt to its environment. The new economy and information technology—which are the key elements in the profession's environment—have changed the marketplace rapidly. Rapid change appears to be a standing condition. It presents challenges to reinvent the service line and its branding, as well as enormous opportunities for growth. Adaptation is urgent for future prosperity for all knowledge-work professions. Taking the lead in developing a new credential for broader knowledge-work business services gives the accounting profession a more favorable position than waiting for another profession to step in or allowing circumstances to overwhelm initiative and thereby encourage a far more complex environment. Nevertheless, taking the initiative to adapt is not just a defensive strategy. The rewards from successful adaptation are beyond anything remotely conceived by our founders.

REFERENCES

- American Accounting Association, Committee on the Future Structure, Content, and Scope of Accounting Education (the Bedford Committee). 1986. Future accounting education: Preparing for the expanding profession. Special Report. *Issues in Accounting Education* (Spring): 168–195.
- Brown, J. S., and P. Duguid. 2000. *The Social Life of Information*. Boston, MA: Harvard Business School Press.
- Business Week*. 2000. e.biz. (December 11): EB 62.
- Dreazen, Y. J. 2000. U.S. unveils new quarterly index to track e-commerce. *Wall Street Journal* (March 3): A2.
- Freidson, E. 1982. Professionalism as model and ideology. In *Professionalism Reborn: Theory, Prophecy and Policy*, 1994, E. Freidson, Chapter 10. Chicago, IL: The University of Chicago Press.
- Janssen, R. F. 1981. Information remolds U.S. economy. *Wall Street Journal* (February 23): A2.
- Machlup, F. 1962. *The Production and Distribution of Knowledge in the United States*. Princeton, NJ: Princeton University Press.
- Metzger, W. P. 1987. A spectre is haunting American scholars: The spectre of "professionalism." *Educational Researcher* (August-September): 10–19.
- Porat, M. U. 1977. *The Information Economy: Definition and Measurement*. U.S. Department of Commerce, Office of Telecommunications, OT Special Publication 77-12(1). Washington D.C.: Government Printing Office.
- Reeb, W. L., and M. Cameron. 2000. Adding value to the profession: The proposed global credential. Available at: <http://www.globalcredential.aicpa.org/content/info/index.htm>.