

Knowledge Defined— and Delivered



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We live in an era when success is measured more by what we know than by any other metric. We all recognize that the more knowledge we possess, the more valuable we become—to our firms, to our clients, to our communities. So how can we increase that knowledge?

Strategic planning within right-thinking organizations acknowledges the importance of supporting its people’s dramatically expanding knowledge needs. The perpetuation of the organization itself depends on expanding, even “possessing” knowledge.

As knowledge is applied and shared, understanding reaches higher levels. Knowledge “flows” from one person to another, from past experience to future application, and in that flow it becomes richer in meaning and usefulness. Applicable or useful information, once learned, must have the added ingredient of experience to help users understand where its application will succeed and where it will fail. Ultimately, as knowledge is used—as results are shared and tested in application—understanding is multiplied, and knowledge becomes tacit (see Figure 1, page 6).

Understanding the relationship between knowledge and experience through the course of a career is instructive when considering how to increase knowledge. The origin point of the graph in Figure 2, page 6, represents entry into the profession. Knowledge grows throughout one’s career, generally following the knowledge curve to its end point. Conceptually, this knowledge curve can be raised in two ways: 1. by raising the initial starting point to a higher level, and 2. by increasing its angle.

Historically, introduction of the apprenticeship process under the tutelage of a master builder/architect was the first widespread effort that increased the angle of the learning curve. The master architect’s knowledge, gained primarily by trial and error, is transferred to the apprentice by sharing lessons learned, resulting in faster knowledge growth as each generation built upon the last. In addition, the knowledge level at career entry jumped significantly when the academy offered the first architecture programs.

Today, various initiatives have dramatically raised the knowledge entry point for the emerging professional. These include the establishment of consistent knowledge expectations by NAAB criteria, the incorporation of case studies into education, the

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emergence of practice-based curriculums, and research that greatly expands the body of factual information from which new knowledge grows.

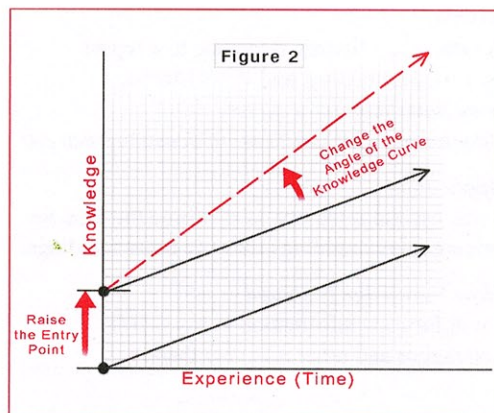
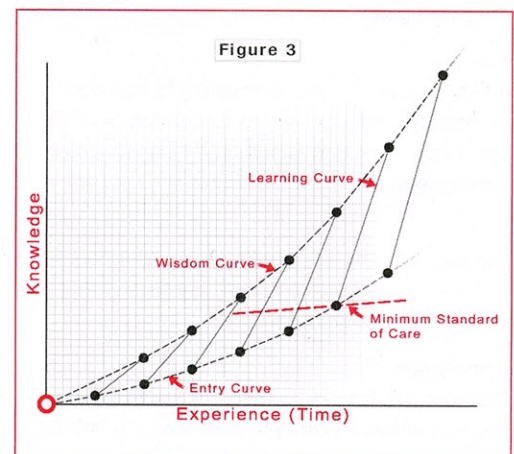
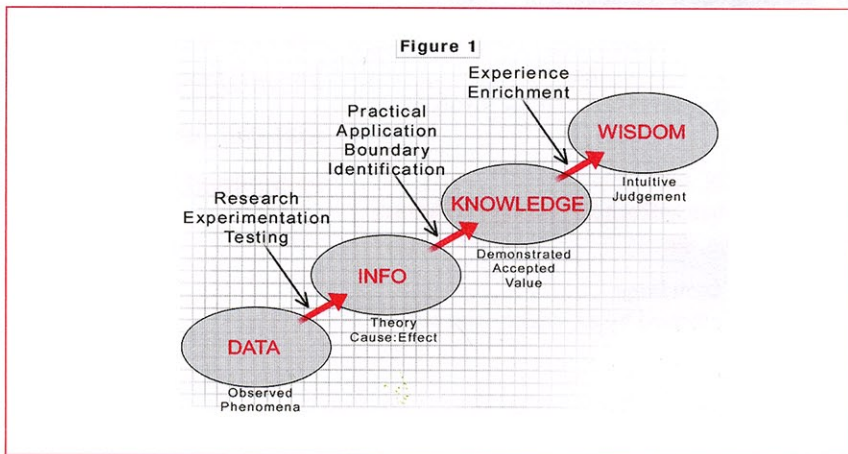
The practicing professional’s rate of knowledge acquisition also has accelerated through the formal Intern Development Program (IDP) methodologies, proliferation of mentoring relationships, emergence of teaching offices, the profession’s focus on lifelong learning through continuing education programs, and the sharing of best practices and “war stories” within communities of practice ranging from firms’ internal work groups to the AIA’s broad-based knowledge communities.

A profession’s fundamental responsibility is twofold: to raise the knowledge level of the new professional, and to raise the practicing professional’s lifelong learning curve.

Obviously, the conveniently straight knowledge curve in Figure 2 doesn’t exist in reality. The

learning curve may experience jump-shifts—career interruptions that affect an individual’s growth as well as dramatic technological changes and societal shifts that can significantly increase (or hamper) the knowledge acquisition process for the entire profession. One such jump-shift has been the transformation from the profession’s model of the singular Renaissance architect to the integration of comprehensive teams to accomplish complex projects. Another is the technological revolution that took the profession from manual drafting to CAD to shared three-dimensional smart models. Still another might be the emerging understanding of the connection between environmental design and how our brains work.

Figure 3, below, illustrates the evolution of knowledge within the profession. The dashed line connecting the career starting points of the emerging professional defines an entry curve.



The dashed line connecting the career end points defines the profession’s wisdom curve. The goal should be to raise both at an ever-escalating rate. The dotted, gradually increasing line represents the knowledge level that meets the minimum standard of care necessary for public health, safety, and welfare.

Meet the facilitators

How can we further enhance knowledge growth within the profession? Knowledge development needs to occur by coordinating the stakeholders’ efforts. The interfaces and relationships among these “realms” are important to consider:

- **Organizations** representing the profession—including the AIA at all levels, the AIA College of Fellows, AAF, ACSA, NAAB, NCARB, and AIAS—all become conveners, disseminators, and integrators of knowledge in the profession.
- **Governmental and independent research organizations** must be cultivated as partners. This involves identifying mutual areas of interest for investigation and acting as a leader in connecting funding sources with researchers who want to pursue areas of investigation that are of value to architecture.
- **Schools of architecture** remain indispensable contributors. Their focus establishes the characteristics of the future professional. The profession’s relationship with academia influences the schools’ missions. Universities are both generators of original research and major users of the knowledge generated within other realms of the profession.
- **Knowledge communities** are a primary source of knowledge within specific practice areas. They provide the people power needed to help deliver knowledge through peer-to-peer networks. They provide access to experts who provide the peer review needed to validate potential knowledge contributions.
- **Practice**, in the form of individuals and firms, may be the largest “container” of current, relevant knowledge for the profession. That knowledge, however, is inconsistently organized, proprietary, and often under-recognized.
- **The construction industry** in its many parts generates and captures many types of knowledge used daily within the profession. Existing protocols for its retrieval and use must be expanded and mainstreamed.
- **Society, communities, and individual clients and users** of the products and services that result from our efforts are affected by how we both contribute to and apply our knowledge base.

Knowledge strategies must recognize all of these realms and reinforce the interfaces among them.

Getting there

There are knowledge seekers, and there are knowledge sources. Consider the five “functions” that connect the source to the seeker:

knowledge generation, collection, validation, organization, and delivery.

While the AIA, at all levels, is typically not itself a primary originator or generator of new knowledge, it will through its own efforts create new knowledge initiatives. More importantly, through its role as the voice of the profession, it can articulate knowledge needs and stimulate research initiatives focusing on those needs.

Different *collection* techniques are employed within each of the source realms. No single mechanism should be advanced at the exclusion of others, but rather a robust knowledge collection system should be embraced. The AIA can be a “miner” or “harvester” of existing knowledge.

Much of the information available to collect will not be applicable or perhaps even accurate. A *validation* activity needs to take place. Experts can be consulted to verify that the knowledge is real and pertinent.

Once knowledge has been found to be valid and useful, it must be *organized* so that it can be searched, found when needed, and accessible on demand. Nomenclature and a framework for organizing knowledge must make it understandable by the professional as well as the public at large.

Finally the knowledge must be *delivered* to those who seek it. It must be shared.

Figure 4, an adaptation of a diagram by Dorothy Leonard and Walter Swap (from their article, “Deep Smarts,” *Harvard Business Review*, September 2004) helps us understand methods of increasing knowledge.

Each activity contributes in its own distinct way to raising the knowledge level of the profession. Brainstorming sessions during the April 2004 AIA Knowledge Agenda Summit identified more than 160 specific actions that the AIA national component can undertake to begin addressing the profession’s knowledge needs.

So how can we as individuals contribute to raising the knowledge level of the profession? By listening, thinking, testing, and exploring to expand our potential and what we know. Then mentor, debate, and share with others so the knowledge of today propels the wisdom of tomorrow. ■

