

The State of Profession: A Report from The American Institute of Architects

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How are firms practicing today? How did we get here? And where are we going next? This short report spells out some of the answers.

History

The number of mega AECOO firms continued to grow after the great recession. Their business models were a first reaction to the process changes needed to take advantage of BIM and related technologies. The philosophy was if you can control the flow of information then you can control quality, cost and schedules.

But by the start of the great expansion in 2017 facility owners were dictating the facility design and development processes. To achieve their missions and goals they had developed specific focuses on data, control, transparency and flexibility. Most could no longer accept the one size fits all approach of the mega firms. And as with all industries, no two facility owners were alike.

Also during this time there was a surprising return of many young people who had left the profession during the great recession. They returned not only to the architectural profession but the entire facility industry. Many of these individuals and the firms they started congregated into formal practice networks that extended worldwide. These networks included small companies from all phases of the facility lifecycle. The new philosophy was based on shared specialized knowledge, be it planning, design, construction or management, within a specific facility use type. A small firm could now have geographic reach and a workforce that rivaled even the largest of the mega AECOO firms. And the capabilities of these networks paralleled the facility owner's new process change requirements.

Because of the nature of these organizations an owner had the flexibility to determine any delivery method, any team makeup, the exact knowledge set it needed and where it was needed. It had the data it needed at any time to be part of any or all decisions. With these new business models many owners began to feel a greater certainty that project quality, financial and scheduling goals would be met.

Today

Contrary to the baby boomers' earlier predictions, the millenniums have no problem communicating and collaborating face-to-face. They came to this time with no past baggage, no preconceptions of what liability meant, and no sense of service entitlements. (After all, they had left the profession for nearly a decade.) They are keenly aware of the value of human interaction and have the tool sets they grew up with to help them. Their paradigm for intellectual property is that anything they create is going to be but a mouse click away for others. So they know their value is not in what they create but the knowledge and processes they use to create new connections, ideas, spaces, communities and value.

These, now standard, practice networks are acting as temporary or permanent extensions of their clients' organizations. An individual or the entire network is integrated into the owner's technology knowledge so to properly analyze, modify or create new facility information. Secure access to the owner's databases along with their own external access to GIS databases, federal, state and local data, industry specific databases, manufacturers' and many other "big data" sources support the architect's and other team members' decisions processes. Social, economic and political scenario forecasting, design optioneering, energy production estimates, material and systems commitments, off-site fabrication procurement, remote commissioning, workplace management, and many more services are being done more effectively than ever before.

But the facility data created by the practice networks is being further used to support other facets of the owner's business mission. Product and service offerings are being enhanced with the use of the planning data created early in the design. Operational process and systems are using facility data as a "background" to overlay production and inventory control data. Even market and business driver information is being discovered in the data developed during facility forecasting. This has brought many of the practice networks member's opportunities for new services.

The Future

Many data exchanges have been codified. For those yet to be done the process and technology is readily available to achieve almost any kind of information exchange. However the new challenge is for information *transformation*.

Some have called this "Services 4.5" which is being built upon the older "Web 3.0" and relatively newer "Services 4.0". It will require the ability of external and internal services to understand one set of concepts, for example physical behaviors involved in sitting, and then transform them to other set of concepts, for example an object used for sitting. It will do this by understanding and using a third set of causal relationships concepts derived from a "library" of relational rule sets.

Many at the American Institute of Architects feel this will be a quantum leap for not only architectural design but design of all types including political/economic design, social design and meta-design systems. Yet others feel this will restrict and even dictate planned futures based on content limitations of the database.

As William Gibson once said, "The future is already here. It's just not very evenly distributed." If only those guys from the 2013 NBIMS vision task force were here to help explain all this to us!