Intelligence, Part 1

Waiting too long to act in this
fast-moving world can have
devastating results.

By Louis L. Marines

Senior executives are largely responsible for translating information into something that is relevant to the firm and useful for decision making, change management and to gain strategic foresight. The ability to do so is enhanced by today's easy availability of massive amounts of data and, at the same time, hampered by that overabundance. We need the ability to identify what could be useful and how to find it. That is, what questions can we ask that, if properly framed, will give us insight? We also need an understanding of what falls outside of the inquiry, what to ignore.

The Alliance for Construction Excellence (ACE) report of January 10, 2012, "The Impact of Deteriorating Margins on the Design Construction Industry," presents a bleak outlook of how current conditions, including industry consolidation, intense international competition, diminished margins and other factors, could play out with potentially poor long-term consequences for the design and construction industry in the U.S. This think tank calls upon federal, state and local governments to take funding and legislative actions in favor of the

domestic industry, for industry associations and professionals to undertake a public education effort and for universities to conduct research that will inform both government agencies and the public about these important concerns.

In addition to these large-scale efforts, firms may also take direct internal action to become more competitive under the new conditions that are, in most cases, much different from those that they were founded and grown under. The responsibility for identifying and defining such strategic action requires intelligence gathering by senior leaders.

My perspective in this article focuses on defining and identifying what it is that we are seeking. The next article will offer resources for finding that information. The act of turning what is gathered into useful action is a part of strategy, a subject addressed in many articles presented in the *FMI Quarterly*.

To identify what we are seeking, at a level meaningful enough to lead to innovative and adaptive change, requires some work. This internal inquiry is conducted in order to learn what it is we need to know and what questions are most likely to yield the best answers for our purposes.

Why are you looking for information? You may need to reduce the fear of uncertainty for the firm that can hamper us from taking action. Information helps remove fear and prepares us to deal better with uncertain conditions when they arrive.

> (The adaptive organization) can only exist if it has access to new information, both about external factors and internal resources. It must constantly process this data with high levels of self-awareness, plentiful sensing devices and a strong capacity for reflection. Combing through this constantly changing information, the organization can determine what choices are available, and what resources to rally in response. This is very different from the more traditional organizational response to information, where priority is given to maintaining existing operating forms and information is made to fit the structure so that little change is required.
>
> *Margaret Wheatley*
> *Leadership and the New Science*

Information also helps us create a preferred future versus passively being subjected to the whimsy of the marketplace. Given that uncertainty is ever present, our goal is to reduce the vulnerability of the firm to random changes that drag it in unexpected directions: Intelligence can be the ammunition that helps us supersede these vulnerabilities. The wider we cast our net for data and information, the more likely we will discover something that will enable us to think expansively about the firm, the marketplace and our clients' needs.

Bill Ford Jr., chairman of Ford Motor Company, champions the efforts of all carmakers to take measures to reduce global gridlock, which is projected to have dramatic financial impacts due to congestion as the number of cars rises from 1 billion currently to 4 billion by midcentury. At the Mobile World Conference in Barcelona in March 2012, Ford proposed the concept of "a global transportation network with communication among vehicles, infrastructure systems and individual mobile devices as a way to prevent a future of global gridlock."[1] Ford has looked at a range of information — economic, traffic patterns, worldwide urbanization of populations, demand for vehicles, cellphone technologies — and sees how these elements can be acted upon now to prevent an undesirable future

where revenue-gobbling, multiday gridlock, such as that recently experienced in China, is the norm.[2] He seeks to create a preferred future.

This vision is not purely altruistic. Unless the gridlock problem is somehow solved, the high costs of interrupted transportation will mean that people, and businesses that purchase large fleets of vehicles, will find other means for moving goods and services. Unresolved gridlock will inhibit the number of cars and trucks that can be sold worldwide.

EXPANDING YOUR VIEWPOINT: THE ONLY THREE QUESTIONS THAT MATTER

In the 1990s my colleague Gray Plosser, FAIA, the president of KPS Group, Inc., an architecture firm based in Birmingham, Ala., found himself disappointed and bored with the offerings at architect-centric conferences. He began going only to conferences outside the architecture field and reading books and periodicals outside the design and construction industry. His goal was to expand his thinking and gain perspectives and information beyond the largely self-referential focus of industry publications and conferences. Plosser believes that more inputs and an expanded worldview provoke the kind of creativity needed to lead successfully in the contemporary marketplace.

"One thing I learned from looking at other industries had a direct bearing on the firm's strategy in the 1990s," Plosser told me. "I read an article about changes

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going on in the banking industry. Before the 1980s, banks depended on corporate borrowing and the interest paid on that money for their revenue. During the 1980s, businesses began to find other ways to obtain capital that were cheaper and easier than using banks, such as going public.

"As the banks lost revenue, they found new ways of replacing it; one was to move upstream into their clients' businesses, not by lending money, but by helping them better manage their assets and data. The banks shifted from an interest revenue model to a fee-based revenue model, which has now played out right down to the consumer level.
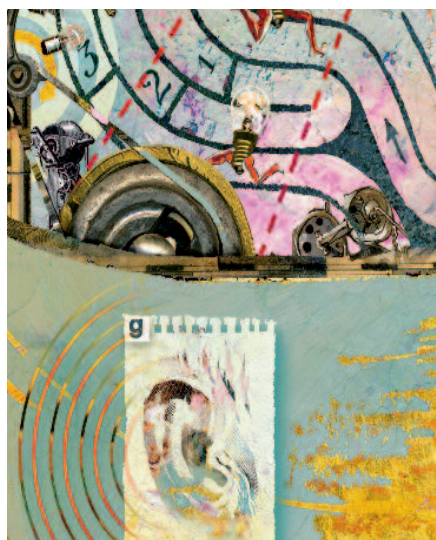
"The question for me and the firm became how to move our firm deeper into client organizations to become more valuable and essential to clients. That's when we started getting into facility database management. The firm needed to become less reliant on single projects and more intertwined with our clients' ongoing needs."

"A current trend we're seeing in the world that has caught my attention is the shift in the nature of communities," Plosser adds. "In spite of the many promises of community offered by online social networking, dating sites, etc., time spent online physically separates us from other people. It doesn't create community — it prevents community. Without strong communities, we see conditions emerge like the polarization of politics. Once you had to moderate your speech, be polite and consider a wider range of opinions, because you had to live in a community and deal with people on a daily basis who had a range of views. You had to live and work with them, so you were more tolerant of them, even supportive, because regardless of their beliefs, they were members of your community and you had a mutual interest in each others' well-being.

"In the February 10, 2012, Wall St. Journal, Alain de Botton[3] discussed how modern secular society does a poor job of creating and fostering communities, and what we might learn from religion about community creation. He points out that Christian churches create community by setting aside a space, putting walls around it and declaring that 'within their confines, there will reign values utterly unlike the ones that hold sway in the world beyond. A church gives us rare

permission to lean over and say hello to a stranger without any danger of being thought predatory or insane ... The contemporary world is not lacking in places where we can dine well in company, but what's significant is that there are almost no venues that can help us to transform strangers into friends.'

"As I consider these issues, I wonder, What are the implications? Do we need to take action within the firm to preserve the aspect of community that means a firm? What do we do for our clients that might address these issues for them?"

Plosser believes that if design professionals "have their noses too deep in their daily routines" it affects whether or not they have the truth and whether they are responding to clients in a way that is useful to the clients.

This expansion of viewpoint requires an incisive examination of currently held views. It is easy to get caught up in the flood of industry information that comes in via email, conference proceedings, newsletters. It is much more difficult to step back, look at that data that seems so important and timely and say, "If everyone has this same data and the industry is still in trouble, maybe this isn't the right data."

Forbes columnist, author and financial consultant Ken Fisher suggested in his 2006 book "The Only Three Questions That Matter" that there are three powerful questions that can help one cut through to the core:

1. What do I believe that is actually false?
2. What can I discern that others do not see?
3. What is my brain doing to blindside me now?

These questions recognize that we are accustomed to operating from a set of biases and that cutting through those biases and understanding how they work is a key to opening ourselves up to the information we really need.

Current editorials and articles discuss how to expand the national manufacturing base and bring product manufacturing back to the U.S. as a means of renewing the economy and increasing employment. The widespread presumption (and bias) is that manufacturing will continue to look and function in the familiar way that it has for the past hundred years. Under the surface, manufacturing is about to undergo a fundamental change. In the near future, innumerable products will be manufactured on demand at a local service bureau through 3D printing, thereby greatly reducing the need for giant factories and international shipping of finished goods. The process is already sophisticated enough to produce jet engine parts that cannot be made by any other method as well as viable organs that will someday be transplantable into humans.[4]

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- What do I believe that is actually false? I believe that I know what manufacturing is: large buildings full of people and robots making millions of identical items on assembly lines.
- What can I discern that others do not see? The traditional definition and methods of manufacturing may already be behind us.
- What is my brain doing to blindside me now? Telling me that 3D printing is a crazy science fiction idea that will never achieve practical, widespread adoption and therefore is not worthy of my attention.

Applying Fisher's three questions to our own firmly held beliefs about our business, about what we need to know and how we go about our work can be helpful in surfacing and dealing with our own biases, preconceptions and intellectual limitations. No matter how much intelligence we gather, if we allow these biases free rein, that information is of only limited usefulness.

As Gray Plosser suggests, a stream of intelligence must be wide and varied enough to provoke creativity in order to be useful. Yet we must also understand our own biases, learning and gaps in learning well enough to recognize what we do not know and what we disregard due to habit or discomfort. Creativity and innovation tend to happen where a myriad of ideas are in juxtaposition, but the mind must be receptive and ready for input to make the connections between them and find the opportunities.

So if we must ask of ourselves the setting aside of biases, habit and comfort in order to see clearly what we must seek, what must we then ask of the world?

As science historian James Burke has illustrated at length in his 30-episode documentary "Connections," filmed and broadcast over the course of 20 years between 1978 and 1997, nothing happens in isolation — especially innovation. Burke's work illustrates that while the drive of modern education and society has been toward specialization and single focus, the relationships between science, technology and social change have become increasingly interconnected and interdependent — more enmeshed and less compartmentalized. As Burke himself puts it, "People tend to become experts in highly specialized fields, learning more and more about less and less. Unfortunately, so much specialization falsely creates the illusion that knowledge and discovery exist in a vacuum, in context only with their own disciplines, when in reality they

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are born from interdisciplinary connections. Without an ability to see these connections, history and science won't be learnable in a truly meaningful way and innovation will be stifled."[5]

More simply, insights frequently come from the mixing of disparate elements, and specialists rarely look beyond their narrow focus for new items to mix. This tendency makes the seeking out of experts less useful than it would first appear. When inclined to pick up a book, first be clear about what you already know; otherwise you may end up embracing someone else's perspective as your own.

THE FIRST, BEST RESOURCE: YOURSELF

With a world of experts at our fingertips via the conduit of the Internet, our current first response to many questions is to Google it and see who has something to say on the topic. This is astonishing, considering the years of education, professional and life experience, business leadership and networking building that design and construction firm leaders have accrued. Do I really believe that a website selected for me by the sales-driven algorithms of Google (or any other search engine) knows more about my firm, my marketplace and clients, and the challenges facing us than I do? In looking for outside intelligence, we may discount our own experience and intuition.

Our first resource in seeking intelligence is ourselves. In "The Lord of the Rings," the wizard Gandalf despairs at one moment as no word has come to him of Frodo and Sam's progress. Aragorn, the future king, turns to him and wisely asks, "What does your heart tell you?" After a moment of quiet inward reflection, Gandalf realizes that he knows, in a deep and profound way, that the two distant adventurers striving to save the world are indeed alive. We often seek anxiously for word from outside, even when we are often already in possession of the knowledge we seek.

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Setting aside your biases and habits of thinking, what do you already know about your situation or problem? If, as the ACE report tells us, design and construction firms are dangerously over-consolidating the industry, are losing contracts to off-shore firms, are inadequately supported by governments both national and local — what do you personally know about what drives these changes? What is already contained in your knowledge that can help you define the problem for your firm?

Even while you examine your past experiences and store of knowledge, hold in mind that the current situation or need is not identical to one you've encountered in the past. In spite of surface similarities, every challenge is unique and requires its own solution.

Design and construction goes through regular busy and slow cycles that are tied to economic surges and retreats. The Great Recession has been like no cycle in the past, and coming out of it is like no recovery we have seen before. We may be tempted to fall back on strategies that served the firm well historically, but this time they may not work.

THE SECOND BEST RESOURCE: EVERYONE YOU KNOW

You have a professional network built up over the span of your career, inside the firm and in your entire business ecosystem of clients, competitors, subconsultants and trusted advisors. Your firm has a staff of talented individuals with a wide range of interests and pursuits. We often forget that our network has great sources of information, so ask it first to help you identify what questions you will need to ask.

What do they know about the issue confronting your firm? Have you talked to the people who are directly in touch with the problem? If one of your clients has hired a firm from overseas for its latest project, have you visited it to request that it candidly tells you why it made that choice? No number of outside sources can offer you data as direct and relevant to your firm's situation as your own clients can.

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The same is true of your firm's talent. Since his death in August, Steve Jobs' genius has been analyzed from 10 dozen angles; yet one thing stands out: his direct, hands-on communication with every team (including marketing) about every project. He roamed the firm poking into corners, looking at what the entry-level engineers in the back of the basement were up to; he asked questions of everyone, not just his executive team. From these random conversations, Jobs frequently identified pointed questions, e.g., Why is a computer in multiple pieces instead of one unit? From these kinds of questions, many of Apple's industry-changing products emerged. As James Burke might say of him, he was great at recognizing connections no one else could see and leveraging them into new offerings. He did it by asking the right questions.

Another benefit of engaging those who will ultimately implement your search to identify what questions to ask is that when you reach the point of conducting research, gathering intelligence and ultimately taking action, their early engagement makes it more likely that their participation will be wholehearted and yield strong results.

Gray Plosser also recommends engaging in community service as a way of expanding viewpoints and connecting with a broader base of people. For The KPS Group, it is not only a value the firm holds, but also its community service is of value to the firm.

"We cross paths with and get to understand other businesses and how they work, and we build relationships that not only provide us with information and data, but that also become sources of business. Architects and engineers need to get out of their professional boxes and create new connections within the community. When design professionals have their noses too deeply in their daily routine, they can't listen to wider sources, and this affects whether they have the truth or not, whether they are responding to clients in a way that is actually useful to the clients.

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"We can take this discussion right back to Arie de Geus and his book "The Living Company." He studied firms more than 100 years old to see what characteristics sustained them over the long term. It has become a cliché, but "think globally, act locally" is a common thread in these firms. They constantly reinvent themselves and take a perspective that goes beyond the narrow limits of what they provide today. They look at what is going on in the greater world and with their clients, and adjust their business accordingly."

A SYSTEMS VIEW OF THE WORLD

Returning to the example of Bill Ford Jr., an extremely wide array of information helped form his concept of and passion for solving the world's gridlock problems before they become too great. The characterizing feature of all the information he is working with, however, is that it all relates to the same system: transportation. You might expect that the chairman of an auto manufacturing company would have long-term projections about the worldwide demand for vehicles. But Ford clearly sees transportation as something much larger, an entire ecosystem that entails human population, the movement of goods and services, infrastructure, fuels, technological advances in wireless communication, computer networking and artificial intelligence. This ecosystem is subject to breakdowns, encompassing another set of information: traffic patterns, accessibility, system health and functionality. At a fine-grained level, one can drill down into this system

and look at the root causes of gridlock: broken (or nonexistent) traffic signals, inadequate rules of the road, infrastructure flaws — either physical or in the design, natural events like floods or sinkholes, or even a herd of livestock competing for the right of way.

If the problems that stop traffic in its tracks for days at a time are not solved, people and businesses will adapt — which means finding other way to move about, ship goods and deliver services.

A system of this complexity, spread over the world's landmasses, is a daunting challenge to take on. But Ford is willing to be an active player in this very large field. He knows that if Ford Motor Company does not take action, it will have to watch as increasingly negative impacts limit the market for cars and trucks, not only for Ford, but also for all auto manufacturers.

Functioning as an adaptive organization is his firm's best option for long-term survival. He has figured out what questions to ask to learn where he can take action to shift the future in a preferred direction.

The architecture and engineering professions can easily identify a certain set of "enemies" in lack of funding, over-consolidation of the industry, a lack of attention from government agencies and the public.

> If you know your enemies and know yourself, you will not be imperiled in a hundred battles.
>
> *Sun Tzu*

For firms to survive, leaders must take the kind of steps that Bill Ford Jr. has initiated to assess the business ecosystem that your firm participates in, then see how they can become active leaders and participants in taking action to create a preferred future.

- What system is your firm a part of?
- At what points will an intervention lead to an optimized future?
- What do you and your firm need to know in order to make those interventions?
- What questions will give you the best information and point to insights that lead to action?

Waiting too long to act in this fast-moving world can have devastating results. The immensely powerful music industry was completely overturned within a few short years of its $15 billion peak in 2001 by a series of technological shifts it initially disregarded, an unshakeable (and now seemingly naïve) belief in

its central role in the creation and distribution of music, and a refusal to adapt to changing conditions. Of the "Big 6" record companies, only three remain and in greatly reduced circumstances, one of which, EMI, is owned by Citigroup, which is currently breaking apart the various asset packages and selling them off piecemeal.

As Margaret Wheatley pointed out earlier in this article, adaptive organizations can only continue and thrive if they have ongoing access to new information, if they constantly examine this information, and if they use that data to determine what choices are available and what resources must be brought to bear to achieve a successful response. ■

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