

CM eJournal




**Emotional Intelligence:
The Future of Collaboration**
Brent Darnell

Rework: Causes and Controls
Robin McDonald, CCM, LEED AP

**Beyond the Cloud: 2014 Emerging
Construction Tech**
James Benham

How to Close the Sale in the Google Era
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FROM THE CHAIR



Milo Rivero, PhD, PE, CCM
CMAA Chair

TALENT RETENTION AND DEVELOPMENT

One of the biggest issues we face as an industry is how to groom people into leadership positions. Clients want experienced people on their jobs, so how do younger people get the experience they need to become leaders? And how do you prevent people from being pigeon holed into a narrow niche of expertise? If our industry is to grow into the future we must find ways to answer these questions.

One way a company can train young people is to provide coaching to the people who manage them. We shouldn't assume that because someone is a good and experienced manager, that they have the skills to pass this experience and knowledge along to others. Managers need to be taught how to teach.

Investing in this type of training is beneficial to the manager, the young professional, and the company as it enables people to share information and knowledge. Integral to teaching managers how to teach is placing young professionals in positions where they will have the opportunity to learn, be supported and empowered to grow, and gain crucial career experience. Creating and communicating a clear career path for an employee is also essential for retaining talent.

Encouraging higher education is another way to retain young talent and encourage their growth. Companies offering tuition reimbursement programs or incentives for obtaining an advanced degree can attract and

retain new hires and current employees, while providing an excellent opportunity for added learning and experience.

The construction industry has perfected the art of training through apprenticeship programs set up by the unions. It now should do more advocating for higher education for those who want to become construction managers. The commoditization of education in the construction industry will ensure that clients see the value of advanced degrees in construction management and in turn will want a team of young people who have completed these programs.

Convincing clients to authorize the use of younger people on projects is a key hurdle facing the industry. An industry-wide effort to train young professionals under experienced managers will enable leaders of construction management firms to use their client relationships to overcome this hurdle. We must assure clients that they will receive high quality service and have the added benefit of more competitive pricing if young professionals work on their projects.

To ensure a healthy future for the construction management industry we must create an atmosphere that promotes career and professional development through knowledge sharing and mentorship. By doing this, and by working with our clients, we can attract and keep the best and brightest.

A NEW LOOK FOR CMAA PUBLICATIONS—AND AN OPPORTUNITY FOR YOU!

This quarterly electronic magazine, which you have known as ADVISOR, is now a new, revitalized *CM eJournal*!

CMAA has resumed publishing *CMAdvisor* as a printed bimonthly newsletter. Our *eJournal* will continue to function as an online forum for scholarly and technical articles by CMAA members. As we move through 2014, we plan to link this magazine more closely with our high-value online content, and we invite you to be part of it.

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by Payam Bakhshi, PhD

System Dynamics Applied to Outsourcing Engineering Services in Design-Build Projects
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By Stephen R. Pettee, PE, CCM

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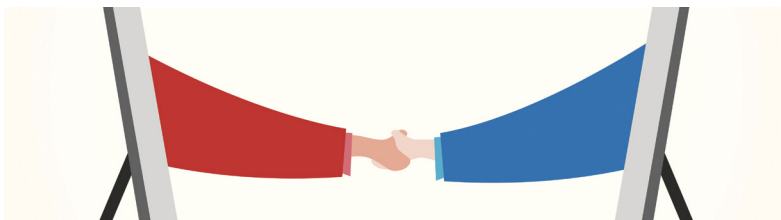
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AUTHORS



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EMOTIONAL INTELLIGENCE: THE FUTURE OF COLLABORATION

By Brett Darnell

Our industry is changing rapidly on many fronts. We are beginning to utilize technology in ways that we never thought possible. We are finding that the traditional design-bid-build model is not working well. We are moving toward more collaborative models like design-build, design assist, lean construction, and integrated project delivery.

According to Lee Evey (former director at the DBIA), design-build, a much more collaborative project delivery method, now makes up 40 percent of private construction and 80 percent of government construction.

The problem is that many folks in the industry don't possess the emotional skills that enable them to collaborate well. **Figure 1** represents the emotional profile of more than 500 construction managers.

This profile shows us relatively high self-regard, assertiveness, and independence, and relatively low emotional self-awareness, empathy, relationship skills, and social responsibility. In addition, with a difference of 12 points between empathy and assertiveness, construction managers can come across as people who don't ask for input or opinions,

don't take into account others' thoughts and feelings, and don't listen well. This is not ideal for collaborative processes.

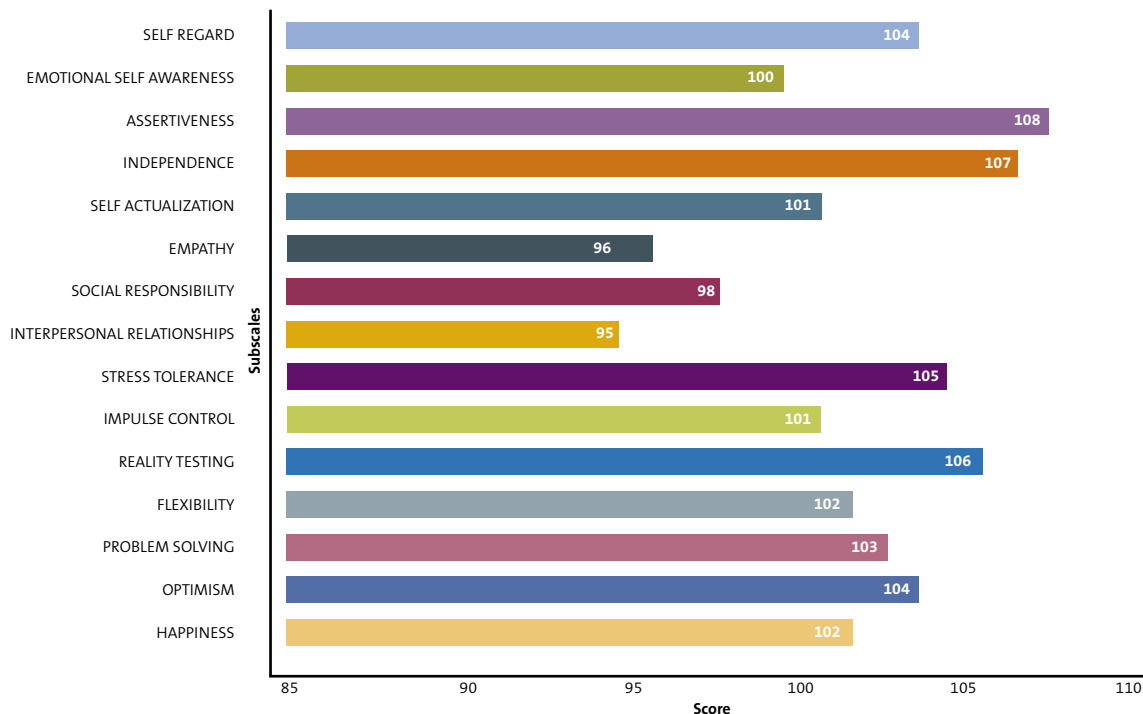
We need true leaders to make these collaborative processes successful. Have you ever asked yourself what makes a great leader? Think for a moment about a great leader you admire, someone you really look up to. What are the characteristics that make this person great? Whenever I ask this question, I usually get a long list of skills. A great leader has good communication skills, empathy, listening skills, passion, assertiveness, focus, decisiveness, motivation skills, relationship skills, and vision. Invariably, it is a long list of the so-called "soft" skills, or emotional intelligence competencies. Very rarely does anyone say that a great leader has incredible technical skill or vast intellect or an advanced degree from a prestigious college.

Isn't this list of attributes just as valid for most areas of the construction business?

Think of the best owner's representative, the best architect, the best designer, the best construction manager, the best laborer, the best carpenter,

Figure 1

Typical Construction Manager Profile



the best plumber, the best electrician, the best superintendent, or the best project manager. Don't most of them possess good people skills?

Aren't these people skills a vital part of what makes them effective and what makes you want to work with them?

Don't we continually receive requests for our best people, the ones who have those great interpersonal skills?

Isn't it a shame that we can't put them on all of our projects?

If people skills differentiate these stars, then why don't we try to cultivate these skills in all of our employees?

Emotional intelligence is the key to these excellent performers in our industry. Our brains are hardwired for emotion. We can't escape it. The limbic system, or the primitive, emotional center of our brain, is working all of the time. We have something in our brains called mirror neurons.

These neurons mirror the emotions of the person sitting across from us. In short, emotions create energy and energy affects outcomes whether you are aware of it or not. Have you ever walked into a room and thought that the tension was so thick you could cut it with a knife? This is that emotional energy you are picking up on. When we say that emotions are contagious, it's actually true from a physiological standpoint.

The people who study emotional intelligence began by asking a very simple but profound question: What makes people successful? They tried to quantify it. They looked at IQ and other intelligence indicators. They looked at higher learning and technical training. Did success lie in having the best education?

What about MBAs, PhDs and other postgraduate degrees? Did they give people the competitive edge to become more successful?

The answer probably won't surprise you. It isn't the people with the highest IQs or the people with the highest levels of technical or academic ability.

Many of the most successful people have average IQs and education levels. So if it isn't technical skill, higher education, or intellectual intelligence, what makes people successful?

According to David Caruso, another leader in the field of emotional intelligence, most successful people have learned to "accurately identify emotions, use these emotions to influence how [they] think, understand the underlying causes of these emotions, and manage with emotions by integrating the wisdom of these feelings into [their] thinking."

Beyond that, most successful people have learned to understand emotions in others and make

Construction managers can come across as people who don't ask for input or opinions, don't take into account others' thoughts and feelings, and don't listen well.



Many of the most successful people have average IQs and education levels. So if it isn't technical skill, higher education, or intellectual intelligence, what makes people successful?

true emotional connections. According to Irwin Federman, a partner at US Venture Partners, great leaders know that “people will work harder for someone they like, and they like you in direct proportion to the way you make them feel.”

Emotional intelligence is about managing your emotions and the emotions of others for the best outcomes. Let me also be clear on what it is NOT. Emotional intelligence is not psychobabble, mumbo jumbo, being nice to people, singing Kumbaya or group hugs. Emotional intelligence is based in the latest neuroscience and physics. It's about energy and the way your brain works.

All things being equal, the people who excel are the ones with higher levels of emotional intelligence. Not that technical ability is unimportant. In fact, it is important for success, especially in the construction industry. But technical ability and experience can only take you so far. One construction leader called it “the price of entry”, but once that technical knowledge is in place, emotional intelligence is vital for ongoing success.

One program participant put it this way:

“Relationships and impressions are just as important as bricks and mortar.”

Is your company ready for this shift in the industry toward more collaborative project delivery methods?

Do your employees possess the skills to be able to excel in this environment? Are there some alphas in your organization that, even with the best of intentions, tend to sabotage project relationships?

It's time to start paying attention. This is not your grandfather's construction industry, and it's time that we learned a new way of doing business.

In the next article, I will discuss how this typical emotional profile affects areas of business such as safety, teamwork and trust, industry image, stress and burnout, customer service, and communication and knowledge sharing.

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REWORK: CAUSES AND CONTROLS

By Robin McDonald, CCM, LEED AP

Failure to deliver project needs on time and on budget has been the downfall of social and political environments and public entities around the world. Where delays in projects occur there will inevitably be a substandard performance arising from decline in quality, additional costs and possible rework. Reduced quality will usually lead to rework, while introducing additional resources to meet project schedule constraints significantly increases costs. In large, complex environments that involve multiple levels of trades and where many activities take place simultaneously, the likelihood for errors, omissions and poor management practice often causes neglect that can lead to quality failures, which must be reworked. Rework is often labeled as a non-value added activity, and the key to overcoming this inefficiency is to identify the waste.

CASE:
**Washington SR 520 Bridge
Replacement – Pontoon Crack
Repair Program**

Consider the design deficiency to the pontoon construction project that required repair works to four pontoons in the first cycle. Concrete cracks were discovered in the top decks, keel slabs and end walls of the pontoons. To meet the requirements of a 75 year service life, a structural

strengthening program was implemented to ensure watertightness, structural strength and durability to the submerged portion of the pontoons. The top deck cracks occurred prior to post tensioning, appeared to be thermal and shrinkage cracks, and were repaired by a waterproofing membrane. End wall cracks occurred immediately following post tensioning and were rectified by epoxy injection

and an extended waterproofing system using carbon fiber reinforcement panels. In addition to the repairs, several change orders were made to modify the design to five remaining cycles. The total expected costs associated with the design errors was reported to be approximately \$200 million. The bridge is expected to open six months beyond the original contract opening date.

Identifying Root Causes of Rework

Technical, operational, human resource and quality management are major root causes that influence rework.

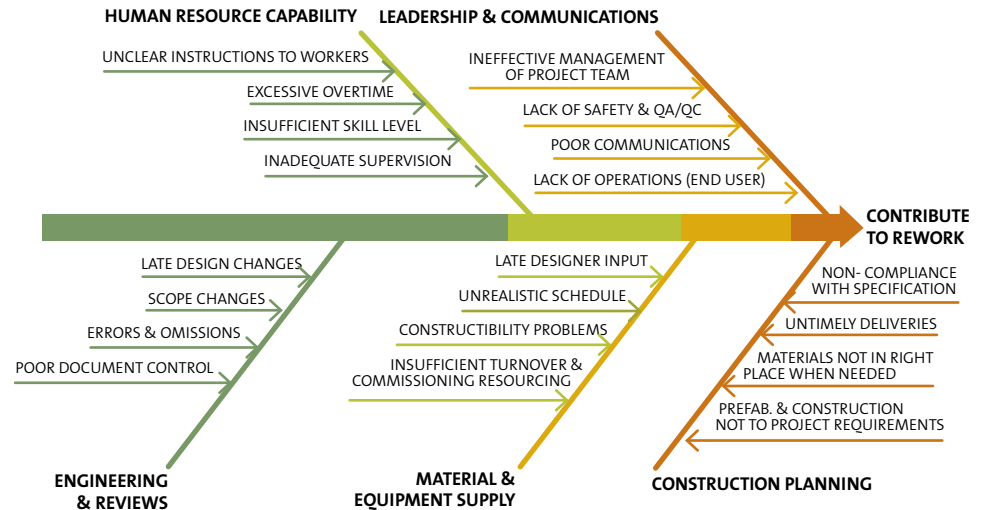
Figure 1 illustrates five main sources of rework and their associated root causes. Of these, “engineering and reviews” had the highest monetary weight at approximately 60 percent, and highest frequency of occurrence according to one survey, far and above any other source identified in the figure. The second highest source was “human resource capability” at 21 percent and third highest was “material and equipment supply” at 15 percent, although its frequency of occurrence was greater than human resource. “Construction planning and scheduling” and “leadership and communications” had almost identical weighting.

Largest Sources of Rework for Owners and Contractors

The Construction Industry Institute (CII) field rework research team collected data for several hundred construction projects where direct rework was measured as a portion of actual construction costs. CII’s benchmarking and metrics committee developed a formula to calculate the total field rework factor (TFRF), which is a leading indicator used for this group data analysis. TFRF is expressed as “total direct cost of field rework over the total construction phase cost.” Bon-Gang Hwang *et al* (2009) utilized this project data and established the impacts of rework according to project characteristics and sources of rework that had the greatest impact on project costs. The data samples were split into two groups, one for owners and one for contractors, with the results being analyzed separately for each group.

Figure 1

Cause and Effect Diagram—Model of the Root Causes of Rework (Fayek et al.2003)



Owner Reported Projects the results revealed that the cost of rework in light industrial projects was far greater than that of buildings or heavy industrial sources and rework in modernization projects contributed almost twice as much as add-on projects. Project size characteristics lacked any real statistical significance and as such the mean TFRF for these values did not appear credible based on their sample size. Project location did not reveal any significant trends either.

Table 1 summarizes the largest sources of rework for both owner and contractor. Overall, for each category, design error (DE) was the highest in all industry groups except infrastructure and modernization. In all industry groups categorized by project nature, the mean TFRF for DE and owner change (OC) were highest.

Contractor Reported Projects heavy industrial TFRF was higher than that of light industrial, in fact the project industry group had more of a mix of sources than those identified by owner reported projects. DE had the greatest impact on heavy industrial projects and design

change (DC) had the highest impact for light industrial, but the true cause for infrastructure was not clearly defined. In the project nature group, category DE and OC were ranked first and second highest by cost impact. In fact,

Technical, operational, human resource and quality management are major root causes that influence rework: “Engineering and reviews” has the highest monetary weight.

DE, OC and DC for add-on, grass roots and modernization projects were significantly different to those of CC and VC. In terms of ranking by project size, DE had the highest mean TFRF and all ranking correlations were significant, except where project costs were between \$50 million and \$100 million, and in this case DE and OC shared the same TFRF, which was significantly higher than any other project size.

Highest Impact on Cost Performance

The most susceptible projects affected by rework are light industrial, heavy industrial, railway projects and modernization projects—**Figure 2**.

Research conducted by the ASCE and CII finds that direct cost of rework contributes an average of 5 percent to the total construction cost (CII, 2005). However, where head office overhead and indirect costs are taken into account, the percentage of rework contributing to total construction costs can exceed 7.25 percent and reach as high as 11 percent. The results based on project size revealed that the mean TFRF for projects valued between \$50 million and \$100 million were the highest and where owner change and design error shared the same TFRF, although in sample size this value range are not well represented.

CASE:
Insufficient Level of Quality Control Led to Bolt Failures

Consider the San Francisco Oakland Bay Bridge, a well-publicized retrofit of new bolts to the east pier section E2 of the suspension bridge. High strength bolts, up to 24 feet in length and three inches in diameter were used to secure the shear keys (S1 & S2 seismic safety devices) and bearings of the roadway decks into a concrete cap beam at pier E2. After the load transfer of the deck, the high strength bolts were screwed down and tensioned to approximately 70 percent of their ultimate (final design) capacity.

At least a third of the rods in S1 and S2 of E2 presented a fracturing problem and failed under the applied tensile forces. Through thorough investigation led by the Toll Bridge Program Oversight Committee (TBPOC), the metallurgical analysis showed that the “2008 manufactured rods were susceptible to hydrogen embrittlement” which was the cause of the fracture. The problem was higher than usual susceptibility of the steel to hydrogen embrittlement; where the steel becomes brittle and fractures under high tension and excess hydrogen. The steel

Table 1

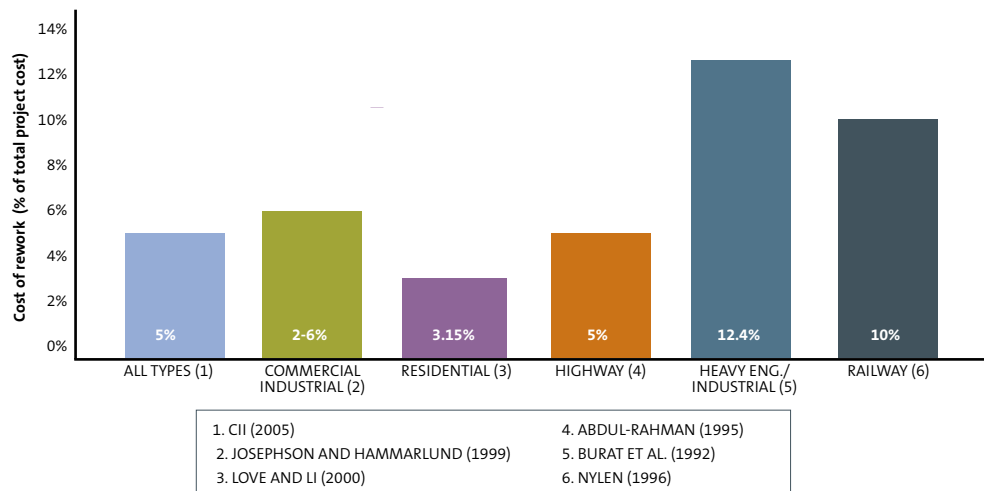
Largest Sources of Rework for Owners and Contractors (Bon-Gang et al, March 2009)

PROJECT CHARACTERISTICS		OWNER			CONTRACTOR		
		First	Second	Third	First	Second	Third
Industry Group	Buildings	DE	OC	OS	CE	CE	VE
	Heavy Industrial	DE	OS	OC	DE	OC	VE
	Infrastructure	OC	CE	DE	OS	DC	DE
	Light Industrial	DE	OC	OS	DC	OC	DE
Project Nature	Add-on	DE	OC	OS	DE	OC	DC
	Grass Roots	DE	OC	CC	DE	OC	DC
	Modernization	OC	DE	OS	DE	OC	DC
Project Size	<USD 15 Million	OC	DE	OS	DE	OC	DC
	<USD 15-50 Million	DE	OC	OS	DE	VE	OC
	USD 50-100 Million	OC	DE	OS	OC	DE	CE
	>USD 100 Million	DE	CE	VE	DE	VE	OC
Project Location	Domestic	DE	OC	OS	DE	OC	DC
	International	DE	OC	CE	DC	DE	OS
Work Type *	Construct Only	-	-	-	DE	DC	OC
	Design and Construct	-	-	-	DE	OC	VE

KEY: OC= OWNER CHANGE; DE= DESIGN ERROR/OMISSION; DC= DESIGN CHANGE; VE=VENDOR/OMISSION; VC= VENDOR CHANGE; CE= CONSTRUCTOR ERROR/OMISSION; CC= CONSTRUCTOR CHANGE; OS= OTHER
 *CONTACTOR-REPORTED PROJECT ONLY

Figure 2

A Summary of Rework Costs (Bon-Gang Hwang)



- 1. CII (2005)
- 2. JOSEPHSON AND HAMMARLUND (1999)
- 3. LOVE AND LI (2000)
- 4. ABDUL-RAHMAN (1995)
- 5. BURAT ET AL. (1992)
- 6. NYLEN (1996)

showed “low toughness and marginal ductility” and fractured within 14 days after stressing. It is understood from the TBPOC that these high strength bolts had not been “time-dependent tested in tension” under laboratory conditions prior to their final installation. Had these bolts been tested in a test center, the test results may have presented the

problem a lot sooner and may have prevented the rectification work altogether. As noted by the May 8, 2013 press release announced by TBPOC, new large steel saddles attached to each shear key were required to be retrofitted to rectify S1 & S2 at a cost between \$5 million to \$10 million.



Conclusion

Design error and owner change are the two most frequently ranked sources of cost impact and can be considered the most important root causes for both contractor and owner for most project characteristics. The critical role of rework must be recognized by the project team. Rework must be discovered much earlier, monitored and controlled to achieve breakthroughs in project cost and to remove much of the program wide disruption, especially the development of time impacts.

To control the rework potential, it is best to:

1. Undertake a pre-project planning process to ensure the right level of skill and experience is undertaking the design;
2. Ensure leadership behavior supports open collaboration between the various organizational departments;
3. Review the level to which the design schedule is compressed;
4. Look at the intensity of overtime worked, and
5. Identify the level of repeated design work taking place to support continuous improvement and drive employee involvement.

Research conducted by the ASCE and CII finds that direct cost of rework contributes an average of 5 percent to the total construction cost (CII, 2005). However where head office overhead and indirect costs are taken into account, the percentage of rework contributing to total construction costs can exceed 7.25 percent and reach as high as 11 percent.

Benchmarking and project change management processes should be implemented to remove complacency and address past failures and meet the desired outcome in accordance with the client's requirements. A firm's performance, productivity and quality of work will not improve without assessing the quality process and as such the triple bottom line will be affected as will the ability to join affective partnering relationships.

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BEYOND THE CLOUD: 2014 EMERGING CONSTRUCTION TECH

By James M. Benham

How many of your subcontractors use Google Glass, or similar augmented reality headsets on the jobsite? Do you put tablets in the hands of your superintendents for overlaying 3D images of where to lay pipe? Have your suppliers considered 3D printing materials and parts, or at least scale models? By year-end 2014, these seemingly far-fetched questions will become mainstream.

2013 was the year of the cloud: self-service, resource pooling, scalable, programmable, broad access solutions you can access via the web, sync across your devices, and allow offsite database hosting. Companies stopped fearing the cloud and started adopting it, realizing that in many cases the threat to data stored only in-house was just as severe as in a remotely hosted environment. Most companies implemented a variation of hybrid cloud solutions with data residing in local facilities and on the cloud to take advantage of both methods of computing.

Because companies across industries began to trust and employ the cloud, the collective knowledge of cloud solutions grew exponentially. With the growth of cloud usage in business also came pressure for those business solutions to match the consumer technology experience. Users now expect office applications that are as intuitive as the games they play on their iPhones. Think about the user interfaces you encountered before the iPhone revolutionized our expectations for usability. Applications, users, and the cloud that connects them have driven that evolution.

Change is Ahead

2014 will no longer be about differentiating mobile and desktop applications from web-based applications. It was evident at this year's Consumer Electronics Show (CES) show that the lines between a phone, a tablet, and a computer are now completely blurred, to the point that you are simply selecting the size of the mobile computing device you want

(from a four inch device all the way up to a twenty inch, **4K resolution ToughPad from Panasonic**). The proliferation of fiber connections and LTE (and **next 5G**) wireless connections will be another driving force behind 2014's technology, creating pervasive gigabit connectivity in all places. This year will be less about whether cloud and mobile technologies can be trusted and more about how to efficiently and creatively integrate cloud solutions between employees, devices, and locations.

Cloud threats will not disappear in 2014. Source code escrow, continuous local backup, two-factor authentication, and on-site due diligence of technology vendors will remain essential considerations before employing cloud technology, as well as hybrid solutions that sync the cloud to local storage. Employees need to be trained extensively, mobile devices with corporate data need extensive remote security features, and brand reputation will still be subject to the ever growing social media space. But with the expansion of cloud threats has come the expansion of policies, tools, and knowledge to mitigate them.

Open the Flood Gates

This growth in the understanding and use of the cloud will open the floodgates for all of the technologies you've heard about but once thought too "futuristic" for pragmatic use. Everything from contact lenses with a GPS interface to concrete-laying robots. With massive amounts of data from all possible sources converging – geographic, geospatial, imagery, video, and social – hardware and software will have limitless possibilities. The technologies I'm most excited about include: augmented reality, virtual reality, wearable devices, and 3D printing. Combined, these technologies allow for the complete spectrum of project visualization and interactivity that will ideally have a significant impact on construction costs, efficiencies, and safety.

Recent studies predict the augmented reality market is scheduled to grow at more than 50 percent annually through 2016. This year's CES had a track titled "Augmented Reality: The Next Big Thing or Information Overload," but I predict once attendees check out the augmented reality solutions on display they won't even mind the information overload. The idea behind augmented reality is to organize a wealth of information in an interactive, intuitive format that requires minimal processing by the user, but provides a maximum experience, especially for those less tech savvy, device-weary subcontractors. This year, augmented reality solutions have shown how technology can enhance, and not inhibit, reality and your employees' experience within it.

Practical applications of augmented reality will soon appear across all industries. An estimated **60 million people currently use augmented reality**

applications worldwide, and by 2018 this figure is estimated to be at 200 million. Doctors are using **augmented reality applications to navigate intricate organs during surgery**. Manufacturing plants are using **augmented reality apps for production control**. Automobile makers are allowing car owners to get an interactive view under the hood of their vehicles. In the education industry, one company even developed **wooden blocks of the periodic elements that 'react' in an augmented reality app** for an impressive learning

The technologies I'm most excited about include: augmented reality, virtual reality, wearable devices, and 3D printing. Combined, these technologies allow for the complete spectrum of project visualization and interactivity.

experience. For construction, we've developed a mobile app called **SmartReality** that combines paper plan files and 3D models for interactive project visualizations with mobile devices.

For many upcoming augmented reality solutions, wearable devices are an integral component and will soon replace many less dynamic mobile devices. The 2014 CES was awash with wearable devices, from watches and contact lenses to earbuds that respond in real-time to the wearer and incorporate the user's environment for optimal efficiency. I recently bought an **Oculus Rift** headset, and while bulky, the new HD versions with full head and motion tracking hold enormous potential for off-site and on-site visualizations, structural maintenance and monitoring, and safety inspections. Oculus is providing an incredible platform for virtual walk-throughs, and it's all built on gaming technology. In fact, I was able to use a modified Oculus with 3D camera to virtually build a structure by moving blocks around with my hands.

Get Ready for 3D

The third evolution in technology expected to have a big impact on construction this year is 3D printing. From scalable models to actual building materials, 3D printing could revolutionize the speed and accuracy of build projects. Solutions like MakerBot bring an entirely new level of manufacturing to companies that may have never considering sourcing their own materials. While 3D printed parts are currently not being considered for inclusion in actual building due to safety and quality concerns, I know our printer has proved invaluable in prototyping building models and parts and in printing 3D augmented reality targets. The ability to print out a scale model of a building in a few hours is truly powerful.

Budgeting for IT

The prospects for next generation construction technology should have you excited and preparing



your IT budgets and strategy accordingly. Traditionally, the construction industry only allocates one percent of revenue to information technology, a much lower percentage than the four to five percent average in other industries. This leaves little room for departments and teams to test new, innovative solutions. Therefore, much of the research and development falls on the individual employee.

Many of the upcoming cloud solutions have free or Beta options available for download and trade show floors like CONEXPO this March may display the more advanced hardware and devices. Look for the technologies I've mentioned and test them out for yourself. Understand the power behind these innovations and why other industries are allocating more money to employ them. The demand for next generation technology will have to come from the end users, and hopefully, construction executives will respond with the strategic support and funding. The future of the built environment depends on it.

The prospects for next generation construction technology should have you excited and preparing your IT budgets and strategy accordingly.

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LINKS

Google Glass

Augmented reality apps for production control

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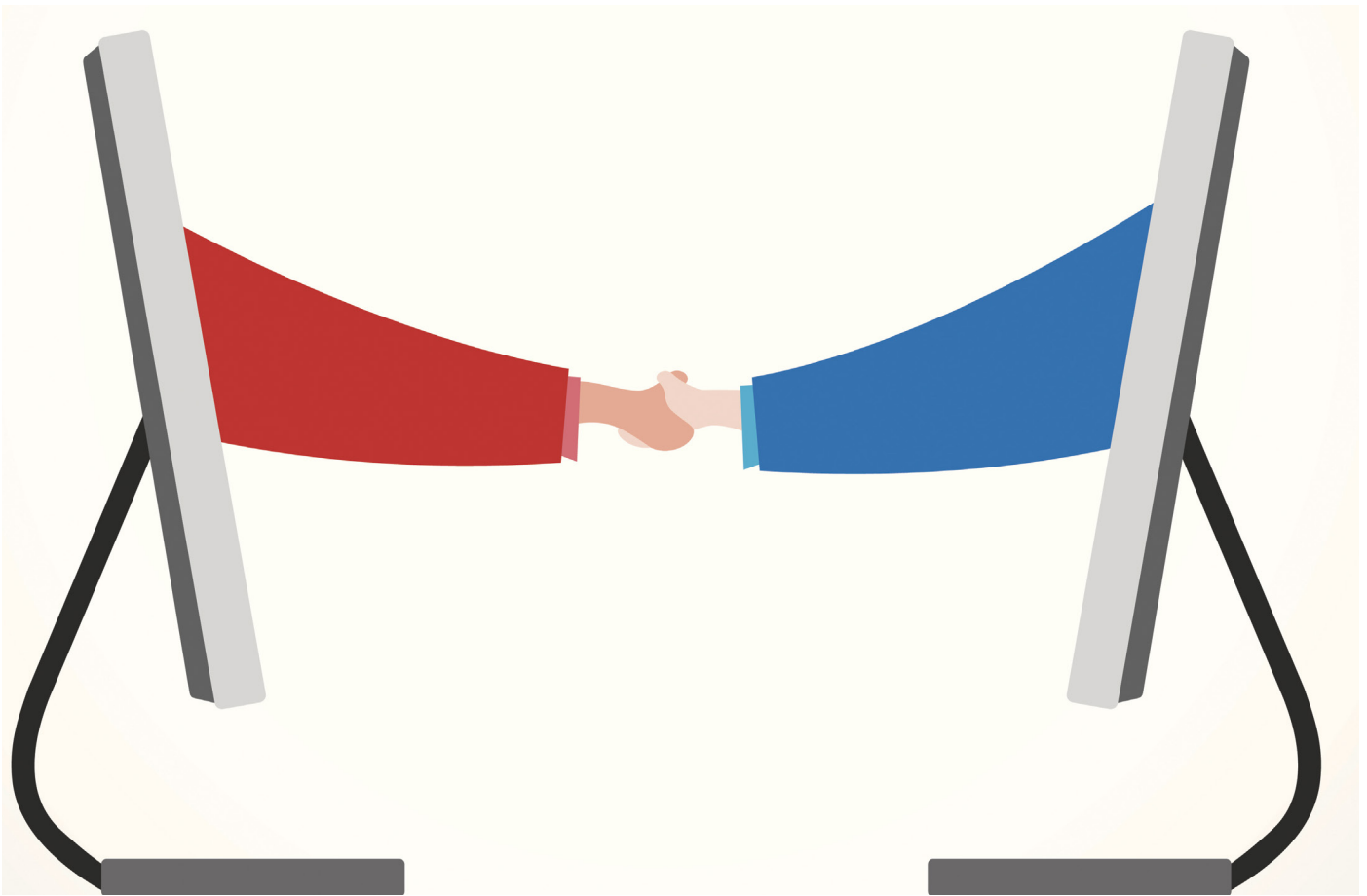
Smart Reality

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Oculus Rift

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CONEXPO



HOW TO CLOSE THE SALE IN THE GOOGLE ERA

By Marc Wayshak

In today's technology-driven world, information is cheap. The internet has changed everything for prospects. No longer do they need the big sales pitch explaining all of the features and benefits of a product.

When the sales people were perceived as like every other sales person out there, they instantly appeared lower value to their prospects.

There's a website for that—and probably many of them. Prospects are savvier than ever now that they're armed with so much information. They are also more guarded because of the way sales people have been portrayed over

the past 50 years in the media. Finally, prospects are also busier than ever in history—the average corporate employee has well over a full week of work piled up on her desk right now. Times are different in the twenty-first century—sales people and business owners must adapt or die.

A sales person's job now entails helping prospects identify whether they're the right fit for a particular product or service. Most importantly, the ability to close a sale in today's economy depends more on one's mindset than his specific closing technique.

Bill was the sales manager at a mid-sized construction firm that struggled with sales

despite having an intelligent and charming sales team. The team had been trained by an old-school sales trainer to smile a lot, turn on the charm and give rehearsed pitches based on some preliminary probing questions. The result was that they were simply not closing deals—and the deals they did close were won through very competitive pricing.

Bill didn't understand what the problem was. His sales people would often get positive feedback from prospects about how they were treated, and people always mentioned how his sales team had "the gift of gab."

By giving rehearsed sales pitches based on little information, being insincerely smiley and friendly, and

trying to persuade prospects rather than understand them, Bill's sales people were acting like all of the other sales people the prospects had ever met.

It's not that this stuff is inherently wrong; it's just extremely common. When the sales people were perceived as like every other sales person out there, they instantly appeared lower value to their prospects.

The New Mindset

In order to close sales in today's economy, sales people must be different from the rest of the pack. By being authentic and aiming to understand your prospects, you come off as unique from the majority of sales people out there. Think of yourself as a doctor, rather than a sales person.

When you go to the doctor with a problem in your elbow, the doctor doesn't say "Well, I have a solution for YOU! You are simply going to LOVE this fantastic arthroscopic surgery that we can offer. It is so great!"

That would be ridiculous and insincere, but that is what most sales people are doing right now.

A good doctor asks you where it hurts, what it feels like, and what you've been doing that might have caused the pain. Mirror the doctor-patient dynamic in your selling life. Replace all of that enthusiasm with a genuine desire to understand where prospects hurt and determine whether you can help them.

People open up to someone they perceive as a real person that understands them. A connection with a prospect is ultimately created when they feel that you seek to understand their situation.

That is why sales people must change their goal when with prospects. The entire focus of sales meetings must be on the prospect and his situation. This is achieved when you ask questions that begin to dig into where the prospect hurts about his current situation.

For example, rather than begin a sales meeting by talking about the benefits of your product, begin with one of these questions:

1. "Tell me about your challenges with regards to... [your category of service or product]"
2. "Give me an example of that challenge."
3. "Tell me a little more about [prospect's challenge]"

It goes back to that doctor's mindset. A good doctor

will thoroughly examine a patient before telling the patient if there is a solution. Only a quack doctor will offer a solution without identifying the real problem.

Sales people must have this same mindset with their prospects.

Realistically, about 50 percent of your prospects will not be a good fit for buying from you.

This could be for a wide range of reasons, from they don't need your stuff to they don't have any money.

Whatever the reason, it is your job to discover as quickly as possible whether they are or are not a fit for you and your company's product or service by using your doctor's mindset.

As life has become more complicated, many sales people have sought more complicated solutions to their selling problems. However, the solution is not complicated. In fact, it is as simple as a small shift in mindset.

Vince Lombardi once said, "Some people try to find things in this game that don't exist but football is only two things—blocking and tackling."

The same is true for selling. By changing your mindset to think more like a doctor, rather than like the traditional sales person, you immediately move into an elite group of sales people that stand out from the pack. This is the difference required to close the sale in the new economy

As life has become more complicated, many sales people have sought more complicated solutions to their selling problems. However, the solution is not complicated.

MARC WAYSHAK is the author of "Game Plan Selling" and "Breaking All Barriers." He can be reached at www.marcwayshak.com.



FROM THE PRESIDENT



Bruce D'Agostino, CAE, FCMAA
CMAA President

The problem is, proponents of all of these new PDMs maintain that their method delivers all these benefits to the owner. So the owner is still asking, "Who's on my side?"

WHAT'S NEW...AND WHAT ISN'T

Lately it seems that everyone wants to talk and write about new project delivery methods. Some, like Design-Build, aren't really new. Others, like Integrated Project Delivery, are subject to widely varying definitions. However we define or describe them, alternative PDMs are all the rage.

What's really at the heart of all this activity?

As with so many other trends, this one is being driven by owners...and when you think about it, owner priorities have hardly changed since the time of the pyramids. The owner wants a quality project. He or she wants the project smoothly delivered, on time at an acceptable price, and with nobody getting hurt in the process.

Owners have been telling their designers and constructors what they wanted for centuries. The problem is that, until recently, the industry just hasn't been listening. Like any other business, we begin to pay attention when our livelihoods are threatened. CMAA came into being in large part because, back in the 1970s, a long run of high inflation and interest rates, coupled with out-of-control construction delays and cost overruns, had convinced a large number of owners to delay or cancel their projects.

When the work is drying up because we can't deliver on time and on budget, that sounds an alarm.

Over the ensuing years, the development of professional CM/PM was a powerful

response to this challenge. Today, we see the same energy behind the proliferation of alternative PDMs. We see many jurisdictions loosening long-standing procurement restrictions. We see new, endlessly creative combinations of players, methods and money.

All of this is being done to meet owner needs.

Owners want to minimize, or at least control, their risk. They want their projects to move quickly. They want to take advantage of a skilled workforce when it's available, because this may not always be the case as the economic recovery grows.

The problem is, proponents of all of these new PDMs maintain that their method delivers all these benefits to the owner. So the owner is still asking, "Who's on my side?"

That's where the professional CM comes in. It's up to today's CMs to be fully conversant with the details, processes, strengths and drawbacks of all project delivery methods, so that we can help the owner get the best possible result from whichever method is chosen.

We'll be exploring this complex and exciting field in May at the first [Capital Projects Symposium](#) in Baltimore. This is an important, ongoing conversation...in which CMs should have much to say.

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