If you ever want to get your heart jump-started on a Sunday morning, volunteer to take my youngest son to his parent/tot swim lesson. Jason’s a little daredevil; he has no fear and loves to jump into the water. Unfortunately, he sinks like a stone. Actually, all three of my kids take swimming lessons on Sunday mornings. And because the lessons overlap, and I need to be in the water for the parent/tot lesson, my wife and I both need to take the kids to the pool. Sometimes, though, this presents a problem, such as on a recent March weekend when I was scheduled to take some American Youth Soccer Organization referee training (AYSO is a fascinating group—but I’ll save that for a future note).

The problem—and obviously I’m not alone in this—is time. Whether it’s designing for fast track construction or taking your kids to swimming lessons we don’t always have the time we need to do what needs to get done.

The too-often poor quality of construction documents is often blamed on time constraints. In addition to CASE 962-D A Guideline Addressing Coordination and Completeness of Structural Construction Documents (which can be purchased for $30 from www.accc.org), interoperability and early fabricator involvement have been proposed as solutions.

MSC has reported on numerous projects where early fabricator involvement, coupled with the electronic transfer of engineering data to detailing programs, shaved weeks and hundreds of thousands of dollars from projects (visit www.aisc.org/glcnooks or www.aisc.org/hospitalrenovation for two recent examples).

To the acolytes of interoperability there is no question that the future of the steel design and construction industry is headed down that path. Though as I learned at a recent steel industry meeting, others aren’t so certain. The savings seem too good to be true and there are still questions that need to be answered, specifically on the ownership of drawings and whether owners are willing to pay higher structural fees to have designers create full 3D building information models (even though the total project savings more than offset these higher design costs).

I think the proponents of interoperability and early fabricator involvement are on the right track. But I also think it’s important to look at the issue holistically, to think about total system solutions and not simply rely on technological advancements.

Technology often offers a solution, but is not without pitfalls. Today we can communicate more quickly and accumulate incredible amounts of information at a touch of a button. But how do we determine if information is accurate? And, of course, haste often contributes to carelessness.

For example, our IT department recently sent out a blast e-mail to all AISC members reminding them about The Steel Conference. Unfortunately, in their haste, they pasted a broader attachment into the e-mail and all of our members received not just the desired information but also a personal note between two IT staffers (“Hey dude…”). In my case it was simply embarrassing; when designing or constructing a building the consequences can be much more serious.

It’s important to remember that technology can help speed the process, but the first step must still be to verify the veracity of your process. Fortunately, the interoperability solution seems to be a positive step towards that. Errors are decreased since data doesn’t need to be re-entered. And the creation of a three-dimensional building information model (BIM) readily reveals member conflicts and difficult-to-construct connections.

Interoperability looks like an important technological breakthrough for the steel design and construction industry. If you’re interested in sharing your experiences with interoperability—either good or bad—please drop me a note.

Scott Melnick