IEEE Madison Section Newsletter

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e-Business Design: A Shift to Adaptability

Date/Time: Thursday, December 17, 2009, 11:45 AM – 1:00 PM
Speaker: David A. Marca, OpenProcess, Inc.
Location: Rocky Rococo's Pizza, 7952 Tree Lane (Madison Beltline Hwy. at Mineral Pt. Rd.), 608.829.1444
Menu: Pizza buffet, salad and soft drinks ($5.00 members, $10.00 non-members, free for UW-Madison student members)
RSVP: by December 14th to David Marca via e-mail (dmarca@openprocess.com) or call 617.645.1358

Non-member guests are always welcome!

This talk distinguishes the three fundamental business design patterns: control, cooperation and autonomy. Today, most e-Business designs are not balanced, because they over-prioritize control. Balance is achieved when one basic pattern is the top priority, while the other two patterns are not ignored. The talk explains how to use these patterns to create one of three balanced e-Business designs: e-Commerce, e-Broker and e-Barter. Market forces are now taking place to incentivize companies to become more adaptable. This can take one of two forms: a) a better balanced e-Commerce design, or b) a shift from e-Commerce to e-Broker. This talk presents more adaptable design architectures for e-Commerce and e-Broker.

David A. Marca is Online Faculty and Ground Faculty for the University of Phoenix. He is the Business Area Chair for the Madison Campus, where he teaches undergraduate, graduate and MBA courses. David is also the Founder of OpenProcess, Inc. - an e-Business consulting firm since 1997 - that helps firms implement global workplace management and global e-Business solutions. David is a member of the IEEE, ACM and PMI.

IEEE Entrepreneurs & Consultants Network, Madison Section

Acting Co-Chairs: Dennis Bahr, David Marca

2010 Reorganization Meeting

Purpose: Reconnect the IEEE Entrepreneurs & Consultants Network and take organizing action (e.g. mission, officers, plans, etc) to resume monthly meetings throughout 2010.

Venue: University of Phoenix, Madison Campus

Address: 2310 Crossroads Drive, Suite 300, Madison, WI 53718

When: Thursday, December 10, 2009

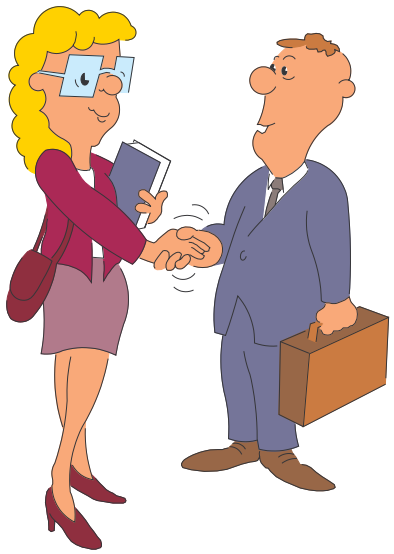
Time: 12:00pm to 1:30pm

RSVP by: Friday, December 4, 2009

RSVP to: dmarca@openprocess.com

Cost: $10 IEEE Members, includes lunch

Contact: David Marca, IEEE Secretary, Madison Section



Capital Science & Engineering Fair

The Capital Science & Engineering Fair (CSEF), supported by the Madison Section of the IEEE, is a regional high school science fair attracting students doing original science, technology, math or engineering research. The fourth annual CSEF will be held in Madison on February 27, 2010 and is open to high school students from Columbia, Dane, Dodge, Green, Iowa, Jefferson, Lafayette, Rock, and Sauk counties. Anyone interested in judging at CSEF should please contact the CSEF Judging Chair, Laura Balzano (sunbeam@ece.wisc.edu).

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IEEE Madison Section Officer Nominations

At the December 2009 monthly meeting, the IEEE Madison Section will conduct its annual officer elections prior to the technical presentation. The positions include chair, vice-chair, secretary, treasurer, and multiple member-at-large positions. Job descriptions can be found online at < http://www.ieee.org/web/geo_activities/units/Resources/Officer_Training/jobdesc.html>. Nominations may be made via e-mail to the one of the nominating committee members: Sandy Rotter, rotter@ieee.org or Clark Johnson, clarkjohnson@cpinternet.com. Additional candidate nominations are welcome and encouraged for all positions.

The nominations to date include:

Treasurer: David Marca

Secretary: Charles Gervasi

Contending with the Downside of Offshoring

Donald Christiansen

One thing is certain. Offshoring is here to stay. Purchasing parts, subsystems, and even complete systems from non-U.S. companies has been going on for years and is escalating.

In a study the National Academy of Engineering began in 2006, it concluded that "offshoring appears to have contributed to the competitive advantage of U-S.-based firms in a variety of industries, and the negative impacts of offshoring on U.S. engineering appear to have been relatively modest to date." However, the study did note severe impacts in some industry sectors and for some jobs.

One area the study gave relatively less attention to, listing it last in a series of ten findings, was offshoring's impact on national security. In that regard, its main concern seemed to center on the possibility of detailed plans and other information about U.S. buildings and infrastructure falling into "the wrong hands," and that maliciously placed code might compromise the security of DOD networks. Yet back in 1988, the Defense Science Board called the dependence of the U.S. military on foreign parts dangerously high.

During the Gulf War, urgently needed replacement parts were obtained from Japan, Germany, France, and even Thailand. The State Department had to intervene with some foreign governments in order to expedite needed parts to the Gulf. F-16 fighter radars contained Japanese components, as did our air-to-air missiles. In 1991, 60 Minutes reported that at least twenty U.S. weapons systems, including the M-1 tank and the F-15 and F-18 fighters depended on foreign-made components. Replacement battery packs for command and control computers and solid-state devices for IFF transponders were obtained from France. Did this mean that spares did not exist in the United States? Perhaps. DOD's policy was to minimize stockpiles of spares or consumable parts. The concept of "needs-pull" inventorying was then becoming popular, too.

In a 1991 editorial, I wrote: "An active war that stresses, damages, or destroys equipment may change the rules. In wartime it would make sense for the military to resist total dependence on parts from

foreign countries, even nominal allies." Would it be realistic, I asked, for the Defense Department to insist on alternative U.S. sources for all electronic components in military gear? I wondered then whether the production capability needed to guarantee such a requirement had moved irreversibly offshore — suggesting that the United States could never again be the "arsenal of democracy" it was in World War II.

Fast Forward

Have any of the lessons relating to parts procurement and replacement learned during the Gulf War mattered in the present conflicts? It is not clear. Perhaps the failure by the military to supply ground personal adequately with equipment in Iraq was a bureaucratic blunder unrelated to U.S. production capability. I am not sure. On the other hand, the military's inability to deal successfully with IEDs would, I suspect, have little to do with spare parts.

The Civilian Side

When Boeing downsized its Dreamliner project, a commercial jetliner to replace its aging 767, it expanded its traditional outsourcing to include not just parts, but both design and construction of major aircraft sections, including the wings. The idea was to have its suppliers share the risks by becoming partners in the project. But the Dreamliner is now two years behind schedule. Boeing's CEO told a New York Times reporter that the company lost control of the process by farming out more design and production work than ever and not keeping close tabs on suppliers. The resulting delays caused financial difficulties for Vought Aircraft, manufacturer of the new fuselage, so Boeing bought the plant that made it from Vought. Major suppliers to the Dreamliner project include one Italian and three Japanese companies.

Don't Ask, Don't Tell

One version of offshoring might be termed "inshoring." Described in a recent issue of Business Week, it is how U.S.-based technical service organizations (TSOs), or "body shops," as they are widely known, supply contract workers to well-known American companies. Many of them are foreign workers brought to the United States on H-1B visas, some of them illegally or dishonestly obtained in ways that had been abetted by body-shop coaches. Thus prominent U.S. firms could readily find themselves contracting with body shops that violate visa laws. As an example, the TSO can set up an "office" in a low-wage part of the country and claim the contract workers are employed there. In reality, they work for a company in, say, New Jersey, where the prevailing wage may be 50 percent higher. Federal law requires that TSOs (or any company) using visa workers must pay the prevailing wage, by occupation and location. U.S. companies often don't know the originating source of their contract workers nor, according to Business Week, do they press to find out. The TSOs may add still another obfuscating layer by hiring subcontractors, making it even more difficult for a client firm to know who the contract workers actually work for, how much they are being paid, and whether they have falsely-obtained visas.

What's Missing

Most study groups agree that offshoring by U.S. firms of both manufacturing and R&D functions is increasing rapidly. But a lack of sufficient data is seen as a drawback to legislators and policy makers in addressing the downside issues. One problem as reported by the NAE is that companies are reluctant to disclose specifics about their offshoring practices. The NAE study concedes that as "routine" engineering tasks are outsourced to India or China, U.S. engineers

will lose their jobs. And if those jobs are replaced by higher-level jobs, those new jobs do not replace the jobs that were lost.

The Duke Offshoring Research Network reported that the number of U.S. companies engaging in offshoring has more than doubled from 2005 to 2008, and few intend to return activities to the United States. The Duke report claims the two reasons for the increasing rate of globalization are speed to market and a domestic shortage of engineering talent. It omits mention of cost savings. Those conducting the NAE study wondered whether offshoring is negatively affecting the public perception of engineering and, if so, whether it has led to fewer talented U.S. students choosing to pursue engineering careers. Their conclusion, once again, was that data are too sparse to either confirm or allay these concerns.

Meanwhile, as offshoring continues to escalate, a further loss of manufacturing capacity and worker skills is contemplated. How the accompanying stresses, for not only engineers, but American workers in general, can be ameliorated and managed is not at all clear.

Resources

Engardio, P., "Can the Future Be Built in America?," Business Week, Sept. 21, 2009.

Duke University Offshoring Research Network, a network of universities, scholars, and practitioners that tracks and reports on the globalization of business services and activities.

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Drew, C., "A Dream Interrupted at Boeing," New York Times, Sept. 6, 2009.

Hamm, S., and M. Herbst, "America's High-Tech Sweatshops," Business Week, Oct. 12, 2009.

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Thursby, J., and M. Thursby, Here or There? A Survey on the Factors in Multinational R&D Location, National Academies Press, 2006, http://www.nap.edu/catalog/11675.html.

Offshoring of Services: An Overview of the Issues, GAO, 2005, http://www.gao.gov/new.items/d065.pdf.

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Morgan, R.P., "Offshoring and the Future of the U.S. Engineering Workforce and Profession," Today's Engineer Online, http://www.todaysengineer.org/2008/Jun/opinion/asp.

Donald Christiansen is the former editor and publisher of IEEE Spectrum and an independent publishing consultant. He is a Fellow of the IEEE. He can be reached at donchristiansen@ieee.org.

New IEEE Madison Section Senior Members

Congratulations to the following IEEE Madison Section members who recently became Senior Members of the IEEE:

- Chris Brace

For Immediate Release

D.L.S. Names Mitch Gaudyn Conformity Assessment Manager

D.L.S. Electronic Systems, Inc. in Wheeling, IL names Mitch Gaudyn Manager of their Conformity Assessment Compliance Testing Group.

Mr. Gaudyn will oversee the day-to-day operations and management of the Product Safety testing arm of D.L.S., covering UL, CSA, CE, CCC, C Tick, BSMI and other global testing standards and requirements. Mr. Gaudyn comes from Charles Industries, where he has been the Product Manager for OSP Telecom and Other Electronic Products. For more information on D.L.S. and their global testing programs, go to www.dlsemc.com or call 847-537-6400.

Snooping Employers – Be Aware of Your Online Profiles

Elizabeth Lions

There is an unspoken business practice among headhunters and corporate recruiters during this recession — we screen our talent carefully. Due to high unemployment and hundreds of e-mails daily for an open position, hiring managers and recruiters are going online to investigate possible candidates — before the interview process even begins.

To avoid the expense of running a standard background check or credit check, employers will often conduct informal background checks on each applicant by simply running a Web search of the candidates' names, and then removing from the list those candidates whose social networking profiles reveal off-color or questionable behavior.

Snooping on FaceBook, My Space and LinkedIn is nothing new. Employers figure that if a person is indiscrete enough to post drug use or other questionable activities online, they reserve the right to discard that individual's application from the talent pool based on that information. It's a shame that an old college photo of a wild weekend can cost you the job, but it's true.

I have found LinkedIn to be the most valuable tool when looking at an applicant's professional background. In seconds, I can find out where a person went to school, the last few jobs they've held and perhaps even see a picture. Unlike Facebook, which feels like a backyard BBQ chat, LinkedIn is the showboat of the who's who in the professional world. Many clients have asked me to look at their LinkedIn profile and comment on it, to ensure that it is really what an employer would look for during a search. Having pertinent information on LinkedIn will give you traction in the market. It is also common that before an employer will post an ad, the department head will do a quick search on LinkedIn to see if there is a viable candidate available, without going to the trouble of running an ad — and then having to evaluate hundreds of responses. For the few minutes invested, an employer can find the right candidate and save the cost of the posting.

Social networks can help make or break a job search. Put your best profile forward. You never know who is lurking.

Elizabeth Lions is an author and career coach, specializing in working with engineers. Her book Recession Proof Yourself! can be found at www.elizabethlions.com