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Inside

Letter from Deepak Khazanchi, President of MWAIS

The Midwest chapter of the Association for Information Systems (MWAIS) was founded in Fall of 2005. With founding President Dan Power's vision and the help of many people, especially a core leadership team, the organization is becoming an important forum for communication between IS researchers, practitioners, educators and PhD students in the Midwest region. Our first two conferences held in Grand Rapids, MI and Springfield, IL were great successes in this regard.

The broad purpose of MWAIS is to help meet the professional needs of Midwest U.S. members of AIS. "The goal of the Chapter is to promote the exchange of ideas, experiences, and knowledge among scholars and professionals in the Midwest U.S. engaged in the development, management, and use of information and communications systems and technology." We hope that IS/IT researchers, educators and practitioners in the Midwest will engage with the organization as participants in conferences and as potential leaders in driving the future of MWAIS as an organization. MWAIS can provide the forum where we can share our experiences and get helpful feedback.

Take a moment to read and enjoy this issue of your MWAIS newsletter. This time the newsletter includes a research opinion based on empirical work in the fascinating world of metaverses and the valuable industry-based experience and wisdom of John Dean, VP IT Strategic Alliances at Steelcase Inc. relating to "attracting and growing technology savvy talent to meet demand."

Finally, on behalf of the MWAIS 2008 Conference Committee and the MWAIS Executive Committee, I take great pleasure in welcoming you to the third annual MWAIS annual conference held in beautiful Eau Claire, Wisconsin and hosted by the University of Wisconsin – Eau Claire's College of Business. Conference Keynote Speakers include Rita Heise, CIO of Cargill and Dr. John King, Professor and Vice Provost for Academic Information at the University of Michigan.

WE NEED YOUR INVOLVEMENT TO make MWAIS an organization that is responsive to YOUR needs while providing a regular forum for professional interaction. Also, if you would like to contribute to any of the sections of the next issue of this newsletter, please contact me for more information.

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Lessons Learned from Virtual World Research

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Research in virtual worlds has become an increasingly interesting area of study as evidenced by the many announcements of special journal issues on AISWorld. Blake Ives, the keynote speaker at the 2007 Midwest Association for Information Systems (MWAIS) conference, showed how two companies, STATravel and IBM, have started using one of the most popular virtual worlds, SecondLife, as part of their business operations (Ives & Piccoli, 2007). In an effort to learn more about virtual worlds in research and practice, our research team participated in an experiential doctoral seminar that studied virtual worlds and virtual world project management. This note presents a discussion of the challenges we faced and the lessons we learned in this process.

Virtual Worlds are immersive 3-dimensional Internet-based environments in which people interact as avatars with each other and with software agents, using the metaphor of the real world but without its physical limitations. Virtual world projects (VWPs) are projects that are conducted partially or wholly in a virtual world, such as SecondLife, through a collaborative team of avatars and people. The term "metaverse" is a general term for virtual worlds. Our research team was interested in developing an empirical understanding of the factors that influence virtual world project management. We implemented an experimental environment in SecondLife in which avatars came together for one hour to work on the task of constructing a Rube Goldberg [1] machine using the capabilities available in the virtual world. We conducted a series of these experiments with four to five avatars participating in each session. The process of developing the research design and recruiting participants revealed challenges in three main areas: (1) metaverse technology and its capabilities, (2) experimental subjects (avatars and people), and (3) research design.

Our first challenge as a research team was our unfamiliarity with metaverse environments such as SecondLife (SL). This meant that we had a learning curve to overcome. Each of the research team members worked with the technology to gain a general
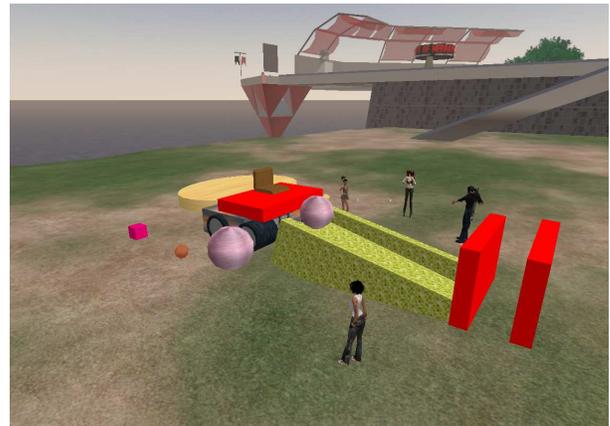

Figure 1: Team working in SecondLife

familiarity with it. We hired an undergraduate student to help us with the development of an environment suitable for the experiments and to implement appropriate tasks and tools. We conducted initial interviews with various types of SecondLife users to ensure that we defined an experimental task suitable for our research goal of understanding how virtual world projects might be managed and conducted. The capabilities of the technological environment itself presented additional challenges, in terms of: (1) the difficulty (or lack thereof) of a mechanism to easily port outside documents into the environment and (2) the lack of an obvious feature to set a SecondLife object to be universally owned so that participants can make changes that everyone can see.

The second major challenge was recruiting participants for our experiments. Before the experiments could take place we had to get approval from the human subjects institutional research board (IRB). Clearly, manipulating avatars is different from using human subjects and there are some interesting implications for this difference. Although avatars protect anonymity of the people who are controlling them, it was not clear how to assure the IRB that the subjects behind the avatars were older than 18 years of age. We also could not assure ourselves that a participant was actually qualified (technically or

managerially) to participate in a study of this kind. Another challenge in relation to the experimental participants was our ability to coordinate the availability of subjects for the study who needed to meet synchronously from time zones around the world. Our participants came from various geographic locations around the world and were required to come together to work synchronously on the experimental task. Not unlike the challenge faced by global virtual project teams, we ensured that we chose times convenient for our participants regardless of their time zone. Interestingly enough, the inability to conduct asynchronous collaboration activities is also a challenge in SecondLife at this time; in order for in-world tasks relating to virtual world projects to be effectively completed, participants have to be in the virtual world at the same time. We found that one way to overcome this limitation is by combining in-world interactions with real world interactions in a virtual world project.

The third and final set of challenges related to the research design. We had extensive debates on the tradeoffs between the type of study that we needed to do to achieve our research goals and the practical constraints of what was possible. The heart of this challenge lay in defining a virtual world project activity that participants could accomplish within a reasonable amount of time, yet which was also complicated enough to simulate realistic project management issues necessary to address our research objectives. The absence of theoretical underpinnings for such research proved advantageous, since there was ample room for theoretical contribution, but at the same we had the challenge of stretching our imaginations to postulate potential propositions for this new environment.

In conclusion, we believe that virtual worlds such as SecondLife offer a wealth of opportunities for IT researchers, teachers, and practitioners. There are challenges in conducting this research, as with any new environment, and only time and experience will tell how successfully we can overcome the challenges in order to take real advantage of the opportunities.

References

Ives, B., & Piccoli, G. (2007). STA Travel Island: Marketing First Life Travel Services in Second Life. *Communications of the Association for Information Systems*, 20, 429-441.

[1] According to the *Webster's New International Dictionary* a Rube Goldberg machine is "an extremely complex roundabout means of actually or seemingly doing something that could be done simply."

Attracting and Growing Technology Savvy Talent To Meet Demand

John Dean
VP IT Strategic Alliances
Steelcase Inc.

My 30+ years of experience in the IT profession has produced some level of wisdom when it comes to understanding the evolution of the talent needed to drive business change. It was also interesting to observe the increasing influence of technology as a part of the business change. We have evolved from isolated custom "black box" functional IT led technology projects to broad value chain business/IT co-led technology projects. As we evolved so too did the talent requirements for these projects, for the business professional as well as the IT professional. My belief is that the perception of the IT profession is still stuck in the past…a perception of an IT career for the lover of all things requiring an understanding of "bits and bytes". We still do need this talent but, we have a growing need for talent that has as much interest in the business as it does for technology. People capable of easily changing careers between business and IT. We need to change the perception of IT to attract this talent. To do this we need to change the educational experience, change how we market the IT profession and incorporate business into the total educational experience to produce what I will call the IT business analyst. Individuals that understand business as well as the implications of applied technology on business, possess excellent leadership and communication skills, and can collaborate with cross-functional teams to drive broad process based business change.

Let me go into more detail to explain my point of view. I will cover the evolution of technology with an understanding of the impact on the competencies and skills of the IT professional. Explain the new class of IT professional, the business analyst. And finally, what changes need to take place to attract and grow this new breed of technology savvy talent.

The evolution of technology and the impact on competencies and skills

Technology has evolved through at least four distinct eras since the 60s: Functional, Cross-functional, Enterprise, and Network. Each era had an impact on the competencies and skills required of both the IT

professionals as well as the business professional. I will focus on four key knowledge and skill areas that I believe have changed or grown with the evolution of technology, they are: business scope understanding, collaboration skills, applied technology knowledge, and business knowledge.

Let's take a look at each era and the implications on the knowledge and skills.

First, let's look at the *functional technology era*. This is the era of custom software designed to automate functions. Information was isolated to the scope of the developed system. The solutions were developed by an IT professional based on a predefined set of business requirements. A "black box" form of development. Technical skills were the dominant skills used by the IT professional. The business scope was isolated to the function, collaboration with the business was isolated to interaction with the functional owner, and the focus was on a strong understanding of the technology versus the business.

The *cross-functional technology era* emerged once people realized that isolating information within a function wasn't desirable. Shared databases emerged with some purchased software. The solutions were still developed by the IT professional, but some understanding of the implications of how functions were connected was required. The knowledge and skills are similar to the functional technology era except more collaboration skills are required to link the needs of more than one business discipline.

The *process technology era* includes the emergence of ERP and the web. The IT profession extends to a role of configuring software, understanding value chains, demonstrating stronger collaboration skills and truly understanding the internal business processes. Leadership skills are very important.

The *network technology* era of small re-usable components of technology, the emergence of technology to support unstructured data, business processes and collaboration, and business development of technology solutions. The IT professional adds the role of consultant, capable of explaining how to apply technology to meet business objectives. The high end IT professional understands the extended business network of customers, suppliers, and partners. Collaboration with internal and external customers is the norm. Leadership skills are required.

The new class of IT professional, the business analyst

What all of this change means is the technology profession has evolved to add a new class of professional, the business analyst. The role emerged at first during the process technology era. We still do need the technical expert that makes the technology work, a professional that has a love for the technology. But, we also need the technology professional that has a love for the business. The one that possesses complete collaboration and leadership skills understands the business and can form ideas about how to leverage technology for business success… an individual capable of working for the business as well as Information Technology.

What changes are needed to attract new talent?

What does this mean in terms of attracting and growing the talent we need? We need to modify the perception of the IT profession. I believe that the perception of IT is still stuck in the past of the functional or cross-functional era. We mention a career in IT, the automatic response or perception is the very technical role from the early eras. We need to find new ways of marketing all of the roles within IT to students. The objective would be to attract people that didn't give an IT career a serious thought due to the current perception. I believe that we can attract people that would have considered only a non-IT discipline once they find out how the experienced business analyst becomes portable between IT and the business. In fact the business analyst represents the prototype for the new breed of high end business professional. An understanding of the impact of technology on the business is required for any leader in business today.

So, what are the things we can do to change the perception of the IT profession to allow us to attract even more people to the IT profession? Here are a few key thoughts….

One, we need to market both the current and new roles to students at the high school and upper elementary levels. We need to personally market the different and new roles in terms of "a day in the life" to help students understand the broad range of roles in the IT profession. We need to help them understand that the business analyst has a broader range of options in both IT and the business.

Two, we need to change the curriculum at universities, for both the IT and business, to reflect the broader set of knowledge and skills required to be a successful IT or business professional. If you believe that information is the lifeblood of business and that the primary purpose of technology is to provide the right information to the right people at the right time, the implications of technology need to be incorporated into all course material. A stronger emphasis also needs to be placed on developing collaboration skills, broad business skills, and value network skills. Skills that are portable as individuals change career paths.

To be successful today, the high-end IT and business professionals need to understand the same things and possess very similar skills. The only difference is which discipline skills are emphasized based on the role of the day.

We have to change the perceptions of technology beyond the purely technical image that exists today. We need to attract people that initially were interested in a non-technology career into the IT profession. We need to expand the education of everyone to include a clear understanding of the implications of technology on their chosen discipline. We gain a pool of new talent to fulfill the high-end business analyst role….the business change agents.

Future Conference Sponsored by MWAIS

The 4th Annual Conference for MWAIS

Spring 2009

Dakota State University

MWAIS Sponsored Journal Special Issues

Select papers included in the MWAIS 2008 conference will be recommended on behalf of MWAIS for a standard review process and possible inclusion in the following journals:

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http://www.bsu.edu/web/majb/

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American Journal *of* Business
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SPECIAL ISSUE
NEW MEDIA

Call for Papers

Video games and virtual worlds are transforming communication as we know it. The interactive exchange of information between buyers and sellers, teachers and students, and the elected and electorate all takes place though new media channels.

What are the implications for business?

SUBMISSIONS DUE AUGUST 1, 2008

The American Journal of Business publishes discipline based scholarship and welcomes contributors who apply theory to practice. All submissions are subject to a double-blind review process that is expedited to return first reviews within two months.

Guidelines for submission available online

www.AJBonline.org

MWAIS 2008 Business Meeting Information

A nomination committee consisting of Dan Power, Fiona Nah and Fred Niederman have proposed the following slate of candidates:

President-elect: Rassule Hadidi; Treasurer: Chelley Vician; At-Large Director: Ilze Zigurs

The election will be Friday May 23rd, 2008 at the MWAIS 2008 Business Meeting.

Acknowledgement

Thanks to Matt Germonprez and Jakob Iversen for their excellent work as conference chairs in preparing the 3rd Annual MWAIS Conference, as well as to Bruce Lo and Jean Pratt as program chairs, and to the rest of the conference committee.

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