



MnIPS NEWSLETTER

A Publication of the Minnesota Information Professional Society (Formally ACM & ASM) - Vol. 1, No. 8 - May, 2000

NEWSLETTER INFORMATION

The MnIPS Newsletter is published nine times a year (September-June) by Minnesota Information Professional Society. We welcome materials submitted to our calendar or articles on computing topics. Submit materials by disc or e-mail to:

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NOTE:

MEETING INFORMATION

The meeting place:
Doubletree Park Place Hotel
1500 Park Place Blvd.
(Highway 100 & I-394)

Meeting Times:

5:00 P.M. Social & Registration
5:45 P.M. Dinner
6:45 P.M. Meeting and Program
8:00 P.M. Adjourn

For reservations e-mail:

info@nwaitp.org
or call (952) 830-1362
with your name, company name, and dinner selection

Choose
Sliced Sirloin of Beef
or
Turkey breast

\$15 for Students
\$25 for members
\$35 for non-members

Dinner Meeting NOTICE **Thursday May 4, 2000**

Joint Meeting of
Minnesota Information Professional Society (MnIPS) & Association of Information Technology Professionals (AITP)

at
Doubletree Park Place Hotel
(NOTE: Hotel Change)

Speakers Topic:
"Photo Bits & Bytes"

Speaker:
James Truc, President and CEO Pakon Inc.

SPEAKER Profile

James Truc, president/CEO and co-owner, will share Pakon's story. He is a graduate of Northern Illinois University with a degree in marketing. Jim spent seven years with Dupont and ten years with Pako Corporation before buying a part of the company he worked for (with no money down), and started Pakon, Inc. in 1985.

Pakon has gone from a low tech to bleeding edge company and from a negative net worth to a value of thirty times earnings – by taking advantage of digital change.

TOPIC INFORMATION

The photographic industry is going digital but maybe not the way you might expect. If all new images in a year were digitized and compressed to .8 mg per image it would expand the digital bits and bytes market by 62.4 billion megabytes annually! Another potential 312 billion megabytes are in film negatives stored in shoe boxes in the back of closets. Again the world is changing.....

This change will affect the photo industry, the computer industry, the communication industry, and the printing industry as well as how you personally enjoy your family pictures. Pakon, Inc., a little Minnetonka company, was threatened by this change and is now deeply involved in this digital "Kodak moment".

ANNUAL MnIPS SUMMER GOLF OUTING

MONDAY, JUNE 19TH,
1:30 PM SHOTGUN
GREENHAVEN COUNTRY CLUB--ANOKA, MN

5 - person, scramble format
Lots of great prizes, including a new car for a hole-in-one
The MnIPS member discount is \$65, which includes golf, cart, prime rib dinner, entertainment and great prizes.

Please contact Jeff Hemauer at
(651) 766-1387,
for more information.

President's Letter

See you at the May meeting.

Sincerely,
Joe Perzel , President

CYBERCALENDAR

Please mark your
CyberCalendars
for 7-8 June 2000

MnIPS Executive
Breakfast Briefing:

"Click N Mortar"
Lessons Learned
from Minnesota
Business Case Studies
Balancing Acts:
Brick and Mortar with
E-commerce Channels

Place: Minneapolis Convention
Center

Date: 8-June 2000 [Thursday]
Times: 7:00 to 9:00 AM

Presenter: Dr. David L. Bahn,
"Pragmatic Academic-at-
Large"
UMN Carlson School of
Management Instructor

RSVP
<mailto:reservations@mnips.org>
by 15 May 2000 to hold a
place!

See Website at www.mnips.org
for more details.

Event co-sponsored by eStrictly
Business Solutions Expo

Monitor this virtual chapter vault
for updates:

<http://www.egroups.com/sfupld/ciberpac-net?path=/MnIPS+eStrictly+Business+Solutions+Expo+2000>

MERCURY AND SATURN HAVE PLAN-IT'S AROUND. DO YOU?

March 2000 MnIPS
Meeting Review
(Written by Dennis Cummings)

Ms. Anita Cassidy was the featured speaker at the March 21 MnIPS meeting held at the Bloomington Holiday Inn.

Her presentation was entitled "Planning Technology for a Competitive Advantage". Ms. Cassidy is an author of a Strategic Planning (hereafter called SP) book and the principal at Strategic Computing Directions Inc. (SCDI) located in Prior Lake, MN. Her company's telephone number is 952-226-4620.

Ms. Cassidy first answered the question "Why do SP?" An A. T. Kearney survey of 213 CEO's in 1998 revealed the "critical success factors for a company's future". They are using new technology (67%), product quality (55%), quality staff (50%), customer orientation (50%), innovation/R&D (44%), cost efficiency (42%), competitive marketing (40%), reaction to change or flexibility (36%), good operational structure (34%), global reach/position (30%) and market growth (22%). That same survey asked the CEO's what the "implications are of NOT keeping pace with technol-

ogy change" are. The responses were loss of competitive edge (58%), increased cost of production (16%), would not be in business (13%), lack of control in running the business (7%), would not happen to them personally (3%) and some other scenario (3%).

Due to these responses, SP is becoming more important to companies as they compete in the global market. In the past, a company's SP usually was slow, self-contained, and focused on cost reduction strategies, internal processes and non-technology issues.

In the future, a company's SP will be fast, universally marketed, and focused on customer needs/wants, growth strategies and technology issues. Some of the technology issues that will impact businesses are the Internet, supply chain management (SCM), enterprise application integration, E-business, customer relationship management and knowledge management.

Future technology changes affect the entire "business model" and require companies to be flexible, responsive, fast, customer-focused, inventive, collaborative, self-service and global. In addition, these technology changes require systems to be easy-to-use, integrated, reliable, responsive, flexible, accurate, scalable, global and secure. Companies must overcome some problems associated with technology changes. They are identifying and reworking the inefficient business processes, inefficient IS processes, ability to cross boundaries, impact to business strategy, technical archi-

texture (scalable & secure) and lack of application integration that includes untimely information and fragmented and inaccurate information.

Do you need further evidence that SP is needed? According to a 1998 Standish Group survey, only 26% of all projects were rated a success (i.e., on time and within budget), 28% were canceled and 46% were challenged. To achieve a consistently high success rate in projects, some serious SP is required.

Initially, the SP process should gather information that includes obtaining executive support, clarifying priorities and focus, defining user requirements and connecting projects to business. Secondly, the SP process should define the direction that includes clearly identifying business direction, defining strategic targets (goals, dates, etc.) and defining objectives and requirements. Finally, the SP process should provide a roadmap, which includes establishing overall architecture, dividing the SP into manageable chunks, prioritizing evolution and planning the system flows and processes.

Ms. Cassidy paraphrased the old saying "When you fail to plan (or have an SP in place), you inadvertently plan to fail". Companies should first develop a business plan, then develop a technology plan, followed by individual projects and finally implementing them. She compared the SP to a lighthouse whose beacon guides both "business" and "technology/IT" goals.

What specifically is a SP? It is a plan where the business di-

rection must drive the technology direction. A company's future business operating vision (with or without its current IT system) should drive its IT mission. The IT mission's objectives and strategies should drive the needed computing architecture after assessing any changes needed to the current IT system. When creating a SP, the company must consider all interrelated components of strategy, technology, and processes and people (skill sets).

Ms. Cassidy suggests that companies start their SP with a business plan (BP). The BP would assess the current business situation considering such factors as business description, industry analysis, business strengths and weaknesses, business opportunities and threats, and business processes.

The BP would then focus on future business direction which includes the company's vision, mission and values as well as success criteria, operating vision, goals/objectives/strategies, a balanced scorecard (key measures of success like customer satisfaction), requirements, information needs and business processes.

Does your company's BP have goals tied to mission and a strategy that makes sense? Are major opportunities identified and is there a believable forecast? Is it prepared for threats and ready for change? Are the company's customers defined and is there a clear, concise and up-to-date direction? Are the company's competitors tracked and E-business considerations addressed? Are the company's

strengths and weaknesses identified? Finally, is the company's management team "onboard" with the new IT vision and plan?

A good IT plan addresses the company's current IT situation which includes its IT description, its IT strengths and weaknesses, its IT opportunities and threats, and its industry information and best practices. Then the IT plan addresses the company's IT direction that includes its IT balance scorecard, its business application architecture, its E-business strategy, its data architecture, its technical infrastructure, its IT people/organization, its IT processes and its roadmap.

Now, does your company's business plan drive its IT plan? Your company's BP should grade its direction by assessing factors such as mission, vision, values and priorities.

The BP should grade its industry analysis by assessing its industry structure, markets, relationships and finances.

The BP should grade its situation analysis by assessing its strengths, weaknesses, opportunities and threats. The BP should grade its success criteria by assessing requirements, success factors, operating vision and key metrics. The BP should grade its plans by assessing its goals, objectives and strategies. Finally, the BP should grade its financial structure.

How good is the IT plan itself? The IT plan should grade its direction by assessing its IT vision, mission, objectives and resulting architecture. The IT plan should grade its industry

analysis by assessing its ability to identify business changes and competitive advantages for IT. The IT plan should grade its situation analysis by assessing its ability to execute and identify projects. The IT plan should grade its success criteria by assessing its ability to identify metrics and requirements. The IT plan should also provide budget data and target information (such as implementation dates and client approval deadlines).

How does a company begin to write its BP? A BP starts with a conceptual level for both business and IT concerns. The business conceptual level concerns would be to establish the planning process and to document the high-level business direction. The IT conceptual level concerns would be to document current internal and external IT situations and determine the overall IT direction. The business detailed level concern would be to document its detailed level business direction. The IT detailed level concerns would be to determine the system change from its current to future environment and to determine any recommendations.

Next, take a look at the company's architecture for these 4 groups: business applications, technical infrastructure, people and processes. All of these areas have assumptions and anchor points (i.e., sacred "cow" IT entities such as an expensive mainframe which will stay) which trigger a driver for changing/designing goals or designing logical/physical data storage. Other architecture components that may trigger as well would be business requirements, industry

directions and design principles. After the triggered activities have been completed, can its output be reused and/or used to reengineer/enhance the company's business application solutions, people and their skill sets, processes and technical infrastructure.

Ms. Cassidy concluded by reiterating that a SP process is critical to the success of a company's projects and its general business environment. It is based on current and future business and IT vision, its processes and its system characteristics. Finally, any employee can make a difference in the SP, not just the CEO.

I hope to see all of you at the May MnIPS meeting.

BOOK REVIEW

Beyond Calculation –The Next Fifty Years of Computing

Authored by Peter J. Denning
and Robert M. Metcalfe

Reviewed by Karen Rauch,
Metropolitan State University

This book caught my attention because it was a collection of essays by different experts. I thought that I would enjoy the variety of writing styles and felt that different perspectives would be interesting to me. World-renowned experts in the computing field were asked to share their ideas of what they felt the future of computers would hold wrote the essays.

The book has been divided into three parts. The six essays in part one discuss the technol-

ogy of the future and how it will affect our lives. Gordon Bell and James N. Gray wrote the first essay, *The Revolution Yet to Happen*. In their essay they talk about the trend for information to move online which will change our lives. Processing speeds will increase, storage capacity will get physically smaller while holding more, and transmission speeds will increase. Things will be able to make use of computers and will become interconnected. This will allow society to connect to one another and machines all over the world but also allow increased individuality.

Essay two, *When They're Everywhere* was written by Vinton G. Cerf. A vignette of a day of life in 2047 is described quite cleverly from waking to the computer created sounds of an Australian bird to an evening teleconference that includes audio and visual video of each attendee. Cerf feels that telephones and Internet will have to work together eventually. This will create a huge network connecting much of the world together.

Beyond Limits, by Bob Frankston is essay three. The main theme of this essay was on changes in programming. The user will continue to become the programmer. Languages will be used/developed that allow the user to 'program' more effectively. Because of mass changes and Internet usage, code will need to become more resilient and robust in order to flourish.

Edsger W. Dijkstra wrote the fourth essay, *The Tide, Not the Waves*. Dijkstra talks about how

programming is the core of the future. The foundation of computers lies in programming and the foundation of programming is in mathematics and the art of science. In the next fifty years he sees (or hopes) that the need to simplify and create exceptional program designs will be important.

The fifth essay was written by R.W. Hamming and is titled *How to Think About Trends*. Hamming believes that the future of computers will depend on three things that cannot be predicted. First, the internal state of the field; changes may be expected in speeds, programming, AI, speech recognition, etc. Second, the technical support from other fields; what other fields may bring to computers. For example, the transistor was invented for telephony and then used for computers. Third, society and how the world accepts and uses computers.

The sixth essay was written by Mark Weiser and John Seely Brown and is called *The Coming Age of Calm Technology*. As we move to an era of ubiquitous computing, with many computers being shared by a person, technology will become calm. The computer will fall into the periphery and move other things to the center. This will remove the unsettling feeling many people feel today with computers.

Part two of the book consists of six essays about the relationship between computers and human identity. The first essay in this part, essay seven, was written by Sherry Turkle and is titled *Growing Up in the Culture of Simulation*. Turkle explores the

views that children have of computers as compared to their elders. Children growing up in this age have been able to get past the need to rationalize every part of the computer. They are able to play games that they do not fully understand without being bothered by the lack of knowledge in any way. They have developed beliefs of life in computers in a much different way, occasionally believing the computer is alive.

Essay eight is titled *Why It's Good That Computers Don't Work Like the Brain* and was written by Donald Norman. As Norman says, computers and humans complement one another. It would be disastrous if we tried to make them alike. The brain is not always right but, it compensates for its' errors with creativity, compliance, attention to change and resourcefulness. Computers offer precision, order, no distraction, no emotion, and logic. These are positive qualities and together computers and humans can work well.

The Logic of Dreams is essay nine, written by David Gelernter. The human brain uses many different types of thought processes from individual to individual and a computer is not yet able to duplicate this. A computer is able to understand thoughts that are analytical or logical but not able to handle low focus thought, called free-association by psychoanalysts. Methods to simulate these thought processes and emotions will be sought.

Franz L. Alt wrote *End-Running Human Intelligence*, essay ten. AI may be used to ad-

vance futures in chess playing, legal problems, medical diagnosis, weather prediction and public opinion surveys. The development of these areas may eliminate the need for many professionals or it may just require the professionals to use the most elaborate equipment in providing services.

Essay 11 was written by Paul W. Abrahams titled *A World Without Work*. Abrahams speaks of a future world where computers do virtually everything for us and we wouldn't have to work. A world like the one depicted would cause social change over the entire globe.

Essay 12 was written by Terry Winograd and is titled *The Design of Interaction*. Change is on three trajectories. First, is computation to communication. What started as computational has turned to networking and the Internet has become communicational. Second, is machinery to habitat. Machinery is no longer the main focus; instead a habitat is forming that puts the machinery in the background. Finally, aliens to agents. AI was once some sort of alien being that would imitate human capacities, which hopefully one day will be used as an agent to search, filter, and select based on the needs of the human using the agent.

Part three of the book discusses business and innovation. The first essay of this section, essay 13 was written by Bob O. Evans and is titled *The Stumbling Titan*. Bob discusses the ability for a company to proceed into the future successfully. He does so by using an example of

how IBM handled itself as it made mistakes that reduced the companies' momentum. The company has to be willing to take necessary risks to avoid 'analysis paralysis'.

The Leaders of the Future was written by Fernando Flores, essay 14. Flores states that: "Computers were once used for information only. They have now become a Communication tool. He believes the next change will be with the Internet and the leaders of the world will have to take advantage of this or else they may not be as prosperous as they would like. Companies will have to continually reinvent themselves to maintain a position above their competitors."

The 15th essay was written by Larry Druffel and is titled *Information Warfare*. Networked computing is giving access to information that is used for good and evil. This causes security concerns and the need to protect information from abuse, corruption, and theft. Hostile actions may be taken by someone internal or external that include vandalism, invasion of privacy, fraud, or espionage. Responsibility to protect against this is from the individual and the IT professional.

Abbe Mowshowitz wrote the 16th essay titled *Virtual Feudalism*. The 'virtual organization' allows a company to exist anywhere (or parts of it may be in different places). This is changing the economy of the world, which will have impacts on society. 'Virtual feudalism' may occur as the need for employees decreases due to increased pro-

duction needs because of the use of computers. Lower standards of living, social disorder, and conflict between new and old regimes may mark this feud. Once passed through the changes will carry the value of democracy to all individuals.

Donald D. Chamberlin wrote essay 17, titled *Sharing Our Planet*. Chamberlin sees us sharing our planet with computers and notes that they have developed like other organic creatures. The communication aspect of computing has allowed people around the world to connect. We, in essence, will be sharing our planet with a digital world that will bring us all together.

Essay 18 was written by William J. Mitchell and Oliver Strimpel titled *There and Not There*. These authors discuss the importance of digitization, helping us to experience things from our own home. For example going to the theatre without dressing up and going downtown. Computers will reduce the need to visit theatres, libraries, and art galleries. Although this is helpful to those that are immobile, in some instances presence is preferred.

Dennis Tschritzis wrote essay 19 titled *The Dynamics of Innovation*. Finding something is a goal and research is the means to achieve the goal. Dennis talks of three types of innovation. First, idea innovation with the main goal of originality and the major aspect is quality. Second, people innovation, which has a major goal of competence and the major aspect of penetration. Product innovation

is final and has a major goal of common advantage and major aspect of speed to market. Research centers, universities and corporations will strive to achieve goals in these areas.

The final essay, number 20, was written by Peter J. Denning and is titled *How We Will Learn*. Digital media and the Internet will change learning, as we know it today. We will have Internet classrooms that are run by mentors rather than teachers. Teachers used to compile the information that was passed on to the student, now the student will have access to the original information and be mentored by their teacher to keep the student from getting off track. Some universities may not be able to withstand the change and fold. At the same time corporations may start their own learning centers.

I enjoyed the book. Opposing viewpoints were displayed and all sides had credence. It makes it difficult to make up ones own mind of what the future may hold. We will just have to wait and see.

SOME INFO

Computers are fast, accurate and stupid. Humans are slow, inaccurate and brilliant. Together they are powerful beyond belief.
- Albert Einstein

According to Forrester Research, in 1997, approximately \$500 million was spent with Internet-based merchants. In 1998, e-commerce revenues increased to more than \$8 billion.

Almost \$21 billion was spent with web-based merchants in 1999.

Interactive retail displays help customers find their way to buying products or services. They can also help increase brand awareness by creating a media-rich immersive experience that can't be replicated in print.

In addition, interactive displays can record valuable customer information that a company's marketing department can use to increase customer satisfaction and decrease unwanted inventory.

A Past Presidents night will be scheduled for ASM and ACM presidents at the September 2000 meeting.

I would like anyone who has a phone number, address or e-mail address of a past president to forward that information to me so I can contact those people.

Thanks Jim Sundlin
Office phone (651) 634-1433
Cell Phone (651) 5926181

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MnIPS Newsletter

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NOTE: Meeting Place & Date Change

ADDRESS SERVICE REQUESTED

DINNER METTING

Thursday, May 4, 2000
5:00 PM - 8:00 PM

TOPIC:

“Photo Bits & Bytes”

NOTE: MEETING LOCATION

**Doubletree Park Place
Hotel
1500 Park Place Blvd.
(Highway 100 & I-394)**

**“1 GIGAHERTZ –
AVERAGE IQ
NEEDED TO
UNDERSTAND
WINDOWS 2000!”**



by Earl C. Joseph

