



Thought leadership on intellectual capital

Thought
leadership on
capital

Nick Bontis and Danny Nikitopoulos

DeGroote School of Business, McMaster University, Hamilton, Canada

183

Keywords *Conferences, Intellectual property, Information, Management*

Abstract *A synopsis of key topics, issues and findings as presented at the 4th World Congress on Intellectual Capital hosted by McMaster University in Hamilton, Ontario, Canada. There were 536 delegates from 32 countries discussing the growing importance of intellectual capital. This paper highlights the key messages from the keynote speakers of the conference. Includes a summary of the presentations of such luminaries as Shahla Aly, VP Communication Sector at IBM Canada; Stephen Denning, KM director of the World Bank; Don Tapscott, chairman of Digital 4Sight; Ante Pulic and Ursula Schneider, directors of the Austrian Intellectual Capital Research Centre; Tom Jenkins, CEO of OpenText; Leif Edvinsson, VP of Knexa.com Enterprises; Verna Allee, president of Integral Performance Group; and Don Morrison, COO of Research in Motion.*

The 4th World Congress on Intellectual Capital (IC) hosted by McMaster University in Hamilton, Ontario, Canada took place from 17–19 January 2001. In attendance were 536 delegates from 32 countries that discussed and presented papers on the growing importance of IC. This event is recognized as the premier conference for academic researchers in the field of IC. The conference program included several guest practitioner speakers as well as exhibitors and an interactive knowledge café.

The World Congress attracts the leading thinkers in the IC field and the 2001 roster of keynote speakers represented luminaries from a variety of industries. The following highlights the key messages from the keynote speakers. We include a summary of the presentations of such luminaries as Shahla Aly, VP Communication Sector at IBM Canada; Stephen Denning, KM director of the World Bank; Don Tapscott, chairman of Digital 4Sight; Ante Pulic and Ursula Schneider, directors of the Austrian Intellectual Capital Research Centre; Tom Jenkins, CEO of OpenText; Leif Edvinsson, VP of Knexa.com Enterprises; Verna Allee, president of Integral Performance Group; and Don Morrison, COO of Research in Motion.

Shahla Aly – VP Communication Sector, IBM Canada

Shahla Aly commenced the proceedings of the World Congress by commenting on the developments of knowledge intensive e-business, and giving those in attendance, a keen insight into what can be expected from the sector and IBM in the future.

At the heart of her discussion, Aly described the three major technological forces that will evolve the Internet and the way people and companies share knowledge and do business:

- (1) the increase in bandwidth;

- (2) pervasive computing; and
- (3) deep computing.

As bandwidth increases and broadband networks continue to be deployed, the quality and experience of the Internet will increase dramatically. Aly equated the impact of bandwidth on humanity to that of the impact of electricity on humanity, and said it would allow us to share a more natural interactive experience on the Web.

What we can expect from this advanced interactivity is what she described as pervasive computing. Pervasive computing will allow people to share a more personal, and interactive experience that is more responsive to the user's patterns, trends and personal characteristics and preferences. To much bemoan in the audience, Aly provided the example that one day our alarm clocks will sound 15 minutes earlier as they will be able to input and process information of a traffic jam on the sleeper's route to work.

Deep computing is the third major technological force she discussed. Most people are familiar with Garry Kasparov's infamous chess matches against IBM's Deep Blue computer. The ability to do mass calculations of algorithms and permutations by machines in the future will provide users with a variety of extremely complex applications at their fingertips.

With respect to commerce, Aly assured the conference delegates that in the next generation of e-business, the companies that emerge as global players will be those that successfully bind these new technological forces with robust business models. Aly explained that the "dot-com" crash of 2000 was a result of a lack of relevant business models among many nascent e-businesses who did not consider business first, and technology second.

Overall, in the next generation of e-business we can expect a world of change and growth. Aly gauged that on a scale of one to ten, the Internet at the time of the conference sat at about a 1.5, or alternatively at the stage of the automobile around the year 1910. Commenting on the proceedings of the congress, Aly emphasized the importance of exploring every aspect of intellectual capital: "There is no aspect too little to not be explored."

Stephen Denning – KM director, World Bank

As knowledge management (KM) director at the World Bank, Stephen Denning has spearheaded the bank's knowledge program since 1996. At the World Congress, Denning discussed how storytelling can serve as a powerful tool for organizational change and knowledge management to further develop an organization's IC.

Through countless transactions over time, the bank had accumulated a tremendous amount of know-how. What seized the attention of Denning was that none of this IC was organized by the World Bank to help the people of the world solve their problems more efficiently. Most people were making the same mistakes over and over again.

Like any major organizational change, especially in the field of IC, Denning discussed the obstacles involved in his ambition to transform the World Bank from a historically entrenched lending institution to a new “knowledge bank.” It was the idea of storytelling that became the catalyst for the transformation of the World Bank. Denning shared with the audience many anecdotal reports of storytelling that served as an effective medium to communicate the importance of IC development within the bank.

Storytelling implies using the story as a means to convey a message or idea, whether it be regarding IC, KM, total quality management or any other organizational issue. This form of communication not only imparts information on the recipient, but also allows them to get inside, to live and feel the idea.

Denning explained that storytelling can have extraordinary power in transforming individuals, organizations and ourselves. Telling a story can enable and accelerate change by providing direct access to the living part of the organization, and so lead to change in the organization. Storytelling helps to get inside the minds of individuals and affect how they think, worry, wonder, agonize and dream about themselves and in the process create and recreate their organization and their lives. Storytelling enables the individuals in an organization to see themselves and the organization in a different light, and, through storytelling, take decisions and change their behavior in accordance with these new perceptions, insights and identities.

Don Tapscott – chairman, Digital 4Sight

Don Tapscott was once identified by the former US vice-president Al Gore as “the world’s Internet guru.” Tapscott argued that strong business models must be in place first before a firm can generate any wealth in the new economy. The new economy has given birth to his idea of “business webs” which are a new partnership of customers, suppliers, affinity groups and competitors that cooperate to provide a joint, value-added service for the customer. In his keynote presentation to conference delegates, Tapscott highlighted five types of business webs:

- (1) Agora Business Webs – which turn the marketplace of the Internet into a boundless meeting place where customers and firms meet to discover the price of a good or product.
- (2) Aggregation Business Webs – which organize and choreograph the distribution of goods services and information.
- (3) Value Chain Business Webs – which replace make/sell push models with demand driven value chains.
- (4) Alliance Business Webs – which produce open free markets where selfish agents combine to maximize utility.
- (5) Distributive Business Webs – which facilitate the exchange of goods and services over the Web.

Tapscott explained that business webs allow customers to become part of a seamless value chain process, thus creating a transparent world. Intellectual capital flows through every facet of a business transaction and can be applied to all areas of knowledge assets which can be co-owned by various partners in the web. He described the following key intellectual capital assets:

- Human capital – knowledge assets contained in employees.
- Structural knowledge – KM systems, databases.
- Marketplace capital – brand, customers.

According to Tapscott, all three facets of intellectual capital can be combined into the “business web” model. Successful companies will combine a robust business model with intellectual capital management to form a new advantage known as “digital capital”. He concluded his presentation by describing a massive explosion of the “Hypernet” which connects everyone and everything using multiple smart devices which are mobile.

Ante Pulic and Ursula Schneider – directors, Austrian Intellectual Capital Research Centre

Ante Pulic and Ursula Schneider operate the Austrian Intellectual Capital Research Centre (AICRC). The AICRC is an organization that strives to enhance knowledge exchange and international cooperation in the areas of IC and KM. The AICRC’s primary initiatives are to raise awareness of the importance of IC in German-speaking countries and in Eastern Europe. The institute is committed to the development of IC measurement methodologies. The AICRC was founded by a cross-functional and multicultural group. The intellectual diversity has become the institute’s fundamental strength in achieving its goals. The “Best Paper Award” at the World Congress (see paper by S. Mitchell Williams in this issue) is an extension of the ground-breaking research that the AICRC has conducted.

Schneider started her keynote address by reminiscing about a field that was once occupied by dreamers who sought to make IC a priority for senior managers.

She argued that today’s concern is not about dreaming anymore, but measuring. In the language of Stephen Denning, she insisted, “nobody has told me the right stories to help us learn about measuring intellectual capital.”

For IC initiatives to be successfully adopted, Schneider advised that they need to be embedded in everyday life; in the core operations and procedures of the organization. From the AICRC’s experiences, there is leadership by European enterprises in the field of IC and KM because of the diversity inherent in the continent. She described diversity as an important knowledge-building asset that is expected from a continent exceptionally rich in history, diverse in culture and language, and unique in structure from country to country.

Pulic’s work is guided by the notion that nothing can be successfully managed if it is not adequately measured, and thus his major area of interest is the measurement of IC. Pulic and his team hope to determine the relationships

between intangible and tangible assets. He argued that by measuring IC, using their value creation efficiency index (VAIC), companies can develop better control over the visible and invisible parts of the company. VAIC is a software-aided tool that is applicable at both the micro- and macro-level of business analysis. To date, three companies have utilized it and Pulic shared success stories of the creation of value in their businesses.

Some of the AICRC projects intended for the future include a knowledge forum where people can meet virtually online, and a distributed MBA program on intellectual capital in connection with three German universities, as well as knowledge-intensive companies such as Siemens and Daimler Chrysler.

Tom Jenkins – CEO, OpenText Corporation

Tom Jenkins is the CEO of OpenText Corporation which is one of the largest document management companies in the world. Jenkins provided valuable insight into the field of intellectual capital from the perspective of a vendor of KM software.

The application of software tools to manage a firm's intellectual assets has driven his Waterloo, Ontario company to achieve over \$300 million in revenues. Jenkins recounted the origins of OpenText as a vendor in the knowledge management arena. What began originally as an Oxford English dictionary project, moved towards developing search technology with the likes of Yahoo! and About.com. Taking into consideration the desire for long-term wealth creation, OpenText altered its strategy by moving out of the consumer markets to focus on the more lucrative business-to-business sector where it still deals today.

In 1995, the company undertook what Jenkins referred to as a "crazy idea" and developed its first KM suite that was fully integrated into an HTML browser. In that year the company made \$2 million in revenues. The growth in awareness of IC has been remarkable as OpenText currently does over \$300 million in business worldwide. Jenkins noted that the growth of IC and KM can be witnessed by the change in tone, where once the words were intimidating, they have now become widely recognized as a going concern for organizations.

At the heart of OpenText is the flagship product, Livelink. Livelink has developed into an innovative intranet, extranet and e-business application. The tool allows dynamic collaboration on projects and work by connecting employees, business partners and customers across global enterprises and on-line trading communities. Currently thousands of leading organizations worldwide use OpenText to address their business challenges and leverage the company's IC. In describing where markets for software tools are moving, Jenkins examined the evolution of buzzwords such as "document management" then "collaborative knowledge management" to what he now calls "collaborative commerce."

Technological platforms of the past were built in the design of document management and workflow. Document management implied that people searched for information, whereas a workflow structure assumed people talked to one another to obtain information as they worked on projects. Jenkins

described Livelink as encompassing each of these important business aspects. He also described collaborative commerce as managing the information associated with transactions and performing this interaction with speed and efficiency (e.g. the ordering process of a CD through the entire value chain from musician, to producer, to distributor, to retailer, to consumer).

With first-hand experience in the deployment of his software across many organizations, Jenkins shared many lessons learned in the adoption of KM initiatives by his clients. He explained that most companies should first establish a project document repository and corporate teaming that is not geographically centred. Then they should strive to implement knowledge sharing initiatives aided by Livelink at the department level. Enterprise wide deployments of knowledge management are not homogeneous activities but rather amorphous and must be catered to each organization's characteristics. Generally, OpenText implements a department-by-department deployment of its product Livelink.

Jenkins described the experiences of several organizations including Clarica Life Insurance, Nortel Networks, Scotland Yard, The US Air Force and Ford Motor Co. Despite this fantastic growth, Jenkins insisted that the growth days for document management were yet to come. Despite being a Canadian-based company, OpenText has an entirely global perspective with the majority of its sales outside Canada, but primarily in G7 countries. In assessing the future of OpenText, Jenkins emphasized that technology and the Internet were here to stay, regardless of the shakedown in the financial markets in 2000 and 2001. Jenkins estimated a massive untapped revenue base during the next few years with 25 per cent of that earmarked for research and development to keep OpenText's own IC fresh.

Leif Edvinsson – VP Intellectual Capital, Knexa.com Enterprises

It was a privilege shared by all in attendance at the World Congress to listen to a keynote presentation by Leif Edvinsson, whom some entitle as the “godfather of IC.” Edvinsson gave a thought-inspiring presentation that challenged those in attendance to grasp many fascinating insights related to the study of IC.

In his earlier days at Skandia, Edvinsson began to probe the surface of IC by challenging the traditional notion of a company, asking questions such as “what happens to companies with zero employees?” He suggested that the remains would consist mainly of intellectual property. He insisted that the awareness of IC today is greater than ever but that the formation of an arena for the exchange of IC is the true nirvana. He insisted that we must decrease the volatility of the world's stock exchanges – which he referred to as “dirty exchanges” – because the wild fluctuations show that “we have no clue how much companies are really worth.” Edvinsson's main proposition was that an intellectual capital exchange can help offset some of that volatility. He believes this is possible if there is collaboration between the Securities Exchange Commission (SEC) and the International Accounting Standards Committee

(IASC) so they can map the unseen wealth of the corporate world that currently no one seems to value accurately.

He also challenged the conference delegates to examine their traditional roles and titles within organizations. He questioned how closely our business cards could describe our talents. At Skandia, he worked on the idea of “visualizing your talent” in which the roots of the term “IC” came forward. The visualization of talent is an important element to the idea of a “global knowledge nomad” or the future knowledge worker. To the Dean of the Michael G. DeGroot School of Business he suggested the title of “wealth creator” as opposed to “Dean.” Edvinsson suggested that our business cards should be a talking stick, and that personal Web sites are an imperative part of visualizing one’s talent.

Edvinsson also discussed the future of knowledge economics and the wealth dimensions of knowledge investments. He suggested that Europe was operating at about 45 per cent of its IC potential. He also discussed the problem of knowledge automation and compares the production of telephones versus the time to achieve a college degree. He questioned why since the invention of the telephone, where the time to make it had decreased from a few weeks to seconds, has the time required to obtain a university degree remained at around four years. Comparatively, if the process efficiency of universities were at par with the telecommunications industry, it would require only ten weeks to earn a degree.

Edvinsson considered the idea of the knowledge nomad as a fundamental change in the labour market over the next ten years. A knowledge nomad is likened to an independent or contractual worker on special assignment. The more knowledgeable the worker is, the more likely he/she is to be employable. Edvinsson contrasted the part-time worker versus the full-time worker today and asked “who makes more money?” to emphasize his point. A part-time worker has the ability to link and connect to an endless number of buyers and does not lock up their human capital to one buyer. Unfortunately, the current labour market will not support such a framework with the existence of traditional unions which are still prevalent in many countries. Edvinsson remarked that ventures such as Knexa.com – which is the world’s first knowledge exchange – draw a bridge between human capital and structural capital to solve this problem. He predicted that in 50 to 70 years the current industrial society would be dead like the feudal counties of old Europe. In considering the knowledge worker, he looked at the performance curve. The peak performance time for a knowledge worker is about two hours, versus the current eight-hour labour contracts people are required to work. Shockingly, he added that at six hours, there is a negative return and intellectual capital is in fact destroyed.

Knowledge architecture is the final challenge or frontier, and he suggested we consider what kind of architecture is needed to nourish knowledge exchange and delivery. He strongly denounced the cubicle office as an optimal framework and recommended the knowledge café model (which also took place at the conference) to remedy this. In conclusion, he argued for strong intellectual capital leadership and a longitudinal examination of research pursuits.

Verna Allee – president, Integral Performance Group

Verna Allee provided an intuitive presentation concerning business and the field of IC. Allee explained that we have the ultimate potential to reconcile our business and economic models with the fabric of global society and the web of life. This perspective dovetailed nicely with the organic metaphors of organizations shared by Leif Edvinsson, and the concept of business webs proposed by Don Tapscott in their earlier presentations. Allee was convinced that people had already grasped the importance of IC, but in many important respects had missed the real point.

First, she argued that people were asking the wrong questions, especially concerning intangibles. She believed that the questions we were asking were based on old management views that shared a type of mechanistic versus organic thinking. Allee mentioned two important shifts that would be part of this new view:

- (1) expand value to include all categories relevant to business success; and
- (2) use methodologies that link tangibles and intangibles to continually evolving real activities.

To expand our thinking of intangibles, Allee suggested we think of intangible assets in real currency terms that can be traded for other intangibles or tangible assets. Allee presented a model of a typical asset view that encompasses three basic categories, business relationships, internal structures, and human competence and the flow of knowledge among them. Two emerging value domains that have already begun to expand the categories of this model are social citizenship, and environmental health. She provided an example of its adoption in Shell Oil's most recent annual report statements. Shell's "triple bottom line" reports have come to include people, planet and profits including metrics for health, safety, and environment as well as social responsibility such as emission targets, and diversity of their workforce.

Allee proposed that we shift towards thinking and challenging our notions about sustainability and social responsibility metrics and finding ways to incorporate these into our IC models. She presented a value network model that shows a web of relationships that generates economic value through complex dynamic exchanges of both tangible and intangible goods, services and benefits. The idea of value networks showed the inter-dynamics of a business and was similar to the ideas presented by Don Tapscott in his discussion of "business webs".

According to Allee's description, a value network is a new view that encompasses both business and social structures, and three new "currencies" of value exchange: the traditional transactions involving goods, services and revenue of the old value chain; the exchange of knowledge in all forms such as strategic and planning information, collaborative design, policy and process knowledge, and finally, the idea of benefits that accrue to a community.

Don Morrison – COO, Research in Motion

In capping off the proceedings of the 4th World Congress on Intellectual Capital, Don Morrison, chief operating officer of Research in Motion (RIM) provided some final thoughts that he hoped would reverberate with listeners and allow them to make value of the ideas they gained over the last few days. RIM is famous for its revolutionary Blackberry pagers which allow users to share corporate e-mail messages with fellow colleagues in an always-on, mobile environment.

Throughout his career with various corporations such as AT&T and now RIM, one of the most important fundamentals Morrison has learned is “stop thinking, and start doing.” He presented three critical areas that he hoped organizations would start doing more of: product innovation, service excellence, and brand recognition.

Essentially, product innovation is purely about value creation. Morrison said that if an organization innovated the right way, they could have a transformative effect on the marketplace, with a product or service that resonated with customers. Morrison stressed that RIM’s process of continual innovation is an iterative, experiential-based approach that pays attention to details, customers, and the market, where listening is they key.

Morrison warned that the iterative process does not constitute market research and data, but getting out and talking to customers who continually demand more valuable services and experiences. He stressed that a lot organizations could further enhance the delivery of their service to gain customer loyalty. In discussing brand recognition, Morrison made reference to brand sceptics who highlight the difference between brands as opposed to products. He strongly supports building a brand around an idea with substance that focuses on customer experience and employs a spirit of continuous improvement, rather than a superficial two-dimensional concept or logo.

Overall, Morrison felt that if a company truly wanted to strive to be innovative, they needed to learn to become a listening organization by constantly interacting with the marketplace and by trusting their collective intuitions.