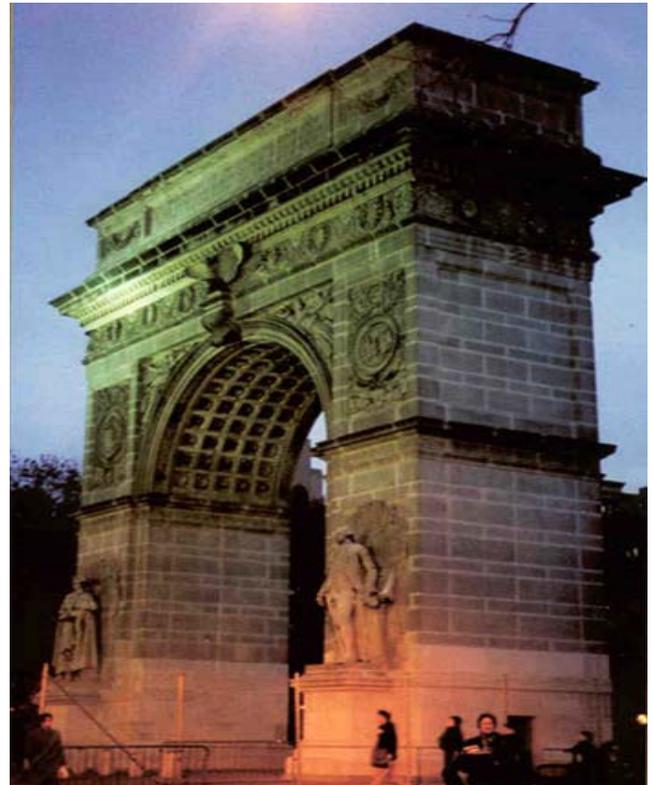




The Intangibles Research Project

of

The Vincent C. Ross Institute
of Accounting Research,
Stern School of Business
New York University



Presents the 4th Intangibles Conference

on

ADVANCES IN THE MEASUREMENT OF INTANGIBLE (INTELLECTUAL) CAPITAL

Thursday, May 17 & Friday, May 18, 2001

Stern School of Business

Tisch Hall, 40 West 4th Street

Schimmel Auditorium – Upper Concourse (UC)

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ABOUT THE CONFERENCE

ADVANCES IN THE MEASUREMENT OF INTANGIBLE (INTELLECTUAL) CAPITAL

This 4th NYU Research Conference on Intangibles tackles the central issues concerning intangibles—measurement and valuation. Progress in managing and reporting on intangibles-intensive enterprises, and in policymaking for intellectual property, hinges crucially on the ability to measure and value these elusive, yet all-important assets.

The unique character of the NYU Intangibles Conferences—the focus on scientifically robust, empirical work, conducted by leading researchers—is carefully maintained, with two significant innovations. First, leaders of important national level experiments (U.S. and Denmark) will report on their progress in designing new corporate disclosure systems reflecting intangibles' values. Second, developers and users of non-conventional intangible measures will present clinical case studies of their unique company experiences.

True to our tradition, we will conclude the conference with an extended panel discussion of the road ahead—future trends and developments in the intangible (intellectual) capital area.

This conference should provide an exhilarating, intellectually stimulating experience to executives, investors, consultants, policymakers and academics.

CONFERENCE DIRECTOR

Baruch Lev

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SCHEDULE AND CONFERENCE OUTLINE

Thursday, May 17, 2001

11:30am-12:15pm **REGISTRATION** – *Stevenson Lounge*
Tisch Hall 1st floor

11:30am-12:15pm **LUNCH** - *Patron's Lobby*

12:15pm-12:30pm **Welcome and Opening Remarks**
Dean George Daly
Paul Brown, Accounting Department Chair
Baruch Lev, Conference Organizer

12:30pm-2:45pm

First Session

THE MACRO PERSPECTIVE

1. How Much Information is Produced Worldwide?

Presenter: *Hal Varian, University of California at Berkeley*

Hal Varian, Dean of Berkeley's School of Information and Systems, New York Times columnist, and co-author of the bestseller Information Rules, heads a research team quantifying the total amount of information produced, world-wide. Early findings show that "if you stored all the worlds' yearly production of information in digital form, it would take about 1.5 billion gigabytes of storage, or roughly 250 megabytes for every man, woman, and child on earth. Printed documents of all kinds comprise only 0.003% of the total." The Economist recently speculated about the practical uses of this, seemingly futuristic, pathbreaking research.

2. What is the U.S. Investment in Intangibles?

Presenter: *Leonard Nakamura, Federal Reserve Bank of Philadelphia*

Dr. Nakamura, an economic advisor at the Philadelphia Federal Reserve Bank and author of influential studies on intangibles and the new economy, estimates for the first time the national investment in intangibles. Given deficient measurement rules at both the corporate and national levels, the investment in intangibles is as obscured in the national accounts as it is in corporate financial reports. Nakamura offers three alternative calculations (including R&D, marketing and organizational capital) suggesting that intangible investment roughly represents one-tenth of U.S. gross domestic product--a staggering \$1trillion.

CONFERENCE OUTLINE CONTINUED

3. Specific Applications

Presenters: Art DeTore, Lincoln Re
Jeff Schmidt, Towers Perrin

- I. *Art DeTore*, of Lincoln Re and co-author of Knowledge Assets, will report on the company's valuation and investment in packaging knowledge assets as products and services for the insurance industry. In particular, he will discuss the application of several valuation approaches to the company's mortality R&D platform.
- II. *Jeff Schmidt*, Managing Director, Research and Innovation, Towers Perrin, will report the findings of a new study linking human resource practices (e.g., employee incentive compensation, training systems) with corporate performance and knowledge value measures. He will discuss the implications for evaluating the economic impact of human resource practices and for developing the people component of business strategies.

2:45pm-3:00pm

B R E A K – *Patron's Lobby*

3:00pm-5:30pm

Second Session

VALUE-CREATION WITH INTANGIBLES

4. The Returns from Investing in IT.

Presenter: *Vijay Gurbaxani, University of California at Irvine*

The investment of the corporate sector in IT (information technology) is staggering, yet studies estimating the return on this investment vary widely- from zero to roughly \$10 for each dollar of investment. Vijay Gurbaxani reports the results of a new study, using an innovative methodology to assess the return and productivity of firms' investment in information technology. Among the intriguing findings: while IT generates significant productivity increases for durable goods' manufacturers, it has little effect on the productivity of the non-durable goods sector.

5. The Value of Collaborations and Alliances

Presenters: *Christopher Tucci, New York University*
& *Somnath Das, University of Illinois*

Alliances and collaborations are hallmarks of the modern economy. These presentations cover both the internal and external (capital markets) aspects of alliance success and value-creation.

CONFERENCE OUTLINE CONTINUED

Much discovery, research and development occurs through collaborations and joint ventures, and alliances constitute a growing share of corporate marketing. But until recently little has been known about the determinants of alliance success, and how investors value alliances.

Chris Tucci of NYU presents several recent studies of European and American technology alliances in software and other high-technology sectors. His findings cover "structural" (e.g., firm and interfirm characteristics) and "process" (e.g., trust-building and dynamic) factors determining the success of alliances. He draws conclusions regarding optimal business collaborations.

Somnath Das, of the University of Illinois reports on the value-creation potential of alliances—investigating investors' reaction to announcements of alliance formations.

6. Investment in Organizational Capital

Presenter: *Erik Brynjolfsson, MIT*

Organizational capital--specific practices and processes creating corporate value--is the fastest growing component of intangibles. Yet, little is known about these intangibles and their value, beyond the few, oft-quoted examples of Wal-Mart's and Dell's supply chains and Cisco's web-based installation and maintenance system.

Erik Brynjolfsson, a leading researcher in computer sciences and e-business, identifies specific clusters of organizational practices in 400 companies and their impact on market values. The Economist, recently reported on this study: "American companies, Mr. Brynjolfsson calculates, have created a total of \$1.5 trillion of 'organizational capital' in the past decade."

5:30pm-7:00pm

RECEPTION - Cantor Boardroom KMC 11-75

CONFERENCE OUTLINE CONTINUED

FRIDAY, MAY 18, 2001

8:00am-8:30am **B R E A K F A S T** – *Patron's Lobby*

8:30am-10:45am

Third Session **PUBLIC POLICY**

7. Voluntary Corporate Disclosure in the U.S.

Presenter: *Edmund Jenkins, Chairperson, Financial Accounting Standards Board (FASB)*

Most informed persons believe that the deficiencies of the current corporate reporting system can be alleviated by the disclosure of nonfinancial (e.g., data on employee turnover, or customer satisfaction), and non-transaction (e.g., product development success, forward-looking information) data. Two years ago, the FASB, under the direction of Ed Jenkins, together with accounting and industrial companies, embarked on a large-scale study to identify indicators and measures relevant for corporate valuation, which are reported voluntarily by public companies. Initial findings indicate extensive voluntary reporting, in a wide variety of industries, but scarce information disclosure on intangibles. Ed Jenkins will discuss the findings of this major FASB project, and its lessons for improved corporate reporting.

8. The View from Denmark

Presenter: *Jan Mouritsen, Copenhagen Business School*

The Danish Ministry of Trade embarked a couple of years ago on an extensive effort to establish "Intellectual Capital Statements." The ministry asked about 25 Danish companies in various industries to design a corporate report reflecting their intellectual capital and its effect on company performance and stakeholders' welfare. Jan Mouritsen, the academic director of the Danish Intellectual Capital Statements project, will report on its progress and conclusions. He will discuss innovative ways of reflecting the value and impact of intellectual capital in a variety of industries.

9. Measures Are Not a Cure All

Presenter: *James L. Poage, Volpe Center, U.S. Department of Transportation*

Most presentations in this conference deal with measures and measurement issues. Yet, some argue, a focus on measurement sometime obstructs good judgment and does not necessarily lead to preferred actions. Jim Poage's work focuses on both the process of developing functional measures and ways to elicit action by "story telling" of measures—expressing a narrative

CONFERENCE OUTLINE CONTINUED

about the measures and decisions at hand. This approach to measurement will be demonstrated by Poage's advanced measurement and tracking systems developed for the Federal Aviation Administration and National Aeronautics and Space Administration.

10:45am-11:15am **B R E A K** - Patron's Lobby

11:15am-1:30pm

Fourth Session

ORGANIZATIONAL AND HUMAN CAPITAL

10. Can Corporate Knowledge (Intangibles) Be Measured?

Presenter: *Baruch Lev, New York University*

Managers and investors are obviously most concerned with identifying and quantifying specific factors (investments) that create knowledge and growth. Baruch Lev presents a new methodology for measuring corporate intangible capital, including new indicators for assessing investors' valuation of companies. Special emphasis is placed on recent results of a large-scale study on the drivers of corporate knowledge and growth in corporate value.

11. Specific Applications

Presenters: Nir Kossovsky, The Patent & License Exchange

David Near, Dow Chemical

Edward Mactas, PricewaterhouseCoopers

- I. *Nir Kossovsky, founder and CEO of The Patent & License Exchange*
Among the most exciting developments in the intangibles arena is the establishment of Internet-based exchanges for patents and know how. Nir Kossovsky, the founder of one of the major exchanges (pl-x.com), discusses the transformation of intellectual property into liquid financial instruments, by bundling the intangibles with unique information and risk mitigation products and services. Nir also reports on the progress and future of markets for intangibles.
- II. *David Near, Director of Business Excellence at the Dow Chemical Company & Edward Mactas, Partner, PricewaterhouseCoopers LLP-Unifi Network.* The Dow Chemical Company, jointly with PricewaterhouseCoopers, developed a method of measuring Dow's efficiency in applying the tacit knowledge of its employees to the needs and strategic direction of its business. With this methodology Dow can measure not only the expected current and future contribution of each individual, but their actual contribution to the projects on which they are deployed.

CONFERENCE OUTLINE CONTINUED

12. Humans--the Ultimate Beneficiaries: Gains from New Medicines

Presenter: *Frank Lichtenberg, Columbia University*

R&D looms large among intangible investments, and pharmaceutical R&D plays a central role in the enhancement of social welfare. Frank Lichtenberg, a leading technology and R&D researcher, examines the benefits and costs of new drugs. The replacement of old drugs by newer, more expensive drugs is responsible for a major part of the increase in R&D expenditure and healthcare costs. Some have suggested that too many new drugs are being produced and prescribed. Lichtenberg examines the effect of the age of the drug(s) a person consumes—the number of years since the FDA first approved the drug—on non-drug medical expenditures, mortality, and morbidity. The estimates strongly support the hypothesis that the additional benefits of newer drugs greatly exceed their incremental costs.

1:30pm-2:30pm

LUNCH – *Patron's Lobby*

2:30pm-4:00pm

Final Session

PANEL DISCUSSION

What Lies Ahead In The Intangible (Intellectual) Capital Arena?

Panel Moderator:

Robert Herz, *PricewaterhouseCoopers*

Panel Members:

Jason Cummins, *Professor of Economics, New York University*

Leif Edvinsson, *Professor of Knowledge Economics and Intellectual Capital, University of Lund*

Laura Martin, *Managing Director, Credit Suisse First Boston*

Mark W. McElroy, *President, Macroinnovation Associates, LLC*

Thomas Stewart, *Board of Editors, Fortune*

Anne Wyatt, *Faculty of Economics and Commerce, The University of Melbourne*