BRAIN BANK DATA MINING
ON THE
INTEGRAL UTILITY
SUPERCOMPUTING GRID

ENRICO A. MELSON,
MD, MPH, MBE, FACPM, DAAPM

AHA! VENTURES & THIRD-BRAIN RESEARCH INSTITUTE

SILICON VALLEY, USA & BEIJING, PEOPLE’S REPUBLIC OF CHINA
OCTOBER 2006
BRAIN BANK DATA MINING
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Advanced Harmonic Applications

Technology for Humanity

“The Integral Grid -- For Global Solutions”
We Are Pioneers of:

We Deliver The Informational… Interactive… Intelligent…

INTEGRAL GRID = “INTEGRID™”
BRAIN BANK DATA MINING
ON THE
INTEGRAL GRID

• The current WorldWide Web/ Internet is nearing saturation for meeting the needs of high-volume/ high complexity/ high-security/ high-collaboration users;
• The “INTEGRID” is a necessity and an inevitability, as specialized Grid environments, from local, “enterprise” level, up to the Global sector-specific, and the ultimate Global INTEGRID are coming into Being;
• Data requirements, Collaboration, Processing Power, and TeleCommunications are all increasing at such a pace that “Silo-System” Architecture and Operations are no longer sufficient for the demands of Information Management.
• We are first in Human History to experience pervasive “Globalization” and accelerated Integration of cultures, media, economies, sciences, philosophies and systems.

• Because of multiple factors:
  – the worldwide Internet, social computing and online communities;
  – the worldwide wireless revolution;
  – the proliferation of international trade and governance agreements;
  – The global marketplace, now reaching the 4 Billion Tier-IV Earth inhabitants.

• **GLOBALIZED INFORMATION = NEW WORLD’S BIGGEST MARKET !!!**
BRAIN BANK DATA MINING
ON THE INTEGRID

NEW IMPERATIVE:
GLOBALIZATION OF DATA

NEW REQUIREMENTS:
(R)EVOLUTION IN ANALYTIC METHODOLOGY
OVERHAUL IN DATA REPORTING AND SHARING

NEW SOLUTIONS:
VIRTUALIZATION OF MASSIVE DATA STORES
IUGSTM + INTEGRAL AWARENESS MODELING (I-AMTM)
Collaborative R/D and App. Platform

* INTEGRITY *

Applications: Distributed, Parallel and Collaborative Computing
+ *AHA!*

- Collaboration OS
- Network OS
- Engine OS
- System OS
- Hardware

Collaborative Middleware
+ *AHA!*

Intelligent IP Networking
+ *AHA!*

Single System Management
+ *AHA!*

Linux or Windows
+ *AHA!*

Super Blade System
+ *AHA!*

*AHA! Integral Utility Grid Supercomputing™*
INTEGRID™ Benefits

• Data routing, management, mining, and delivery of pervasive video, voice, and multimedia applications to all users conducted by one highly scaleable and flexible facility;

• One seamless Information Network Infrastructure integrating LAN/ WAN, intranet and internet, that is both centralized and distributed;

• Service-Oriented Architecture and Information Technology (SOA & SO-IT) can be made accessible to millions who do not have access now; the “Digital Divide” is bridged; Quality of Life is enhanced

• MASS MOBILIZATION FOR THE DIGITAL AGE!
INTEGRID™ Challenges

• Dis-integrated health care solutions that neither talk to each other, nor integrate within a single, optimally efficient seamless health care ecology;
• Disparate Data sources that have highly variable quality of format/ completeness/ consistency/ maintenance of DataSets;
• Non-aligned paradigms/ systems for classifying wellness/ illness, balance/ imbalance, cause/ effect, etc;
INTEGRID™

Advantages over Traditional IT

• *GRID* is Future of *IT*, though most of it is available now for configuration and delivery;

• *GRID*-Resident **SOA** & **SO-IT** can be made accessible to millions who do not otherwise have resources to develop or acquire on their own;

• *GRID* accelerates “…Globalization, agility, efficiency, and delivery of new business value to end customers.” (Global Grid Forum)

• *GRID* is Highly-Disruptive technology: limited-use, over-capitalized, under-utilized, restrictive-licensing, silo-based systems must adapt or face declining market shares;

• *GRID* can accommodate Open-source + restrictive, proprietary platforms *via* seamless integration technologies and applications…
INTEGRID™

Advantages over Traditional IT for Research

Virtualized Layers:

- less local investment in IT Overhead and Infrastructure;
- More $$$$$ available for Direct Research and Development;
- More access to and Opportunity for Collaboration;
- MUCH LARGER DataSets;
- More Meta-Analytic “layers” to investigation;
- Larger Peer Review Universe;
- Greater Dissemination of Findings;
- More Inter-Disciplinary, Integrative Research and Analysis;
- Etc……..
INTEGRID™
Advantages over Other Grids

- *Utility* Model: Users pay only for *ACTUAL USE*, without bearing costs of Grid/Network construction and maintenance (similar to Electrical Utility Grid);
- User savings allow more direct investment in Primary Business Operations, R&D, Customer Service, Innovation, etc.;
- Complete *Virtualization* to end-user, with combined centralized/distributed topology of INTEGRID™ via scalable, secure, high-efficiency SuperComputing nodes;
- Enterprise-level Grids scalable and linkable to National/International and Sector-wide INTEGRID;
- *Proprietary Environment*: Those who build it, can Own and Operate it, and Grow it for intended needs…$$$$$
**INTEGRID™**

Advantages over Other Grids

- **Integral Awareness Modeling (I-AM™) Methodology:** *AHA!* + *TBRI Core IP* approach builds in additional *Intelligence Layers* to INTEGRID™ environment, for continuous enhancement of Data Mining, QOS/QC, Collaboration, R&D, User Interface, etc.

- **Custom-Build-to-Spec’s via large-volume Enterprise — Sector — MultiSector approach:**

- **National interests of China and other countries better served through creating INTEGRID™ => more Self-Determination of Data Streams within INTEGRID™ environment** [Note: 90%+ of Global Internet traffic still passes through Nodal Points based in USA -- subject to monitoring, profiting, control...].
INTEGRID™ Advantages

• The Digital Health Care Environment, while beset with numerous technical and data organization challenges, nonetheless is able to achieve great progress with converging disparate data bases across a common computing platform;

• This is especially true when Integral Utility Grid SuperComputing technology is applied;

• The IUGS™ makes available MANY new \(10^n\) and far more useful ways of inter-relating and analysing data;

• Many new, combination approaches to Disease/Imbalance, Treatment/Cure/Detoxification are possible;
PROPOSITIONS:

- If $$$ were unlimited…
  - -- How would You proceed with Your Life?

Therefore:

- If **DATA/ Information** were Unlimited…
  - -- How would You proceed with Your Research???
THIRD-BRAIN RESEARCH INSTITUTE

• Participate in Inter-national efforts of NeuroScience and NeuroInformatics Research;
• Extend constructs of “Brain Mapping” from NeuroAnatomic => Histologic => NeuroPhysiologic => BioEnergetic => Field;
• Integrate major Systems/ Traditions/ Disciplines regarding Science + Health + Human Condition;
• Modeling of Brain => Mind => Consciousness via Integral Informatics for Practical Applications;
• Help Pioneer the FUTURE concept of a “Global Brain-Grid”…
INTEGRAL AWARENESS MODELING: 
I-AM™

• INTEGRAL:
  • WHOLENESS
  • HOLONOMIC

• AWARENESS:
  • CONSCIOUSNESS
  • INTELLIGENCE

• MODELING:
  • ALGORITHMIC
  • ADVANCED ARTIFICIAL INTELLIGENCE/ FUZZY LOGIC/
    CHAOS/ COMPLEXITY/ HEURISTICS/ NON-LOCALITY/
    QUANTUM/ COSMOLOGIC/ TEOLOGIC/ EMPIRICAL/ ETC.
  • WITNESS/ SURVEILLENCE
METHODOLOGIES TO EVOLVE:

• ANALYTIC
• METRIC
• QUANTITATIVE
• QUALITATIVE
• DESCRIPTIVE
• ASSOCIATIVE
• EXTRAPOLATIVE
• ETC.
DATA MINING: CROSS-CURRENT APPLICATIONS

• PHARMACOLOGY
• BEHAVIOURAL SCIENCES
• ANTHROPOLOGY
• EDUCATION/ TRAINING
• SOCIOLOGY
• NATURAL MEDICINE
• ECONOMICS
• OTHER SCIENCES
• ETC.
DATA MINING: IUGS™ APPLICATIONS AND INTELLIGENCE LAYERS

1. ACTIVE/ DIRECT/ SPECIFIC/ INCIDENTAL
2. ACTIVE/ DIRECT/ GENERIC/ SITUATIONAL
3. BACKGROUND/ INDIRECT/ GENERIC/ GESTALTIST

NOTE: #3) HAS FEED-BACK AND FEED-FORWARD FUNCTION ON #1) AND #2.
Most Probabilistic/Statistical and Western Scientific Models and Traditions are based in very limited, finite, usually discreet, localized, highly qualified, and tenuous Data…….

Therefore, REDUCTIONISM has prevailed.

Integral Intelligence Data Mining will lead to New Approaches to Data and Associations, Research Design, and Implementation…….

Therefore, EXPANSIONISM will arise.
THE FUTURE IS EXCITING!

THANK YOU