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***Information Technology Support  
for Open Source Intelligence  
Analysis & Production***

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## *Outline of Presentation*

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- The Range of Information Technologies
- The Underexploitation of Information Technology -- Especially for *Open Source Analysis*
- Technologies with Special Promise
- Investment Strategies

## *The Range of Information Technologies*

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- Computerized Libraries
- Computer-Based Analytical Methodology
- Computer-Mediated Conferencing
- Computer-Supported Cooperative Work
- Data Extraction & Conversion Software
- Expert Database Systems; Database Machines
- Expert Inference-Making Systems
- FAX, E-Mail, Voice Mail, EDI, ISDN
- MIS/DSS/EIS
- Hypertext/Hypermedia
- LANs, WANs
- Optical Storage Technologies
- Multi-Processing Architectures
- Expert Query Languages
- CAD, CAM, CASE
- Adaptive, Intelligent UCI
- Speech I/O
- Biological Emulators . . .

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\*Adapted from Straub & Wetherbe

## *The Underexploitation of IT*

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- Long Neglect of Analysis Vs. Collection
- Short on Analytical Process Modeling
- Short on Exploitation of Open Sources
  - I&W Experiences
  - UPI, FBIS
  - CNN
  - Synthesis
- Short on OS Structure & Tendency Analysis
- Limited Application of Computer-Based Analytical Methods
- Sub-Optimal Staffing & Training
- The Cult of the "Artist" Vs. the "Engineer"
- Organizational Constraints to Horizontal & Vertical Analyses

## *Technologies with Special Promise*

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- **Low-Level Intelligent Inference-Making Systems**
- **Hybrid, "Competitive" Calculators**
- **Multimedia**

## *Low-Level Intelligent Inference-Making Systems*

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- Bounded Vs. Unbounded Problems
- Reallocation of Intelligence Analysis Tasks from Humans to Computer-Based Systems
- Rearrangement of Tasks According to Relative Strengths of Organic & Electronic Systems
- Quasi- & Fully-Automated Inference Models
- Fact, Knowledge Builders
- "Anticipatory Modeling"
- Open Source "Feeders"
- Scenario Generation, Play-Back, Play Forward
- Simple Case-Based Reasoning . . .

## *Hybrid, "Competitive" Calculators*

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- Simultaneous Use of Alternative Qualitative & Quantitative Methods in "Analytical Shoot-Outs"
- Multiple Calculations from Similar Data, Information & Knowledge Structures
- Full Use of Methodological Spectrum
- Check on Methodological Bias
- Resource & Constraints Sensitive



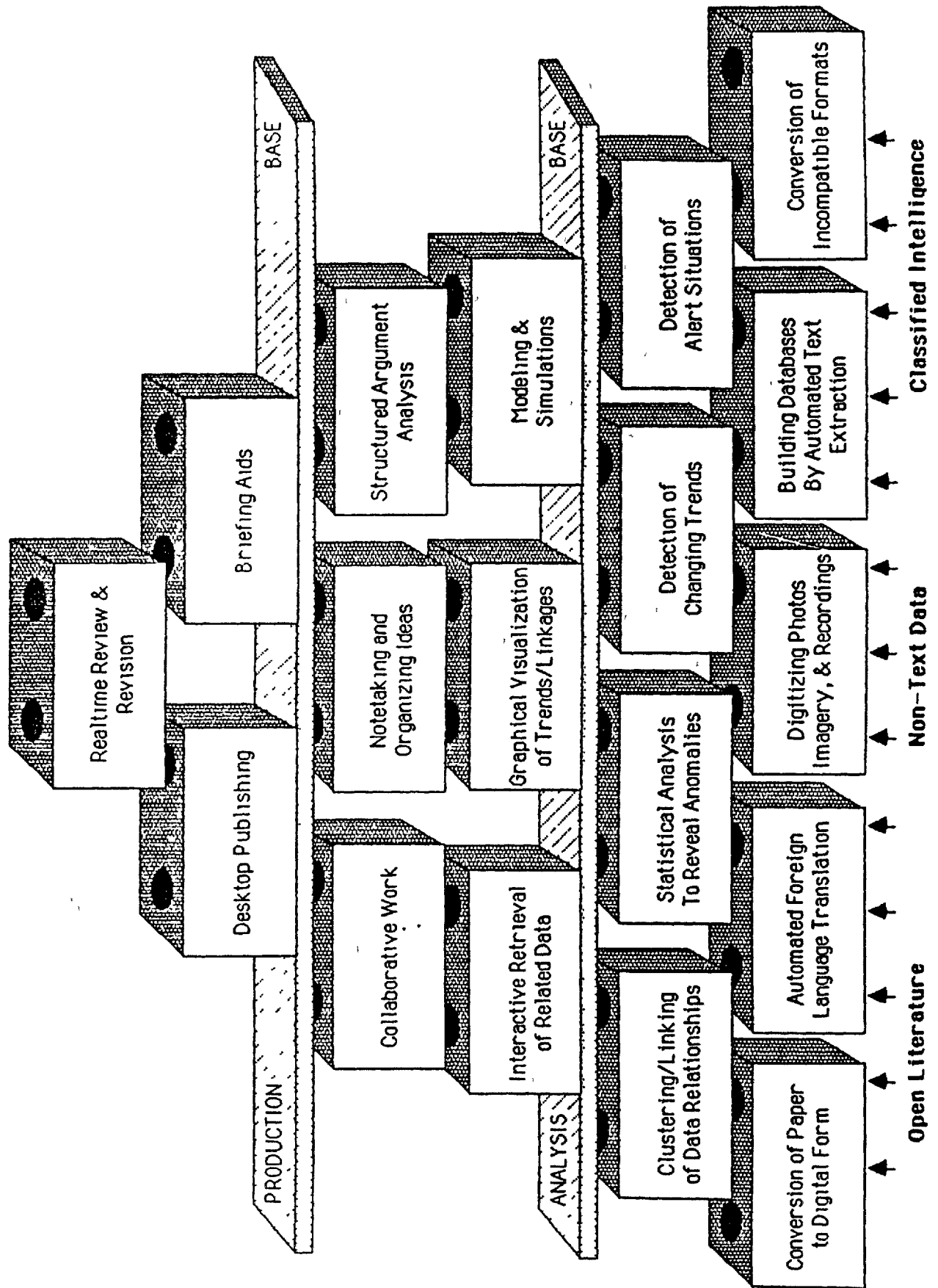


## *Multimedia*

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- "The Interface is the System"
- Form Over/& Content?
- Style Over/& Substance?
- Feeling Good Vs. Performing Well
- Useful Integration of Sound, Graphics, Video, Text in Flexible Search Structures
- Inspection of Data, Information, Knowledge, Hypotheses and Inferences Visually & Interactively
- Speed, Efficiency & Communication: Bridging the Gap Among Collection, Analysis & Production
- "Seeing" Threats, "Feeling" Opportunities: Creative, Flexible Inspection of Multi-Form Data, Information & Knowledge . . .

# Generic Requirements Hierarchy (after Webb)



## *Investment Strategies*

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- Redress the Investment Balance Between Collection & Analysis
- From Baroque to Ikea
- Conscious Recruiting of IT & Methodologically Literate
- Joint Ventures with Public Collection & Reporting Organizations
- Try a Little, Buy a Little Approach to T&E
- "OSIA" (Open Source Intelligence Agency)
- Exploitation of Information Technology Via Commercial-Off-The-Shelf (COTS) Applications Software
- Life as a Nike Commercial . . .

## *So What Do We Do?*

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- Exploit the *Actual* Capabilities of Information Technology
  - Leapfrog the Stuff that Never Worked, Like Abductive/ Inductive Knowledge-Based Systems, Light Pens & Track Balls
  - Run Like Hell from the Fads, Like Biological Emulators for Ultra-Real Time Intelligence Analysis & Production, Computer-Supported Cooperative Work & Biocybernetic Estimators
  - Launch an Intelligence Analysis & Production Requirements Analysis to Baseline What We Need & What is Technologically Feasible
- Develop Metrics to Monitor & Measure Impact
- Stop Hiring "Artists" & Go With More Hackers & Cyberpunks
- Model, Invest in & Influence the Open Source World . . .

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[Previous](#)      [Information Technology Support for Open Source Intelligence Analysis & Production](#)

[Next](#)      [Privatization of Intelligence & Development of Human Intelligence](#)

[Return to Electronic Index Page](#)