PANEL IMMM/DATASETS

Online Evaluation of Information Credibility/Accuracy
Credibility, Accuracy, Open Data

- Spreading velocity: Bad News vs. Good news
- Freedom of Speech vs. Anonymity
- Subjective vs. Objective perception
- Recommenders | Ranking
- Biased opinions
- Danger of Open Data
- Private and Public datasets: updates, obsolete
- Try and trust vs. Trust and try

Humans are humans, interests vary
Day-to-day Cases

- **Persuasion**
  - Publicity
  - Actors
  - Amplifying/diminishing impacts

- **Statistics**
  - Unemployment
  - eCrisis
  - Updates/Obsolete/Conflicting

- **Evaluation/Ranking**
  - Different criteria
  - Large spectrum
  - Peer-reviews

- **Coca-Cola/Pepsi**
  - Young/mature/aged
Today’s Panelists

• Moderator:
  Petre Dini, Concordia University, Canada || China Space Agency Center, China

• Panelists:
  Duarte Trigueiros, University of Macau and ISCTE-IUL, Macau (China)
  Ramzi Haraty, Lebanese American University, Lebanon
  Alain Casali, LIF, France

Online Evaluation of Financial Information

  Accreditation, as a part of 'credibility'

Trust | Peer review process and benchmark
Thanks!

Qs & As

WWW.IARIA.ORG
Why Should I Trust You?
Online Evaluation of Information Credibility/Accuracies

Alain Casali

LIF / Aix Marseille Université - France

Wednesday, June 24
“I preferred to do it at home, late in the evening... I made myself some tea, put my computer on the table, took my notes from my bag, and used my fountain pen to write down a neat list of research projects and effects I had to produce [...] Subsequently I began to enter my own data, row for row, column for column...3, 4, 6, 7, 8, 4, 5, 3, 5, 6, 7, 8, 5, 4, 3, 3, 2. When I was finished, I would do the first analyses. Often, these would not immediately produce the right results. Back to the matrix and alter data. 4, 6, 7, 5, 4, 7, 8, 2, 4, 4, 6, 5, 6, 7, 8, 5, 4. Just as long until all analyses worked out as planned” [Diederik Stapel - Faking Science: A True Story of Academic Fraud]
Everything we eat both causes and prevents cancer

SOURCE: Schoenfeld and Ioannidis, *American Journal of Clinical Nutrition*
### Topic: Query processing on the GPU

<table>
<thead>
<tr>
<th>Authors</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yuan Yuan <em>et al.</em> [VLDB’13]</td>
<td>GPU is always faster than the CPU despite the data transfer (with Speed-Ups from 2x to 7x)</td>
</tr>
<tr>
<td>Max Heime <em>et al.</em> [VLDB’13]</td>
<td>GPU is fast for the small and slow for the intermediate and it cannot compute the large dataset</td>
</tr>
<tr>
<td>Hannes Rauhe <em>et al.</em> [ADBIS’13]</td>
<td>GPU is often faster than the CPU</td>
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Some Solutions / Discussion

- Blind authors during the peer review process
- Sharing the same benchmark
ONLINE EVALUATION OF INFORMATION CREDIBILITY / ACCURACY – THE CASE OF FINANCIAL INFORMATION

Moderator: Petre Dini, Concordia University, Canada

Panelists: Duarte Trigueiros & Carolina Sam, UM & IUL, Macau & Lisbon
**Online Financial Information**

- **The Three Major Types:**

  - **Market information, continuous flow**
    - Quantitative: prices, rates, yields, returns, spreads...
    - Qualitative: announcements (IPO, fillings...).
  
  - **Accounting statements of companies, annual / quarterly**
    - Qualitative: notes (annual / quarterly); announcements
  
  - **Bank risk reports (Basel pillar III), annual / quarterly**
    - Quantitative: exposures, loss given default, probabilities of default, value at risk... for all risky positions of a bank
    - Qualitative: detailed procedures’ description.
**Online financial information - Reliability, supervisory bodies**

- Market information
  - Securities and Exchange Supervisors.
  - Investors, financial analysts, securities houses...
- Accounting statements of companies
  - Securities and Exchange Supervisors, Accounting regulators.
  - Investors, financial analysts, securities houses...
- Bank risk reports
  - The Basel committee on banking regulation, Central banks.
  - Investors, financial analysts, securities houses...

...in these three cases, reliability is a legal requirement
ONLINE FINANCIAL INFORMATION
- RELIABILITY CHARACTERISTICS

- “Online” fulfills legal obligation to be publicly available.
  - But not necessarily presented in a standardized way.
  - Accounting Reports: XBRL, a subset of XML
- Highly scrutinized - decisions involving large sums.
- Mandatory: obligation to convey, no more, no less.
  - Balance between informing and concealing operational secrets.
  - Holders of inside information cannot take advantage of it
- Penalties / criminal action in case of false or missing.
  - US Sarbanes-Oxley.
  - US Accounting and Auditing Enforcement Releases.
WEB CREDIBILITY / RELIABILITY ASSESSMENT (METZGER 2007)
WEB CREDIBILITY / RELIABILITY ASSESSMENT (METZGER 2007) – ONLINE FINANCIAL DATA
Online financial information reliability - Major failures

- Sumitomo (1997) went bankrupt after 3 consecutive years of unreported losses in the copper market.
- Long Term Capital Management (1998) was rescued after poor risk management and information.
- Enron (2001) with the help of Arthur Andersen, failed to report billions in losses along several years.
- Allied Irish Bank (2002) the same as Barings.
- Lehman Brothers (2008) was bankrupt due to poor risk management. Failed to report losses.

...and many recent cases.
Online Assessment for ABET Programs

RAMZI A. HARATY
LEBANESE AMERICAN UNIVERSITY
BEIRUT, LEBANON
ABET

• Accreditation board for engineering and technology
• Provides assurance that a college or university program meets the quality standards of the profession for which that program prepares graduates.
• Accredits programs in computing, engineering and technology
• 3400 programs, 700 colleges and 28 countries
• LAU first university in the MENA region to obtain it
Self-Study

- Part of the accreditation process
  - Other parts include readiness review, on site visit, etc.
  - Usually takes 18 months
  - Involves LOTS of hard laborious work
    - Researching, collecting evidence, documenting, and assessing
Assessment

- “The most tedious part”
- Manual assessment process is prone to errors and is time consuming
- Overloads faculty and staff with work
- Involves assessing courses
  - Many assessment methods, direct, indirect, etc...
  - Completing rubrics, reports, etc...
## Capstone Evaluation Rubric

**Peer Evaluation:** Instructions: Please fill-in the self-evaluation (S), and evaluate your teammate (M) using the scoring rubric below.

The information will help us assess your skills, and will NOT be used for grading. Please be direct and honest.

<table>
<thead>
<tr>
<th>Performance Criteria</th>
<th>1-Begning</th>
<th>2-Developing</th>
<th>3-Accomplished</th>
<th>4-Exemplary</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students shall demonstrate the ability to manage conflicts.</td>
<td>Unaware of group conflicts.</td>
<td>Aware of group conflicts.</td>
<td>Aware of group conflicts but failed to constructively resolve the conflict.</td>
<td>Aware and constructively resolved all group conflicts.</td>
<td></td>
</tr>
<tr>
<td>Students shall demonstrate the ability to listen to other team members.</td>
<td>Is always talking—never allows anyone else to speak.</td>
<td>Usually doing most of the talking—rarely allows others to speak.</td>
<td>Listens, but sometimes talks too much.</td>
<td>Listens and speaks a fair amount.</td>
<td></td>
</tr>
<tr>
<td>Students shall demonstrate the ability to fulfill team role’s duties.</td>
<td>Does not perform any duties of assigned team role.</td>
<td>Performs very little duties.</td>
<td>Performs nearly all duties.</td>
<td>Performs all duties of assigned team role.</td>
<td></td>
</tr>
<tr>
<td>Students shall demonstrate the ability to fulfill team role’s duties.</td>
<td>Does not respect deadlines.</td>
<td>Generally does not respect deadlines.</td>
<td>Respects deadlines but misses some dues.</td>
<td>Generally respects deadlines.</td>
<td></td>
</tr>
<tr>
<td>Students can provide and receive information in a timely manner</td>
<td>No effort is made to analyze facts.</td>
<td>Students analyzed facts collectively.</td>
<td>No collective solution is recommended.</td>
<td>Students analyzed facts collectively, and proposed a collective solution.</td>
<td></td>
</tr>
<tr>
<td>Research &amp; Gather Information</td>
<td>Does collect any information that relates to the topic.</td>
<td>Collects very little information—some relates to the topic.</td>
<td>Collects some basic information—most relates to the topic.</td>
<td>Collects a great deal of information—all relates to the topic.</td>
<td></td>
</tr>
<tr>
<td>Students shall demonstrate the ability to share information equally.</td>
<td>Always relies on others to do the work.</td>
<td>Rarely does the assigned work—often needs reminding.</td>
<td>Usually does the assigned work—rarely needs reminding.</td>
<td>Always does the assigned work without having to be reminded.</td>
<td></td>
</tr>
</tbody>
</table>
Sample FCAR

- Social and Professional Issues in Computing course
Customizable Course Assessment Tool (CCAT)

- Developed by Manal Zahrelldine at BAU
- Generates course assessment reports that are used for accreditation
- Complemented by a decision support system is designed that enable an accreditation assessment committee to take better decisions
- Builds on other tools such as ACAT, COMPASS and WebSubmit.
CCAT (Continued)

- Input: Scores on exams/quizzes/homework/projects
- Maps assessment to course outcome to student outcome
- All data is centrally located – database driven.
- Automates data collection and production of reports.
- Allows access to historical data.
Role based system
Conclusion

- Accreditation is a continuous process
  - Constant assessment
- Created a tool that generates six reports is support of accreditation
- Tools is GUI based, reliable and comprehensive
- Used in the accreditation effort at BAU
- Can be tailored for other programs