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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-Colla/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)

  Online Evaluation of Financial Information
- **Ramzi Haraty, Lebanese American University, Lebanon**

  Accreditation, as a part of 'credibility'
- **Alain Casali, LIF, France**

  Trust | Peer review process and benchmark

Thanks!

Qs & As

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Why Should I Trust You?

Online Evaluation of Information Credibility/Accuracys

Alain Casali

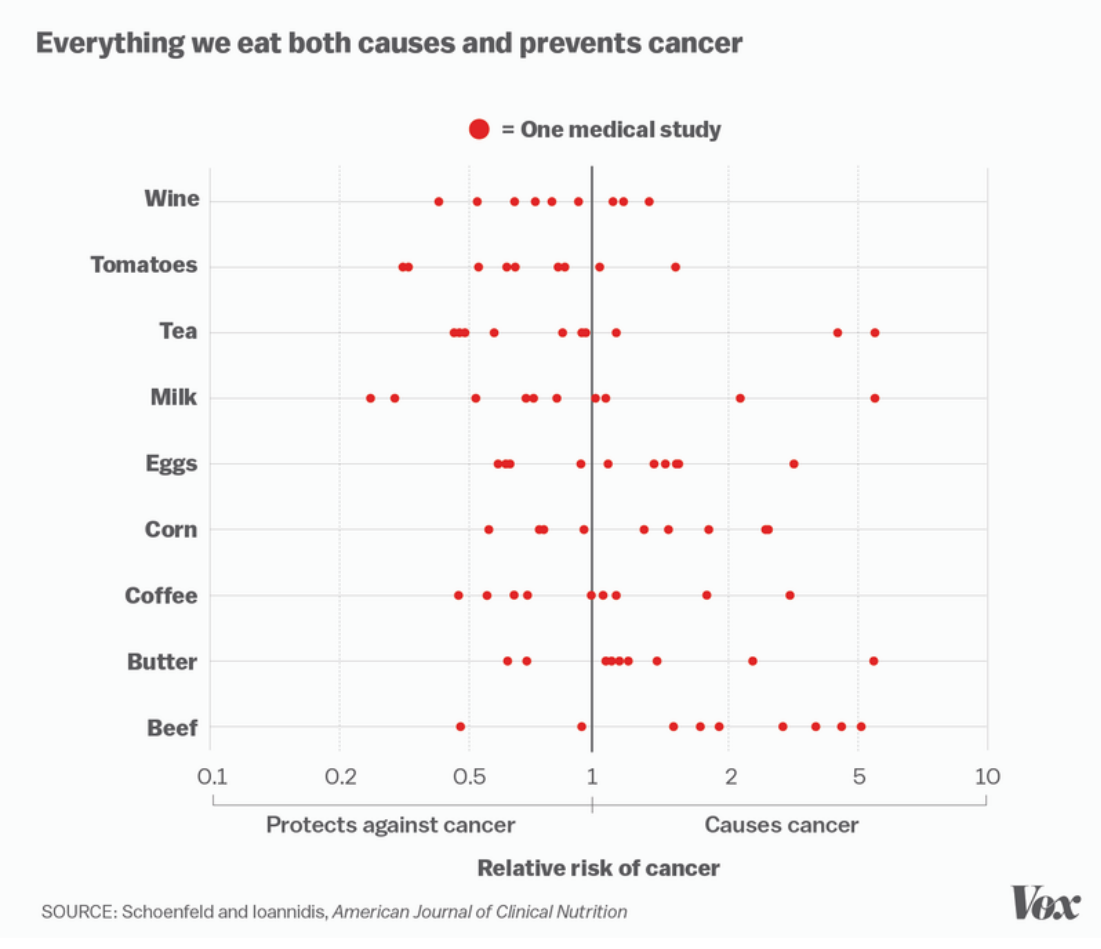
LIF / Aix Marseille Université - France

Wednesday, June 24

Psychology

"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]

Medicine


Everything we eat both causes and prevents cancer
= One medical study
Wine
Tomatoes
Tea
Milk
Eggs
Corn
Coffee
Butter
Beef
0.1
0.2
0.5
1
2
5
10
Protects against cancer
Causes cancer
Relative risk of cancer
SOURCE: Schoenfeld and Ioannidis, American Journal of Clinical Nutrition
Vox

Computer Science

Topic: Query processing on the GPU

Authors	Conclusion
Yuan Yuan *et al.* [VLDB'13]	GPU is always faster than the CPU despite the data transfer (with Speed-Ups from 2x to 7x)
Max Heime *et al.* [VLDB'13]	GPU is fast for the small and slow for the intermediate and it cannot compute the large dataset
Hannes Rauhe *et al.* [ADBIS'13]	GPU is often faster than the CPU

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
  - Quantitative: Balance Sheet, Profit and Loss Account, Cash-Flow Statement and other reports.
  - 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

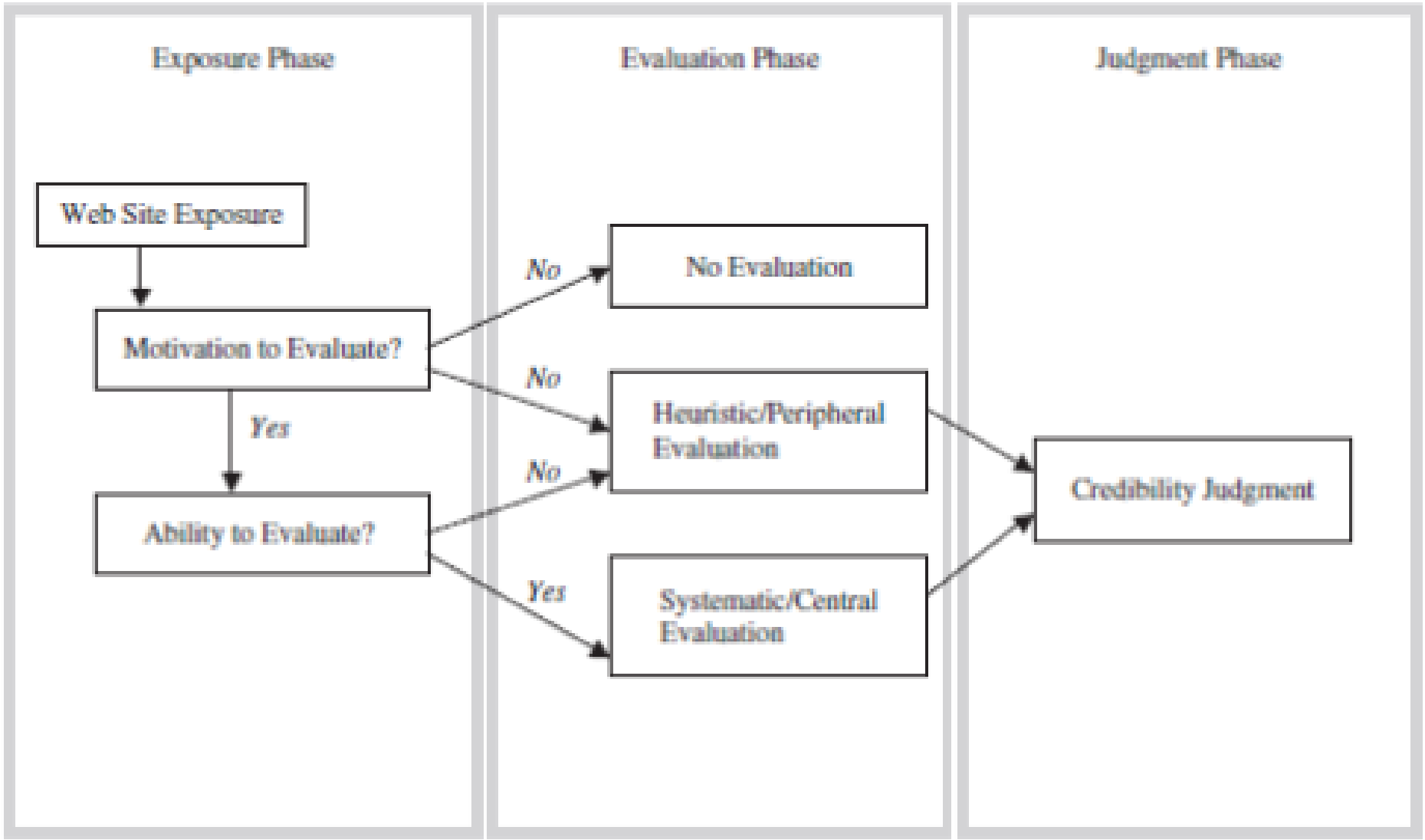
- Market information
  - Securities and Exchange Supervisors.
  - Investors, financial analysts, securities houses…
- Accounting statements of companies
  - Securities and Exchange Supervisors, Accounting regulators.
  - Investors, financial analysts, securities houses…
- Bank risk reports
  - The Basel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

…in these three cases, reliability is a legal requirement

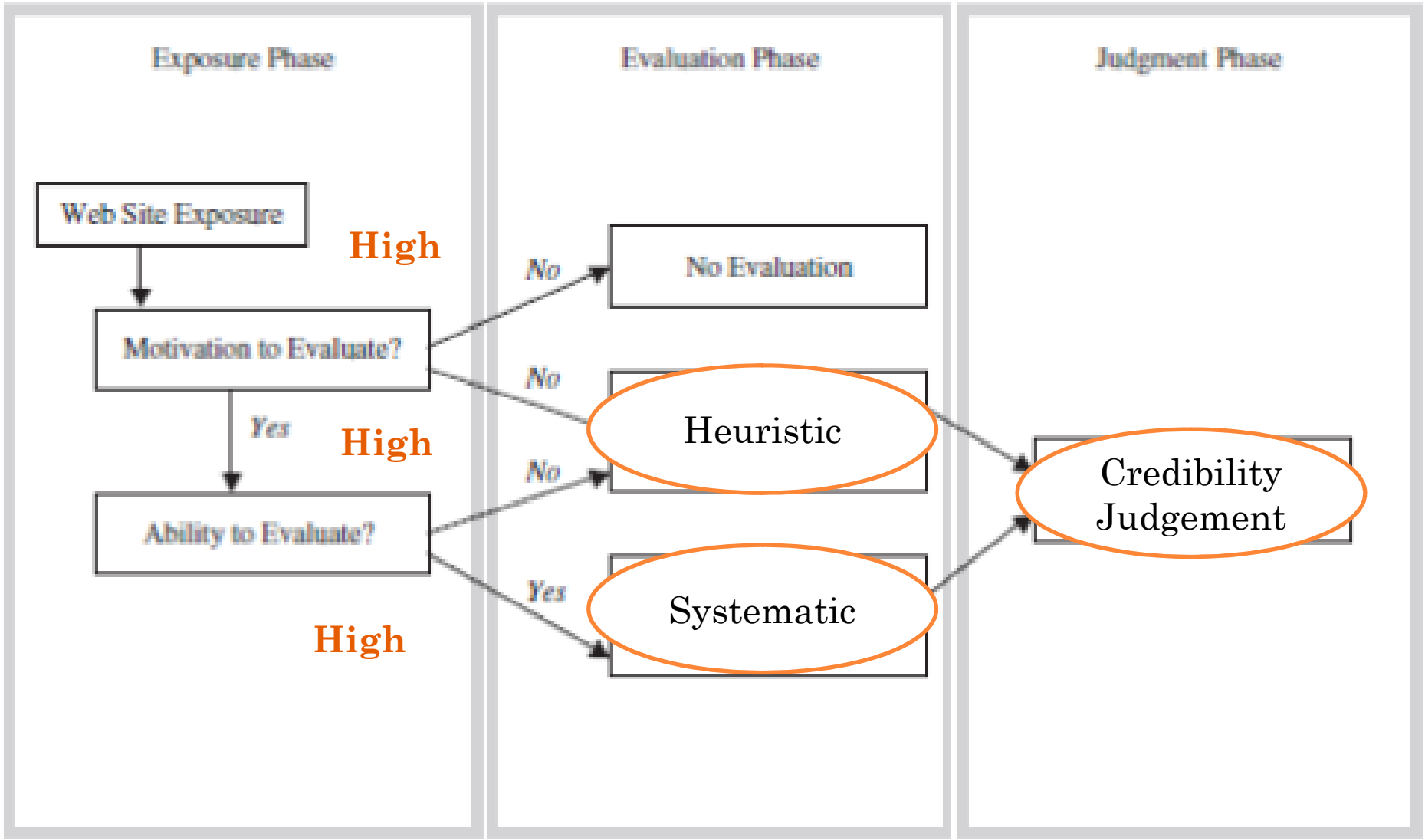
Online financial information - Reliability characteristics

- "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

- Barings (1995), Daiwa (1995), Nat West (1997) went bankrupt because traders made huge losses in FX / other markets and managed to **hide** them.
- 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…

Sample Rubric

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.*

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

Sample FCAR

- Social and Professional Issues in Computing course

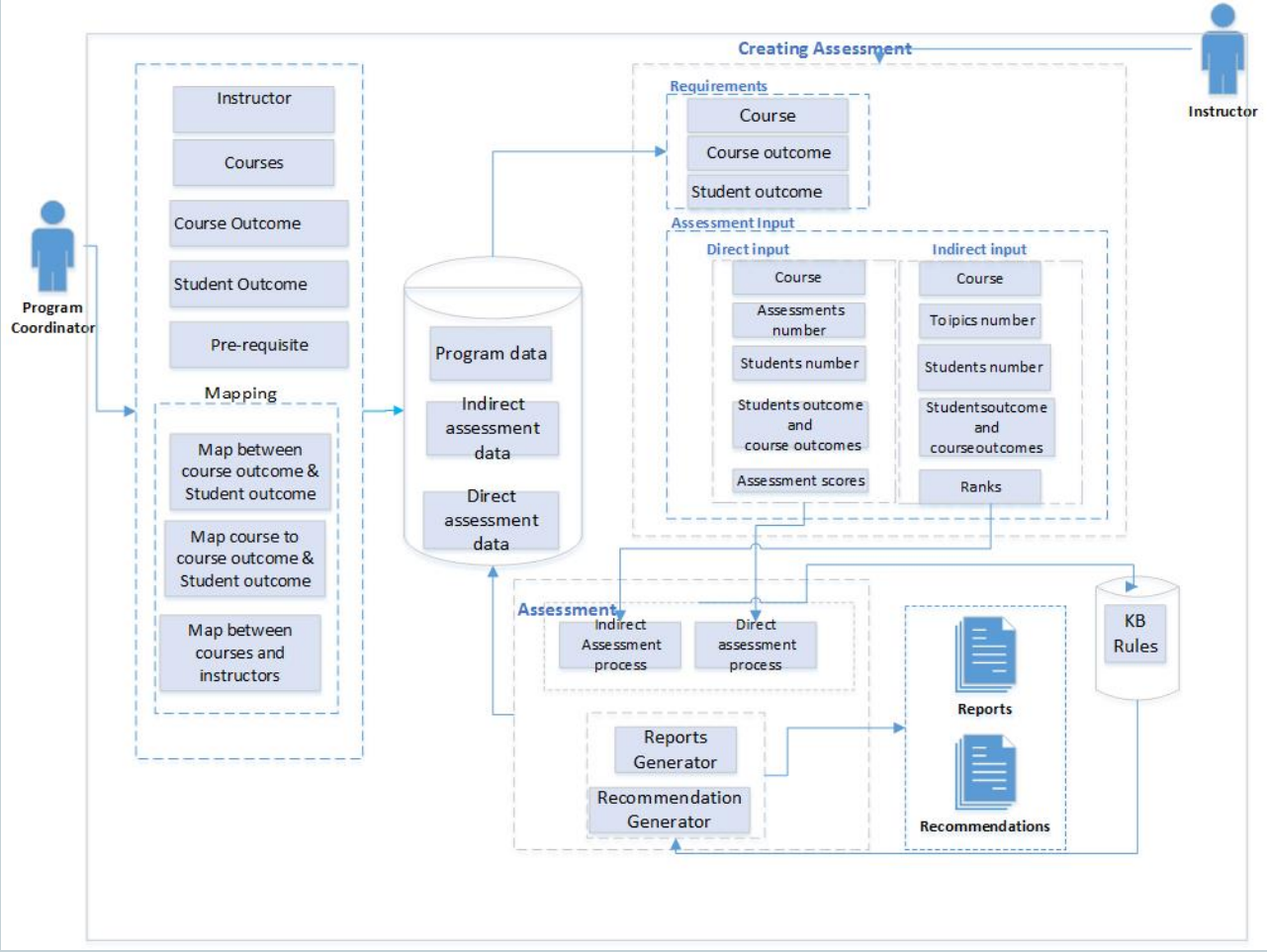
Customizable Course Assessment Tool (CCAT)

- 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