

Data Management Futurism

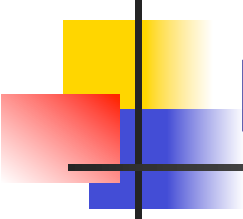
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Question 1: MOD 20 years from now – what will it be like?

- More inclusive and broader scope: embraces many more pressing applications and related disciplines



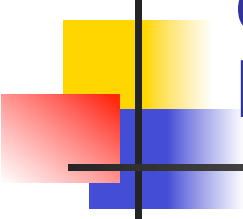
Q2: Will the research in the field one day be considered “done”, like parsing? If so, when?

- Never!
- MOD is a data-centric, application-driven research field
 - Data will continue to grow
 - New applications will continue to emerge.



Q3: Will all the interesting research be done in industry (labs) but not at universities, like for cars?

- NO!
- Research done by industry is usually for short-term vision
- Research done by academia **should** be for long-term vision
- They compliment each other.



Q4: Will research become more theoretical and difficult after all the low-hanging fruits have been picked, like in mathematics?

- NO!
- However, for research to have long-lasting impacts, it should
 - be based on a strong theoretical foundation
 - Have a sound way for research evaluation.



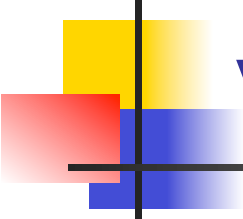
Q5: Is MOD getting less attractive to prospective grad students?

- No if MOD has a broader scope than just traditional database management
- Data and data-centric applications will continue to grow.



Q6: How will the number of MOD research jobs develop long-term?

- Should be EXCELLENT if MOD makes it more appealing to users (developing systems that are user-friendly)



Q7: For comparison: how has the field changed in the past 10, 20, 30 years?

- MOD has changed a lot
- *Go from:* relational DB centered research
- *To:* OODB, inductive DB, mobile DB, data warehouse, spatio-temporal DB, Web DB, data mining
- *To:* stream DB, cloud DB, privacy, DB+IR, DB on modern hardware
- MOD has always followed application and technology trends
- But its practical usage needs to be extended for broader impacts.



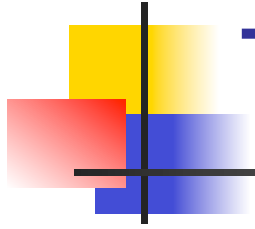
Q8: Development of research funding for MOD over time

- MOD research is supported by many federal funding programs
- At NSF:
 - Core program: III
 - Cross-cutting programs: TC, DC, CiC, OCI, CDI, CRI, and others.
 - **New Researchers: CAREER**



Conclusions

- MOD will continue to be important iff
 - It has a broader scope beyond DBMS
 - It is Human-Centered (**do not force what you believe on users; let them tell you what they want**)
 - It is scalable
 - It efficiently and effectively handles applications from key areas, e.g.
 - Healthcare
 - Environment
 - It develops a credible way for research evaluation
 - MOD researchers **THINK BIG** (academia should not wait for industry to dictate what research to do next)



Thank You!
