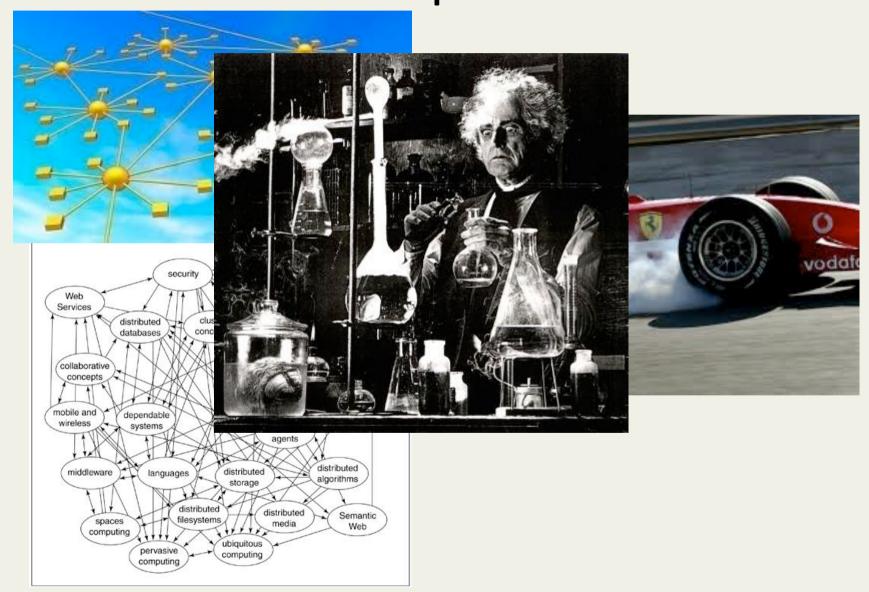
Panel: The Value of HPDC Delft, Netherlands, HPDC 2012

Jon Weissman
Department of CS&E
University of Minnesota

How are we positioned?



- 1. What is the impact of the research of the HPDC community?
 - a. Do people from industry read our papers and apply the ideas?
 - b. Why is there little attendance from industry at HPDC (~ SC.XX)?
- a. Industry Impact two ways to measure this:
- i) direct commercialization: Avaki/Univa, Entropia, Eucalytpus, ...
- ii) indirect influence: much harder to measure
 - do they hire our students: most definitely
 - do they cite our papers when they publish: more or less
 Google OSDI MapReduce paper cites Condor and metacomputing

Would we have accepted this paper at HPDC?
Could/should we poke industry to submit papers to HPDC?

b. Industry participation:

SC has an obvious industry pull ~ "trade show"

i) Wild speculation: breadth of the conference could be a mismatch with industry which tends to have a specific foci
 e.g. want DB-> VLDB/Sigmod, clouds->SOCC/HotCloud, data-center->nsdi, networking->sigcomm, ...

solution: bring industry into the conference

- ii) Collaboration: other communities seem to have more active industry collaborations
 - now common to see 5-6 authors on SOSP/NSDI papers with a mix of industry and academic co-authors

2. Do we work on the right topics and do we have the right motivation for our research?

Great question. Every few years we should re-ask this question. Not sure how to answer this. I look for 3 things:

```
i) importance: "does the work positively impact consumers?" (application scientists, industry, CS, tool builders) corollary: do we serve the right mix of consumers?
```

ii) relevance: "does this advance the field of HPDC?"

```
iii) novelty/innovation: "higher is better" incremental -----evolutionary----- revolutionary
```

3. Do we have the right mix of design, modelling, analysis and prototype development?

I think we need a balance of:

practical near-term work, i.e. optimizing system X (GPU, virt, MR) new forward looking ideas

We are good on the former and perhaps a bit lacking on the latter. How about: new design proposals for data-centers, clouds, d-i paradigms?

To me, the problem is more important than the methodology (modeling, analysis, implementation, etc).

4) Is it our actual research that is of value ... or is the main "product" our graduates who can go to industry and apply the research/design skills that we taught them?

"Output" of HPDC community at-large could be evaluated as a tenurecase: research, teaching, service

Part of this dossier for research highlights could be the best of 20 year paper proceedings

Student training as future thought leaders, policy makers, and researchers (whether in academia, govt/research labs, or industry)