

UMIACS Faculty Presentation and Discussion on Corporate Partnerships

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Ashok presented. Here are some highlights:

Slide from AAAS of US R&D funding by source. There is steady (stagnant?) funding from governmental sources, but increased funding from private industry. Proportion from private is ~3 times higher in 2007.

UMIACS has been involved in partnerships with industry, from startups to multinationals. The issue is how we do it better and in an organized manner.

Berkeley comparison is place we would like to be similar to: they have much more industry participation. This provides a lot of flexibility to university budgeting.

UMIACS has tried, but not succeed at the same level. Ashok thinks this is due to what we attempted not to who we were (name recognition)

In corporate partnerships relationship building is much more important than federal agency funding. They are looking for very specific research to solve specific problems.

Also access to students, finding good employees, but this is not UMIACS mission; it is the departments' instead (more later).

Partnership issues:

- IP: experience of industry has been atrociously bad (IP is seen by universities as cash cow), but the data shows the universities. doesn't make that much money from IP.
- The state of MD has law: any IP from univ. faculty is state property. Nonetheless, UMD has one of the most progressive IP policies in place.
- Lack of support: expert referral mechanism in existence, but that's it, more support needed
- CMNS viewpoint: "our science is of no use to industry", i.e., we need to do it ourselves

Suggestions:

- CTO talks: highly visible, reception, bring industry
- Specialized tutorials: (one day) we have a lot of expertise, e.g., state-of-the-art summary of cyber-security, couple a semester
- Collaborations: "clearing house" mechanism. From outside people think umd is a single, cohesive unit (even across campus), we need mechanisms to show that we are working together within univ
- Research collaboration: collab should be at lab level, but UMIACS should try to define new model of collaboration (beyond joint proposal, etc.), centered on student access
- UMIACS & students: extra funding from public money

Discussion:

Love the CTO talk idea: low investment as group, organization can rotate around faculty, gives visibility, if recorded and video uploaded even better

Idea: advisory board or council for industry relations, there used to be a CS board,

Last internal UMIACS review said there should be advisory board

ECE has hallway of sponsors/relations, impress outside of vibrancy, get contacts

These are companies that significantly contributed to the ECE dept, lab incentive was student training, ECE has significant industrial funding

One-day tutorial, there are "executive ed" courses in business school (cash cow), this idea better, not just to make money, but actually useful presentation. We should see who else has done it and their response

Mechanical engineering (CALCE): has huge industrial program but it has become terrible, you have to go spend time at company, don't want to take it to this extreme. Response: corporate partners decide research activities, the fee they charged was small and needed lots of partners, regular review. Not a good model for us: is a work-for-hire

Tutorials and workshop at HCIL are so popular that they combined them, and increased sponsorship and participation by a third, uptick in foundation gift,

- they have a mechanism in place
- they don't charge a lot of money
- now they charge by day (instead of single tutorial or workshop) a little over \$100 per day

Once a company comes in for specific project, they see what else is done at univ, UMIACS can facilitate that – the standard affiliate program is not relevant to this

What if you can choose from 3 labs to be affiliate, you can do research with 3 labs, they get more for their money

What are we trying to accomplish? More resources to UMIACS or richer interactions (Ashok: both),

What's important: how much is the faculty is willing to collaborate with industry (it's a very different interaction)

Very few faculty showed up for previous UMIACS CTO event.

HCIL is successful because they understand how important it is to nurture relationships with corporations and have research staff that can produce at short term

Do we want to move in that direction?

We don't all have to, but a few labs can lead, but support is needed from UMIACS (full-time staff)

Berkeley example, Mike Jordan et al. ML/DB and crowd sourcing got nice industry support. We have expertise to package this type of thing successfully.

How did this happen?

Same as writing multidisciplinary proposal, had three problems, had three good people for each area, not a lot support used to make link to industry

They have full-time support in Berkley

But they didn't use it. It was a small group of faculty working on a problem and asking "do you want to fund us?"

Ted Knight at ECE is amazing. The person on the outreach side is important. He is very successful at presenting research outside and then brings people together. Most of ECE wall of sponsors was initiated by him. It is very difficult for faculty to do this on their own, but they are very interested. Same for one day tutorial, do most people think tutorials are a good direction to go?

Show of hands for UMIACS one-day tutorial series: ~2/3 support

Fraunhofer has tutorials, nice money maker (do it for people contact), we have advantage in teaching CMMI (acronym). Pick topics that industry think they ought to know about, easy to convince people to come and spend money

If they know you from courses, they'll come for consulting and other project opportunities

We are in dc, if the government comes, the vendors follow

HCIL has tutorials along with workshops; it is well timed right after semester, people around. Suggestion as a trial-basis: add a tutorial after HCIL series (walk before run)

How does HCIL pick tutorials?

Faculty choose, but some arm-twisting (not much since they like doing workshop), junior faculty see it as a win since they meet people in their area

HCIL is a cohesive unit, so if you want to be in HCIL you have to give something back. If not money, then spend time doing something for the lab (e.g., tutorial/workshop), we should be able to ask each other for stuff: if you want to be in UMIACS you have to give back. We are all in it together; we can't just do things that are beneficial for ourselves.

What kind of workshop programming has been offered?

- Android programming. 6 hours, hard work
- Health informatics
- Map-reduce
- Designing for children, intro to HCI, knowledge-sensing, "people do their research", social computing, ...

How about going to alumni in industry? If we are going to someone big, there is probably someone in univ. development talking to them already. "We have to keep univ. development informed"

We are driven by real questions and real data, industry can help us do more meaningful work, find better questions. Funding might be volatile so it can be frustrating but this is the nature of our work: put energy on uncertain outcomes (which also happens in public funding)

Most development people in college and campus are not technical. They are focusing on gifts, not on technical development.

We need somebody who understands technology. Suggestion: somebody retiring from industry can take that outreach position at UMIACS.

ISR also has good person to do this, but interactions with others from UMIACS have not been too positive

Business school, "executive in residence" not paid, retiring CEOs. Give them a nice title, spend a day on campus talking to us and open doors

Its a good deal for univ, had high-value exit from company, trying to figure out what to do next

They want a place to hang out, talk to faculty

There's still prestige to being affiliated to univ

How many public agencies do we work with: a lot, there are at least 10 times as many out there. if there is a appropriate mechanism, IDIQ (Indefinite delivery, indefinite quantity), we can attract them.

Isn't this work-for-hire? Not quite.