Day 2: Wrap-Up Session
Summary of Breakout Session on Finding, Keeping and Nurturing Talent: The Key to Success

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and

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Schedule

• Welcome Speech
  – Lolan Song, Senior Director of University Relations, Microsoft Research Asia
• Requests from customers, and our efforts and plans to the requests
  – HyunWook Park, Head of EE Department, KAIST
• Recruiting, Cultivating, and Retaining Talented Academic Researchers: The Case of the Computer Science and Engineering Department at the Hong Kong University of Science and Technology
  – Mounir Hamdi, Head of CSE Department, HKUST
• Reducing Talent Gaps
  – Xiaoning Ling, CEO, X-Gainian Foundation
• Experience in Teach Advanced Software Engineering
  – Xin Zou, Principal Development Manager, Microsoft Research Asia
• Panel Discussion
  – Chair: Baining Guo, Assistant Managing Director, Microsoft Research Asia
  – Panelists: Sadaoki Furui, Tokyo Institute of Technology; John Hopcroft, Cornell University; Seung-won Hwang, POSTECH; Weiping Li, USTC
Opening Presentation

• Topic:
  – Why MSRA is committed to talent fostering

• Presenter:
  – Lolan Song, Senior Director of University Relations, Microsoft Research Asia

• Main Points:
  – Nature of MSRA
  – Importance of talent pipeline
  – Social responsibilities
  – Talent programs at MSRA
Presentation 1

• Topic:
  – Requests from customers, and our efforts and plans to the requests

• Presenter:
  – HyunWook Park, Head of EE Department, KAIST

• Main Points:
  – Department of Electrical Engineering
    • Small innovation in a department
  – Graduate School of Culture Technology
    • Interdisciplinary school
  – Renaissance Ph.D. Program
    • Small innovation in a university
  – KAIST Imagineering Institute (plan)
    • Large innovation in a university
Presentation 2

• Topic:
  – Recruiting, Cultivating, and Retaining Talented Academic Researchers: The Case of the CSE Department at HKUST

• Presenter:
  – Mounir Hamdi, Head of CSE Department, HKUST

• Main Points:
  – Introduction of the department: a success
  – Recruiting: advertising, selection, compensation
  – Nurturing: supportive, promote quality
  – Retaining: environment, policies, transparency
Presentation 3

• Topic:
  – Reducing Talent Gaps

• Presenter:
  – Xiaoning Ling, CEO, X-Gainian Foundation

• Main Points:
  – From Research Talent Requirement to Assessment of Talent Gap
  – The Crisis: We are NOT meeting the needs of fast-moving industries!
  – An Innovative Learning-by-doing Curriculum Experiment at Hunan University, Software School
  – X-Gainian – An experiment on a new approach for talent training
Presentation 4

• Topic:
  – Experience in Teaching Advanced Software Engineering

• Presenter:
  – Xin Zou, Principal Development Manager, Microsoft Research Asia

• Main Points:
  – Gap
    • Academic: close-book exam, no questions allowed, work individually, no feedback except a score.
    • Industry: open-book environment, interaction with customer is crucial, work as a team, feedback comes in multiple ways
  – Bring industrial requirement and best practice into classroom
    • Trainer-Trainee relation
    • Extensive reading, blogging
    • Award top performers
    • Real projects and customers
    • Focus on 1-1 collaboration
    • Focus on recent & industrial SE practices
    • Encouraging feedback
Panel Discussion

• CS Education at Tokyo Tech
  – Sadaoki Furui, Professor, Tokyo Institute of Technology, Department of Computer Science
  – Features and Problems

• Growing Talent (Given on October 18)
  – John Hopcroft, Professor, Cornell University
  – Research model and teaching in the US; Recommendations for Asia Pacific
  – Spotting and mentoring talent; How to get started in research

• Talent Fostering: A Panda’s Perspective
  – Seung-won Hwang, Assistant Professor, POSTECH, Korea
  – Things a young professor wishes to have learned 5 yrs ago

• Can “Innovative Thinking” Be Taught?
  – Weiping Li, Professor, University of Science and Technology of China
  – Have the courage and skill to challenge and, at the same time, respect authority

• Open Floor Discussion
  – Whose problem is it to have more innovative and creative education?
  – Any MS programs for younger students in elementary schools & middle schools?
  – If you have children, do you want them to enter CS related areas and why?
  – Did we produce too many CS students over the market demands?
Conclusions

• There are more questions than answers
• There is a great need for innovative and creative students
• There are good examples of innovative and creative educational programs, but it is not clear how to duplicate the success in a large scale
• Create an environment for innovation and creativity is the key, but it is not clear what kind of environment it should be and how to create it
• It is important to inspire innovative and creative thinking in young kids (K-12), but it is not clear what we can do
Mobile Sensing

Session Chair:
Jacky Shen, Microsoft Research Asia
Mobile Sensing

• Keynote Speech + Shotgun Session

• 12 professors to share research result in Japan, China Mainland, Taiwan and Korea.

• Announced SensorWeb Services in AP region.
Applications

- Asthma Patient
- Asthma Management
  - PEF flow
  - Asthma symptoms

-uCare
Conclusion

- Mobile Sensing is Everywhere!
- Mobile Sensing is promising direction!
- There are many challenges...
Natural User Interaction: Exploring Future Computer Interfaces Today

Session Chair: Frank Soong, Microsoft Research Asia
Presenter: James Landay, University of Washington
NUI Panel Discussion Summary

• Applications: learning, exercising, aging, care, smart agent, gaming, chatting...
• Input: handwriting, face, hand, body, gestures, speech, music, bio signals
  – Input sensor resolution and ambient “noise”
• Output: text, image, video, audio
  – random vs sequential access
• Distribution of processing and computing
  – client vs server; raw info sensing, transmission and processing
• Human machine “dialogue” + background monitoring + inference
  – dialogue manager: user vs initiative or mixed; disambiguation
  – user intention/emotion recognition and rendering
  – intelligent agent (keep track when and what, monitor in the background)
• When technology is not perfect yet, how to find the best applications?
  – support designers & make technologies useful by non-domain experts
• Cloud and crowd leveraging
  – Cloud as the backend helper
  – Crowd to create the community and network plus feedback for refinement
• Info access, search and sharing beyond the language/culture barrier
• Create a platform for researchers to collaborate/extend