

euCognition

**Ideas from Education &
Training Brainstorming
Session**

Schools / Workshops

- Travel to non-funded summer schools etc.
- Every IP has proposed a summer school, but these are difficult
 - Help broaden knowledge/horizons esp. for PhDs
 - Need to make 50% tech/focused 50% general
- Workshop on theoretical frameworks used to model cognition
- Workshop on Cog Science methodologies
 - There are many different approaches
 - Unify disciplines
 - Maybe methodologies of science in particular

Presenter:
Assif Mirza,
U Hertfordshire

Training

- Example of a good curriculum
 - Block units, that can be picked from
 - This can make a good resource
- How to get started in presenting, get into academic research
 - For graduate students
 - Get feet wet. Teach PhDs to stand on their own feet.
 - Stand alone workshop in Cog Systems

Repositories

- PhD Theses
- Job opportunities page
 - Advertising skills
 - Finishing PhD soon, I am available
 - Needs to be managed
- Successful stories
- Fundamental arguments for/against e.g. dynamical systems/ Bayesian network etc.
- Rough overview of all disciplines
- Lecture notes in different languages

Resources

- Visiting lecturers
 - Also PhD students
 - Will be exchange of ideas
 - Same courses in different countries
 - Speaker exchange
 - IEEE has programme of distinguished lecturers – something similar?
- Sharing platforms
 - Hardware / Software
 - Available for students – training etc.

Other

- Best PhD /Masters Thesis Awards
- Funding printed resources
 - e.g. series of books etc.
- Possible to act as an editor for journal etc.
 - Buy rights to books not widely published
 - Out of print
 - Can make work more public
- Many more senses than sight
 - Look for ways to unify resources that will educate on the possibilities
 - e.g. Auditory resources, summer schools
 - e.g. web page collecting *related* summer schools etc.

- Short time MSc Student exchanges for term projects work
- Combined/joint master studies at two different institutes (e.g. robotics and learning, language and vision, etc.), create „generation“ of scientists eager to integrate

Presenter:
Michael Zillich,
TU Vienna

- Use summer school to bring together topics and people for joint master/PhD theses
- List of places offering master and PhD programmes
- Job and post-doc vacancies, both ways (looking for and offering)

- List of ongoing and past Master and PhD theses
- Networking day for master students

- Model syllabus for a one-year course in cognitive systems, or several such to map the space of possibilities (although one year seems too short)
- „Education“ of senior researchers: catalogue of knowledge that should be known. Invitation to key researchers of a respective field to give tutorial sessions, make video available

- Annotated recommended reading lists for different fields, plus overview works, use a Wiki for collaborative annotation
- Is there something like and/or can we create something like CVonline

- Get the attention of school kids
- Toolkit/framework to enable growing pool of components for simulated cognitive systems, supplied by kids, undergraduate students. Maybe even have professional software company for an attractive, user-friendly system.

Summer schools

Presenter:
Bernhard Jung,
OFAI, Vienna

- Need to consolidate different topics and views
- Format: e.g. EASSS (agentlink)
 - call for tutorials and invitations, parallel sessions
- Collect summers schools experiences and topics covered
- Wolfgang Foerstner, Bonn, is willing to organise further summer schools following up on ECVision
- Speakers from different communities on same topic (e.g. learning)
- Cognitive Science summer school (Bulgaria) lecturers participate in 2 EU projects
 - Joint organisation of workshop and summer school

- Open labs for a few months to PhD students
 - Open lab in other (cheaper) place
- Cyberbotics Robot tournament simulator
 - (C++, Java bindings, graphical fsm-based programming)
 - College students already?
 - Benefits for Psychology students
- Tutorial days (like yesterday)
 - best placed before meetings
 - one main topic (to go into detail) + several small ones

Teaching/Courseware material

- B. Neumann: High-level vision
- J.J. Bryson: materials on the web
- Admission of guest students to courses
- Existing (complete) Master programs
- Internships with companies
- eLearning, online courses

Supply and demand

- Advertisements for internships, master level, ph.d. topics on euCognition: **pull**
- Looking for positions: **push**
 - industry will not advertise specifics
- Open solutions – problem missing

Resources

- Journal subscriptions for euCognition as a network
- Conference/workshop proceedings on euCognition site
- Benchmarks/Tests for cognitive systems
 - Use simulation tool and define fitness function for specific cognitive tasks

Incentives

- Yearly best Master/Ph.D. thesis awards

Follow Up

1. Send concrete idea to vincze@acin.tuwien.ac.at
2. Try to create coherent list
 1. E.g., combining/splitting summer schools
3. Expect „ok to go“ within one month