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First Project review

INTRODUCTION AND GENERAL COMMENTS

The mid-term review was held on 19 September 2003 in the Frankfurt Airport Conference Centre. Approximately twenty people attended. An overview of the status of the network was given by David Vernon. Essentially, the network is functioning well and on course to achieve its objectives. Notable outcomes include:

- An initial version of the research roadmap
- An ontology of cognitive computer vision
- A model curriculum for a course in computer vision
- An indexed and annotated bibliography
- A white paper on industrial applications of cognitive vision

The network has grown since its inception by 50% both by inclusion of partners from cognitive vision projects and by applications reviewed by the Executive Committee – not all applications were accepted.

The remainder of the mid-term review consisted of presentations about and discussions of the specific actions of the workplan.

The Web page of the project is well organised and informative. This is essential because of the community element in the initiative.

Insofar as the goal of the network is the definition and establishment of an area, D. Vernon reprised the essential innovations in focus for the research area.

The meeting concluded with a discussion of possible actions that could be supported by ECVision. The discussion was broad-ranging and effective.

One initiative that had been taken, a report on uncertain spatial information, was discussed. Despite being from a person outside the Network, the action was supported, demonstrating the willingness of the Network to remain open and take risks. The Network Coordinator reminded the members that money is available for reports and white papers.

Suggested new activities, such as a demo session at ECCV 2004, which was approved, are well targeted towards communication and dialog with those within and outside the Network.

1. RESEARCH PLANNING

The initial action discussed was research planning which is an ongoing exercise in formulating the research areas from which cognitive vision draws its ideas and techniques as well as the application areas in which it finds its problems. The research plan itself is available online in the Network web page. The community also continues its growth with the International Conference on Computer Vision Systems in 2003 with over 100 attendees, publications in well known technical magazines, white papers, and sponsored workshops.

2. EDUCATION AND TRAINING

The Education and Training action has completed a survey of existing cognitive vision education and restructured the CVOnline, a Web resource providing access to online educational resources in cognitive vision. (The present reviewer indicated that he has himself made substantial use of CVOnline in teaching computational vision). It was suggested that there be more links into the database to make subject matter more clear. An ontology for cognitive vision has also been prepared. These have facilitated the creation of a model syllabus for teaching cognitive vision, with links both to useful teaching resources, and links to the annotated bibliography developed for ECVision. This action also supports a jobs list on the Web page, a good idea, as well as a projects list.

As part of the Education and Training action, a successful Cognitive Vision Summer School was held in Much, Germany, in August 2003, with approximately 60 participants. Due to its success, several Summer Schools are envisioned in 2004-2005, including perhaps one on AI and a Statistics workshop in Cognitive vision.

3. INFORMATION DISSEMINATION

In the Information Dissemination action the awarding of the Best Paper prize in Cognitive Vision at the European conference on Computer Vision (ECCV 2002) was noted. A similar prize is planned for ECCV 2004. ECVision has sponsored ICVS 2002 and will sponsor a workshop at ECCV 2004 on Attention and Performance in Vision. These are all excellent efforts at communication and community building.

Various other initiatives were detailed, including conferences, workshops, best paper prizes, review papers to appear in journals, and special issues of journals.

4. INDUSTRY LIAISON

The Industry Liaison action has produced an informative white paper on applications, available on the Web page, and created a prize for best application. The prize has not been given because a suitable recipient has not been identified, not surprising in view of the immaturity of the industrial base in cognitive vision.

CONCLUSIONS

Overall, the network has many ambitious goals, has made good progress, and manages itself well, with a realistic assessment of its progress.

The work of the network committee is conducted professionally, in a direct, straightforward, collegial manner. The committee takes a serious interest in all matters and appears to take pleasure in their responsibilities. Decisions were taken in an open, pragmatic fashion. They were pragmatic and flexible, adapting to the progress in each action.

The outreach of the network is already impressive, given an 18 month time frame, and the network has been inventive in finding ways to develop resources and venues for communication. The low impact on industry is to be expected in these early days, and the committee assessed this situation realistically.

Although the committee members largely represent computer science, mathematics and engineering areas, the Network is seriously addressing concepts like "cognition" and "embodiment" also from the angle of philosophy and cognitive sciences. They intend to involve such communities in the discussions that will hopefully lead to an acceptable definition of "cognitive vision" (which is the key open issue of the Network).

The discussion of research issues in the meeting was serious, stimulating, and deep. The committee plans to afford themselves times in future meetings for more such discussion.

The cognitive vision "ontology" and the related indexed BibTeX system are excellent resources; it has been suggested that the "ontology" be elaborated in the direction of a thesaurus, with relations between entries of the type "narrow term", "broader term", and especially "related term".

At present the budget is underspent; the budget of 630.000 Euros for the first 18 months has 280.000 unspent. The explanations include less travel spending, fewer specific actions undertaken, and inexpensive meetings. Related to this issue, a number of partners have demonstrated a limited participation (and in some cases no interest at all) in the network activities. The management committee is studying actions and possible new activities to (re)attract the attention of such partners and to make best use of the budget. Inasmuch as research cannot be funded, perhaps lecture series could be planned to invite distinguished lecturers both from inside and outside Europe to capitalise on available funding.

The lecturers might be invited to ECVision and tour interested universities, as a way of drumming up support for Cognitive Vision and stirrup up interest. In some cases they might be invited to the meetings and that there be a discussion agenda, say on a particular topic.

The Network Coordinator as well as the Executive Committee need to be active in promoting new activities.

The reporting of the budget is scattered about the management report and should be presented succinctly with a breakdown by category and time period. It appears that a substantial amount is spent on travel and meetings, as planned, but this is not directly reported, and the totals of spending across all actions are not reported, only individually by action. This would aid planning for the remaining period of the grant.

In conclusion, this is a good Network, making significant progress, that should find a way to continue its activities beyond the funded period.

<signed>

Colette Maloney