Summary of 2010 Meeting of Artificial Intelligence Committee

The annual meeting of the Committee on Artificial Intelligence Applications to Environmental Science was held on Wednesday, January 20, 2010 in conjunction with the AMS Annual Meeting, beginning at noon at a reserved room at McCormick & Schmick's Restaurant in Atlanta, GA.   John Williams (committee chair) led the discussion and notes were taken by Sue Haupt.

Attendees to All or Part of the Meeting:

Name	Affiliation	Email
John Williams	NCAR/RAL	jkwillia@ucar.edu
Philippe Tissot	TAMUCC-CBT	ptissot@lighthouse.tamucc.edu
Kim Elmore	OU/NSSL	kelmore@ou.edu; kim.elmore@noaa.gov
Mike Richman	OU/Meteorology/CIMMS	mrichman@ou.edu
Chad Shafer	OU/Meteorology/CIMMS	cmshafer@ou.edu
Barb Brown	NCAR/RAL	bgb@ucar.edu
Armando Pelliccioni	ISPESL/DIPIA	Armando.Pelliccioni@ispesl.it
Matt Pocernich	NCAR/RAL	pocernic@ucar.edu
Mike Baldwin	Purdue University	baldwin@purdue.edu
Vladimir Krasnopolsky	EMC/NCEP/NOAA	vladimir.krasnopolsky@noaa.gov
Jeffrey Basara	OK Climatological Survey	jbasara@ou.edu
Jenny Abernethy	NCAR/RAL	aberneth@ucar.edu
Tim Supinie	OU/Meteorology	Timothy.A.Supinie-1@ou.edu
David John Gagne	OU/Meteorology	djgagne@ou.edu
Sam Royston	Proudman Lab, UK	samyst@pol.ac.uk
Nathaniel Beasley	Pacific NW National Lab	Nathaniel.Beagley@pnl.gov
Seth Linden	NCAR/RAL	linden@ucar.edu
Bill Myers	NCAR/RAL	myers@ucar.edu
V Lakshmanan	NSSL/OU	lakshman@ou.edu
Caren Marzban	Univ. of Washington	marzban@stat.washington.edu
Sue Haupt	Penn State	seh19@psu.edu

Items of Business:

1. Next conference – When, where, and in what format should the next conference be held? Specifically, should we continue to hold it at the annual meeting every year or should we try a different venue?
   Discussion:

Caren Marzban: Really enjoyed a joint session with Probability and Statistics, which argues for continuing at the annual conference. Having too many choices of conferences, however, dilutes our audience.

Lak Lakshmanan: Having the conference at the annual meeting is positive because it draws attendees and allows all of us to jump around conferences.

Barb Brown: Probability and Statistics plans to alternate short courses with a conference.

John Williams: Prefers either a joint conference or a conference with multiple joint sessions.

Some possibilities for joint sessions: Probability and Statistics, Satellite Applications, Air Pollution, Radar Applications, New Energy Economy.

Armando Pellicioni: Short courses are good for people interested in applications who are just starting out in AI.

Vote taken: We will hold a conference in 2011

Conference Committee for 2011: John Williams, Lak Lakshmanan, Mike Baldwin, Kim Elmore, William Hsieh

2. Short course/educational forum – Should the committee sponsor a short course or educational forum next year? There was general positive interest, particularly in the educational forum. John will look into it further.

3. Should we hold another AI Contest next year?
    Discussion:
    Kim Elmore: Yes, but we should make an effort to get the data ready early and assure that the set is "good."
    Nat Beagley?: Perhaps not everyone should give an oral presentation.
    Matt and Lak: The organizer should prepare a poster as well as a talk and some of the papers can be in poster format.
    Sue Haupt: Consider the implication of loser embarrassment.
    Vote: Yes, we will hold a contest next year.
    Data: Armando has air pollution data from Rome that includes wind profiles.
    Committee for 2011 Contest: Armando Pellicioni, Sue Haupt, Jenny Abernethy
    Future Data: It would be interesting to look at hurricane intensification. This would take some time to prepare a good training set. We will start now to prepare this dataset for the 2012 contest.
    Committee for 2012 Contest: Philippe Tissot, David John Gagne, Mike Baldwin
    Jeff Basara will help with advertising the contests and advise.

4. Use of Program Chair Funds: This year the conference will support about six student presenters. John reported that the STAC Commission prefers to have a student paper contest or to help support a high profile speaker.
    Discussion:
    Philippe Tissot: Prefers to see funds support more students rather than professionals.
    Kim Elmore: Use some of the funds for special student award for the AI Contest to encourage more student participation.

Decision: We will continue to emphasize student support and reserve some funds for student prizes for the AI Contest.
Philippe Tissot will continue to chair the student awards.

5. Committee Member Recruitment: What criteria should we use in searching for new members?
Discussion:
Sue Haupt: Pointed out that it is difficult for the committee to nominate AMS Fellows without any Fellows on the committee. We should search for Fellows as committee members.
Lak: pointed out that we should include participants from small companies and smaller universities.
Sue suggested that past chairs need not serve on the committee again since we provide input anyhow. Those slots can be given to new faces.
John Williams: Suggested including a student each year for a one year term. What should be the criteria for a student committee member? After some discussion, we agreed that the student should have demonstrated interest in AI and the committee through involvement in the conference and meetings and be nominated by a current professional member of the committee. We will announce this student position in BAMS. Perhaps it is more convenient for the term to encompass a school year.

6. Website: Our website has been highly praised. Ron Holmes is retiring from maintaining it. We are looking for a new webmaster and new host site (currently housed at Penn State).
Volunteers: Tim Supinie and David John Gagne with a host site at OU.

7. Communications: The blog and listserve are not used much. We would like to increase our communication within the group and collaboration between individuals. Perhaps a quarterly conference call is in order for about 20 min. to an hour once per quarter. Armando pointed out that foreign scientists would enjoy visits to the US to collaborate with committee members. Perhaps some of the best papers from our conference could be invited to be published in a special issue of a journal. Sue reported a successful similar experience with the *Journal of Soft Computing*.

8. Front Page is an online blog hosted by AMS. Perhaps we should use this in place of paper since it is easier to deal with than BAMS. We will advertise this year's contest on Front Page.

9. The committee can give an Award of Excellence in Computational Learning (or whatever name is chosen). Such an award should be for things such as the introduction of a new technique into the environmental sciences, impact of a particular application, service to the field, or education in computational intelligence. The committee could bestow one per year and selection would be by committee nomination and vote.

10. Should the name of the committee be changed? This issue was brought to the floor by Lak Lakshmanan as a continuation of the prior year's discussion. Lak believes that "artificial intelligence" now carries too many connotations that do not apply well to the applications advertised by the committee. Some of the students and younger participants present agreed that "artificial intelligence" can be alienating to younger scientists. Some discussion around "computational learning" ensued, with some concern whether or not "learning" included all techniques (such as fuzzy logic and genetic algorithms). Vladimir Krasnopolsky suggested "computational intelligence". This is a term used within the IEEE. After some discussion, there was a general consensus that "computational intelligence" would be a more modern term, yet carry along some of the history of the committee. John will ask for feedback from members of the committee who were unable to be present, and if the consensus holds, will proceed to work through AMS regarding a name change. We will ask to continue numbering our conferences contiguously rather than starting over from "First".