Date: April 9, 2006

NA-MIC External Advisory Board Meeting

Tuesday, January 10, 2006

Salt Lake City, Utah

The External Advisory Board for the National Alliance for Medical Image Computing (NA-MIC), one of seven National Centers for Biomedical Computing funded by NIH, convened in Salt Lake City, Utah on January 10, 2006. Dr. Ron Kikinis hosted the meeting. Chris Johnson (Chair, Utah), Liqun Wang, Fred Prior, Godfrey Pearlson (Yale), Sanjoy Mitter (MIT), Carlo Pierpaoli (NIH NICHD), and Michael Ackerman (NIH NLM) represented the EAB. This was the first meeting of the NA-MIC EAB. Accordingly, the NA-MIC PIs gave an overview of the NA-MIC cores, their progress to date, and challenges for the future:

Schedule:

1-3pm: Brief (5-min) Site PI Presentations to the EAB about their research, how NA-MIC fits into the PI's research portfolio, who works in NA-MIC and their functions.

- Core 1: MIT, U Utah, UNC, GATech, MGH
- Core 2: GE GRC, Kitware, UCLA, UCSD, Isomics
- Core 3: Harvard, Dartmouth, UCI, U Toronto
- Core 4-6 Service, Dissemination (covered with Isomics Core 2), Training

3-3:30pm: Coffee break

3:30pm-4pm: Discussion of Site PIs with EAB

4-5pm: Closed session of the EAB

5pm adjourn

In the private session the EAB discussed the Center's progress over the course of the first year and issues for the Center to consider in the future.

Highlights

The Center has assembled a group of top imaging researchers and has already established interdisciplinary collaborations. Each of the cores is technically strong, and has a significant presence in their peer research community. The Center PIs have started close collaborations with biological investigators.

The Center is committed to open source software and open data. The Center software products are available without restriction to the scientific community. This open approach to science is directly in line with current NIH Roadmap directions and is applauded by the EAB.

The Center has established software engineering processes. The Center recognizes the importance of software engineering and has established good software engineering practices that take advantage of open source software engineering tools and resources.

The organization of the Center is impressive. True interdisciplinary collaboration is difficult. Dr. Kikinis has brought together top researchers in computer science and biomedical science that are working together well to produce new techniques and results, as well as distributing their results and software to a wider community.

The Center wiki is impressive. The Center has created a wonderful interactive wiki (http://www.na-mic.org/Wiki/index.php/Main_Page) that is used for Center interaction, planning, documentation, and resources. The NA-MIC wiki is an excellent example of interactive web-based technology for distributed collaboration.

The Center has an impressive educational and training program. The Center has hosted a number of training sessions at workshops and other meetings. The training sessions include both users and developers of the NA-MIC software and are well attended.

Recommendations

The Center should actively pursue methods to distribute their software and other resources to a broader community. The Center is already doing a good job at distributing their software toolkit, however, they are also creating a number of additional techniques and tools that would be useful to biomedical researchers. The EAB recommends the Center consider additional methods to "get the word out" about their resources.

The Center should consider additional techniques for quantifying algorithms. The EAB recommends that the Center work on techniques that verify that their algorithms (and software implementations) work on different data sets.

The Center should generate a set of success criteria. Now that the Center is fully organized, it is important to create a set of success criteria by which the Center can measure its success. The EAB recommends that the Center start to create such a set of success criteria that it will use in future years to measure the Center's success.

Discussion

There was a discussion regarding the continuation and funding of the driving biological problems (DBPs). The DBPs are budgeted for three years of support, after which, they must secure independent funding to continue their research. Given the length of the NIH review cycle, DBP researchers would effectively have to submit proposals within a year or two into the process. The EAB believes the current mechanism is not conducive to successful collaboration and recommends that NIH consider improved mechanisms for interaction between the Center and the DBPS.

Sincerely,

Chris Johnson, NA-MIC EAB Chair