WATERLOO INSTITUTE
for COMPLEXITY & INNOVATION

June 27, 2013

To:
Mr. Przemyslaw A. Grabowicz, IFISC, Palma de Mallorca, pms@ifisc.uib-csic.es
Dr. Luca M. Aiello, Yahoo! Research, Barcelona, alucca@yahoo-inc.com
Dr. Fil Menczer, Indiana University, Bloomington

Dear Applicants,

We are pleased to inform you that your submission "Fast visualization of relevant portions of large dynamic networks" has been selected for the $10,000 CAD WICI Data Challenge award. The reviewers and the awards committee found your submission to be novel, useful and an excellent building block for future work for the network science community. The comments of two peer reviewers are included at the end of this letter.

We would like to invite one or more members of your project team to present the project as part of a WICI sponsored complex systems data visualization and analysis colloquium to be held (ideally) in fall 2013. Your presentation should include, if possible, a lab session to demo the tool for interested participants. Please let us know who would be presenting and what dates are possible at your earliest convenience. We can provide up to $1500 of travel funds as well as assistance in making your travel bookings.

We will also be coordinating with you further to establish an archive of the submission and links to it via the WICI website.

Again, our congratulations, and thank you again for the time and effort taken for your submission.

Yours sincerely,

Dr. Dawn Cassandra Parker
Director

Peer Review One:
1) What novel contribution does the submission make to the exploration, analysis, and visualization of complex-systems data? Does it represent a substantial, or merely incremental, advance?

This submission makes a very useful contribution to the exploration and visualization of complex time-dependent networks. Similar tools have been around for a few years, but I'm especially impressed by (1) the simple input format of the algorithm, which makes it easy to use in a number of contexts; (2) the transparency and clarity of the exposition in the accompanying paper; (3) the flexibility in terms of how the output of the algorithm can be handled; (4) the simple yet functional filtering mechanisms that focus visual attention to the key aspects of the evolving system; and (5) the excellent scalability and performance of the method. The combination of these five factors into a single submission makes this a substantial advance.

2) If the submission were to be made available open source, what audience would be likely to take advantage of it, and how might it be used?

I see broad use for this algorithm. It could be used in longitudinal social network analyses, computational social science, and network science and beyond.

3) How would you see this tool or method advancing complex systems science, either as an

analysis method, a building block, or a demonstration?

Longitudinal network data sets are now becoming increasingly available, and this tool could help with data exploration and hypothesis generation, as well as with visualization of certain types of dynamical network models.

4) How does this submission compare to other related work in this area, both as cited by the reviewers and potentially from other researchers?

I think this is a very strong submission.

5) Any other comments about the submission?

I think I would like to use this algorithm myself!

Peer Review Two:

The output of the tool is certainly quite interesting and the explanations for the emerging patterns match with intuition. One weakness is that the mechanism to quantify relevance and strength of interactions is heuristic, and there does not appear to be a way to quantify how "meaningful" the visualized data is (for example, perhaps there are other interaction structures that would emerge if the edge updates were done in a different way). Nevertheless, this seems to be an interesting tool with good potential.