

# Designing Online Strategic Games and Microworld Simulations

**Workshop Chair:** Ranan Kuperman, University of Haifa

**Location:** Magnolia Room, Hilton New Orleans Riverside

**Time:** Tuesday, February 16, 9:00 AM to 4:00 PM

## Workshop Summary:

The product of this workshop is more than just a research publication, but rather a research tool that will be located on the internet. We are anticipating that with the aid of this tool we will succeed in accomplishing two things. First, we will promote experimental research in the field of International Relations. In our view, in comparison to other fields in the social sciences, experimental research is not receiving sufficient attention. The second objective of this workshop is our attempt to promote research of dynamic processes. This type of research is essential because international environments are highly unstable and undergo a continual flux of events. Studying dynamic processes of international interactions on the basis of historical data is extremely difficult and is riddled by missing data. Experiments with simulators of dynamic environments offers an opportunity to explore many aspects of foreign policy decision making that cannot be studied in any other research approach. Therefore, by creating a simulator module we are encouraging a new research agenda by providing researchers with an alternative venue for studying dynamic international interactions.

We have already started the first phase of this project. A prototype of the module is being created right now. Thus the next stage is to evaluate the prototype. During the workshop we will discuss the necessary requirements in order to maintain the simulator module. This means techniques for creating simulations, running dynamic experiments, accessing and analyzing data that is produced, and teaching other researchers how to use the simulator and conduct their own experiments. In addition to the module we intend to produce a manual with examples. We will therefore develop simulators and run a number of experiments that can illustrate the capabilities of the module and type of questions that can be studied.

We are expecting that following this workshop and after further modifications of the module, a number of us, as well as other researchers, will use the module in order to create their own simulators and run their own experiments. Therefore we are anticipating next year a panel devoted to "Dynamic Processes in International Relations." Such a panel would include descriptions of the simulator s that were developed and experiments demonstrating preliminary results. This would be the first panel ever dedicated to the study of dynamic decision making in the field of foreign policy, While the this type of research has been established during the past two decades in the fields of management, psychology and organizational science, it has been neglected in the field of foreign policy analysis, even though this type of research is highly relevant.

## Workshop Participants:

- Ric Stoll, Rice University, USA
- Nehemia Geva, Texas A&M University, USA
- Andrew Enterline, University of North Texas, USA
- Ranan Kuperman, University of Haifa, Israel
- Steve Redd, University of Minnesota, USA
- Lesley Terris, IDC, Herzliya, Israel
- Nadav Kedem, University of Haifa, Israel
- Victor Asal, SUNY, Albany, USA

# Workshop Report 2009 - Designing Online Strategic Games and Microworld Simulations - Ranan Kuperman

## Interim Report Ranan Kuperman

The workshop was divided into four major topics:

- 1) Development of a theory of simulations. This discussion was necessary because if we want to start teaching and training students to apply this methodological approach it is a good idea to understand what exactly is a simulation in comparison to a standard experiment, and how exactly does this methodology contribute to scientific research? In addition this provides us concepts for evaluating alternative formats of simulation research, which remains a central issue of debate among researchers who pursue this type of research.
- 2) How do online simulations differ from other forms of simulations? Mainly the concern was what additional information might be obtained or lost with the aid of these types of simulations in comparison to other forms, and what additional functions can be applied with the aid of this type of technology.
- 3) Technical considerations. This part of the workshop demanded a lot of time and seemed a bit overwhelming for most participants because in most cases this has not been a concern of most researchers who run simulations. However, this tedious discussion was necessary because the use of modules requires some minimal technical skills just like statistical packages and databases require some minimal technical knowledge.
- 4) Future developments. We did not have sufficient time to discuss this topic in detail and had to continue this over the internet. The issues that were discussed were:
  - a) The need to simplify as much as possible the use of the online module
  - b) How to obtain financial support for this project
  - c) The suggestion that the online module be integrated next year into teaching programs
  - d) Publishing a symposium of articles dedicated to experimental research using computerized simulators.

Regarding the last issue (d), I assume this will require at least a year. The reason it takes so long is that the purpose of this project is to run experiments with students using this new technology, something that requires considerable preparation.

In the short term there will be an attempt by May to have a fully functional online module that will be sufficient for teaching and research purposes, and then we will plan the next stage of this project. My assumption is that in preparation for publishing a symposium we will attempt at the next ISA meeting to have a panel dedicated to online simulator research.

Finally, I think this workshop produced one of the most serious academic discussions dedicated to simulation research. My feeling is that everybody learned a lot from the exchange of ideas. Colleagues of mine who did not attend the workshop apparently also heard about it and expressed interest.