



CoMSES Digest: Winter 2013

Volume 1, No.2 August 1, 2013 – December 15, 2013

Welcome to the second issue of the CoMSES Digest. The Digest reports the transactions of the CoMSES network and is distributed to affiliated and full members of OpenABM.org.

This issue of the CoMSES Digest begins a new publication schedule: going forward, the Digest will be published quarterly, on the 15th of the month in March, June, September and December. The Digest itself will also receive a permanent DOI/handle and will be archived on the OpenABM website. We encourage members to consider archiving their models and having them certified in time to get them reported in the Digest in a way that maximizes their visibility, e.g. on dates that align with the publication of related articles. To request a review leading to certification for your model, archive it at OpenABM, go to your model's page and click the 'Request review' button.

In addition to the model archive, the OpenABM site offers several other benefits to the CoMSES community. As the new year- and new semesters- begin, members are especially encouraged to review and use the educational material in the OpenABM archive. There you can find modeling tutorials, classroom materials, and even videos on our new YouTube channel. If you are preparing your own, please consider contributing them to the library so that others in the CoMSES network can benefit from your experience.

You can also check the discussion forums and events calendar for upcoming conferences and workshops, and use the network to connect to other CoMSES members who may be attending the same events you are. And if you are on the job market for 2014, or you know someone who is or are yourself posting a job, please use our discussion forums to place and/or read ABM and SES modeling positions.

Finally, as mentioned in the last issue of the Digest, the members of the Interim Executive Board (Bruce Edmonds, Volker Grimm, Christophe Le Page, Bill Rand, and myself) continue to meet regularly and are evaluating a proposed structure for CoMSES governance. This includes a new Strategic Planning Document, which (tentatively) will

include:

- bylaws that describe CoMSES's mission, its membership, its scope, and the composition of the CoMSES board;
- five-year goals for the CoMSES network;
- a strategic plan for achieving those goals; and,
- procedures for holding elections and conducting other CoMSES business.

Those interested in learning more or offering feedback are encouraged to contact any IEB member. More details will be sent to CoMSES members early in 2014.

I'll be editing the Digest throughout 2014; I'm looking forward to reporting more growth for the CoMSES network throughout the year.

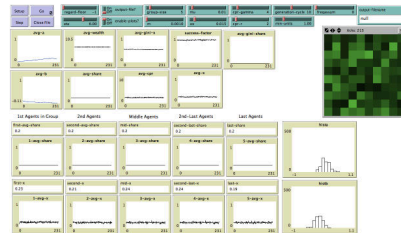
Sincerely,
John T. Murphy
CoMSES Digest Editor
Member, CoMSES Interim Executive Board

Newly Certified Models in the Model Library

Evolution of Cooperation in Asymmetric Commons Dilemmas

Marco A. Janssen, Nathan D. Rollins

This model can be used to explore under which conditions agents behave as observed in field experiments on irrigation games. In irrigation games participants have different levels of access to the resource. This asymmetry causes that agents downstream reduce investment in the common infrastructure if they do not get a large enough share of the common pool. Participants balance efficiency and equity. When do agents evolve who do the same?



More Information About Model Certification

Newly Published Models in the Model Library

Battle of Perspectives

Marco A. Janssen, Bert deVries

How does the world population adapt its policies on energy when it is confronted with a climate change? This model combines a climate-economy model with adaptive agents.

Simulation of ethnic conflicts

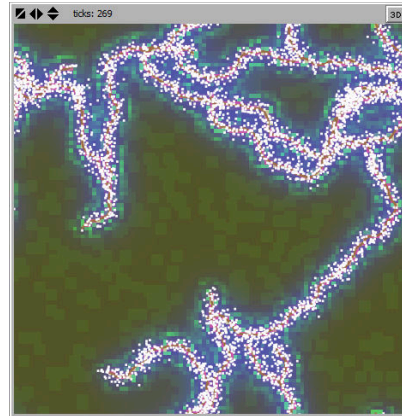
Suvad Markisic, Sinan Kilic

This is the final version of the model. To simulate the normative dynamics we used the EmIL (EMergence In the Loop) Framework which was kindly provided by Ulf Lotzmann. <http://cfpm.org/EMIL-D5.1.pdf>

Soil microbe-predator model with enzymes

Randall B. Boone, John C. Moore, Akihiro Koyama, Kirstin Holfelder

We seek to improve understanding of roles enzyme play in soil food webs. We created an agent-based simulation of a simple food web that includes enzymatic activity. The model was used in a publication, Moore et al. (in press; Biochemistry).



Gunpowder battle tactics

Xavier Rubio-Campillo, Jose María Cela, Francesc Xavier Hernández

Computational models have been extensively used in military operations research, but they are rarely seen in military history studies. The introduction of this technique has potential benefits for the study of past conflicts. This model was developed to help understand European military tactics during the eighteenth century, in particular during the War of the Spanish Succession.

Frotembo

Christophe Le Page, Kadiri Serge Bobo

A stylized scale model to codesign with villagers an agent-based model of bushmeat hunting in the periphery of Korup National Park (Cameroon)

Aurora Shooting Model

Roy L Hayes, Reginald L Hayes

On July 20th, James Holmes committed a mass shooting in a midnight showing of The Dark Knight Rises. The Aurora Colorado shooting was used as a test case to validate this framework for modeling mass shootings.

Social model of a Team Developing a Planning-Methodology

Oswaldo R Terán, Christophe Sibertin

The model represents a team intended at designing a methodology for Institutional Planning. Included in the ICAART-2014. Main Goal: To exemplify how emotions and morality can be identified/modelled in SocLab.

ForagerNet3_Demography: A Non-Spatial Model of Hunter-Gatherer Demography

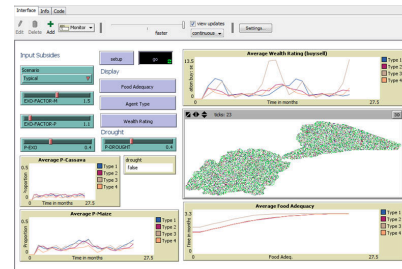
Andrew A White

ForagerNet3_Demography is a non-spatial ABM for exploring hunter-gatherer demography. Key methods represent birth, death, and marriage. The dependency ratio is an important variable in many economic decisions embedded in the methods.

A Neutral Model of Stone Raw Material Procurement

Marco A. Janssen, Simen Oestmo

A simple model of random encounters of materials that produces distributions as found in the archaeological record.



Smallholder Behavioural Decisions During Times of Drought Stress

Samantha L Dobbie

An empirical ABM of smallholder decisions in times of drought stress.

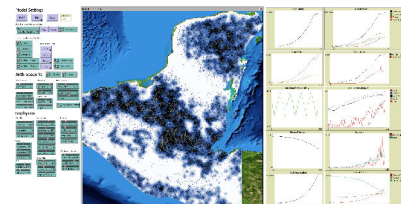
Most Downloaded Models in the Model Library

(August 1, 2013 – December 15, 2013)

1. **(69 Downloads)** MayaSim: An agent-based model of the ancient Maya social-ecological system *by Scott Heckbert*

2. **(65 Downloads)** Artificial Anasazi *by Marco A. Janssen*

3. **(62 Downloads)** A consumer-demand simulation for Smart Metering tariffs (Innovation Diffusion) *by Martin Rixin*



4. **(62 Downloads)** (Policy induced) Diffusion of Innovations - An integrated demand-supply Model based on Cournot Competition *by Martin Rixin*

5. **(50 downloads)** A land-use model to illustrate ambiguity in design *by Julia Schindler*

6. **(50 downloads)** A simple Multi-Agent System of the Tragedy Of the Commons (MASTOC-s) *by Julia Schindler*

7. **(50 downloads)** A Computational Model of Workers Protest *by Jae-Woo Kim*

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