The Emergent platform[™] for Community Ccn

Submission ID	3000284
Submission Type	Poster
Торіс	Cognitive Science
Status	In Progress
Submitter	Kai Krueger
Affiliation	eCortex and Latently, a Public Benefit Corporation

SUBMISSION DETAILS

Presentation Type Either Poster or Oral Presentation

Presentation Abstract Summary The emergent platform (TM) consists of the emergent (TM) simulator (http://grey.colorado.edu/emergent) and supporting infrastructure for community CCN model development. It has integrations with open repositories such as wikis and source control as well as with free public supercomputing resources provided through the Neuroscience Gateway on the Comet supercomputer, resulting in a simple, yet full fledged platform for collaboration in brain modeling. The platform supports brain modeling up and down the stack, from computational neuroscience to mean field models to ACT-R and Bayesianism, allowing one to combine the strengths of the different approaches in a single model. emergent (TM) has the best support for visualization of any neural simulator to date, enabling one to use visual regression to develop their intuitions of dynamic brain systems (Wlodzislaw & Dobosz, 2011). The platform has a long history in Connectionism, having descended from PDP (1986) and PDP++ (1995), and comes with a CCN textbook (http://ccnbook.colorado.edu) that explores the latest instantiations of the increasingly brain-inspired versions of the PDP models from the early days. While flexible, the platform is also principled and biased towards convergence on a middle-of-the-road approach, with wizards enabling the creation of cognitive architectures linking PFC, hippocampus, midbrain, vision and more.

Paper Upload (PDF) ccn_style.pdf

Co-author Information

* Presenting Author

First Name	Last Name	Affiliation	E-mail
Randy	O'Reilly	University of Colorado at Boulder, Department of Psychology, Computational Cognitive Neuroscience Lab	Randy.OReilly@colorado.e du

Kai *	Krueger *	eCortex and Latently, a Public Benefit Corporation	kai.krueger@colorado.edu
Brian	Mingus	Latently, a Public Benefit Corporation	mingus@colorado.edu
John	Rohrlich	University of Colorado at Boulder, Department of Psychology, Computational Cognitive Neuroscience Lab	John.Rohrlich@colorado.e du

Keywords

Keywords
CCN
HPC
cognitive modelling
cognitive architectures
model repository
collaboration