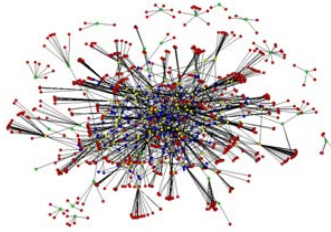


Four-Campus Video-Conference Series, F-W-S 2006-7

Human Sciences and Complexity



October 6: Friday, 1:30-3:00

Jeff Brantingham (Archaeology, UCLA)

"Foraging Behavior of Contemporary Criminals"

UC Mathematical and Simulation Modeling of Crime (NSF HSD Project)

<http://eclectic.ss.uci.edu/~drwhite/center/cac.html#2006> (live link in pdf)

Abstract: Crime mapping forms a key feature of current approaches to understanding offender behavior and is a tool used increasingly by police departments and policy makers for strategic crime prevention. However, despite the availability of sophisticated digital mapping and analysis tools there is a substantial gap in our understanding of how low-level behaviors of offenders lead to aggregate crime patterns such as crime hot spots. Agent-based modeling offers a potential avenue for developing a quantitative understanding of crime hot spot formation built from the bottom-up around offender behavior. Agent-based models are not only more consistent with the scale of decisions that offenders actually take, but they also open the door to the development of custom statistics that are designed to answer specific behavioral questions less tractable in general statistical models. However, there is also concern that agent-based simulations can lead to erroneous results either because of poor model design or errors in model implementation that go undetected. A solution to this problem is to design simulations around well-studied analytical models where the model behavior can be tested against sound analytical expectations. Only following such testing should simulation models be extended into areas that cannot be treated analytically and, only subsequent to this, into applied contexts.

Video Conference Locations for Participants

UCSD: 260 Galbraith Hall – Mary Gibsen mgibsen@ucsd.edu

UCR: A139 Olmsted Hall - Mike Capriotti mcap@ucr.edu

UCI: 122 (behind 122) Social Science Tower – Jeffrey.Fisher@uci.edu 824-7581

UCLA: 285 Powell Library - vidcon@ucla.edu