### RECURSIVITY

Recursivity (n): In mathematical terms, recursivity is a mode of definition in which the definition itself depends on that which is being defined. In mechanical or computational terms, recursivity is a way of processing which incorporates the previous outcomes of the process in its future development. Time is either essential to recursivity, or it isn't. In both cases, recursivity is the way in which a finite system, such as algebra or a state machine, approaches various types of infinity. By turning in on itself, the system gives rise to the no-longer-quite-finite, the approach of the finite to an infinite world. At the same time, recursivity is that which undermines the comprehension of the finite itself and creates the provably unknowable.

Recursivity is a very open-ended object, but it is also specifically instantiated and not purely abstract. In Chomskian linguistics, recursivity is the essential and distinguishing mark of language as a human activity. In number theory, recursivity marks the danger of Gödel's incompleteness theorem. In computer science, recursivity is usually at the center of algorithmic elegance. But apart from these and other instances which deal with recursivity by name are others for which the concept of recursivity, hidden or revealed, is a danger, possibility, impossibility, or hope. Through continual rescripting by the human observer, the practice of livecoding generates a development of state dependent on but not contained in the code. The anthropological idea of self-reflexivity hopes to get beyond the narrow cultural subjectivity of the observer. The increasing use of invented plots and data mining in counterterrorism surveillance may make counterterrorism a recursive object.

We will invite proposals which open up the notion of recursivity as a special logic of relations that are observable and entangled in processes in nature, cognition, social and cultural spheres, technology, and the interactions between these. While virtually any discipline could have something productive to say about the matter, we are especially seeking contributions from software studies, critical code studies, cultural and media studies, anthropology, humanities and social sciences, as well as artistic contributions.

#### Possible sub-themes:

- reflexivity as phenomenon of system organization (in humans, living/social systems and publics, and/or machines);
- representations of recursivity (syntax diagrams in linguistics, code algorithms, flow-charts and other image types);
- material mechanisms of self-recognition, self-interpretation, and self-translation;
- recursive techniques in interactive environments, gaming, and performance (e.g. live-coding);
- recursivity in metaphysics, philosophy, epistemology, and science;
- affective dimension of recursivity and its psychological categorization (e.g. neurosis and paranoia).

### **FORMAT**

We would like to see the format of this event as not only an academic conference, but also a platform for creative exploration and experimentation. The program of oral presentations by invited speakers and selected graduate student participants can be supplemented by a round-table discussion, performance, workshop and a small exhibition.

## PROSPECTIVE INVITEES:

- 1) Christopher Kelty (UCLA)
- 2) David Bates (UC Berkeley)
- 3) Wendy Chun (Brown University)
- 4) Brian Rotman (Ohio State University)
- 5) a Bay area based artist to give a workshop/performance

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