INFERENCE WORLDS: POLITICS OF MACHINE LEARNING FUTURES

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Abstract:
The advent of deep neural network algorithms has significant implications for how futures are imagined and politically governed. As algorithmic models gain capacity to generate and infer rules from the examples in data, machine learning appears to hold the promise of making inductive and inferential forms of knowing, classifying, and deciding. A machine learning political future does not merely change the political technologies for governing state and society, but is itself a reordering of that politics, of what the future could be. What happens, for example, to ideas of political community as a grouping or gathering of people when they become reconstituted as a grouping or clustering of machine-generated features? What does it mean to infer the attributes of a cluster, and how are categories of race, gender, class, or sexuality understood differently as attributes? What is at stake for politics itself to be rendered a problem of the design of a model, where every potential future is arrangeable as a machine learning problem?

The panel will investigate how machine learning generates inferential models of the future, and discuss how inferred futures (e.g. a person's score within an immigration algorithm, or an individual's propensity to respond to a specific drug treatment) embrace non-linear and emergent logics. Among the themes are:

• The political foreclosures and openings of machine learning technologies: How do the architectures of deep learning produce representations of the world? Are some political pathways and possibilities foreclosed by the iterative and inductive inference from a data scene? What is the scope for refusal or resistance to the closing down of political futures?
• Historical genealogies of the politics of machine learning: What kind of political world making is specific to the deep learning of our times? How are past forms of probabilistic and statistical inference reconfigured with the experimental and inductive methods of deep learning?
• Infrastructures of inference: What are the infrastructural arrangements of deep learning algorithms, and what kinds of political conditions do these arrangements instantiate? From hardware and software to datasets and repositories, and from cloud to edge – how do some potential futures emerge into sight whilst others are foreclosed?
• Ethics of machine learning futures: How are apparently settled political categories – 'democracy', 'state', 'border/boundary', 'group', 'order/disorder', among others – destabilised by machine learning imaginaries? What are the ethico-political implications of novel techniques of classification and dividing?
• Domains of machine learning futures: What does it mean for a natural language processing method to be 'language agnostic'? How do the specificities of domains of expertise change through the introduction and use of pre-trained models and transfer learning?