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Yejin Choi is a Brett Helsel associate professor at the Paul G. Allen School of Computer Science & Engineering at the University of Washington and also a senior research manager at AI2 overseeing the project Mosaic. Her research interests include commonsense knowledge and reasoning, neural language (de-)generation, language grounding, and AI for social good. She is a co-recipient of the AAAI Outstanding Paper Award in 2020, Borg Early Career Award (BECA) in 2018, IEEE's AI Top 10 to Watch in 2015, the ICCV Marr Prize in 2013, and the inaugural Alexa Prize Challenge in 2017.

Intuitive Reasoning as (Un)supervised Neural Generation

Neural language models, as they grow in scale, continue to surprise us with utterly nonsensical and counterintuitive errors despite their otherwise remarkable performances on leaderboards. In this talk, I will argue that it is time to break out of the currently dominant paradigm of sequence-to-sequence models with task-specific supervision built on top of large-scale pre-trained neural networks. First, I will argue for unsupervised inference-time algorithms to make better lemonade out of neural language models. As examples, I will demonstrate how unsupervised decoding algorithms can elicit advanced reasoning capabilities such as non-monotonic reasoning (e.g., counterfactual and abductive reasoning) out of off-the-shelf left-to-right language models, and how in some controlled text generation benchmarks, unsupervised decoding can match or even outperform supervised approaches. Next, I will highlight the importance of melding explicit and declarative knowledge encoded in symbolic knowledge graphs with implicit and observed knowledge encoded in neural language models. As a concrete case study, I will present Social Chemistry 101, a new conceptual formalism, a knowledge graph, and neural models to reason about social, moral, and ethical norms.

Friday, October 30, 2020
1:30 - 2:50 PM EST
Join the meeting on Zoom
Meeting ID 968 6753 2227 Passcode 883155

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