Call for Papers: 2025 SHOT Open Panel Proposal

# Technologies of pattern recognition

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**Abstract:**

The notion of a pattern is ambiguous. One venerable technological sense, dating at least to the fourteenth century in English, evokes a model or a form that can be used to make copies, as in the manufacture of textiles. Another emphasizes the decorative design of such goods. Through this combination of copying and decoration, by the nineteenth century, the word "pattern" took on the meaning of a *repetitive form*, a "regular and intelligible…sequence" (OED 2024). By the twentieth century, especially in computing, a striking reversal had been completed. Whereas patterns were once *produced* as the result of technological manufacturing processes, they are now increasingly *recognized* by machine learning models (Mendon-Plasek 2021). These researchers and engineers developed models that could identify such forms and sequences in domains like machine translation, facial recognition, and communication engineering.

This panel seeks papers that address this second sense—computational technologies of pattern-making and recognition. How do they order the world and render it intelligible in certain ways? How have such patterns migrated across very different social contexts and modalities of data, such as speech, image and text? Papers might address:

- Connections to work on patterns in the sciences, such as psychology (Halpern 2014), statistics and probability. What types of scientific and cultural objects—images (Dobson 2023) and language (Lindquist 2024)—can be rendered as regular sequences? By what technologies and techniques? What types of institutions and professional cultures cultivated these interdisciplinary migrations?
- How do machines learn to identify patterns? And how have humans evaluated their results? What types of datasets, benchmarks, and learning objectives are required to serve as infrastructures for these technical systems?
- What are the social and cultural implications of patterning and pattern recognition technologies? Do they promote consumerism and conformity as critics of mass societies once suggested (Kracauer 1995)? Does a more contemporary imperative for digital pattern recognition lead to new forms of surveillance and discrimination? (Apprich et al. 2018)?

To be considered for this panel, please submit a paper title and 150 - 250 word abstract to the organizers by 23 March.

**References:**

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Kracauer, Siegfried. *The Mass Ornament: Weimar Essays*. Translated by Thomas Y. Levin. Cambridge, MA: Harvard University Press, 1995.

Lindquist, Benjamin. 'The Art of Text-to-Speech'. *Critical Inquiry* 50, no. 2 (January 2024): 225–51. https://doi.org/10.1086/727651.

Mendon-Plasek, A. (2021). Mechanized Significance and Machine Learning: Why It Became Thinkable and Preferable to Teach Machines to Judge the World. In Roberge, J., Castelle, M. (eds). *The Cultural Life of Machine Learning*. Palgrave Macmillan, Cham.

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