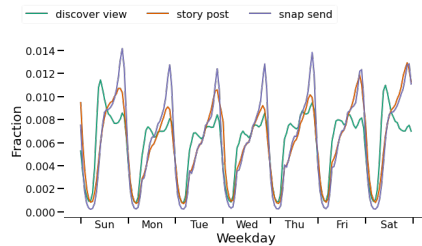


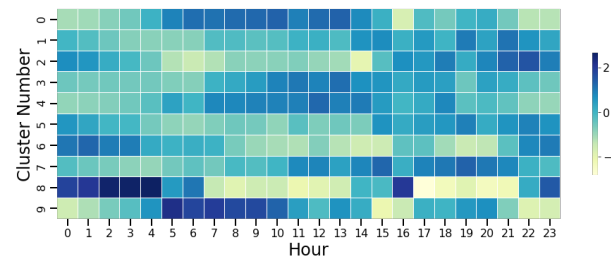
CEAM: The Effectiveness of Cyclic and Ephemeral Attention Models of User Behavior on Social Platforms

RQ1: Does individual user behavior on social platforms exhibit cyclical properties, and does cyclicity vary across users? **Answer:** Yes.

Diurnal cyclicity in global user activity



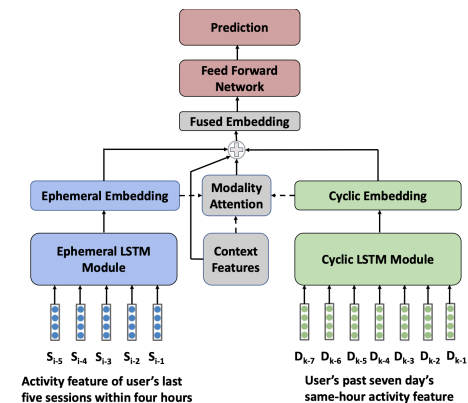
Activity variation across user clusters



RQ2: To what extent can user behavior prediction on a social platform be improved by exploiting per user-level cyclicity? **Answer:** On average 7% more than SOTA.

Novelty-1: Leverage regularities in user-behavior to achieve personalization without using any personally identifiable information.

Novelty-2: Leverage per user-level cyclicity by adding a cyclic-LSTM module along with the existing ephemeral-LSTM architecture.



Ethical: Uses short-term data and dynamically generated behavioral features.

Personalized but agnostic to privacy intrusive data. No user-typography or demography information.