Supporting information

S1 Algorithm: Decomposition-based Profiling of User Behaviour

Input: Matrix of column data V, desired dimension of feature space r**1** Factor $V \approx WH$, where W is $m \times r$ and H is $r \times n$.

2 Use Affinity propagation clustering Algorithm [?], to cluster the columns of H, that are the coordinates of the data points after projection into a *r*-dimensional space.

Output: Cluster of data points that represents the SFPs.