

AI at the Webscale Project Results

Bas Bootsma & Fenno Vermeij

Radboud University Nijmegen

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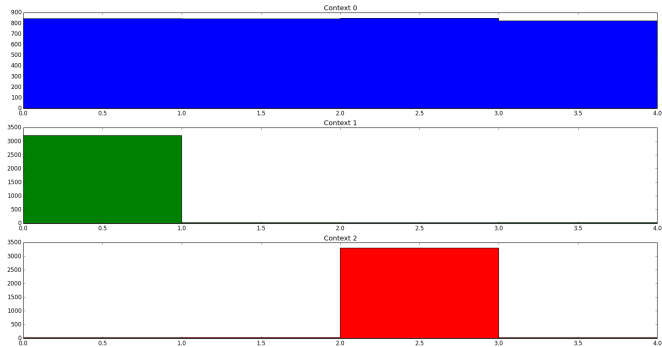
- Epsilon-greedy
- Gibbs-sampling
- Thompson-sampling



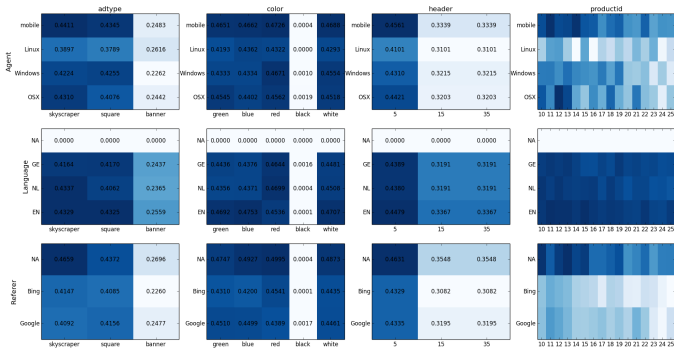
- $r = \beta_0 + \beta_1 c_1 + \dots + \beta_k c_k + \beta_{k+1} a_1 + \dots + \beta_k + |a| + \beta_{x_1} c_1 a_1 + \dots + \beta_{x_m} c_k a_l$
- For reward: use price \times effect instead of effect



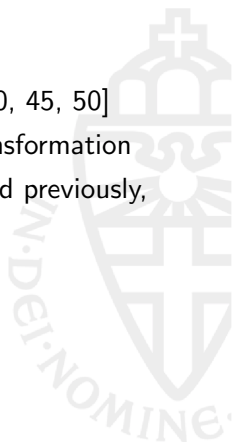
Visualization



Visualization



- Price: in buckets: [1, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50]
- Multivariate Gaussian speedup: use Cholesky transformation
- Userid: add extra features: average price user paid previously, if user has bought anything previously



- Average reward:
- Standard deviation:
- Any questions?

