

# Identifying risky vendors in cryptocurrency P2P marketplaces

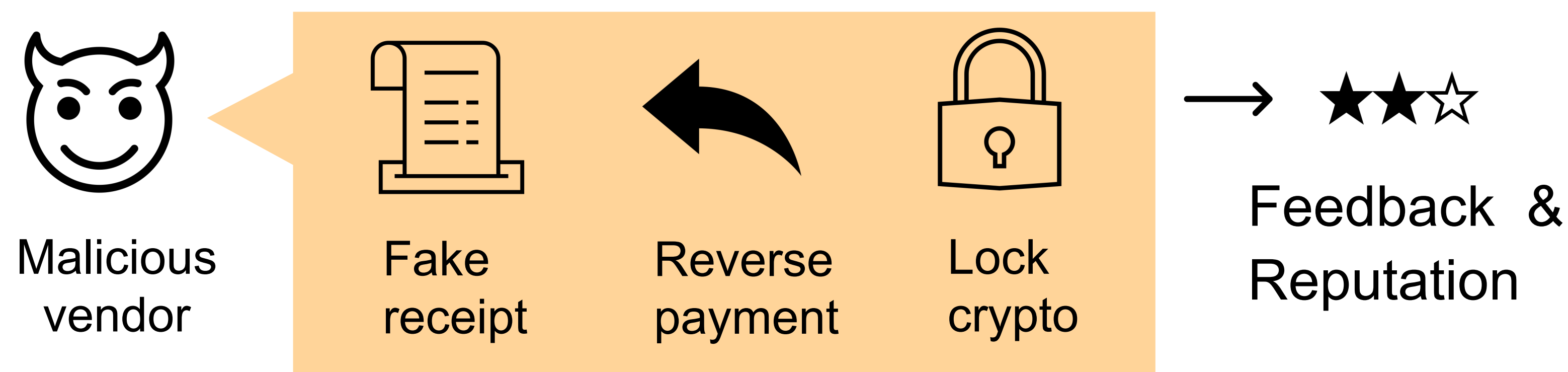
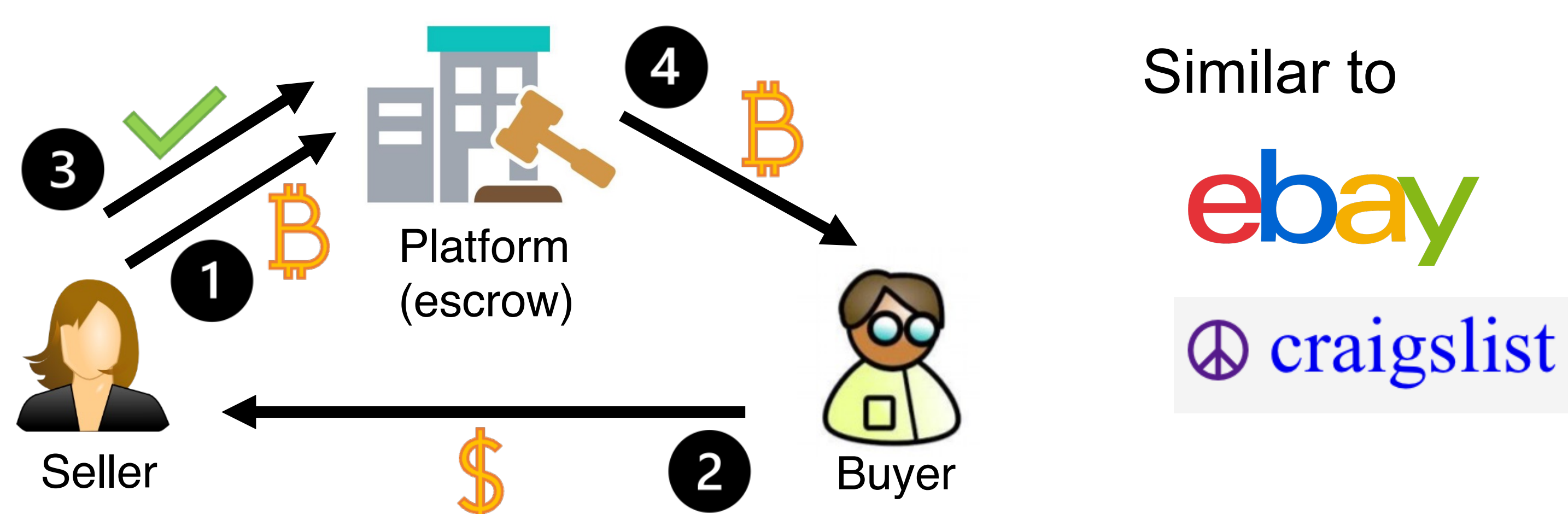
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Full paper

- 1) First study of online safety in cryptocurrency P2P marketplaces
- 2) Illustrate the issues in existing reputation system, proposed the improved mechanism

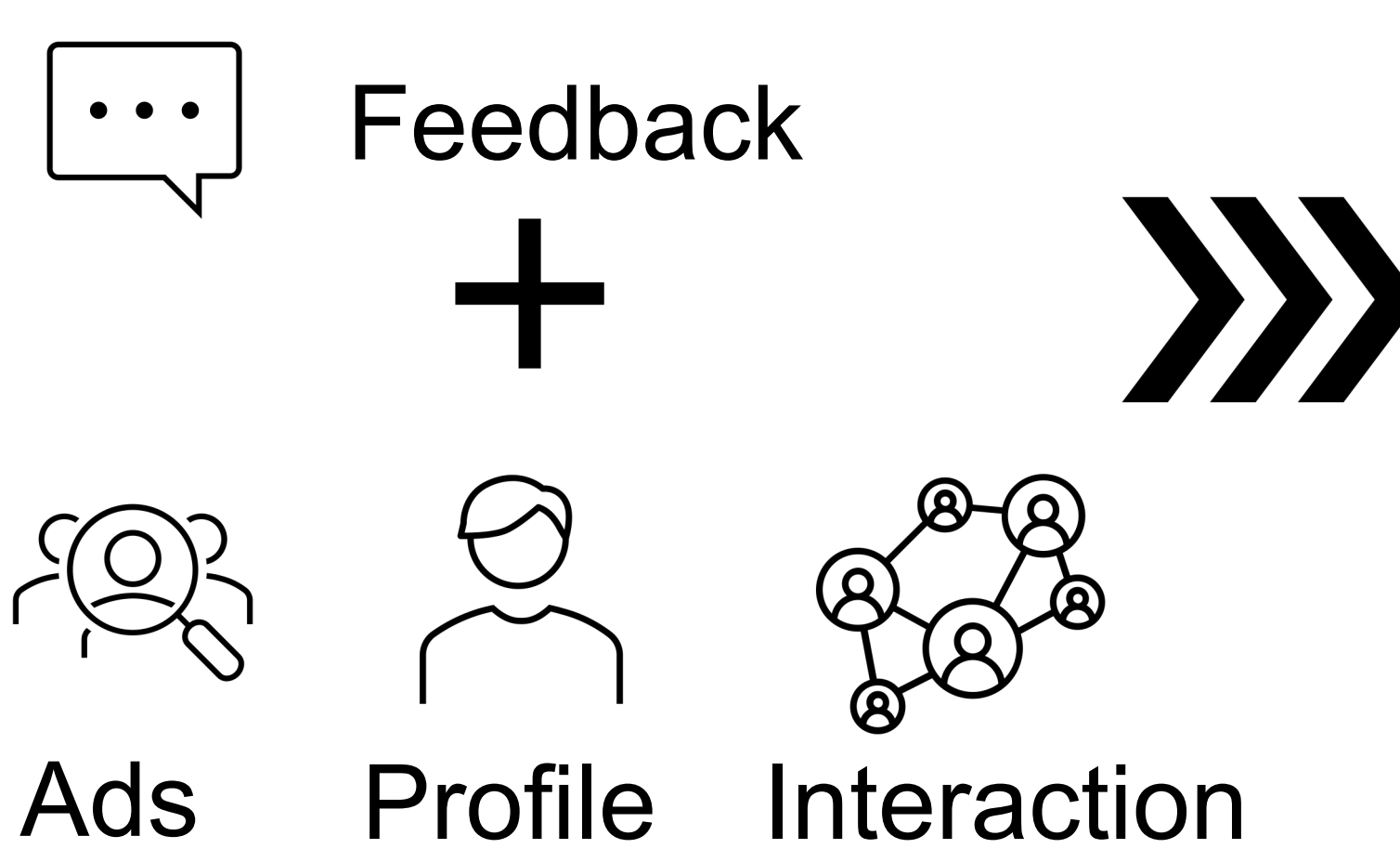
## Cryptocurrency P2P markets



Is a feedback-based reputation system sufficient and credible enough to identify risky vendors?

## Identifying account suspension

Combine multiple signals

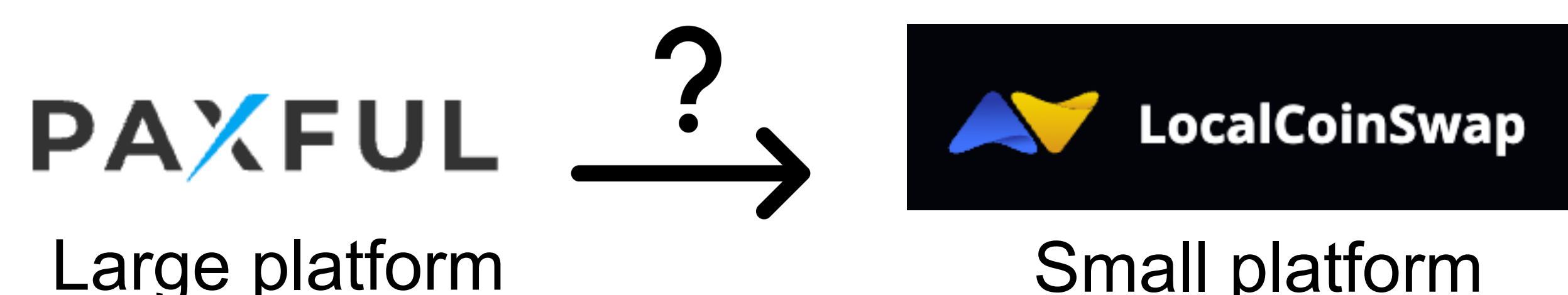


Tested 7 ML models (Predict account suspension)

Tree ensemble models > Deep Learning

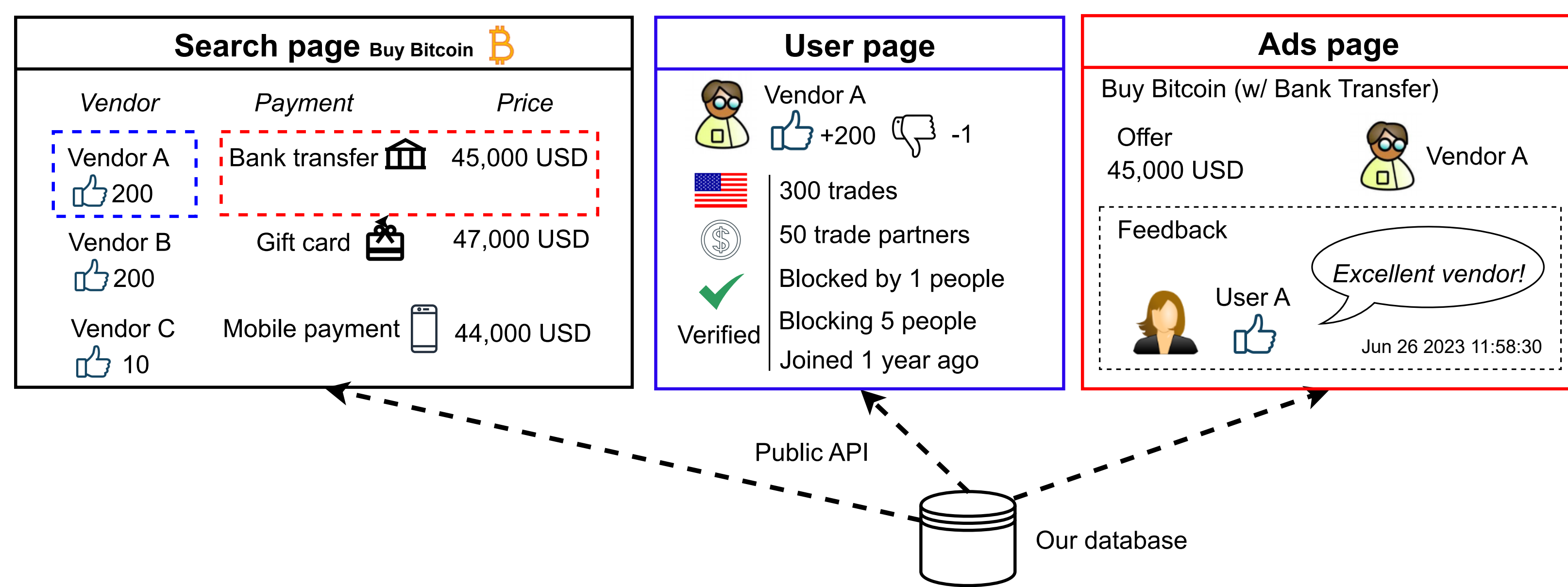
High performance F1: 0.86 AUC: 0.93 (Paxful)

Model not directly transferable F1: 0.58 AUC: 0.66



Common important features – related to self-promoting  
1) feedback frequency 2) neighboring users' info

## Data collection



Year long data collection (06/2022--06/2023)

## Is feedback sufficient/credible?

1. Non-scam related feedback
2. Self-promoting attacks – user collusion & bots

Categories of negative feedback

Category	Ratio
Scam	55.4%
Slander	14.6%
Slow vendor	12.6%
Mislabeled	5.2%
Asking for feedback	5.2%

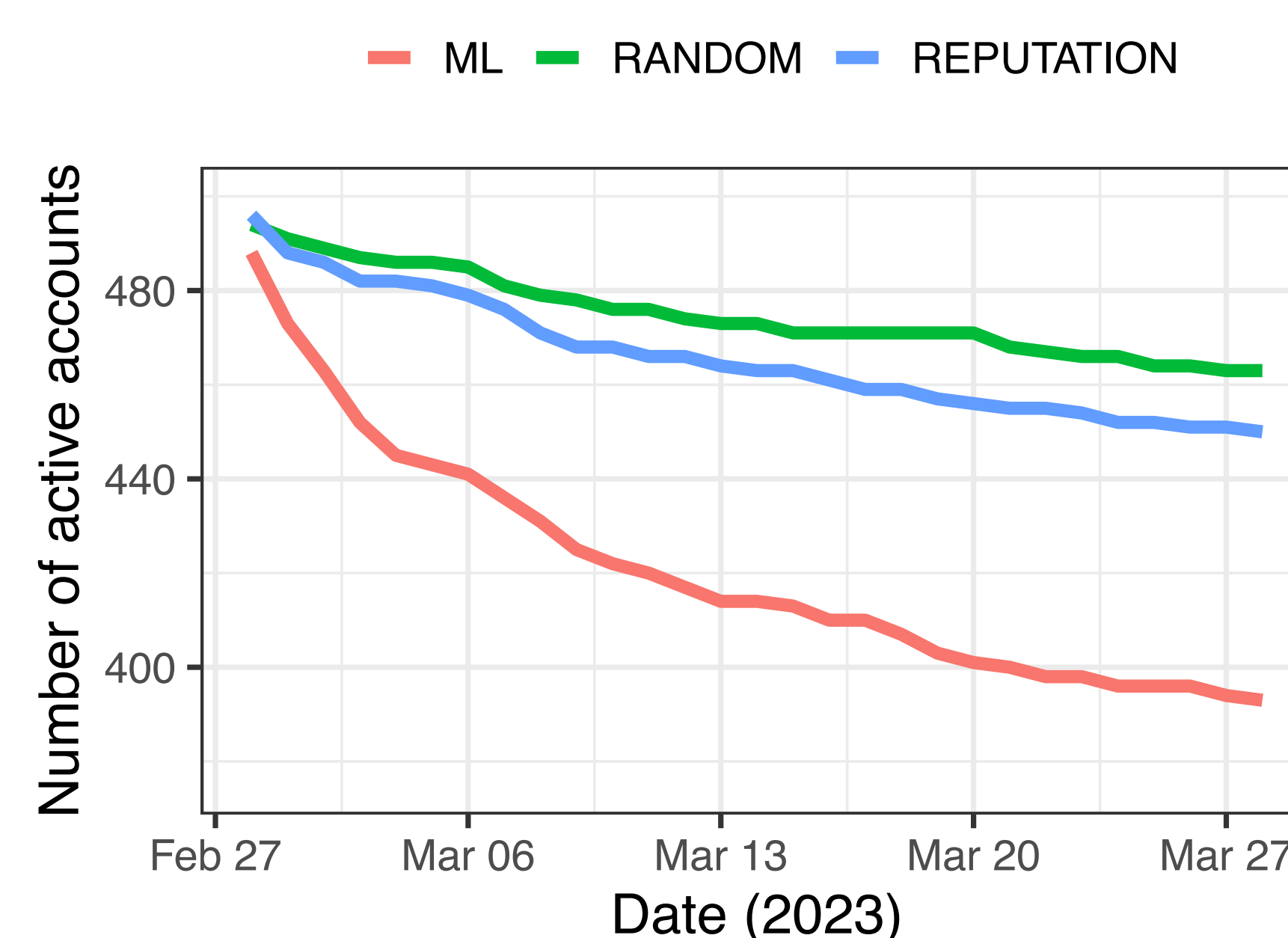
How can we better extract the risk associated with each vendor?

## Online evaluation

Prepare three sets of 500 users



Monitor them for one month (03/2023)



Our method (ML) identified more account suspensions

Figure: Num. of active accounts for each group

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