

Lady and the Tramp Nextdoor: Online manifestations of real-world inequalities

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Work in collaboration with
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Can online user activity manifests social inequality?



What data we need to measure it?

Social media user activity data!

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Location of User!

In pursuit of data, we found a gem!



Why Nextdoor?



Defines virtual neighborhoods based on physical boundaries!

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Verifies users by sending verification code on given addresses!

Why Nextdoor?



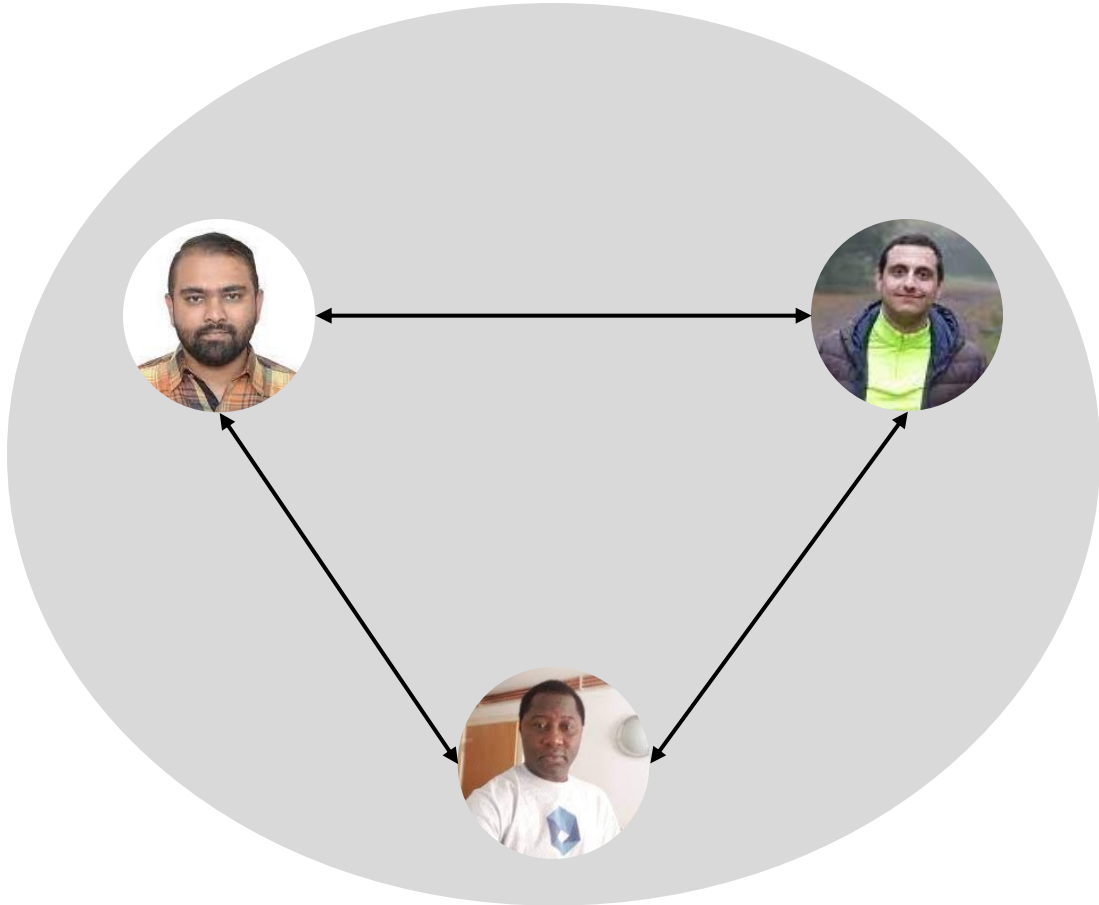
Defines virtual neighborhoods based on physical boundaries!

Verifies users by sending verification code on given addresses!

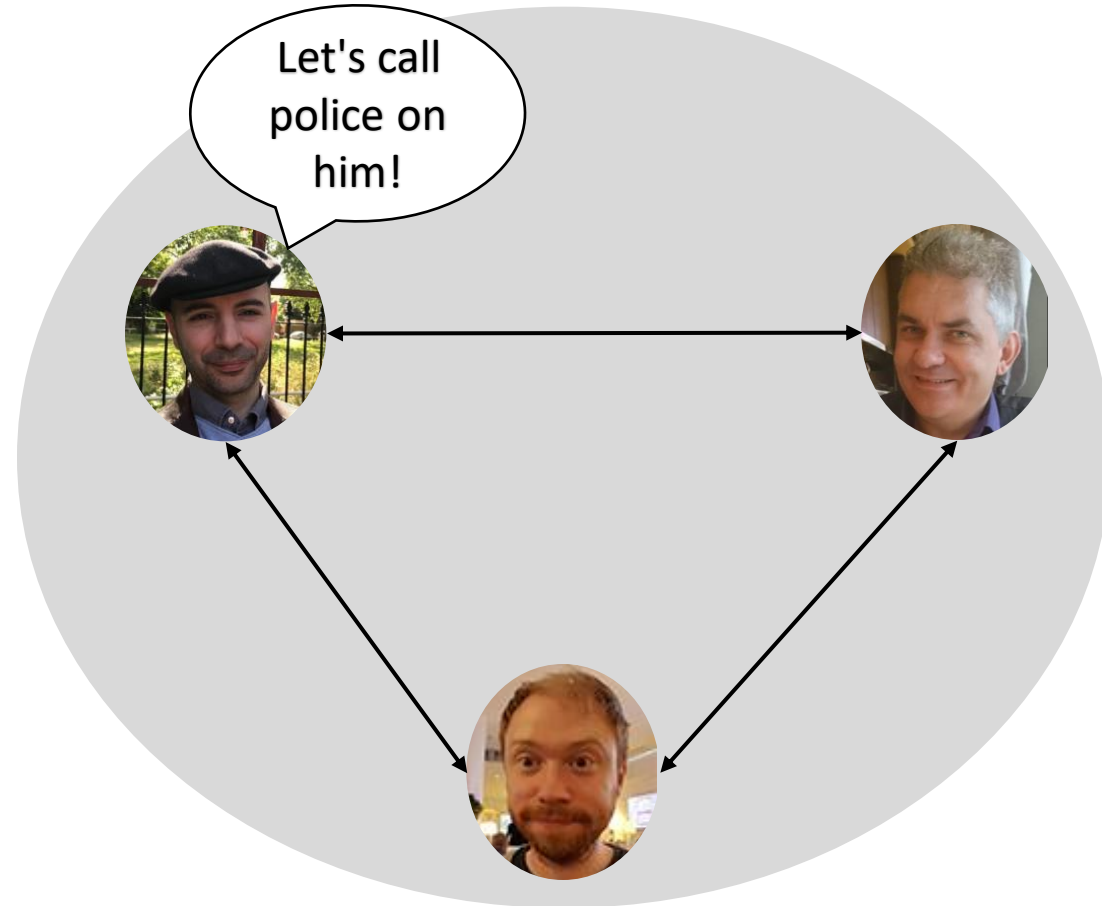
2.5 Million user posts from USA and UK of November 2020 – September 2021

How Nextdoor works?

Bethnal Green

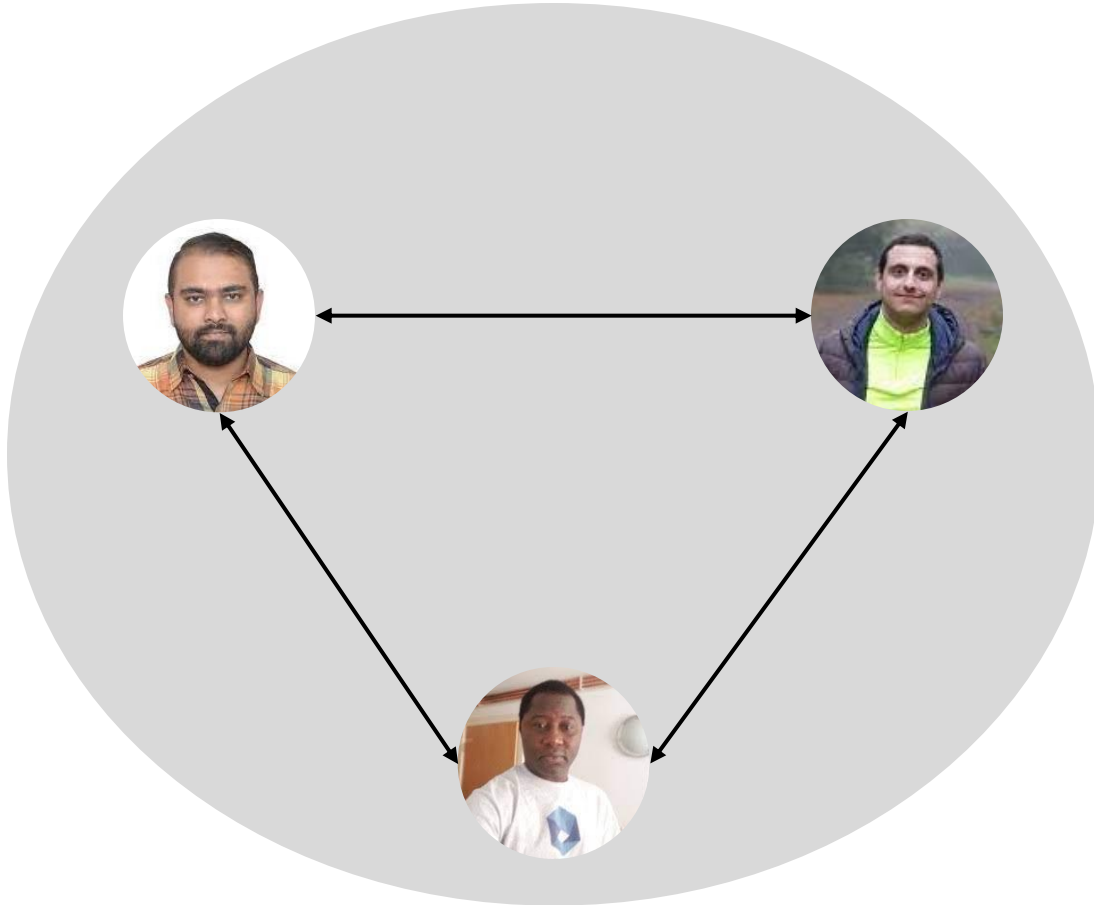


Mile End

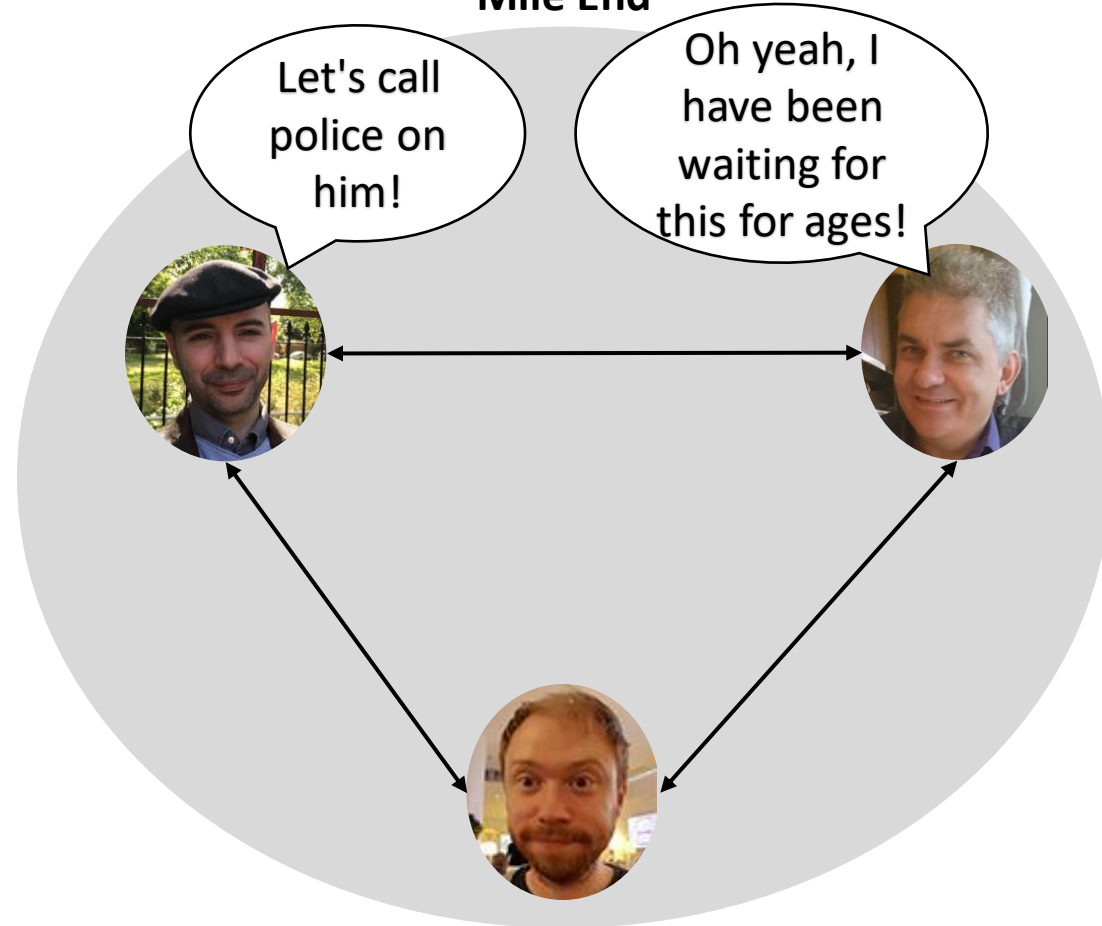


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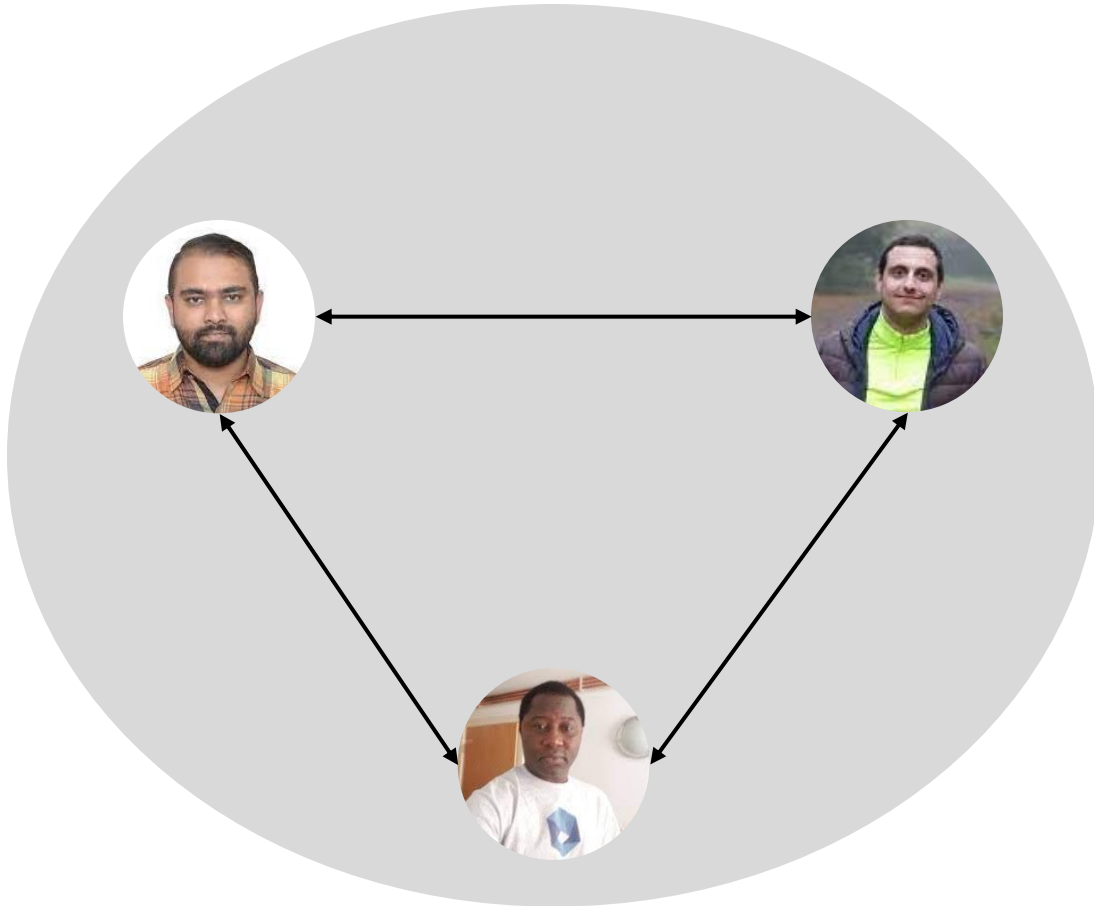


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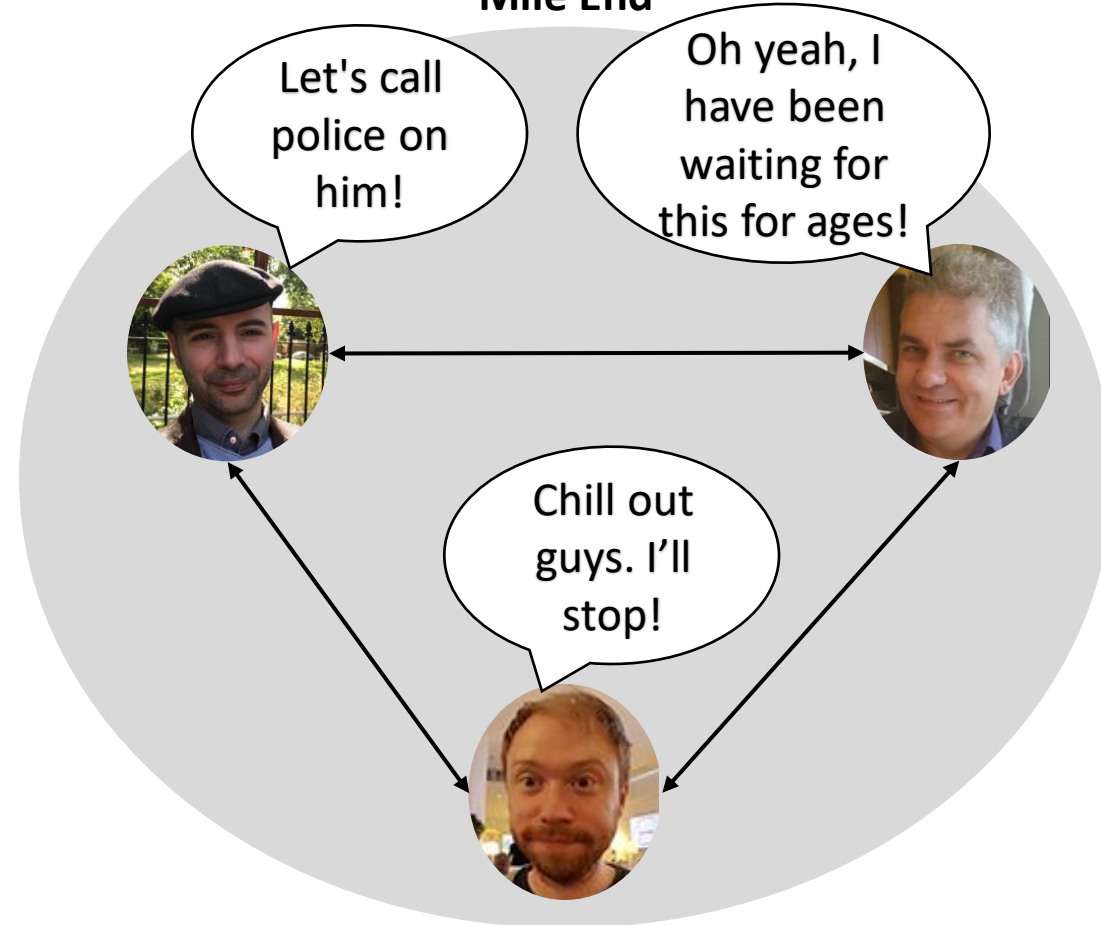


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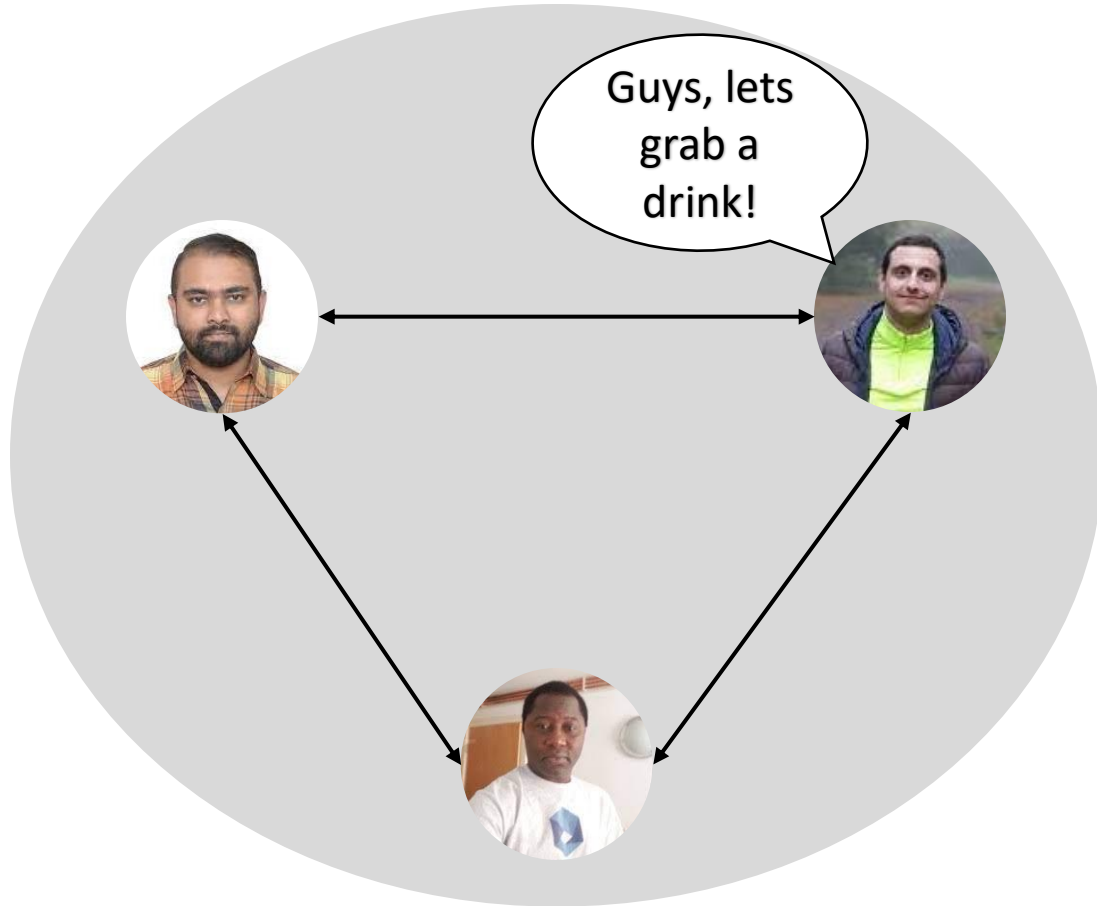


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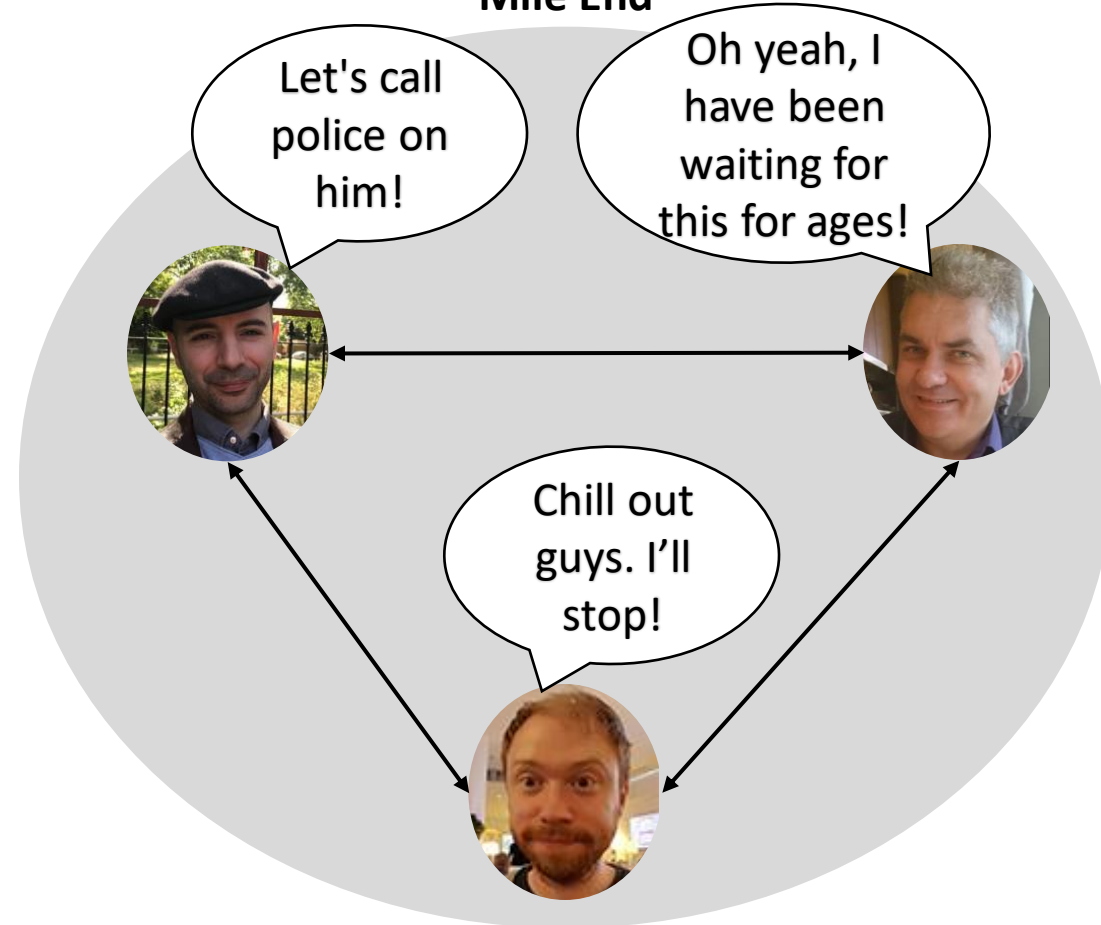


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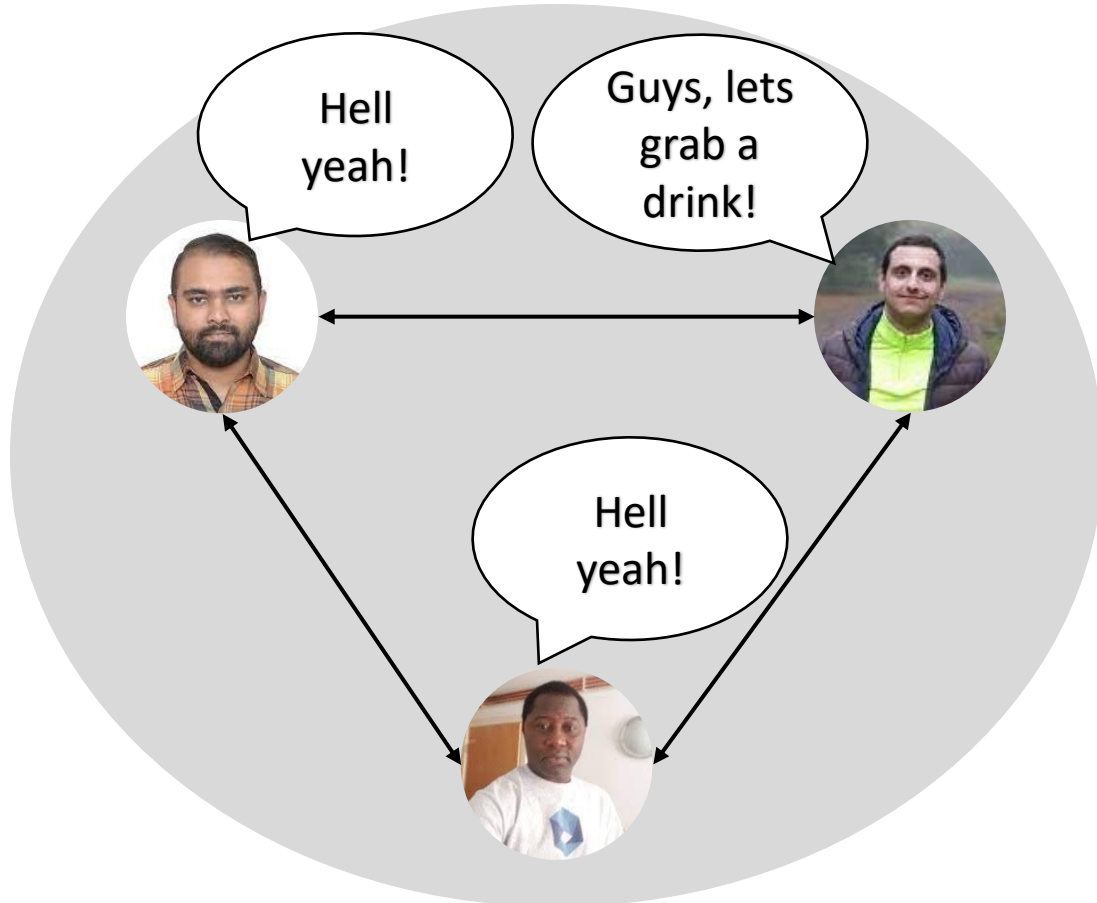


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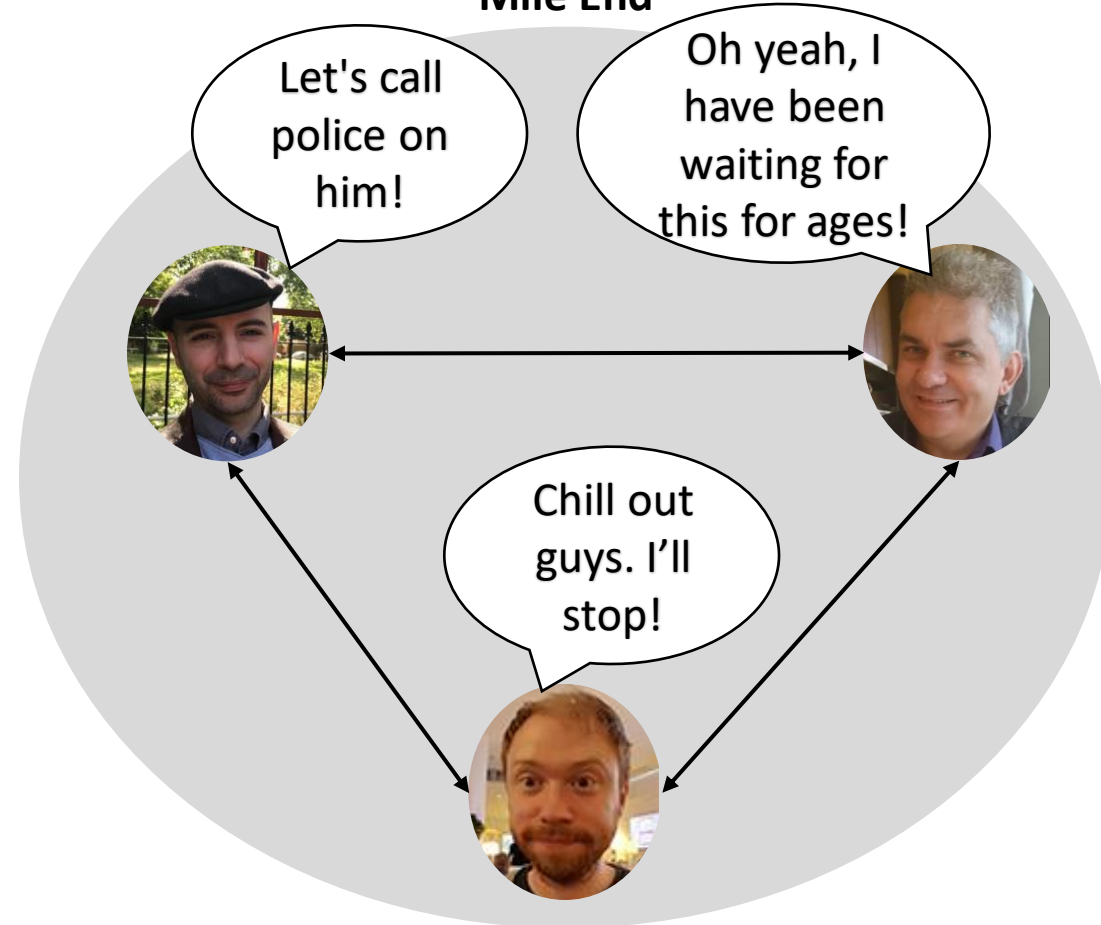


How Nextdoor works?

Bethnal Green



Mile End



Splitting parameter of areas to measure social inequality

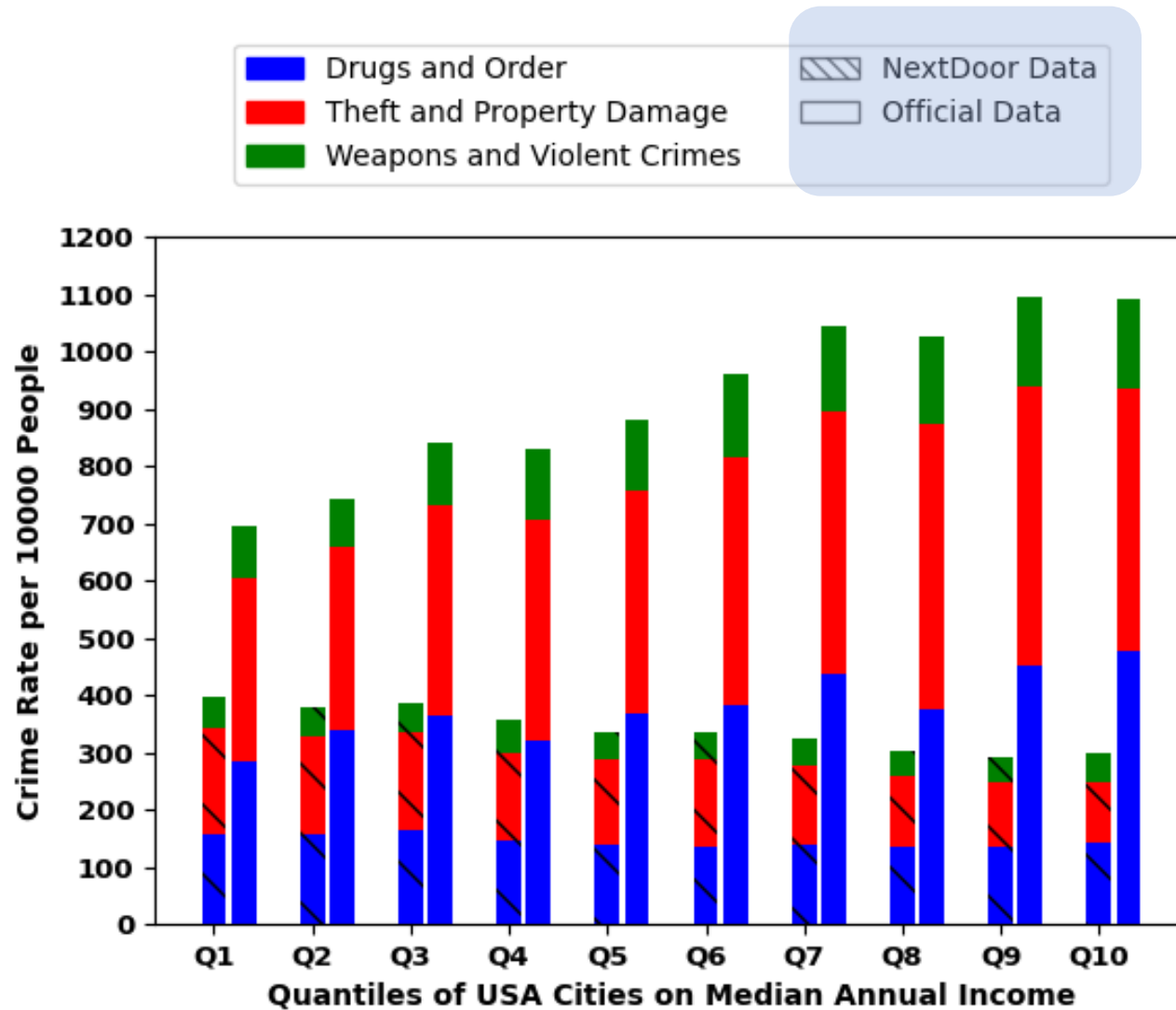


Who complains more about crime?

Who complains more?

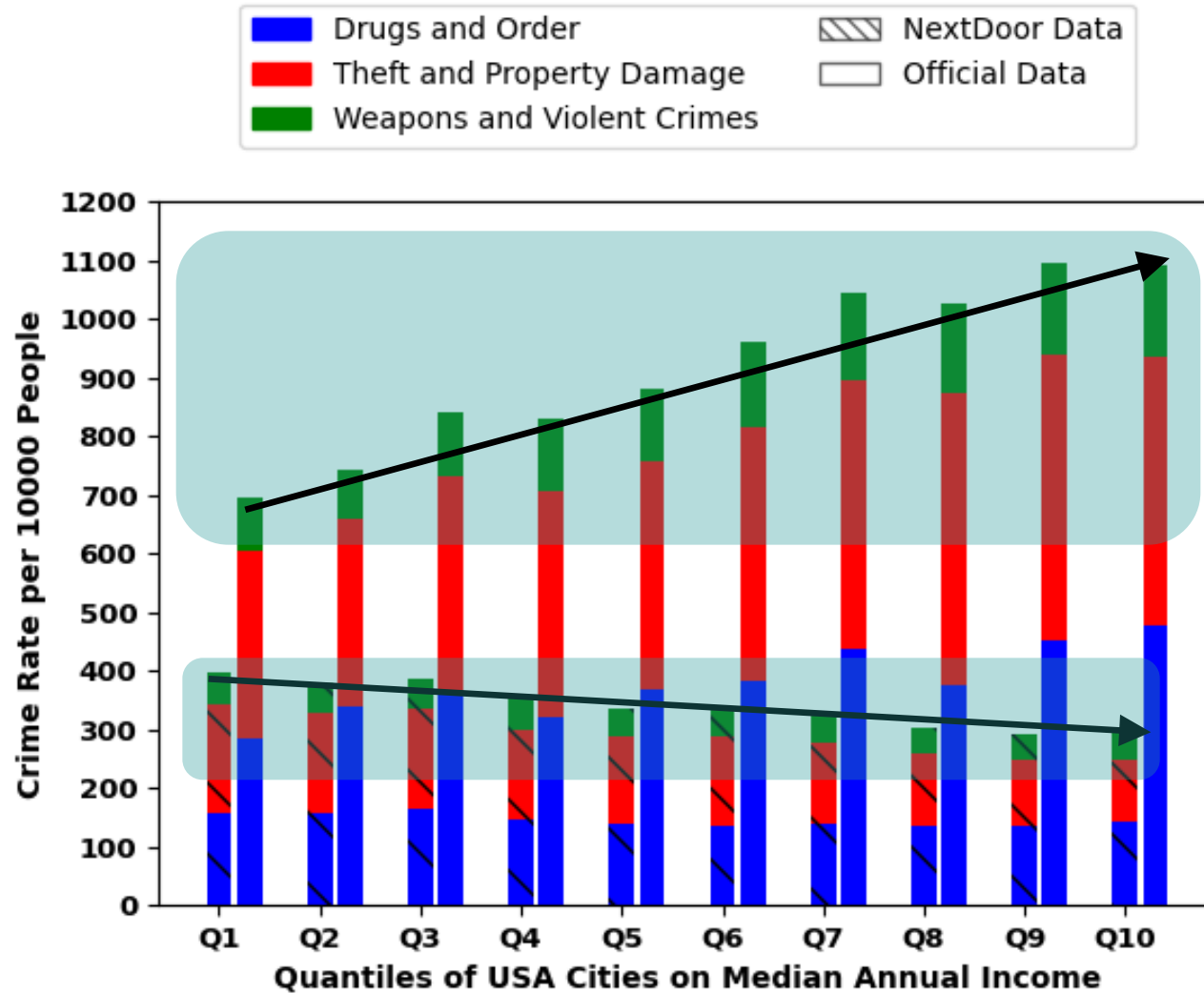
Rich or Poor?

Riches cry out loud!



Q1=Richest, Q10=Poorest

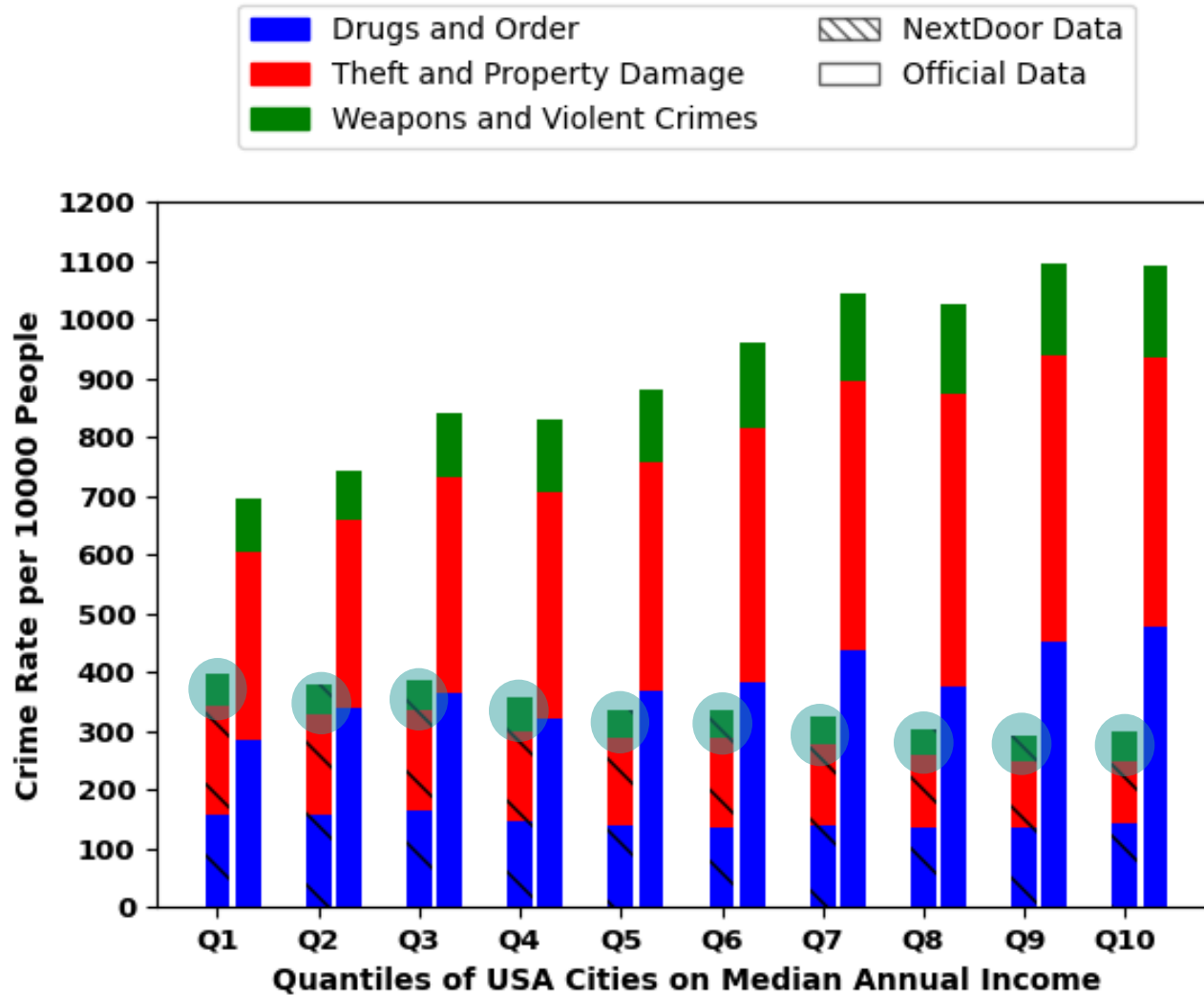
Riches cry out loud!



Q1=Richest, Q10=Poorest

Officially more crime in poor areas but riches complain more

Riches cry out loud!

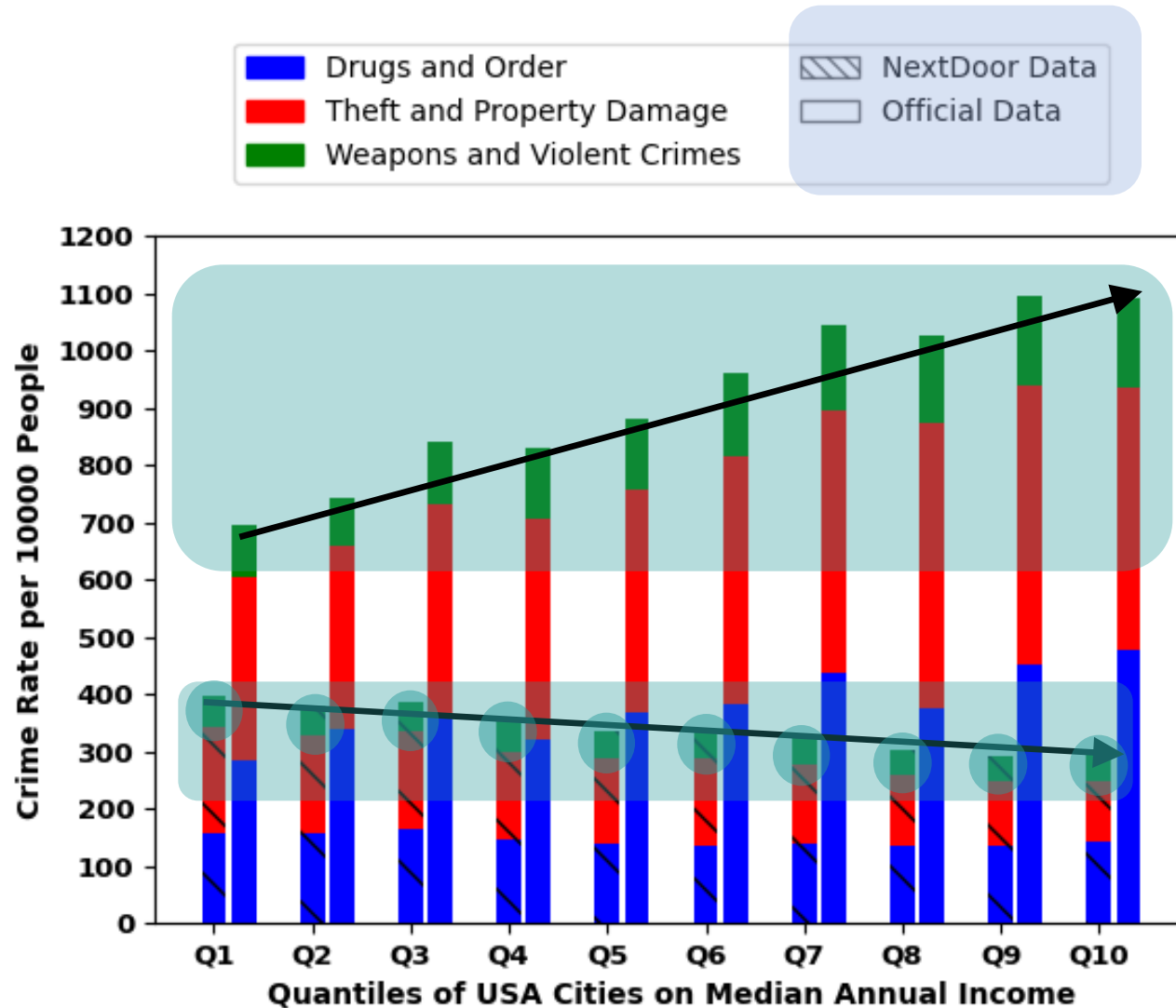


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Higher non-violent crime discussion than violent crime

Riches cry out loud!



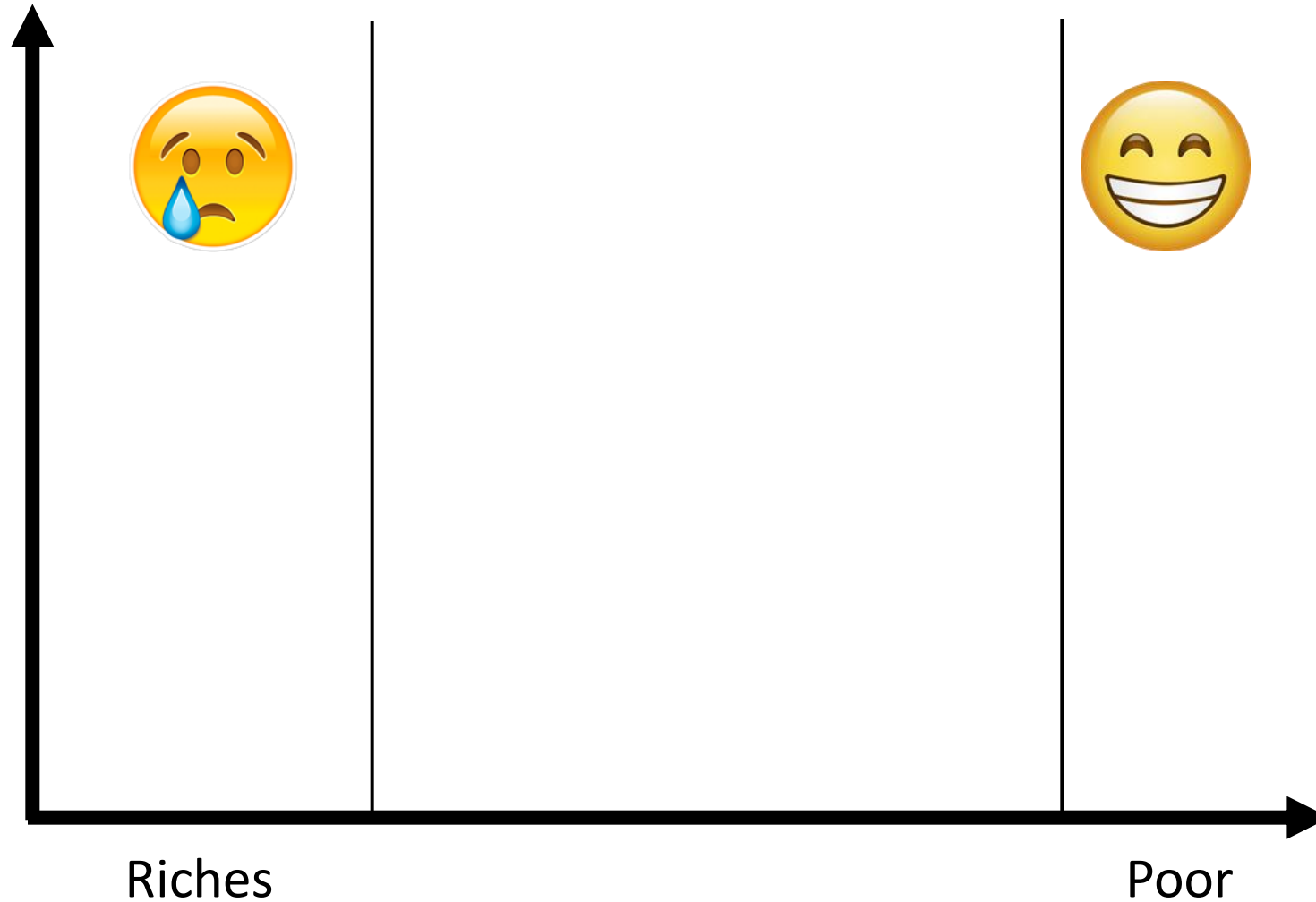
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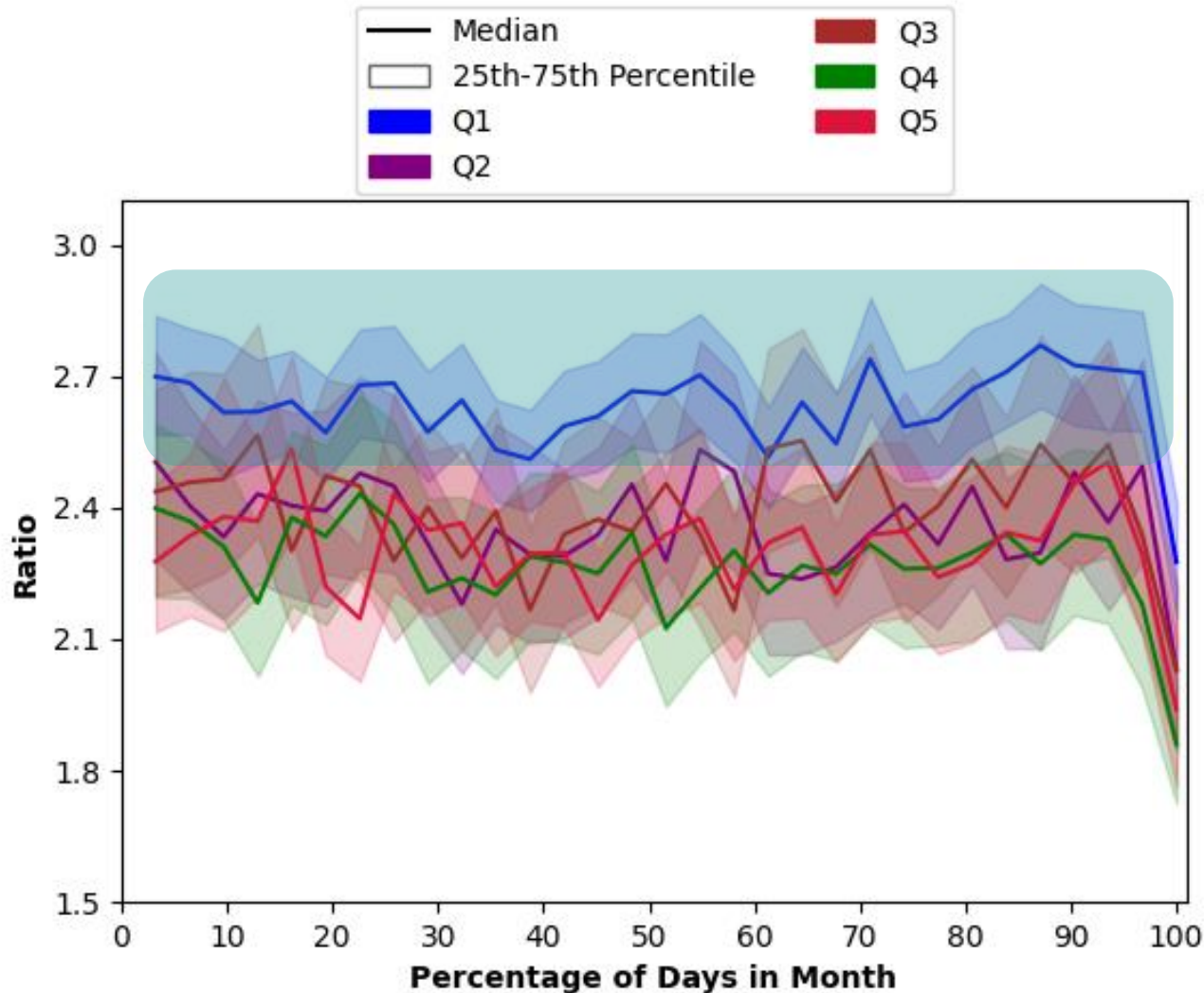
Higher non-violent crime discussion than violent crime

Similar trends follows UK, London, and NYC!

Wait, but it would make richer neighbourhood more negative!



Riches have more positive sentiment!



Change in income affects the sentiment!

Similar trends follows UK, London, and NYC!

Ratio = Ratio between Positive sentiment and negative sentiment

Can we predict income using Nextdoor data?



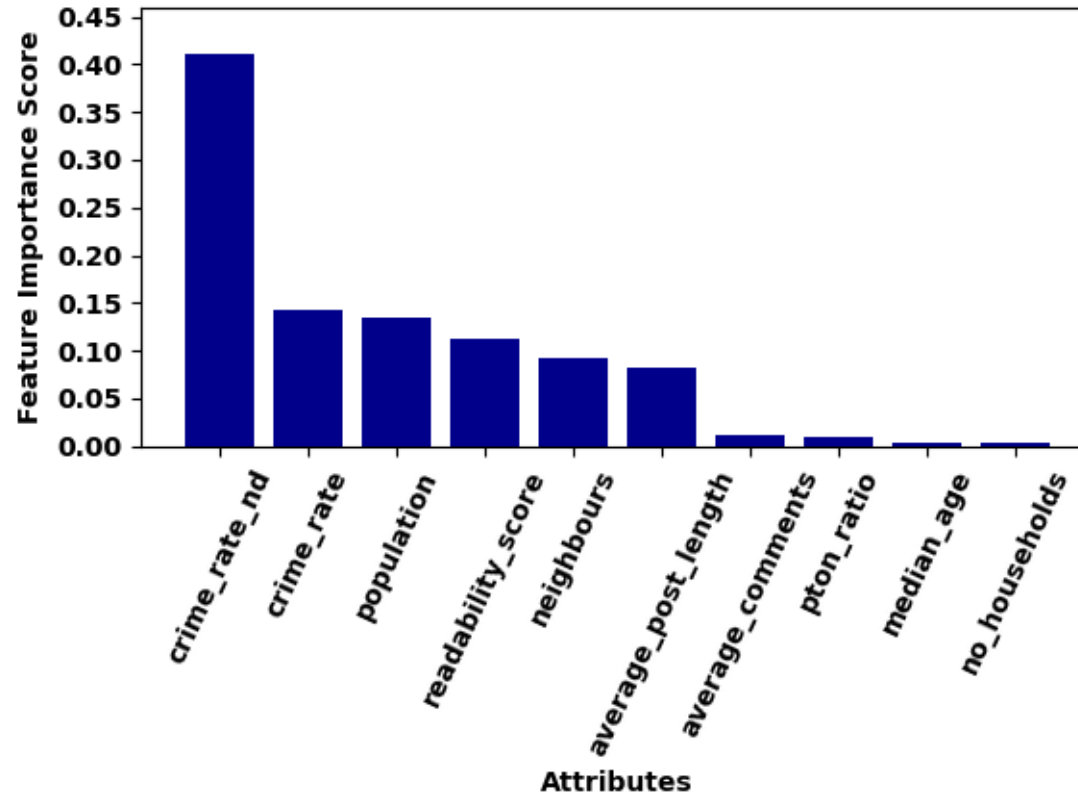
Yes!

Can we predict income using Nextdoor data?



Nextdoor data predict income more accurately

How important Nextdoor data in income prediction?



Nextdoor data especially crime discussion rate has highest importance score in predicting income!

Take Aways

- Online user activity can manifest social inequality.
- Richer neighborhoods complain more while having less officially reported crime but still have higher positive sentiment.
- Can Nextdoor data be used without additional official data to predict income accurately?

Thank You

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