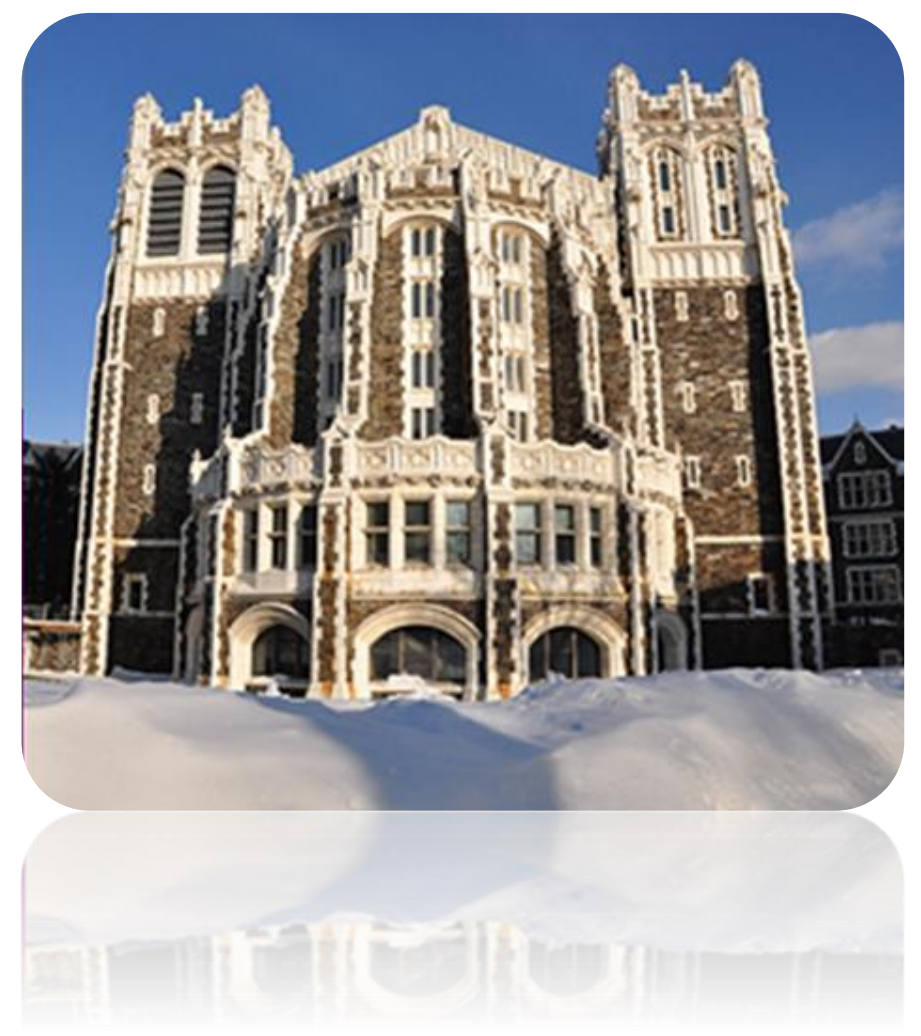


A Comparison of Transit Mobile Ticketing Applications in the United States and Europe



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1- MOTIVATION & RESEARCH OBJECTIVE

Motivation

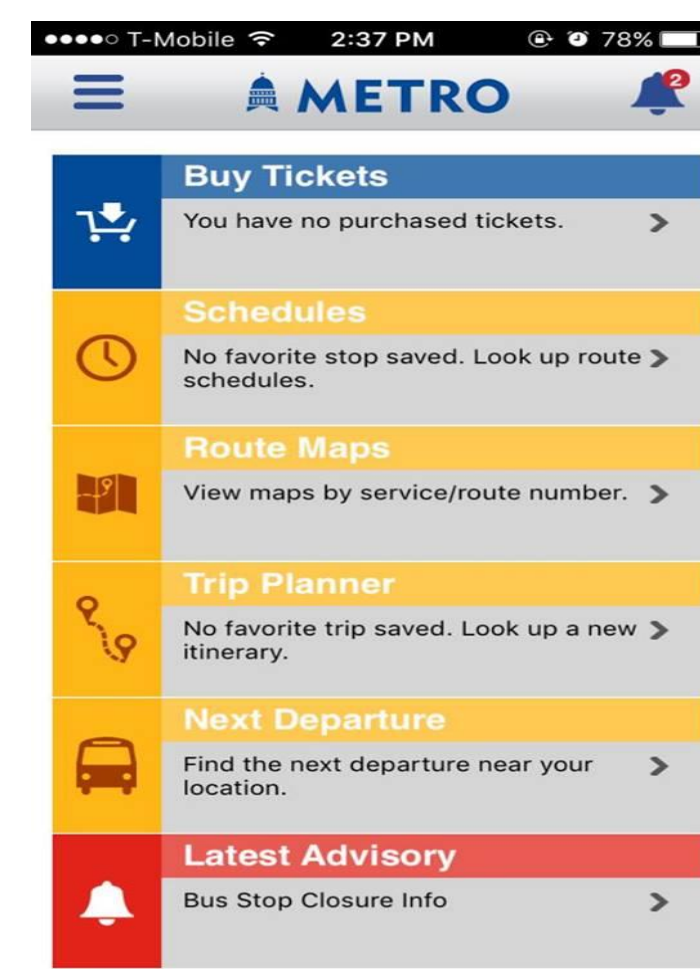
- Mobile applications are increasingly common for transit ticketing
- Transit mobile ticketing is a new research area
- Many new features beyond ticketing are included in the apps

Research Objective

- Qualitative research that documents and compares the current state of transit mobile ticketing apps in America and Europe

Methodology

- Downloading publicly available transit mobile ticketing apps
- Selecting 5 American and 5 European transit apps
- Comparing features, use of location services, and privacy policy



Austin's app



Rome's app

2- SMARTPHONE APPS SELECTION

The Five Selected American Transit Apps:

Region	Portland	Boston	Austin	Chicago	New Jersey
Agency Name	TriMet	MBTA	CapMetro	CTA	NJ TRANSIT
App Launch Date	2013	2012	2014	2015	2013

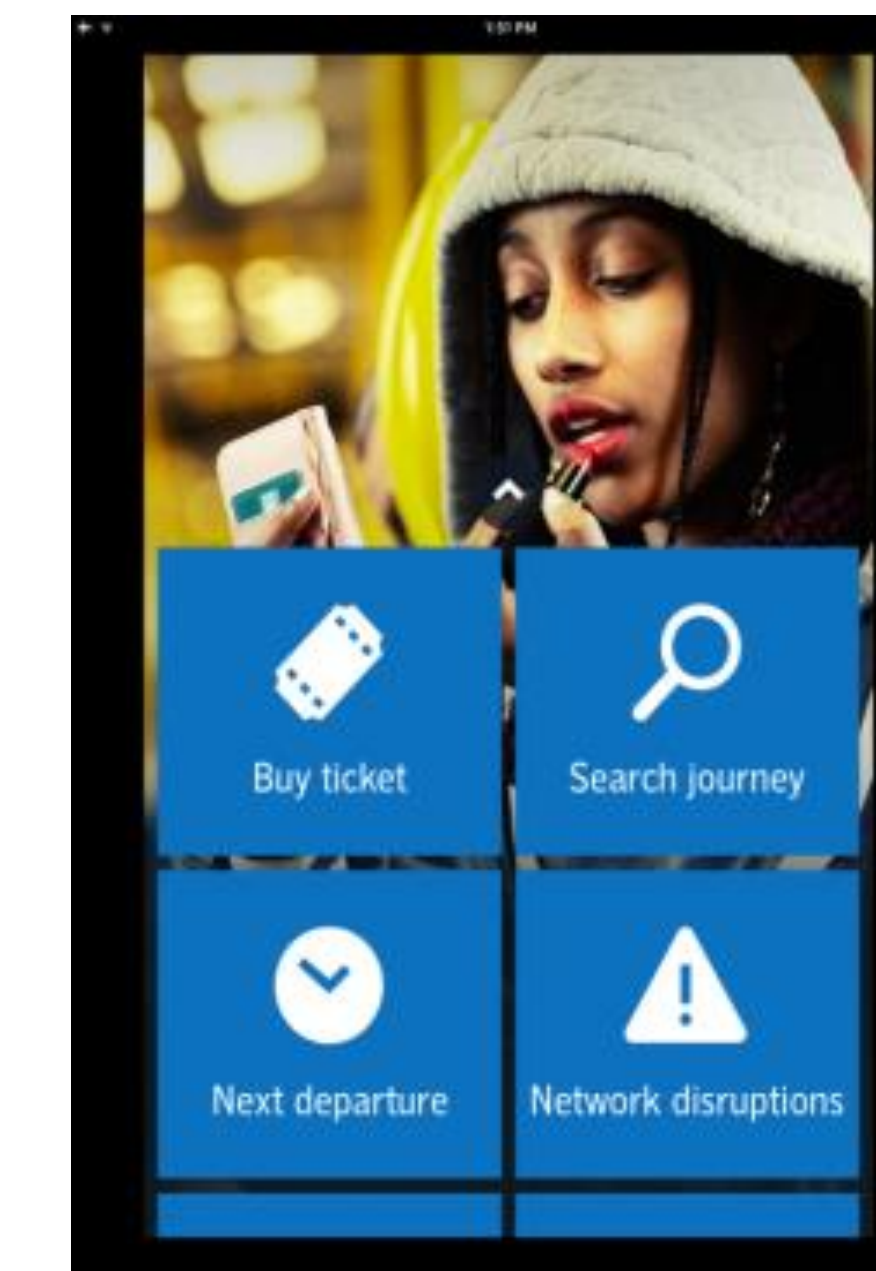
The Five Selected European Transit Apps:

Region	Rome	Vienna	Frankfurt	Stockholm	Edinburgh
Agency Name	ATAC	Wiener Linien	RMV	SL	TFE
App Launch Date	2015	2011	2010	2014	2013

3- IMPLEMENTED FEATURES IN SELECTED APPS

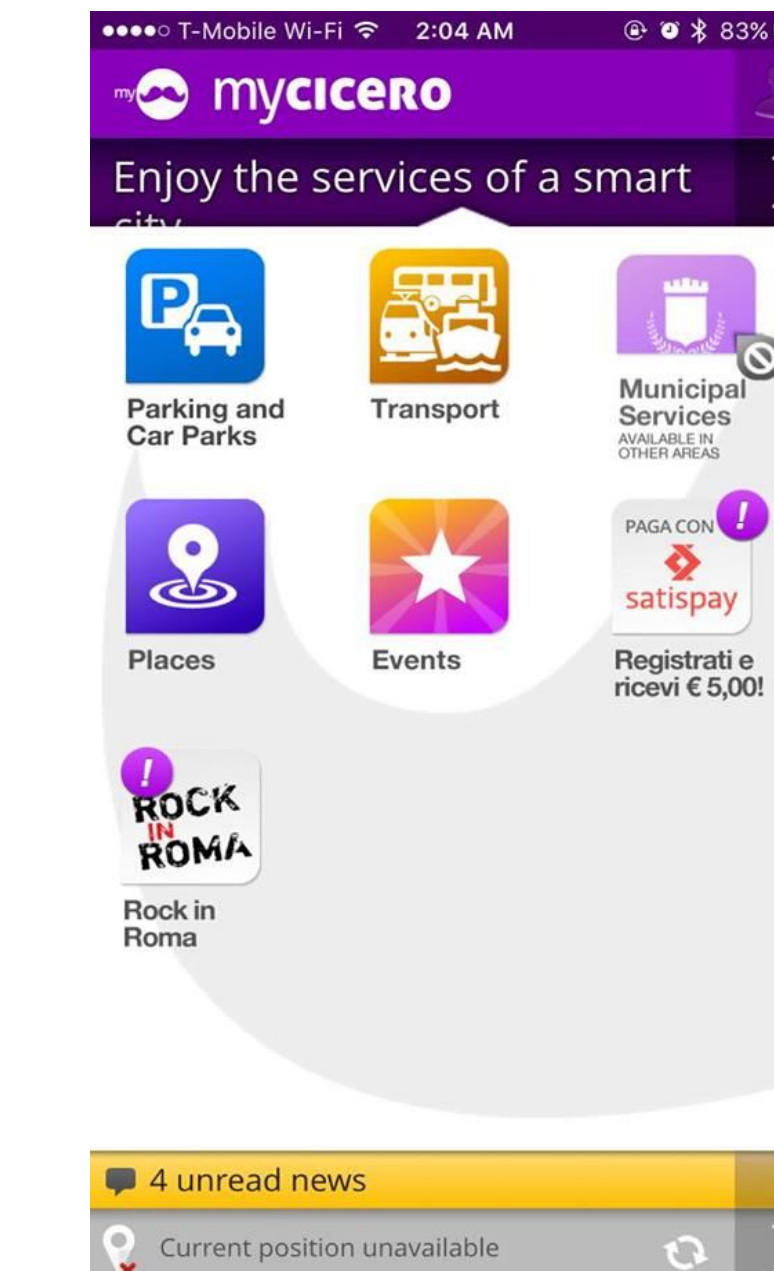
Features are any additional tools found within the app that enhance the user's experience beyond ticketing.

SL, Stockholm



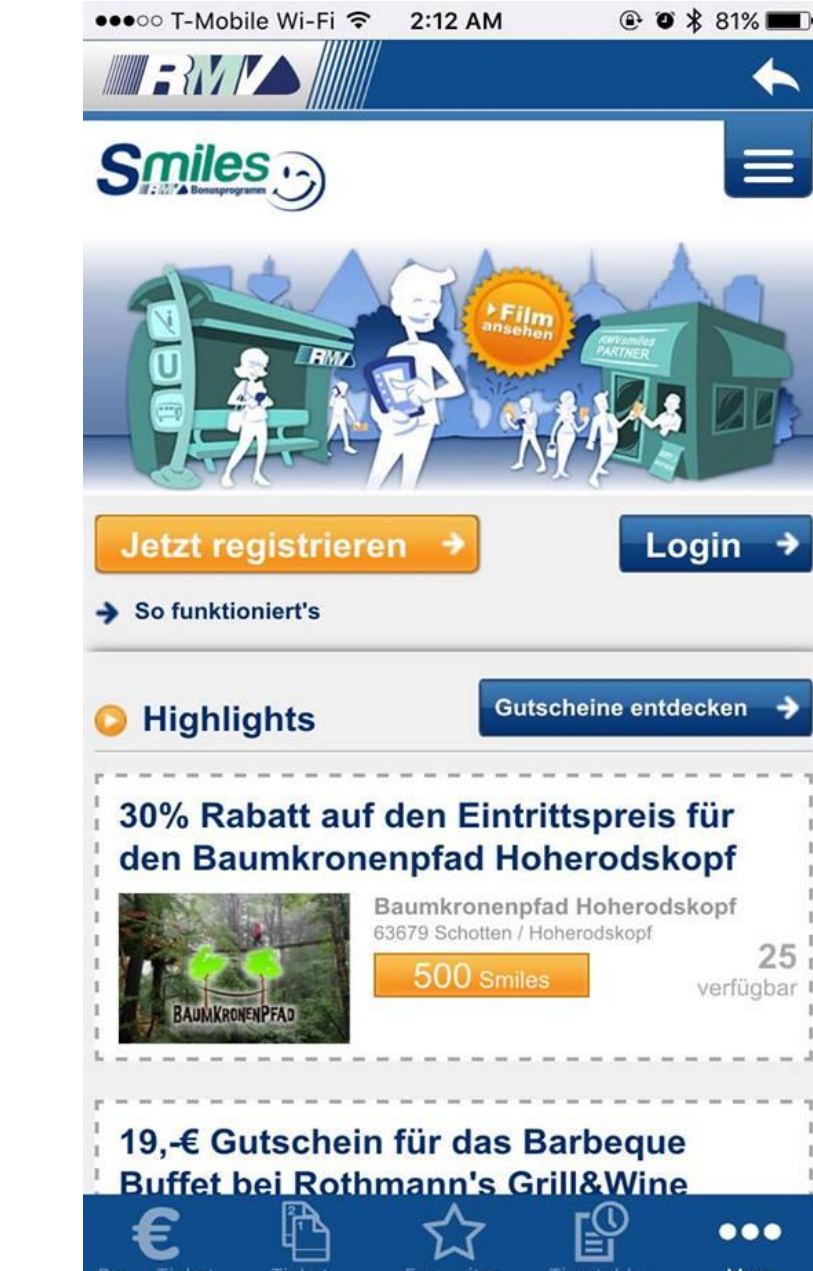
- Features include:
- Next departure
 - Network disruptions
 - Search journey

ATAC, Rome



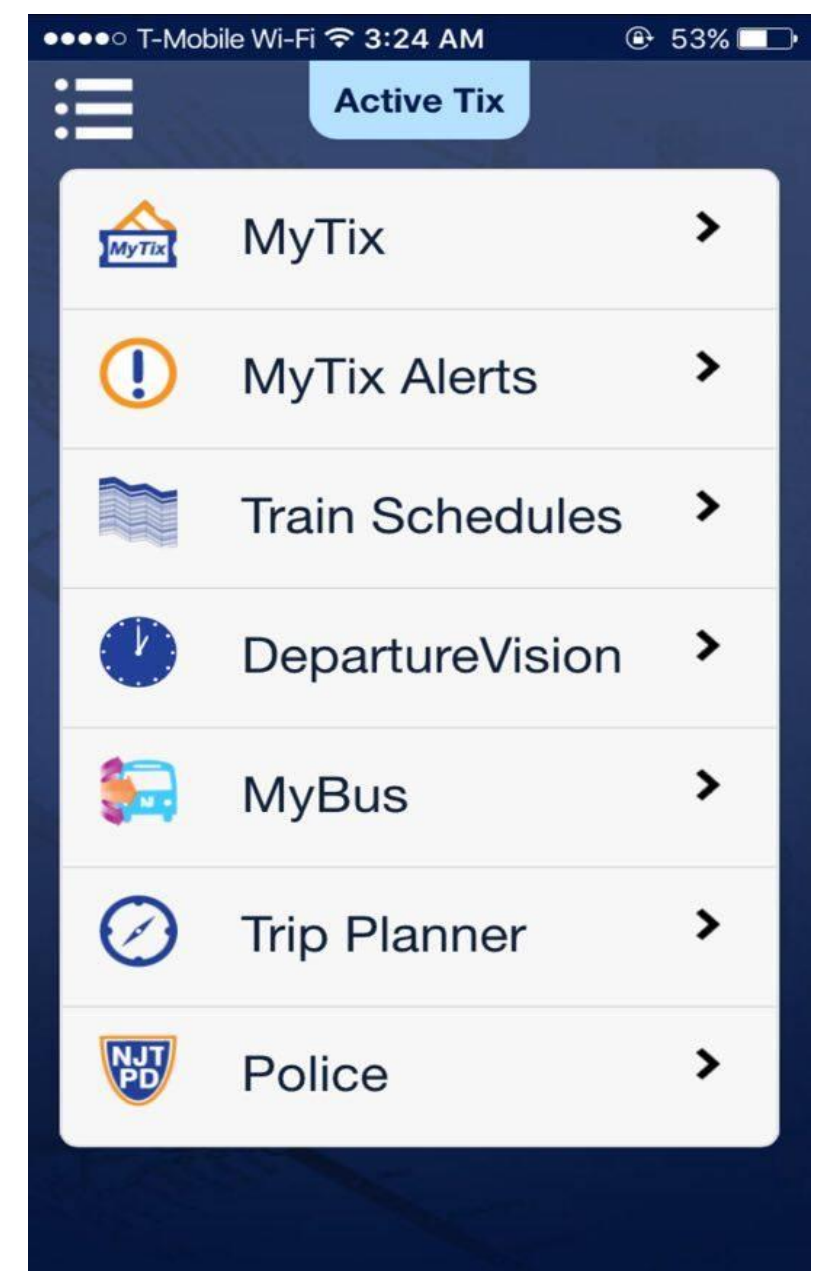
- Features include:
- Parking
 - Places
 - Events
 - Rock in Roma

RMV, Frankfurt



- Features include:
- RMV smiles (frequent traveler program)

NJ TRANSIT, New Jersey

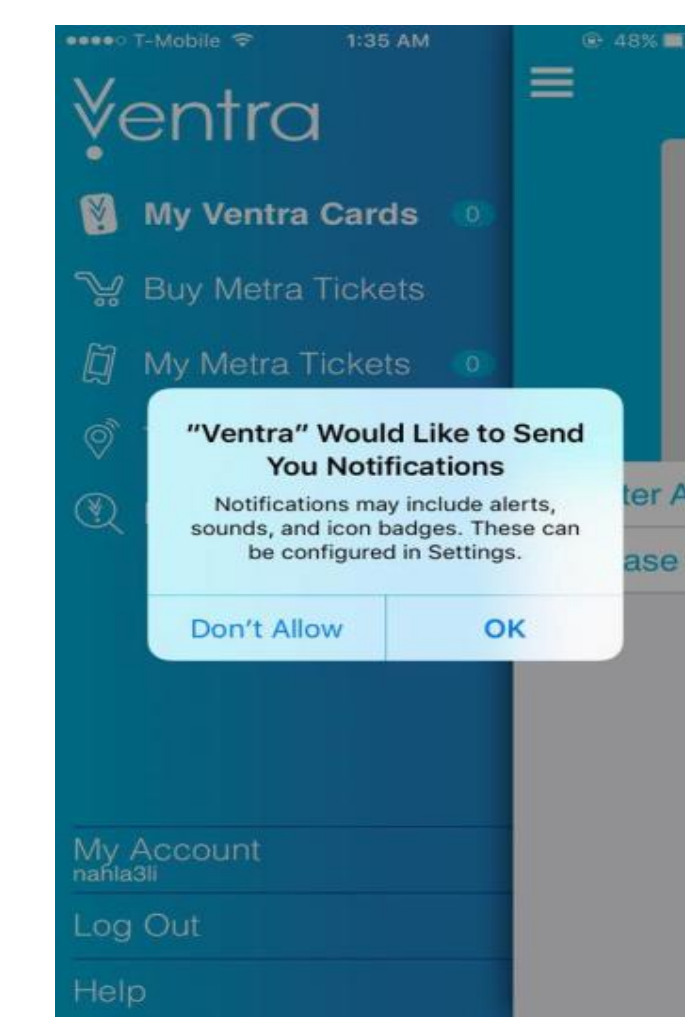


- Features include:
- Train schedules
 - Departure vision
 - Trip planner
 - Police

4- LOCATION SERVICES

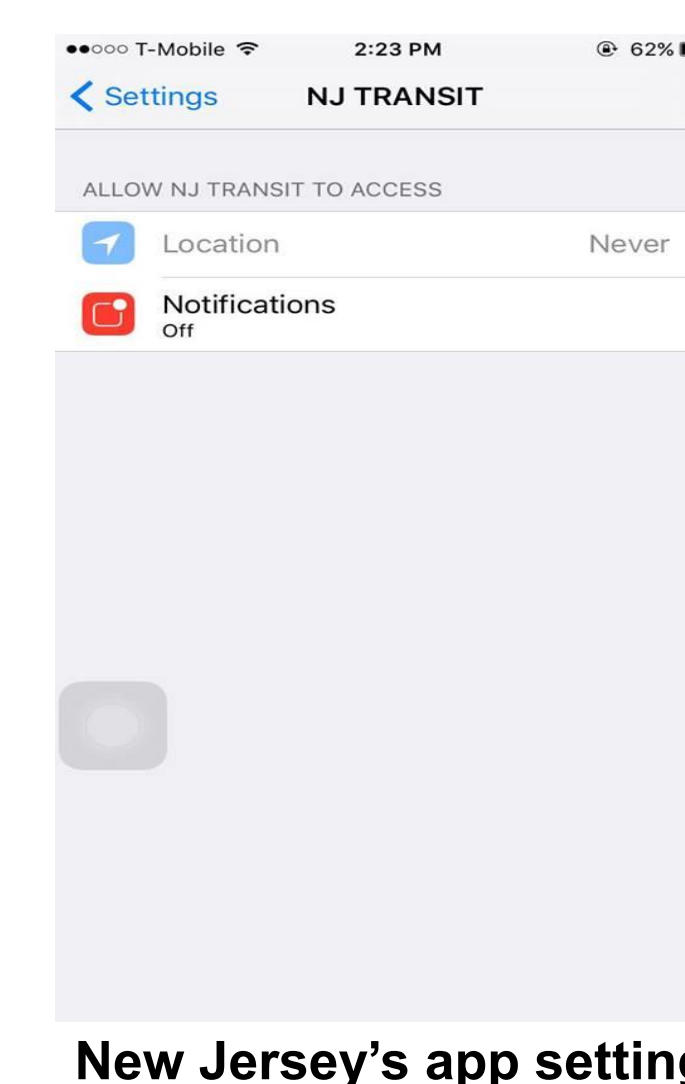
Location services is a term used in the mobile applications that refers to the ability of the app to detect the user's location.

Region	Portland	Boston	Austin	Chicago	New Jersey
Agency Name	TriMet	MBTA	CapMetro	CTA	NJ TRANSIT
Location Detection	Yes	No	Yes	Yes	No



Chicago's app

Region	Rome	Vienna	Frankfurt	Stockholm	Edinburgh
Agency Name	ATAC	Wiener Linien	RMV	SL	TFE
Location Detection	Yes	No	Yes	Yes	No



New Jersey's app settings

5- PRIVACY POLICY

Privacy policy is a written statement that describes the privacy rules and/or laws of a mobile app.

Region	Portland	Boston	Austin	Chicago	New Jersey
Access to privacy policy	App store	Customer support website	App store	Online browser	Within app
Data collected	GPS location	Location of use, cookies, email, phone number	Phone number, email, credit card info, GPS location	Device ID, IP address	IP address, cookies

Region	Rome	Vienna	Frankfurt	Stockholm	Edinburgh
Access to privacy policy	App store	App store	App store	App store	Within app
Data collected	Personal Data, Email, Phone number, Credit Card	Personal Data	Personal Data, GPS Data	Personal Data, Information on Travel History	Personal Data, GPS Data, Credit Card

6- CONCLUSIONS AND FUTURE RESEARCH

Conclusions

Features:

- American apps: Features are mainly transit-related
- European apps: Features are more varied, including events, parking spaces, etc.

Location Services:

- User's permission is typically requested to detect location
- Location services is usually utilized to find the nearest transit stations, nearby deals and events
- Ticket purchase is still usually allowed while location services is disabled

Privacy Policy:

- American apps: Focus on fraud and hacking activity.
- European apps: Present the type of personal data being collected and why it is collected.

Future Research

- Including more American and European transit apps
- Holding interviews with transit agencies

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