

Detecting bike-lane quality

Rijkswaterstaat

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Problem description

Bike-lane quality → improve safety

Volunteered information from cyclists



Problem description

Bike-lane quality → improve safety

Volunteered information from cyclists



No input while cycling

Minimal effort from cyclist



Overview

Data \rightsquigarrow road quality ?

Social media



Bike-fixed device



Smartphone



Gathering data

Phone sensor data

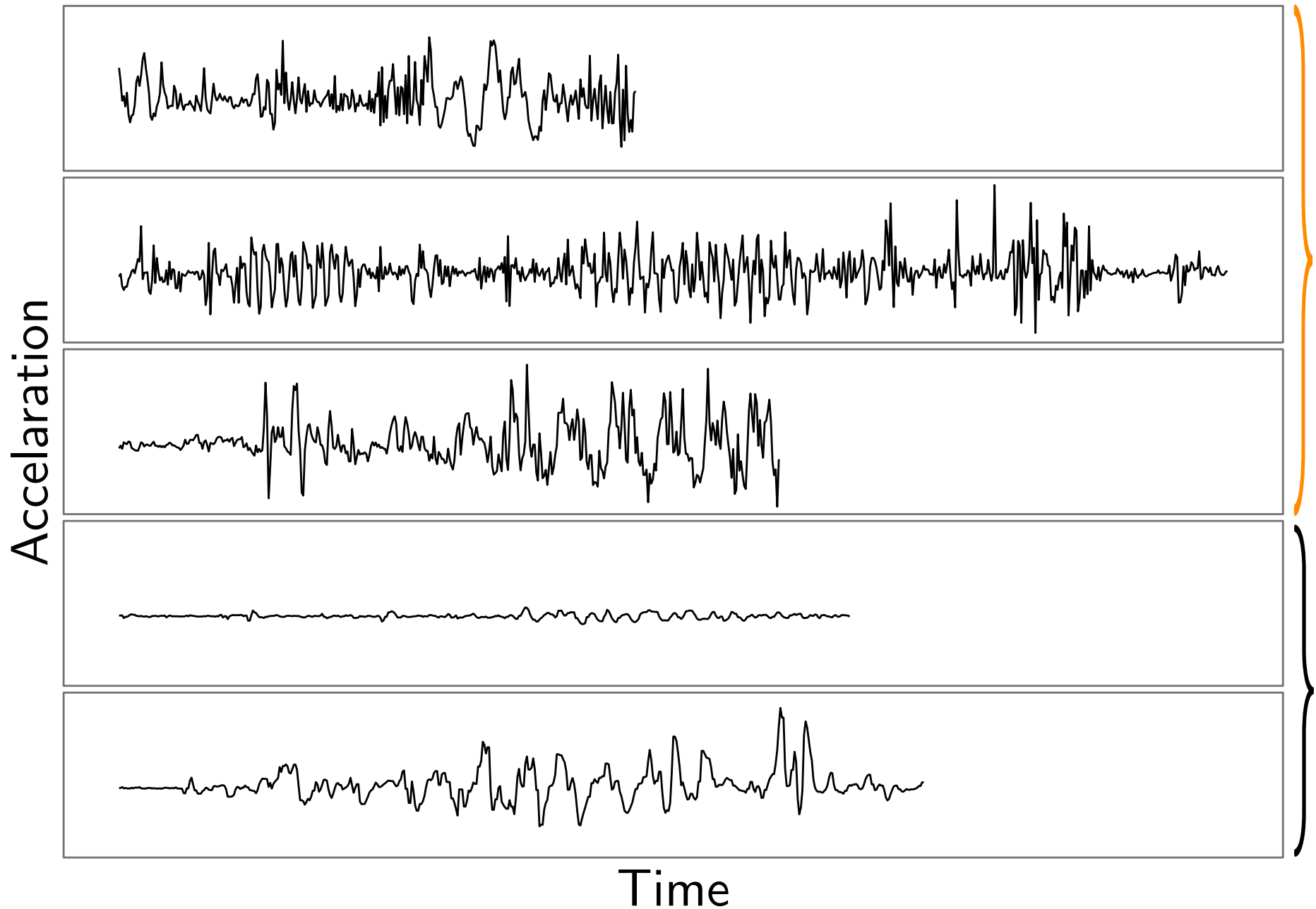
2 bikes

4 cyclists

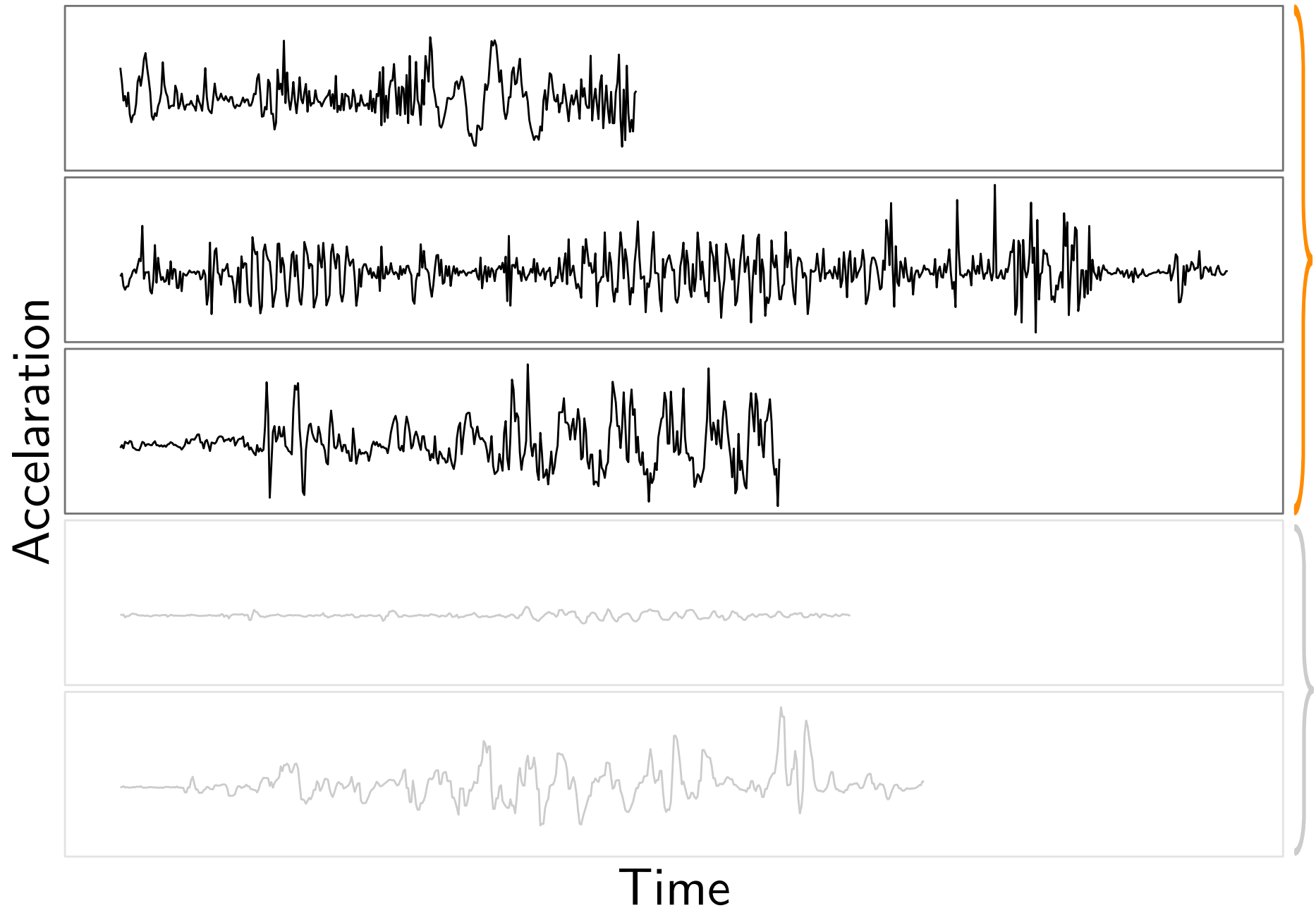
Smooth with damage, sidewalk



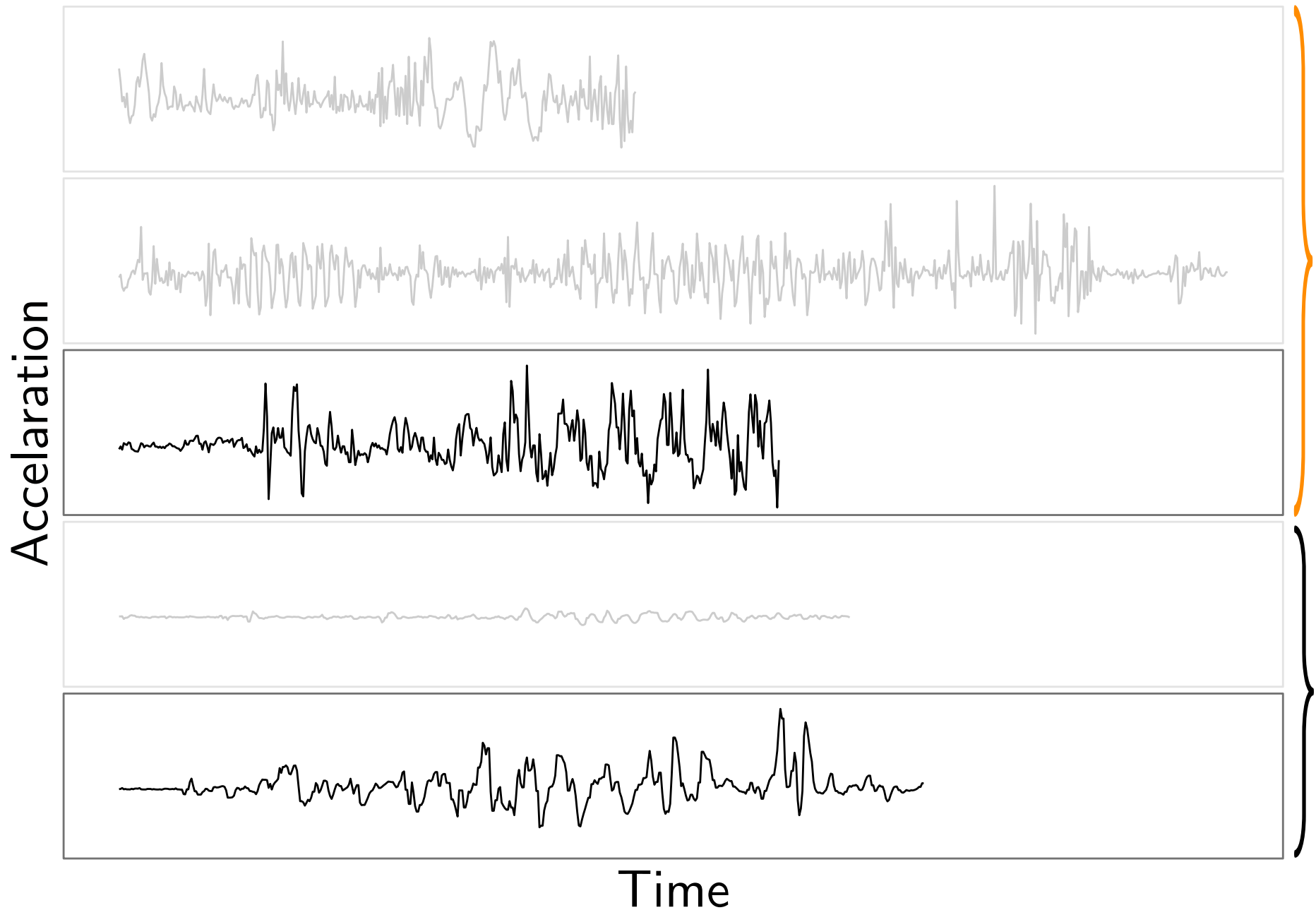
Preliminary results



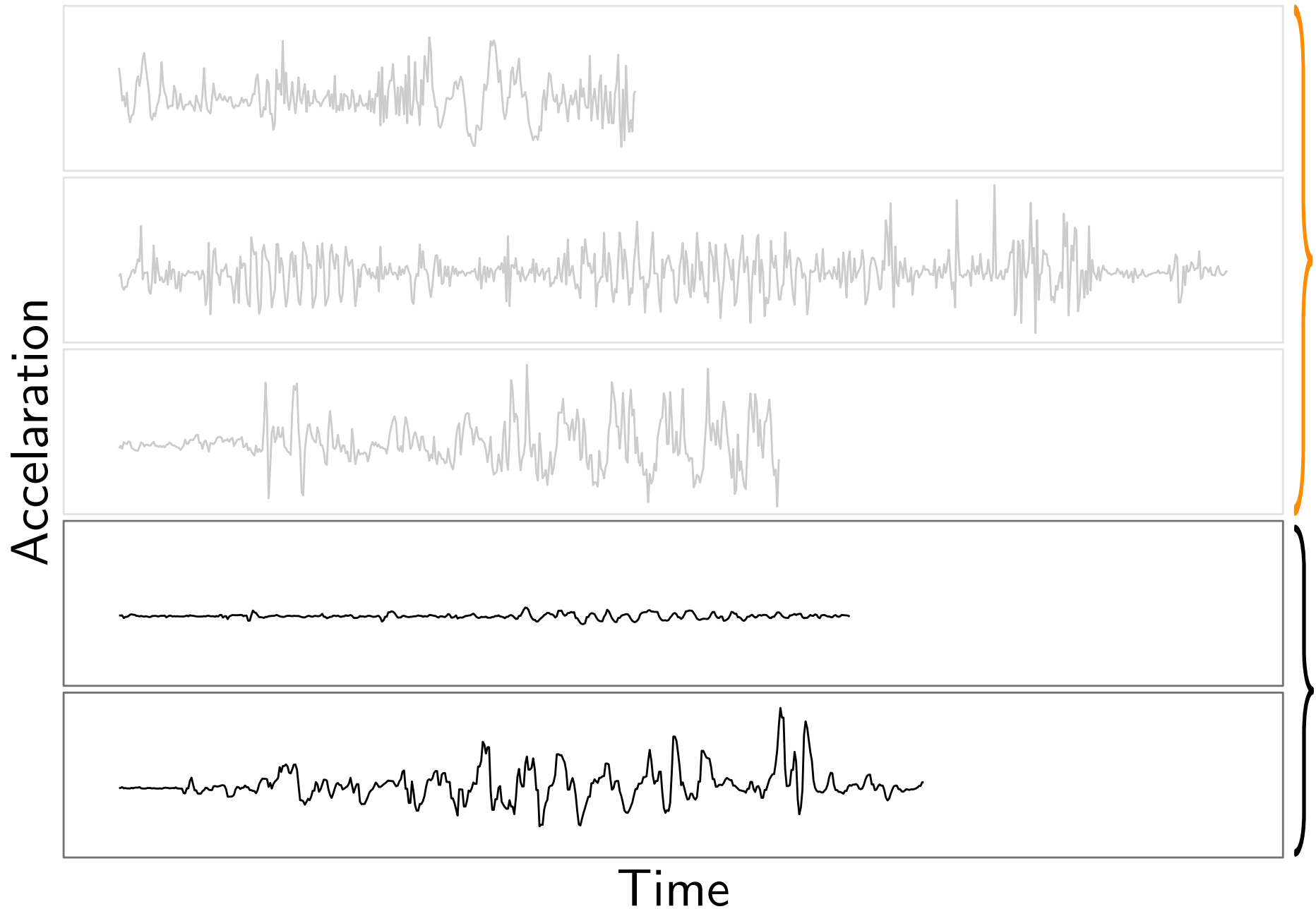
Preliminary results



Preliminary results



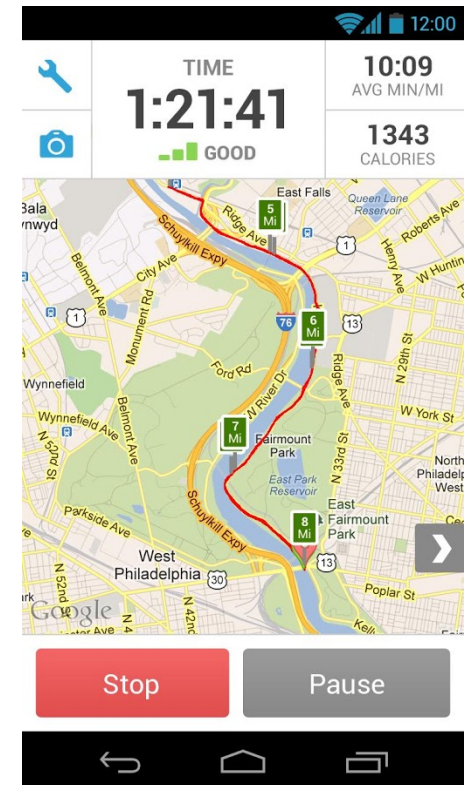
Preliminary results



Considerations

Cyclist's interest

Reaching audience



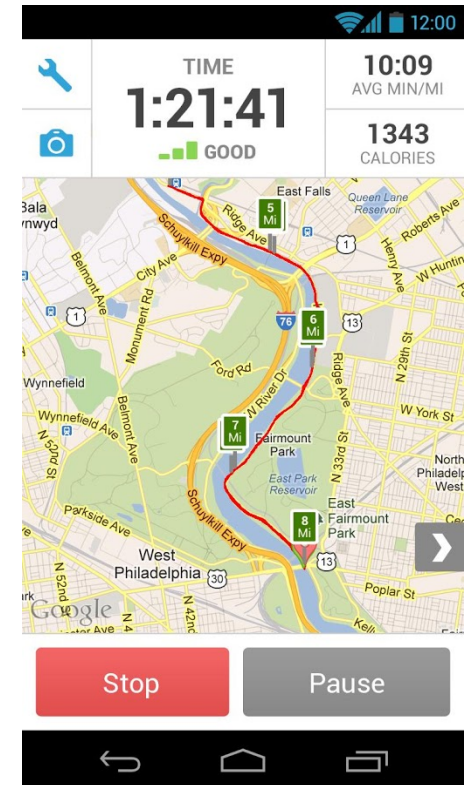
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Investment 

Post-riding evaluation



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Cyclist's interest

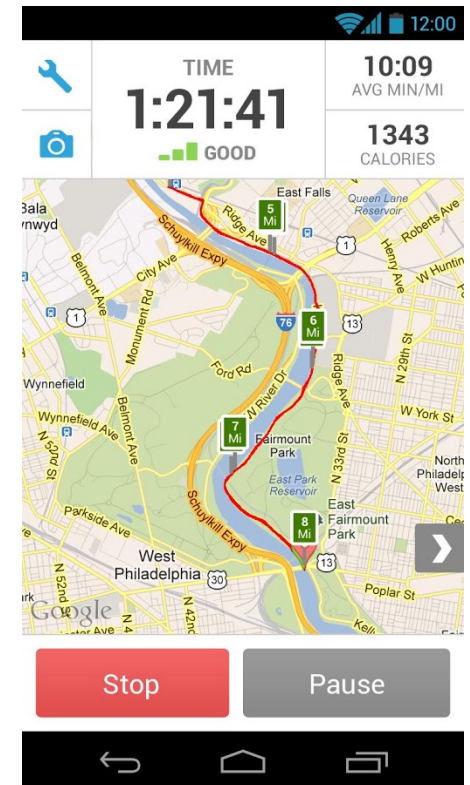
Reaching audience

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Seasonal effects

Privacy



Outlook

Further analyze data

Identify pitfalls and cyclist's interest

Limited user input

Other quality criteria

