



Metro do Porto

Daily ridership increasing;
people paying declining

Background

Metro do Porto is a light rail network that runs underground in central Porto and above ground into the city's suburbs. The first line opened in 2002, and since then more and more people are riding the Metro every year. It was a pioneer in architectural design, as people can access the Metro without any physical barriers or fare gates.

To do so, the Porto Metro operates on a proof-of-payment system: tickets must be validated before travel by scanning them in front of machines located both in stations and inside the trains themselves. There are three types of tickets: a **validated occasional ticket**, which allows for unlimited travel within a specified time period (currently 1 hour); the **gold passes**, which allow unlimited travel within a pre-defined area during a month; and the **Andante 24** that allows the user to make unlimited trips within a given day in the zones chosen.

While this payment system may have its advantages, it is becoming clearer that it has one big flaw — the amount of people that ride the Metro without paying is increasing every year, as the fear of being fined €120,00 doesn't seem to affect people who do it.

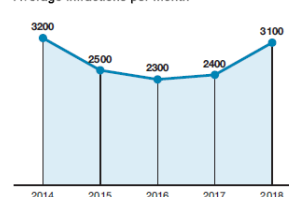
Who does it?

Although Metro do Porto does not reveal information about the offenders, the target audience of its most recent advertisement campaign confirms that **young people** are among those who don't pay.

"What would you do with €120?" or "Riding without paying is expensive" are two taglines Metro do Porto is using in its campaign, which "aims to sensitize the public transportation customers of the Metropolitan Area of Porto for the importance of the purchase and correct validation of the title or Andante pass in all the trips, avoiding the fines; on the other hand, it is intended to increase the sense of justice that must be felt on the part of those who pay for the use of the Metro and its relevance to the sustainability of the system."

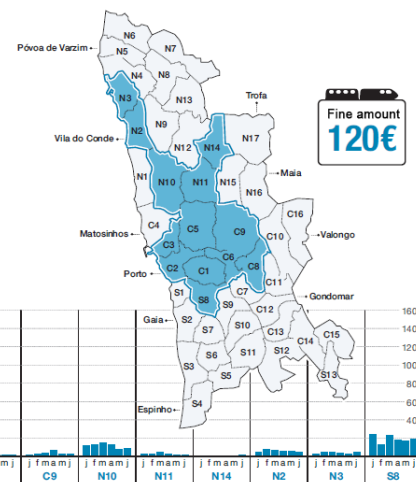
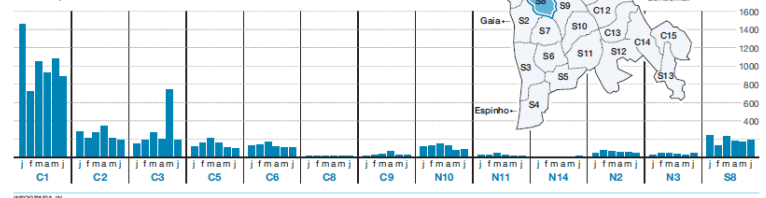
Metro fraud

Average infractions per month



Distribution by Andante zone

From January to June 2017



How?

Due to the lack of fare gates, it is fairly easy to ride the Metro without paying. If you're in luck and there isn't any inspectors during your trip, you can just enter the train freely — either with or without a ticket — and off you go to your destination, without any sort of verification.

This contrasts with the Lisbon subway, where there are physical barriers. To ride the metro without paying, you either have jump over the barrier or you go right behind a person who has a valid ticket (for which the barrier opens for a split second). Both of these options are fairly difficult to perform, especially the first one, thanks to the many policemen and security guarding the barriers.

But why?

Riding the Metro do Porto is fairly cheap — but, as Frank Abagnale said, “we live in a time when if you make it easy for someone to steal from you, someone will.” The lack of fare gates, together with few inspections, make it really easy for people to not care about paying their ride. Although it's cheap, users who do it may consider crime pays off, as the probability of riding the Metro and finding an inspector can be fairly low — and by doing so, you'd be saving a few euros.

How to solve it



Metro do Porto is already increasing its inspections in order to detect more infractions and, hopefully, to encourage people to buy their ticket. It is also releasing an ad campaign, which will be on display throughout the city. But this won't be enough in order to decrease the number of not-paying passengers to as low as other European cities.

The definitive solution to this problem will be developed during this semester, in the scope of the User Centred Design course of the Computer Science Master Degree at Instituto Superior Técnico, in collaboration with Metro do Porto itself and Inocrowd. The solution must follow one rule — and that is to preserve the architectural beauty of the stations, by not adding any type of physical barriers.

Group 10

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Sources:

<https://bit.ly/2Ns36tu>
<https://bit.ly/2zVmADg>
<https://bit.ly/2OFQpQ9>
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October 2018