The power comes from another source

A power up for the bike sharing service.

Introduction
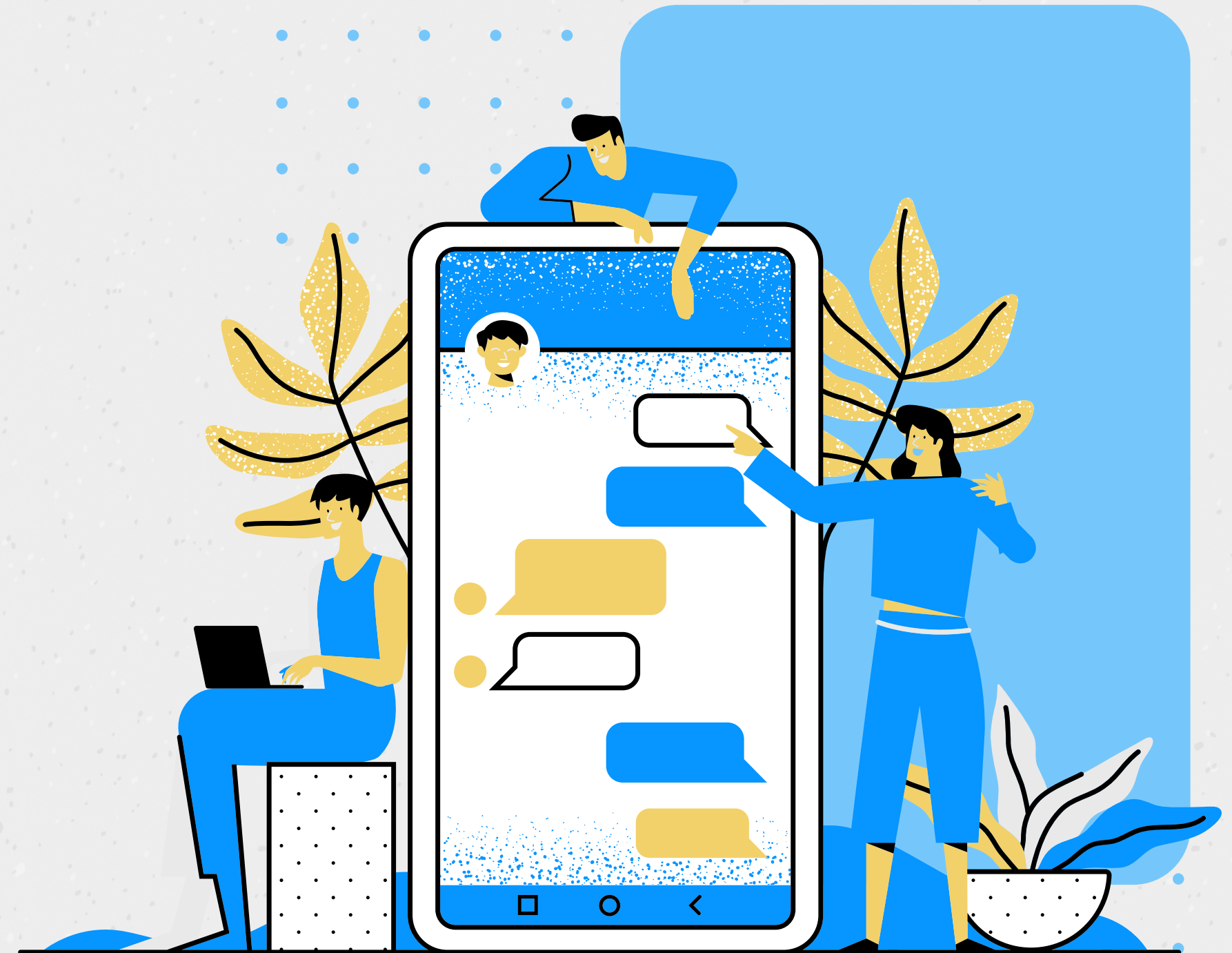
bike.marstefo.ovh

Through the huge work done by Stefano Slobodiuk (bike.marstefo.ovh), I thought that it would be useful to add a particular service. It's a particular service that in Circleton Universe doesn't still exist.

API

The website od.bike.marstefo.ovh offers a dashboard for downloading storeda bike-sharing data. The data downloaded are saved in a CSV file.

But the datasets provided by this service is not enough for my project!

Unbelievable

First power up

Stefano gave me access to special APIs, created ad-hoc. In this way, I can access to a larger dataset.

https://gitlab.marstefo.ovh/stefano.slobodiuk/open-data-for-bike-marstefo/-/blob/master/API_access.md

What we can do with these APIs?

Now, what do you think of doing with a large dataset?
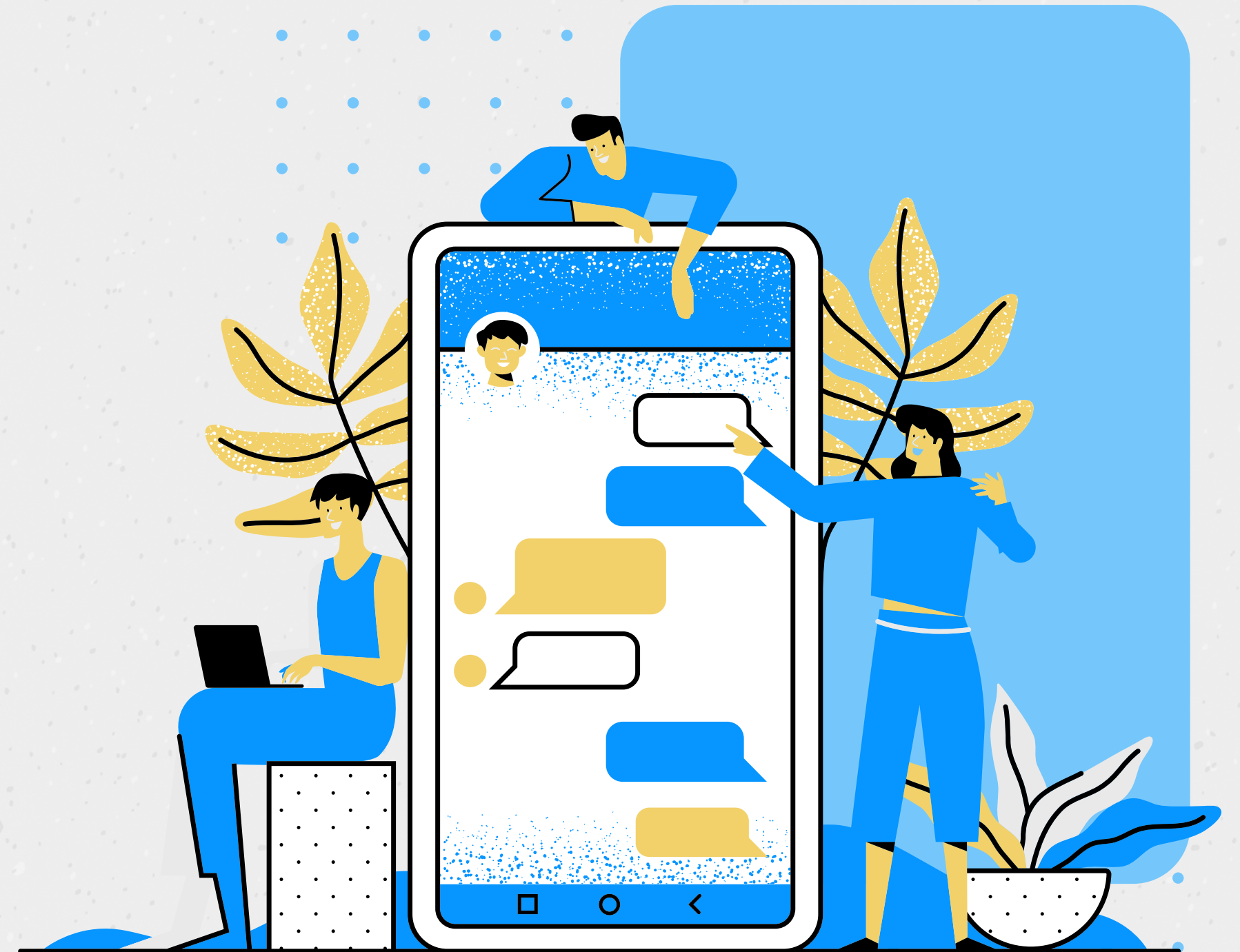
It is a pleasure to introduce you to...

...the first AI service of Circleton Universe

Machine Learning

Split out the dataset in time slots. So, given a specific time slot, the algorithm predicts how many bikes are available.

The project is still under development

Build a machine learning algorithm that uses a dataset like this is not easy.

There is still a lot of work to be done.

Big Data Analysis

There are a lot of variables that must be considered: weather, seasons, national holidays, summer holidays, specific events that cannot be expected, public events in the city (musical concert, artistic exhibition, ...).

What is the purpose?

An AI algorithm is useful

An AI algorithm can be useful becaus it's possible to offer a better service for the users.

USE CASE

Suppose there is a family who wants to organize a bicycle trip.

AI ALGORITHM

AI algorithm predict how many bikes are available of each time slot.

OUTCOME

The family is informed about the availability of the bikes, given a specific time slot. In this way, This way the family won't run out of bikes during the trip.
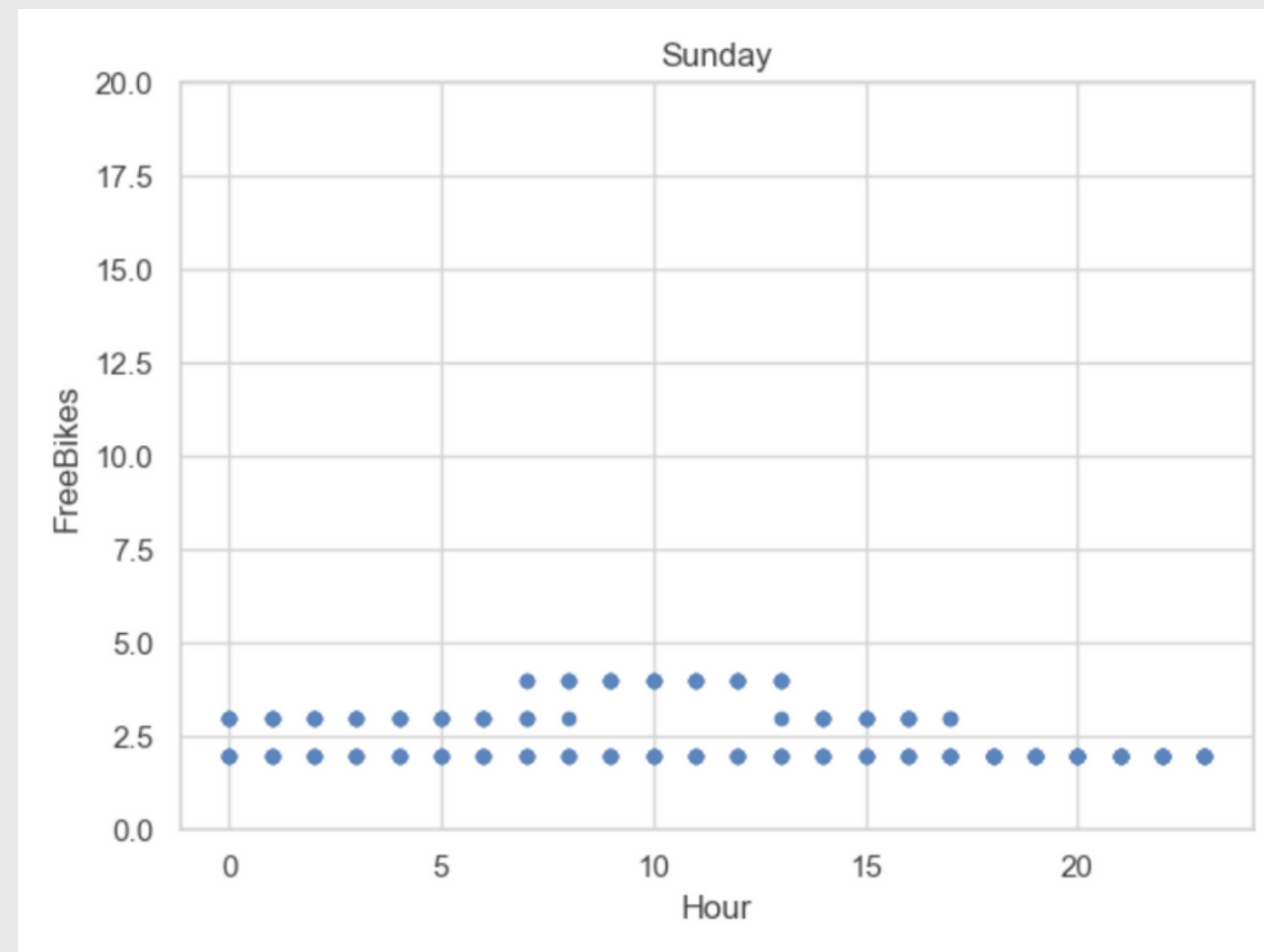
This is only one example. An AI algorithm like this can be useful also for *public administration.*

Let's dive into the code

Try to do a prediction of how many bikes are available at 5 a.m.

```
Sunday
Prediction: 2.684
```

Roadmap

The project is still in an *experimental* stage.

A stable versione will be released as soon as possible.

Thanks!

A special thanks to Stefano Slobodiuk for his huge availability!