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MSc. in Cartography

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Web mapping portal to collect illegal waste dump sites

During the last couple of years, the amount of household and industrial waste increased significantly. People in the developed countries produce an average of 1 kg of waste on a daily basis. Only in Europe, there is 70-75 million tons of waste produced annually with an increase of an annual 10%.

Not only our top priority but our common interest should be to prevent this level of increase in waste amount around us, as most of the waste materials don't get placed at the desired waste dump locations but in our environment illegally.

My project was developed to provide a map based tool to monitor these illegal waste dump locations, therefore helping the authorities to better organize cleaning campaigns.

The project itself is a web mapping application, which maps reported and confirmed waste dump locations.

There are two types of users: visitors and editors. To be an editor, the user has to register on the site. The reason for a registration is that the admins could check the validity and existence of the waste dump site, the user had reported.

As a map editor, the user can record new sites and add a series of attribute data such as the approximate address of the location, the type of waste found, the time and date of detection. Photo uploads are also available.

As an extension to this system, the map contains a layer of legal waste dump yards and selective waste collecting sites helping users to find the one closest to them.

The web application is primarily based on PHP and uses MySQL as a database engine. Mapping is implemented using the Google Maps API.

The behaviour of the application was coded in Javascript and a Javascript framework called jQuery. The markup is HTML5 styled using CSS3.

