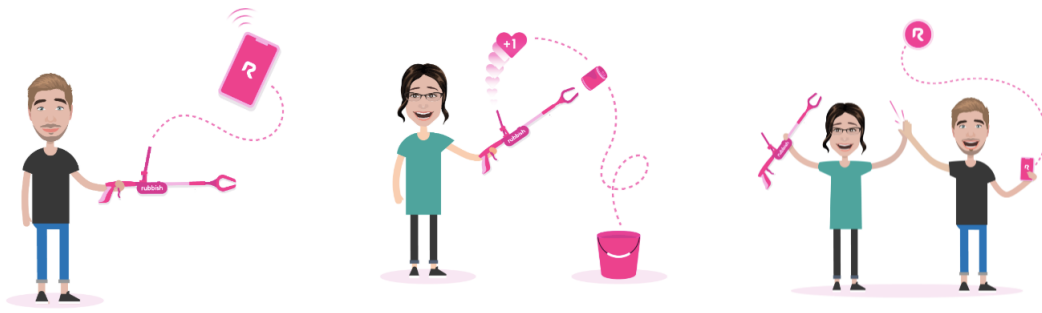# Coding for Litter Free Communities

Elena and her friend Emin were walking her dog Larsen one day when the dog choked on a piece of litter (trash) he found on the ground. The dog was fine after a trip to the veterinarian. After this experience, Elena and Emin decided they wanted to protect other animals and people by making it easier to clean up litter in their neighborhood. They used their knowledge of computer science to do that!

After the friends learned more about the problem, they discovered that the process of cleaning up litter hasn't changed much in 50 years. They decided to develop an app, or software program, to help litter cleanup and make neighborhoods cleaner and healthier.

The Rubbish App was born! The app tracks where litter is located in a neighborhood. It also engages people in litter cleanup in a fun, new way. It is not just about picking up litter. It also involves categorizing, or grouping it by type. Elena and Emin even connected the app to a physical "picker-upper" that automatically logs the types of litter that users pick up. All of this information is **data** that people can **analyze,** or study, to learn how to solve the litter problem. One way Elena and Emin use the data is by creating maps that help people visualize the extent of the litter problem in their neighborhoods. Knowing where litter is located is the first step in addressing it. The data also helps them talk to local businesses that might be unintentionally contributing to the litter problem.

Coding for Litter Free Communities

How Computer Science Helped Rubbish

Litter is a complex problem. Computer science helps people count pieces of litter easily and use that **data to solve the problem.** The Rubbish app takes large amounts of data and helps people and neighborhoods analyze the data to find hidden patterns. Like finding treasure, once the hidden patterns are found, we can all help solve the litter problem! Even if you don't want to be a programmer, studying computer science will empower you to break down problems and connect the dots in any field, **studying computer science will empower you to break down problems and connect the dots in any field.**

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