A visual tool for the analysis of usage trends of small and medium bicycle sharing systems

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The last two decades have exhibited a profound transformation of traditional urban mobility patterns partly due to the exponential growth in both number and popularity of public bicycle sharing systems (BSS). Analysis and visualization of the data generated by BSSs have become of special interest to municipalities to evaluate the effect of their mobility programs and offer integrated urban mobility solutions. In this paper, we present a visualization system that aims to assist city officials from small and medium cities in their decision-making process with an intuitive representation of BSS data. It has been developed, tested, and evaluated together with officials and domain experts from the city of Logroñó (Spain). Our tool presents usage information with different time granularities (yearly, monthly, weekly, or seasonally), shows traffic flows between stations, and provides an in-depth breakdown of users data such as their registered address, traveled distance, or gender-based patterns.

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