The Effects of Tourism on Traffic Patterns at the Piazza San Babila, Milan

Joe Schwartz

Data Privacy Course, School of Computer Science
Carnegie Mellon University, Pittsburgh, PA 15213
jnschwar@andrew.cmu.edu

Abstract

Popular attractions such as trendy shops, religious sites, and ancient architecture can be a major draw for tourists in a given area. Piazza San Babila in Milan, Italy plays host to all three of these attractions, and as a result the traffic in said area will demonstrate noticeable patterns as a result. Tourists themselves, as well as tourist vehicles (cabs, etc.) will be more prevalent in such an area, with increased travel at times which the local attractions open and close. These factors can all be measured quantitatively through the viewing and recording of images from the MilanoCam present in the corner of the piazza.

Introduction

“...Webcam images offer readily interpreted on-the-spot reports of traffic flow, crowdedness, cloudiness, scenic beauty (or ugliness), and other directly observable aspects of the physical and human landscapes” (Monmonier). In cities, public webcams can be used to determine a more optimal method in which to organize the streets, lights, sidewalks, and other factors that control the transportation of both people on foot and vehicles in a given area. By determining patterns in movement among pedestrians and drivers in heavily trafficked areas one can attempt to simplify the movement of both at a location.

Methods

The webcam in questions is located at http://www.imb.it/sanbabilawebcam.htm. By observing and saving images displayed every two minutes at this location, then counting the number of types of cars and people in a series of images one can hope find concrete evidence to determine the magnitude of tourism in the area. In all, a total of 269 images were collected manually, with a refresh rate of 2 minutes, and analyzed.

For the purpose of this experiment, a tourist is categorized as a person who neither works nor lives in the area in question. Classifying people and vehicles, especially Italian ones can be difficult so one must attempt to
identify clear indications of the fact that a person is a tourist. Shopping bags, maps, and cameras are evidence enough that a person or group on foot is a tourist. In addition, it is possible to count the number of people both entering and exiting shops in the piazza as tourists.

Taxis, buses, and rental cars are the most typical vehicular transportation for tourists. The piazza has a traffic lane dedicated strictly to taxis and buses, a clear indication of the magnitude of traffic the two are responsible for in the area. Taxis are easy to identify, as they have large signs on their roofs and/or sides indicating their taxi status. Rental cars, however, have no identifying markings of any kind, and as such cannot be counted. Parked cars show some indication of tourism as well, as local employees wouldn't occupy prime parking spaces on the piazza with their own vehicles during daytime store hours.

Counting these factors and comparing them to the total number of people and vehicles will yield a percent of people believed to be tourists. If this percent is sufficiently large it can be said that the tourist population at Piazza San Babila has a significant effect upon the traffic at the piazza and surrounding area.

Figures 1,2 The above pictures demonstrate the large taxi presence in the area as well as a person who can be identified as a tourist according to above specifications.

Results

As compared to the first two installments of this study, the third was significantly more conclusive. Once again, during the day when all of the local establishments are open the number of observable tourists was much greater. There were a large number of people with shopping bags, as well as several people who could be seen entering and
exiting the local shops, especially the one near the right side of the screen with the three white awnings.

A comparison of nighttime statistics versus daytime ones proves most useful, as the number of tourist-related vehicles and pedestrians is much larger during the daytime as illustrated in Figure 3.

![Bar chart showing pedestrian and tourist presence in Piazza San Babila](image)

**Figure 3** illustrates the difference between the tourist presence in the piazza during day and night.

### Discussion

From the results presented in the previous section it would appear that the tourist presence in Piazza San Babila is significant to say the least. Through continued, 24 hour observation on different days and at different times (namely those that local establishments open and close) it should be possible to demonstrate a more dramatic effect that tourists have on the area. Also, through the study of other similar work on the same topic it could be possible to determine a better way in which to classify both people and vehicles, perhaps with software that perform the identification. In addition, the further development of a hypothesis based upon available work will most likely take place, as both tourism and traffic control are popular subjects, the latter especially with regard to webcams. Overall it would appear that the work done thus far is a good base, a great deal more research and observation must be done in order to produce a logical, supportable conclusion.

### References


Piazza San Babila, Milan. PlanetWare Inc, 2006. 
