


THE MOBILE



AS BARCLAYS CYCLE HIRE APPROACHES ITS FIRST BIRTHDAY, WE CONSIDER ITS STRENGTHS AND WEAKNESSES AS A SOURCE OF DATA, AND OFFER A UNIQUE VISUALISATION OF ITS MOST AND LEAST POPULAR DOCKING STATIONS.

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Launched on July 30, 2010, in central London with 5,000 bikes situated in 315 docking stations, the Barclays Cycle Hire scheme (known colloquially as ‘Boris Bikes’ after Mayor Boris Johnson) has established itself as a key part of the city’s transport network, with over one million journeys undertaken in the first 10 weeks alone.

It was, as Transport for London (TfL) Project Manager Nick Aldworth explains, a huge undertaking. “The speed of development and system integration needed to meet the required launch date for Barclays Cycle Hire drove most of the challenges in the IT field,” he says. “The final system had 14 interfaces for nine individual components supplied by international subcontractors to our service provider, Serco. Other big challenges coming out of the multi-national organisation involved supply chain logistics. At various times in the

project, plans were changed or delayed due to volcanic ash clouds in Europe, floods in Mexico, a heat wave in Montreal and a hurricane in the US.”

Data collection was a key consideration from the start, with data-capture technology worked into all facets of the system. “Every cycle, every member key and every docking point is identifiable via a unique RFID chip and number,” says Aldworth. “This means they are traceable through the system, and at any given time we can ascertain where a bike is or which docking point it was most recently removed from.

“The system can also tell us which user removed that bike and, when it’s returned, how long they had been riding. Our on-street equipment can then inform the Serco data centre in real time of the cycle distribution patterns as well as any problems with the terminal, payment device or any faulty cycles

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that are reported. The data allows us to understand the customer and ensures that Serco provides the most efficient and responsive service possible.”

But although TfL has an impressive data capture system in place, some critics have been less kind about its attitude to making that data available to others. Right now, much of the really innovative data use is being fuelled by independent designers and app builders, some of whom have clashed with TfL over its failure to release information in a timely fashion.

One of those is freelance data analyst Adrian Short. “A month before launch, TfL issued a press release calling on developers to get involved and help contribute to the scheme’s success,” he explains. “Six months and more than two million journeys later, developers are still using unreliable hacks to get the data they need to power their apps. Currently, TfL is publishing no open data about the cycle

hire scheme and no real-time data about bike and docking station availability to help cyclists.” Furthermore, he says, “Developers wanting access to the official datasets must apply for permission to access them, stating their intentions and agreeing to a lengthy and onerous contract. This is a huge disincentive to casual experimentation and also to commercial developers who discover that their access to necessary data can be revoked unilaterally at any time.”

The sheer speed with which the project was put together has, in effect, weighed against it. “We were unable to anticipate some of the demands we see today,” admits Aldworth. “The procurement process for the service provider began in mid-2008 and expectations around data provision have moved on remarkably since then, not least in expectations around real-time data and in facilitating applications for the smart phone market.

“As a public sector body, it’s important to us to be as transparent as we can, but we have to balance this within the limitations of a bespoke system, which is being developed and improved,” he continues. “Our primary objective is to provide a transport service effectively and efficiently, and to provide the associated passenger information. When this coincides with the private sector’s desire to utilise data to provide an additional service to the public then we do try to facilitate it, but many initiatives are competing for funding and there are always difficult choices to be made when investing public funds.

“It’s in our interests and our customers’ interests to provide a deep level of access to data,” he concludes. “In the longer term it can be used by us, and by others, to make Barclays Cycle Hire bigger and better.” ©