

Can Private and Public Bike-Share Coexist? A Cautionary Tale from China

By Deng Han, Liu Shaokun, Li Wei, Huang Runjie, ITDP China

Disruption has come to the once calm and steady business of municipal bike-share, where the Chinese experience is a harbinger of the future for cities everywhere. Virtually overnight last year, red, yellow, and blue bikes sprang up on seemingly every corner in Guangzhou. But they had one crucial difference from the traditional public bike-share system that has been offering residents two-wheeled mobility since 2010: They were dockless.



Dockless bike companies are increasingly taking over public spaces for private use, creating serious problems for Chinese cities.

These bikes could be found – and left – anywhere in the city, thanks to a built-in lock that released when the user reserved the bike via a smart-phone app and a QR code.

On the surface, this degree of convenience compared to traditional bike-share with its dedicated docking stations seemed a brilliant innovation in delivering a solution to the perennial “last kilometer” problem. After all, people who own bicycles lock them as close as they can to their destination – outside the office, on campus, at a bike rack near the grocery store – rather than leave them at designated locations. But the introduction of a private innovation did not come without headaches. For one, it seems there can be too much of a good thing, as bikes flooded the streets; for another, the sudden rush of rogue bikes for rent onto the streets of Guangzhou also upended municipal plans for expansion of the public system.

Guangzhou's traditional public bicycle system launched in June 2010. With stations located along the Zhongshan Avenue BRT corridor, the system appeared to meet an obvious need in the neighborhood. According to data provided by the Guangzhou public bicycle company, as of December 2016, the system contained 8,850 bicycles and more than 110 docking stations. That's an increase from the initial launch of 1,000 vehicles and 18 docking stations. A total of 35,382,400 trips have been made using this service.

With five successful years under its belt, Guangzhou proposed a major bike-share expansion in 2015. The city government planned to launch 100,000 traditional public bicycles, which would make it one of the largest systems in the world (New York's Citibike, for example, has 12,000 bikes). However, as of January 2016, there were still only 10,000 bikes. What happened?

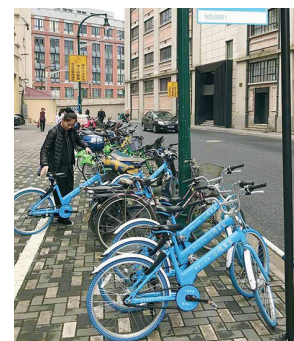
Since September 2016, the privately-owned dockless companies Mobike, ofo, Xiaoming, Bluegogo, U-bicycle, and Coolqi Bike have been players in the Guangzhou market. With a simple per-ride price and convenient smart-phone payment, these dockless bike-sharing systems have grown explosively. By the end of May 2017, more than 700,000 dockless shared bikes could be found on Guangzhou streets, with more than 7.5 million registered users and more than 4 million daily trips.

The impact of dockless bike-share on cycling culture has been remarkable. ITDP conducted a survey of bike volumes along the Zhongshan Avenue BRT corridor. Measured in June 2017, over a year after dockless bike-sharing came to Guangzhou, the volume of bikes in the vicinity of Gangding Station and Tangxia Station is up more than 500 percent and 100 percent respectively than in previous years. Crucially, about 55 percent of rides are on dockless shared bikes and only 2 percent are on traditional public bikes. Daily trips by the public bike-share have plummeted from 14,000 to 9,000 per day since the advent of private dockless bike-share.

While this growth might suggest that private dockless bikes are a superior product to traditional public bike-share with docking stations, the Guang-



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Guangzhou experience makes it clear that dockless bike-sharing companies value rapid launch over long-term management. With large deployments, shared bikes are put on the street in a disorderly manner with the hope of cornering the market. Operational costs are in turn transferred onto the back of the city, which must use its resources to keep the clusters of bikes from clogging streets, sidewalks, and public spaces. Newspapers have even reported that users are wedging private dockless bikes into the public system's docking stations. The Guangdong/Guangzhou Consumers Commission claims that 73.9 percent of respondents expressed support for the development of dockless bike-sharing. However, at this time there is no formal agreement with the city, and these companies pay no fees to the city.

Recognizing the impact of dockless bike-share, the Guangzhou Communications Commission issued technical guidelines for parking urban bicycles in the city center and a blueprint for standardizing Internet rental bikes in Guangzhou. Meanwhile, the public system has undergone a transformation, driven in part by the innovations of the private system. At the moment, the Guangzhou traditional public bicycle system is building up its IT infrastructure to accept Yang Cheng Tong (a local transportation payment card), as well as

mobile payments via WeChat, APP, and Alipay.

As private bike-share expands outside China – it can already be found on the streets of Seattle and Washington, DC – there's debate over whether these two competitors can coexist. We think they can. Traditional public bicycle and dockless bike-sharing have their own advantages and disadvantages, and they learn from each other as a result. Traditional public bicycles are learning to go dockless and adopt online convenience from the dockless bike-sharing systems, while dockless bike-sharing is shedding its chaotic approach in favor of a more rational approach to growth and street parking. There are definitely advantages to having a set location for bikes (docked) and also more flexible bikes (dockless), but they can only work together if there is an intentional plan, with regulations for dockless to complement docked and to reserve precious space for pedestrians. Ideally, traditional public bicycles and dockless bike-sharing will become an organic blend offering a convenient service for the public's "last kilometer" and short trips.

Progress is underway. Xiaoming, Mobike, and other companies are recognizing their mistakes and working on a virtual "geo-fence" to comply with new bike parking requirements. The public and private models are coming from opposite directions, but will hopefully meet in the middle to strike a compromise in both convenience and order, providing the best experience for all of the city's mobility needs.

Dockless bike share bikes' surge in popularity in cities such as Guangzhou, where ITDP observed 55 percent of riders on a given day using a dockless bike, and only 2 percent using the city's bike share bikes.