DIGITAL MATATUS

2016 Nominet Trust 100 Winner

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COLLABORATIVELY MAPPING NAIROBI'S INFORMAL TRANSIT NETWORK

By University of Nairobi School of Computing and Informatics

Project URL: http://www.digitalmatatus.com/
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- Social Exclusion
- Geolocation
- Internet
- Mobile
- Open Source

When Nairobi's bus system collapsed in the 1990s, it gradually came to be replaced by colourful, loud and chaotic 'matatus' – 20,000 private vans that move more than 3.5 million people living in the Kenya capital between jobs, schools, commerce and healthcare.

Over 70% of the population rely on matatus, yet little information is available about how to navigate them. Stops can change by the minute, congestion and police checks can affect routes, and fares can quadruple in bad weather.

Since 2011, researchers at MIT, Columbia University and the University of Nairobi, together with design agency Upshot, have been working on mapping Nairobi's informal transit system. They recruited Kenyan students to ride the matatus, logging their journeys using mobile phones and GPS. By 2015, they had recorded almost 3,000 stops on more than 130 routes.

Designers at the MIT Civic Data Lab visualised the data into a map with colour-coded routes marked between familiar city landmarks, which could be viewed online, downloaded and printed.

The team also connected with Google to collaborate on turning the data into what's known as the General Transit Feed Specification (GTFS) – a global standard for routing apps like Google Maps. Thanks to Digital Matatus, Google has now updated GTFS to work with informal transit systems like the one found

in Nairobi, paving the way for online mapping in other developing cities around the world.

Since its release, the city of Nairobi has adopted the map as the capital's official transit guide, and more than 5,000 people have downloaded it online. Five travel planning and safety apps have also been developed by Kenyan tech start-ups based on the data, and UN-Habitat is currently using the map to guide the development of the city's Bus Rapid Transit. You can see the map at www.digitalmatatus.com

Image courtesy of Digital Matatus

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