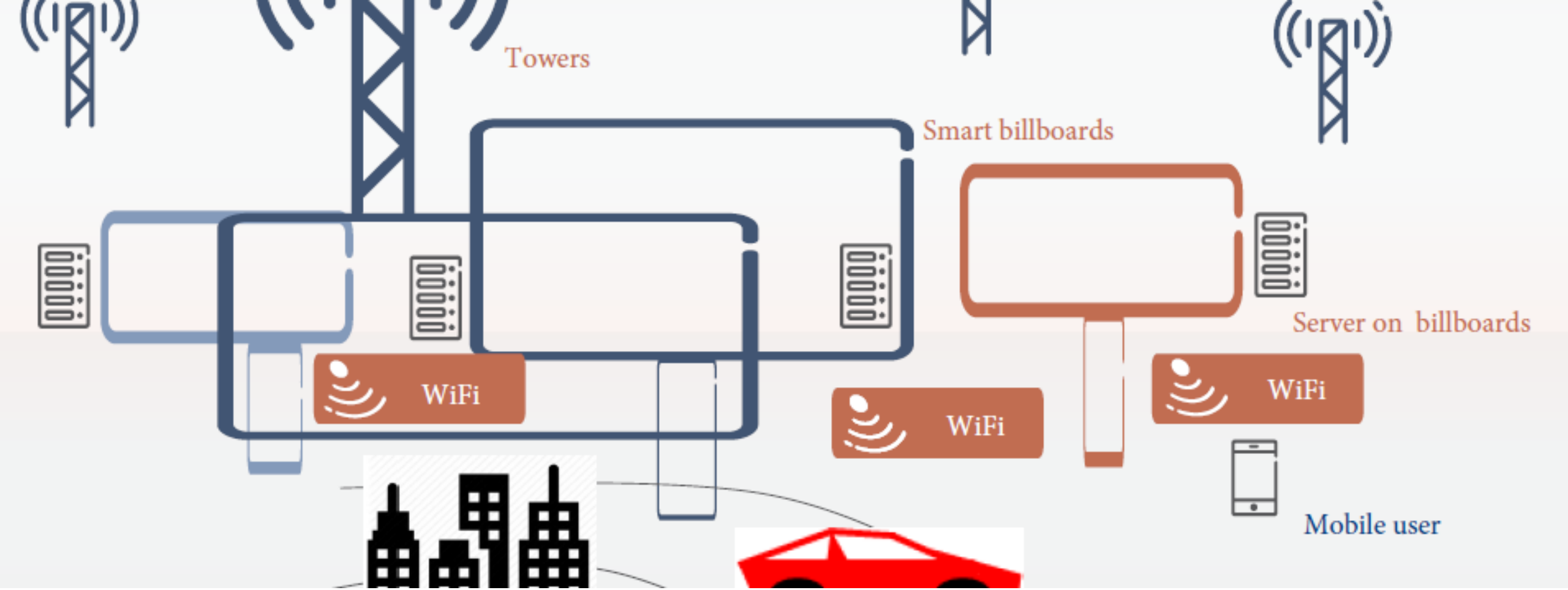

DESIGN OF SMART-INTERACTIVE BILLBOARDS

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WHO IS AFFECTED BY THE PROBLEM OR CHALLENGE AND HOW THEY SUFFER

Advertising companies waste space by fixing still pictures on billboards, and short videos on digital billboards, with smart billboards, that are capable of linking the advertiser to potential clients, and enable localizing the adverts to specific people according location of the billboard (location aware), and activity of the community, say when the area is dominated by car bonds, then the adverts should target car buyers not any other, this would solve a problem of wasteful advertisements.

YOUR PROPOSED APPROACH FOR A SOLUTION TO THIS PROBLEM.

Approach 1

Hardware like switches will be installed on the current billboards to create the Access Points for ("blue tooth hotspot", "WIFI feed", or RF channels) communication, which broadcast the adverts available on the billboards' feed and then download them or stream them on the go. The Bluetooth would be for free adverts like WEA systems, while the WIFI feeds would be for paid adverts.

Cont'd

Approach 2

A database and user interface, on which the retailers would upload the Adverts in video/ slide show format to the billboards. So, when the billboard is an LCD, display the Adverts in a queue, and for ordinary billboards, the Adverts are stored for broadcasting, to the nearby, communities and potential clients. The API should be user friendly, and offer offline and catching so as to save data, where the adverts are stored to save on the data.

Cont'd

Approach 3

The mobile Application ***"Adfeed"*** will provide a listing of available Adverts in category according to the type of product, paid or free, and service provided in a specific location, etc. connection can be through scanning a QR code on the poster to link to the advertisers' website, the authentication of users be done when accounting requirements are met.

Cont'd

Approach 4

The billing issue is dealt with in the design of the system algorithm, possibly, the owner of the Ads is charged according to the time Adverts remain on the broadcast list, length and type of product. Payment may be through mobile money, mobile banking or whichever way is convenient like PayPal, etc.

HOW ICTS AND NETWORKS WOULD BE USED IN THE IMPLEMENTATION OF YOUR SOLUTION.

The need for a communication between the billboards and the advertising company, will require a network like 5G which is proposed to be IoT, and cloud native, allowing faster connectivity. Also developing the API for users interfacing to the network will require a lot programming.

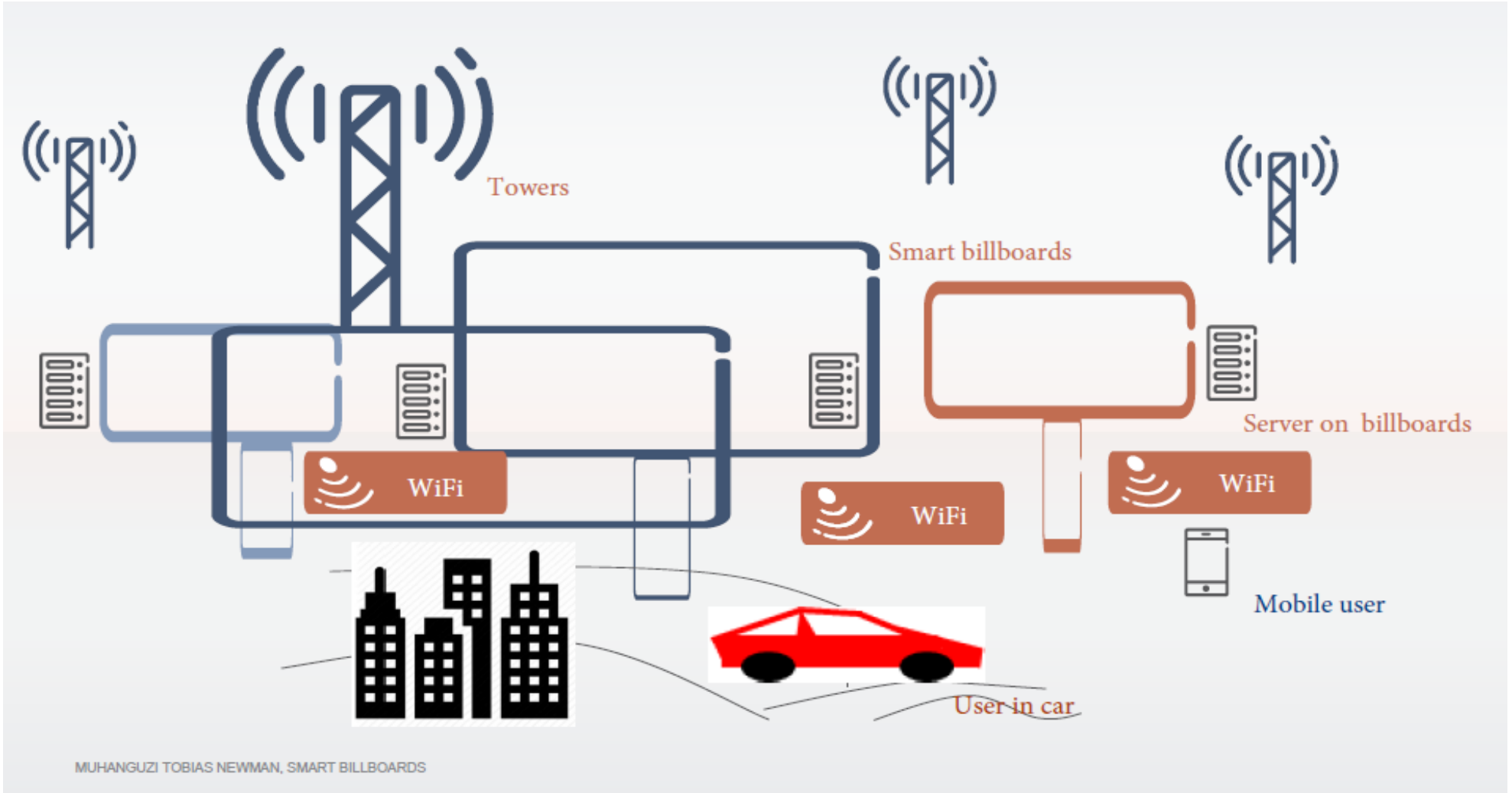
HOW THE AFFECTED PEOPLE MIGHT NEED TO CHANGE THEIR BEHAVIOUR TO USE YOUR SOLUTION,

This will call for a different complete restructured model of accounting, and billings on adverts. And relaying on ICT as its crucial backbone, and of course being cyber security aware, thereby increasing their IT competencies.

THE IMPACT OF THE SOLUTION ON UGANDA'S ECONOMY.

Easing the way adverts are conveyed to the digital-technology aware clients is a paramount requirement for marketing, and such innovations, would empower people to use their mobile devices for something more interesting, thereby, making life easy, this in turn would increase sales, on the side of the manufacturers, reduced cost per effective advertisement due to localization of the adverts to specific people, avoiding wasteful advertisements.

SMART BILLBOARDS ILLUSTRATION



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THE END, THANK YOU.

My Contacts link

GitHub project link