

End of unwanted items in the bagging area

December 11 2017

Queuing for the checkout and struggling with snappy self-scanners could be over with a superfast, super safe ultra-connected broadband set to revolutionise supermarket shopping.

Picture instead gliding down the aisles guided by your phone or tablet to items on your list while you monitor your baby in the store's crèche via live video link.

Back home, someone's swiped the last of the milk, so your fridge tips you off with a text, adds it to your list and you arrive home equipped to make tea.

Such scenarios are closer than they seem. This is a science-backed snapshot of what smart supermarket services would look like, hooked up to the Internet of Radio Light.

Brunel University London's Professor John Cosmas presented the notion, part of a forthcoming study to the China International Forum on Solid State Lighting in Beijing.

"This step change in performance and flexibility is a very attractive solution for retailers," said Prof Cosmas. "It will increase their ability to promote their brand and products thereby improving their profitability, which will incentivise them to raise capital to finance the upgrade of their building network infrastructure."

The Professor of Multimedia Systems leads an international team to

design a 5G broadband network offering seamless wireless connection at incredible 10Gbit/sec speeds. The internet of Radio Light (IoRL), it is built into light fittings and runs off unlicensed parts of the electromagnetic spectrum which, unlike existing systems, don't need permission from mobile network operators.

5G Internet of Radio Light Services for Supermarkets sketches out the types of services supermarkets can offer using IoRL technology. (These can start when the shopper makes a shopping list on a smartphone.) The 'smart supermarket' clocks shoppers the second they set foot instore. 'Smart trollies' (with an iPad or tablet attached) highlight relevant promotions en route and suggests substitutes, if something has sold out. It works the same with a basket and phone running the smart supermarket app.

When a shopper scans a bar code, the app shows product information such as nutritional values. The app shows recipes, video cooking instructions product reviews and personalised adverts. Parent-friendly features include real-time video monitoring of the in-store crèche and cartoons streamed to a dash on the trolley.

When finished, the app tots up the total, so the shopper simply walks out as the system automatically charges their card. "This should cut out the need for check outs," said Prof Cosmas, who adds that a demonstration Smart internet of Radio Light [supermarket](#) will be built in Beijing.

On the high street, price is no longer paramount, said Prof Cosmas. "For retailers, it is now all about selling services, solutions and stellar shopping experiences. This is what's needed to deepen emotional connections with shoppers and encourage customers to shop longer, spend more and stay loyal."

More information: Prof Cosmas presented The Internet of Radio

Light Services for Supermarkets at the 14th China International Forum
on Solid State

Lighting SSLCHINA2017 bura.brunel.ac.uk/handle/2438/15494

Provided by Brunel University

Citation: End of unwanted items in the bagging area (2017, December 11) retrieved 9 April 2024
from <https://phys.org/news/2017-12-unwanted-items-bagging-area.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.