

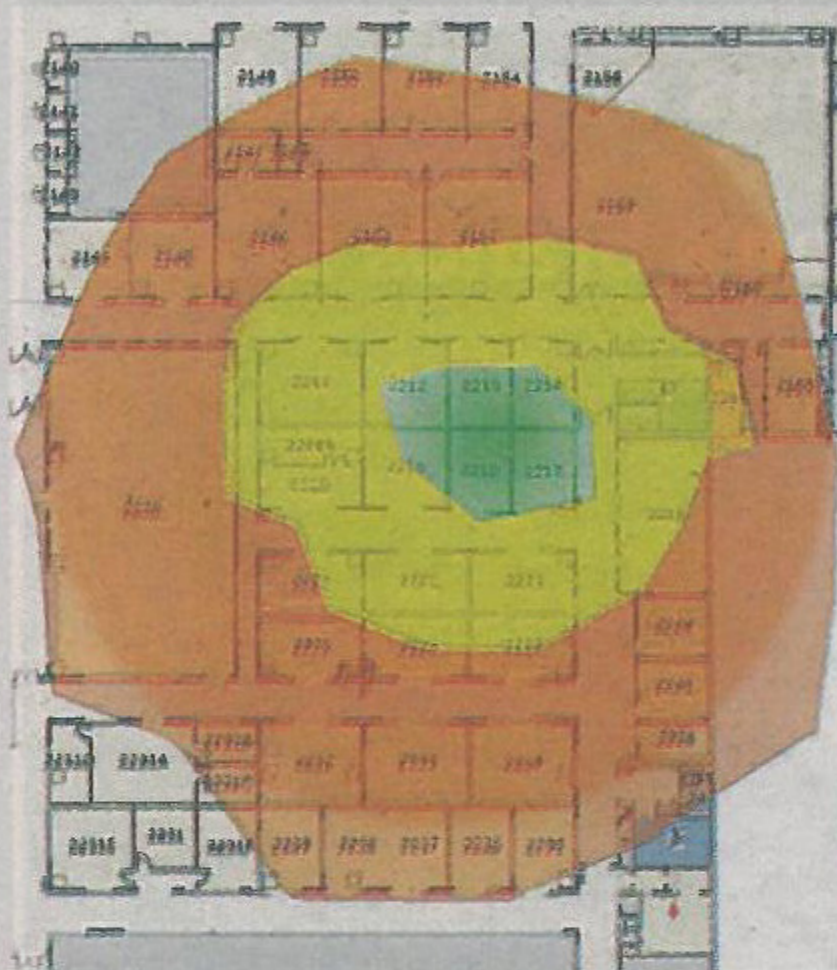
Technology



Insider's view on shopping of tomorrow



Gary Chan



A location-based service fingerprint showing hotspots within a shopping center.

IT IS CLEAR that indoor, location-based service, or LBS, offers a lot of convenience, as we saw in last week's column. Users no longer need to look for and consult fixed shopping directories and maps in a mall – and get lost on the way. Using LBS, shops can aim targeted advertisements at their customers.

For instance, while a customer is browsing the menu outside a restaurant, if a discount coupon pops up on the shopper's mobile, it may entice them in.

Or when a shopper is in a store, a timely coupon, depending on the location, may alter the customer's buying behavior. This will greatly enhance the revenue of the business.

Indoor location-based advertising is a new market to be tapped. The latest research report from Berg Insight, which offers premier business intelligence to the telecom industry, estimated that the total value of the global real-time mobile location-based advertising ad (such as location-specific SMS, mobile

search and coupons) will account for 33 percent of all mobile marketing in 2017, and which will be worth a total of 6.5 billion euros (HK\$66 billion).

It is clear that knowing your location accurately may change our lives, our way of shopping and the way of doing business.

To make LBS a success, we need the following three enabling technologies: accurate localization (knowing one's position), timely tracking (learning one's position over time), and efficient navigation (guiding a person from one place to another).

Currently, my group of researchers and developers in the Multimedia Technology Center at the Hong Kong University of Science and Technology are working on these LBS technologies.

The R&D work has received extensive support from the government and industry.

We are developing innovative solutions overcoming many major technological and

deployment challenges to offer indoor localization, tracking and navigation.

Through rigorous research methodologies, software development cycles and experimental trials in real industrial settings, the technologies we are developing will help to make indoor LBS a truly deployable and viable business.

In the near future, when you are visiting a new mall or business complex, you will no longer need to painfully look for its directories.

With our technologies, you will be guided on your mobile so that finding your destination in a strange environment can become a joyful and fun experience.

You will then appreciate what it means by location, location, location.

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