

FoodServe: a one-stop self-service platform for foodies and restaurants

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Hong Kong is a food paradise. We have everything from Michelin-starred restaurants to hole-in-the-wall eateries, and so it is not difficult for foodies to satisfy their taste buds. However, we often face problems searching for suitable restaurants, such as having to wait a long time to be served and having difficulty getting through the line for food delivery during rush hour. What's more, restaurants may lose their reputation for poor service if there are too many customers.

Under the supervision of Dr Ted Chow Chi-yin, Assistant Professor in the Department of Computer Science, Chris Chan Chung-ngok, a student in the same department, has developed a one-stop self-service platform to help to solve these problems.

This newly developed platform, called "FoodServe: A Self-service Platform for Restaurants", is a comprehensive yet user-friendly system for both foodies and restaurants. It operates in two interfaces: an application in smartphones or tablets targeting foodies and a website targeting restaurants.

Foodies simply open this application in their smartphones or tablets. The app enables them to search for nearby restaurants, browse the menu, order food by scanning the QR code placed at the restaurant's table, settle payment online, order delivery or take-away, track their

order, download e-coupons provided by nearby restaurants, and rate the restaurants. The app can also record the user's dining history and ratings, and so recommend similar kinds of restaurants for future meals.

Restaurant owners may upload their menus to the website through the browser without installing any extra software. They can customise the menu such as offering options of "less sugar", "less ice", "add ice-cream", set the workflow such as whether settling payment should be before or after meals, designate delivery areas, and promote their restaurants online by offering e-coupons. They can also generate reports based on customers' dining experience and ordering history.

"FoodServe was developed with a new technology known as Cross-platform. With this technology, FoodServe can function across platforms like iPhones, Android and Windows without having to create other versions specifically for these platforms," said Chris.



快點食：一站式自助服務平台

Dr Chow said, "The concept of FoodServe may bring about a revolution in lifestyle. It makes life more convenient for both customers and restaurant owners. Customers may do their searching, ordering and settling payment by themselves without hassle. Restaurants may provide better service to customers as the platform handles the ordering and payment settling tasks and can understand their customers better through reports. In addition, the platform can help generate big data for further analysis on consumption in different regions, which is useful for market research."

FoodServe is part of Dr Chow's overall research work titled "iServe: An Open and Extensible App-building Platform for Customer Self-service", which received funding from CityU's Idea Incubator Scheme.

"FoodServe is just a start," Dr Chow said. "I would like to further develop the existing infrastructure and extend to other services in the future, such as making spa or doctor appointments, reserving hotel rooms, among others." ◆

香港是美食天堂，餐飲場所一應俱全，既有榮獲米芝蓮星級評鑒的餐廳，也有不起眼的偏街僻巷小食店，食客要大快朵頤並非難事，卻往往不容易找到合適的餐廳。比如說，遇到繁忙時段，要等候好久才有人接待，或者要花很長時間排隊等外賣。有些餐廳甚或因為顧客太多服務怠慢，影響了聲譽。

為了幫助解決上述問題，電腦科學系學生陳宗岳在本系助理教授周志賢博士指導下，開發出一個一站式自助服務平台。

這個新研發的平台名為「快點食：餐廳自助服務平台」，功能齊全，操作方便，食客與餐廳均可使用。該系統分為兩個操作界面：一個是應用程式，安裝於智能手機或平板電腦上，供食客使用；一個是網站，供餐廳使用。

顧客只須在智能電話或平板電腦上開啓該應用程式，即可搜索到附近的餐廳，瀏覽菜單，掃描餐桌上的QR碼點菜，網上付款，訂購自取或速遞的外賣，跟蹤訂單，下載附近餐廳的電子優惠券，給餐廳評分等。該程式亦可根據用戶過往的進餐記錄及評分，推薦類似的餐廳以備將來用餐。

餐廳老闆可用瀏覽器把菜單上載於網站，無須安裝其他軟件；亦可以根據食客要求制定菜單，例如提供「少糖」、「少冰」、「加冰淇淋」等選擇；確定工作流程，例如供選擇餐前付款或餐後付款；指定送外賣的地區範圍；提供電子優惠券以助在網上為餐廳做推廣宣傳。他們還可以將顧客的用餐感受及點菜記錄製成報告。

陳宗岳說：「我們開發的『快點食』使用了『跨平台』新技術。有了這項技術，無論是蘋果手機、安卓（Android）、微軟視窗等平台都可以操作『快點食』，不須逐一開發專用的軟件。」

周博士說：「應用『快點食』的概念，可能使生活方式發生極大變化，給食客與餐廳老闆都帶來便利。顧客能夠自己搜索、點菜、結賬，省卻了許多麻煩；餐廳則可為顧客提供更好的服務，因為平台會處理點菜及收款等事宜，而且可以藉助報告更多了解顧客的喜好。此外，平台還有助於產生大數據，以供分析不同區域的消費情況，對市場研究很有用。」

周博士主持的研究名為「iServe：一個開放的可擴展應用程式構建平台」，獲得城大「創意搖籃計劃」的資助，「快點食」是其中一個項目。

周博士說：「『快點食』只是一個開端，將來還會拓寬現有的基礎架構，延伸到其他服務行業，例如預約美容水療或者預約看醫生，預訂酒店房間等等。」◆

