

The Types of Online to Offline Business Model

[Shari S. C. Shang, Abby S. T. Yang]

Abstract—Online-to-Offline (O2O), a brand-new business model that drives online visitors to purchase in-store by offering services online, has received a great deal of attention. The O2O business model has been adopted by companies across a variety of industries, such as Target in retailing, Uniqlo in apparel, Warby Parker in accessories and McDonald's in food. However, less attention has been paid in the literature to the clear definition and scope of both online and offline businesses in the O2O business model, and there is limited understanding of how to build a successful O2O project. The objective of this study is to organize comprehensive information for the O2O business model and to examine the types of O2O business model.

This study plans an empirical study. We build a preliminary finding regarding the 5 major types of O2O business models—(1) Commerce O2O; (2) Try-on O2O; (3) Promotional O2O; (4) Experience O2O; and (5) Crowdsourcing O2O—based on the literature and more than 50 practical cases. The research results not only provide a complete O2O overview but also verify and enhance the types of O2O business models. It is hoped that we can gain a better understanding of the O2O business model from these cases.

Keywords—location-based, gamification, experience, loyalty, design element,

I. Introduction

A. Research Background

What do Groupon, McDonald's surprise alarm app and Yahoo chaoji shangcheng's ecommerce application (app) have in common? They find consumers online and bring them into offline stores for offline services. The Groupon website (Kim, 2015) persuades online shoppers with various types of coupons and drives them to purchase from its offline partners. McDonald's surprise alarm app (AsiaOne, 2014) allows customers not only to wake up on time but also to receive an opportunity for a discounted breakfast. In Taiwan, Yahoo chaoji shangcheng ecommerce has developed an app to send information about discounted products to shoppers' smartphones through location-based service (LBS) technology and drive those shoppers to purchase in nearby stores (Horwitz, 2014). In the modern era, several Online-to-Offline (O2O) practical cases appeared in our surroundings.

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According to the Forrester Research Report (Mulpuru, 2014), "Web-influenced sales" means that online marketing and research will prop up sales in physical stores. The report also estimates that online and Web-influenced offline sales combined represented 42 percent of total retail sales in 2009, a percentage that was predicted to grow to 53 percent by 2014, when the Web was predicted to influence \$1.4 billion worth of in-store sales (Schonfeld, 2010). The MIT Technology Review report (Regalado, 2013) has also learned that 80% of shoppers prefer to check product prices online. This information tells enterprises that consumer purchase behavior has evolved: consumers rely on a great deal of online information before making a purchase decision. Today, marketers develop various types of digital marketing strategy, such as releasing digital coupons, optimizing search results and utilizing LBS technology, all of which attract customers to offline stores. Consequently, the number of O2O applications has been growing daily.

In the meantime, offline to online businesses are also growing. TechCruch, a study (2010) of consumer behavior in the U.S., notes that although frequent shoppers buy products online in the U.S., there remain a large number of frequent shoppers who spend their money in offline stores. This phenomenon represents a new opportunity for traditional offline companies to transfer their marketing strategy to the online world. This type of offline-to-online model has flourished recently: for example, Macy's places a QRcode on each of its products, thus allowing consumers to scan those products and quickly obtain information online before they purchase. Walgreens, in cooperation with Foursquare, locates consumers who are near their offline stores and then sends them coupons to drive them to make in-store purchases. McDonald's surprise alarm app offers coupons to consumers: when the app wakes them, customers receive a discounted breakfast in offline stores.

Whether online-to-offline or offline-to-online, China's ecommerce markets are experiencing exponential growth. Consider, for example, the most popular ecommerce company, Alibaba. That company has prompted numerous physical stores to go online, enabling business-to-business (B2B) and business-to-customer (B2C) transactions over the Internet and delivery of goods through offline logistic services. According to iiMedia Research (2012), The Chinese O2O market reached 98.7 billion yuan (approx. US\$15.8 billion) in 2012, representing a growth of 75.5 percent from 56.2 billion yuan (approx. US\$9 billion) in 2011.

This study defines the O2O business model based on previous literature. An O2O business model connects offline business opportunities with the Internet, situating the Internet as the front counter of offline trade (Yingsheng et al, 2014). Zhang (2014) notes that the O2O business model is characterized by its information flow and cash flow online and its logistics and commerce flow offline. With the rise of mobile technology, Margaret Fitzgerald (2012) states that the

O2O business model uses online and mobile technology to drive offline local sales or redemptions. In simple terms, O2O is offline purchasing propelled by the Web. To summarize the different aspects of an O2O business model, this study defines that business model as a combination of offline business and online commerce, online websites or mobile technology, which results in offline purchases or fulfillments. Online commerce not only provides information and services but also offers discounts and other benefits from offline channels to Internet users, who possibly convert to become customers of offline business. Offline businesses include physical stores (e.g., a department store, a convenience store, and so on) and service in the real world. Conversely, there is also an offline-to-online business model. The RedLaser App allows offline users to find a desired product in a nearby store at a lower price through LBS technology or to purchase the product on eBay. (Brynjolfsson et al., 2013). Because the growth of the O2O market is inevitable, firms must focus on building a seamless experience between the online and the offline to acquire and retain customers.

B. Research Motivation

In recent years, industries have been confronted by great changes brought about by the Internet, and O2O strategy is an emerging pattern in this regard. There are several types of O2O. One type of O2O business model is exemplified by companies such as Amazon, eBay and Spoon Rocket, all of which provide a wide selection of products on the Web. Customers place an item into a shopping cart, submit the order and then wait for delivery. These companies now offer pick-up service in offline stores so that consumers can retrieve their items from local stores. Another type of O2O business model involves ecommerce companies that sell non-digital products (Bell et al, 2014)—for example, apparel and related categories that involve fit and feel, or products that involve taste and texture—for which customers value a physical inspection. Such business include GAP, Trunk Club and Warby Parker, which provide a try-on service to allow customers to experience items, thus reducing uncertainty and increasing willingness to buy. Digital promotion marketing has become both popular and common. Starbucks Taiwan offers digital coupons in many places on the Internet to provide customers with buy-one-get-one-free deals in offline stores. Retailers such as Walgreens, Target and Yahoo Taiwan chaoji shangcheng ecommerce also attract consumers to purchase in retail stores by offering coupons on their Websites or mobile apps. Traditional offline companies, such as Macy's and BESTSELLER, have begun either to create websites or to develop mobile apps with integral product information, thus simplifying the buying process. The final type of O2O business model is one in which ecommerce companies serve as a platform to match the demand- and supply sides, creating a network of individuals to share a resource. Prominent companies that use this business model include the accommodation platform Airbnb, the private taxi service Uber, and the coupon service Groupon. Many companies also offer car rentals, office space, money lending, venture capital and professional and personal services.

As seen from the above cases, the various types of O2O business models have been adopted across the retailing,

apparel, accessory, and food industries. All of these models were all developed by various types of firms, leading to different implementation methods and effects. Therefore, there is a need to understand the different types of O2O business models.

C. Research Objectives

Before companies invest more time and money in developing and deploying the O2O business model, the following questions should be asked: What role do I want the O2O business model to play in my business brand? How should I develop the O2O business model? How can I bring online shoppers into the store and support offline sales? What factors related to making an O2O plan should concern me? How can I convert Internet users into offline customers? Due to less discussion in the previous literature, this study will provide businesses with answers. The objective of this study is to build a deep understanding of the practice and management of the O2O business model. The key question is: What are the types of O2O business models?

D. Research Process

The remainder of this paper is organized as follows. First, this article developed an online and offline framework based on a review of literature and business cases in the relevant years. Next, this study contributes 5 simple types of O2O business models.

II. Online to Offline (O2O) Business Model

A. Online Business in O2O Business Model

An online website can be viewed as a delivery mechanism for a collection of services that facilitate customers' ability to complete an overall purchase process. These handheld devices are becoming another communication and promotion channel between businesses and customers (Shankar et al., 2010). To reach new customers, firms promote information about their items and convey messages about brand image, competitive pricing and product features via multiple channels, such as social networks (Facebook, Twitter), websites and mobile apps. Advanced technologies on mobile devices provide a collection of functions that provide customers with better shopping experiences (Brynjolfsson et al., 2013). In doing so, value-added services will enhance what customers derive from their purchases and improve customer loyalty. (Rose et al., 2012) This chapter will provide a complete view about what firms do online in the O2O business model by collecting more than 50 cases into Table 1 to describe online businesses' activities, use of media, information delivered, and objectives.

B. Offline Business in O2O Business Model

Due to changeable customer behavior, many ecommerce businesses are beginning either to open physical stores or to cooperate with other (offline) businesses.

TABLE 1. DESCRIPTION OF ONLINE BUSINESSES IN O2O BUSINESS MODEL

Media Used	Activity	Information Delivered	Objective for Business
<ul style="list-style-type: none"> • ATM • Online Websit • Mobile device APP • TV 	<ul style="list-style-type: none"> • Browse • Research • Reserve • Game • Group • Diagnose/ Ask questionnaire • Collect • Navigate • Recommend • Compare 	<ul style="list-style-type: none"> • The particular location (Where to buy) • Product/ Service Information (feature, price, review) • Coupon / Virtual currency/ Reward points/ QR code/ Barcode • Product's comparison of brand feature, price, rating and review 	<ul style="list-style-type: none"> • To attract more online visitors. • To facilitate customers comparing and searching item's information effectively • To make a convenient buying process • To strengthen customer loyalty • To improve customer retention • To reinforce brand awareness

TABLE 2. DESCRIPTION OF OFFLINE BUSINESSES IN O2O BUSINESS MODEL

Business Strategy	Physical Channel	Activity	Objective for Business
<ul style="list-style-type: none"> • Expansion • Alliance • Physical service 	<ul style="list-style-type: none"> • Department store • Convenient store • Pop-up store • Exhibition • Home • Restaurant • Retailer • Cafe • Showroom 	<ul style="list-style-type: none"> • Exchange or return products • Interact with salesman • Try-on • Products/ Services Delivered • Pickup • Connect free Wi-Fi • Scan QRcode/ UPC 	<ul style="list-style-type: none"> • To have touch-and- feel experience via physical access to product • To increase revenue of offline store • To drive online visitors to offline store • To increase customer satisfaction • To strengthen customer loyalty • To improve customer retention • To reinforce brand awareness

Some customers prefer to purchase in physical stores because they can retrieve their items with no waiting time (i.e., instant gratification). Previous studies show that customers prefer to touch and feel non-digital products in-store (Zhang., 2008. Bell et al, 2014). To increase customer satisfaction and help customers make purchase decisions, it is critical to reduce product-related uncertainty. The primary objective for offline business in the O2O model is that firms offer discount or product information to customers online and then drive them to

make purchases in offline channels and increase revenue in offline channels. Table 2 describes the business strategies, physical channels, activities and objectives related to offline businesses.

III. Methodology

A. Research Methodology

To build a preliminary finding about the 5 major types of O2O business model, this research plans an empirical study.

This study provides an overview of Online and Offline in O2O projects, the growing trend of the O2O business model and the framework of types of O2O business models based on the previous literature and more than 50 case studies.

B. Research Process

There are four steps to establish the research. The steps are explained in Table 3.

IV. Types of O2O Business Model

The O2O business model is a brand-new commerce model that is interesting to firms across various industries. We can easily access an introduction to either the O2O business model or new services that use an O2O strategy from various research reviews, technology news and reports, some of which appear in our daily lives. Therefore, the early stage of this study described 50 case studies across industries and countries, including each case study's sales scenario, media, short description, commerce cycle and resources. To make it easier to understand the scope of O2O world, we develop a framework of the types of O2O business models, which are shown in Table 4.

TABLE 3. RESEARCH PROCESS

Step	Description	Objective	Approach	Deliverables
1	Literature Review	To understand the overview of O2O business model	Data collected from journals, magazines and online resources	Definition of the O2O world
2	Content Analysis	To develop the framework of types of O2O business model from multiple case studies	Published data from famous case studies	Development of framework of types of O2O business model and the overview of Online and Offline
3	Conclusion Building	To form final findings	Content analysis of types of O2O business model	Final findings about types of O2O business model

To classify O2O business models using practical cases, we should use a set of features or parameters to characterize each type of model. To classify the types of O2O business models, we characterized each type according to its model’s objective.

A. 5 types of O2O business model:

(1) Commerce O2O

When the Internet began to influence the market, ecommerce rapidly became a new type of shopping. Customers have a wide selection of products and easy access to search engines to obtain information and purchase whatever they want online at home—or anywhere. Businesses provide product information online (about what products best suit customers) and engage in product fulfillment offline. Generally, customers either visit a physical store to pick up items or have their items delivered. For example, Book.com, an online bookstore in Taiwan, has worked with convenience stores. When consumers reserve books online, they can select to have the book

delivered by the ecommerce merchant to a particular convenience store.

(2) Try-On O2O

As mentioned above, consumers prefer to touch and feel merchandise that has non-digital attributes. A non-digital attribute—for example, the fit and feel of apparel or the taste and texture of a product—is difficult to fully assess without a physical inspection.

This model is especially appropriate for the apparel and accessory industry, because customers remain accustomed to trying on clothes, pants or other items to determine whether they are suitable. To offer customers the opportunity to try on clothes and increase store traffic, Uniqlo has created an attractive campaign in Japan that permits customers to upload a video—a video of them dressed in Uniqlo apparel—to the Internet and to share the video with their friends on Facebook or Twitter. This campaign will attract Internet users to join the campaign or to visit Uniqlo retail stores to try on apparel.

TABLE 4. THE FRAMEWORK OF TYPES OF O2O PROJECT

O2O Types	Project Goal	Description	Case study
Commerce O2O	Retailers provide a comfortable shopping method that allows consumers to select and purchase products online and wait for the item come to them.	Businesses provide product information online (about which products best suit the customer) and complete product fulfillment offline. There are two subtypes of O2O that represent how businesses manage product fulfillment: (1) pick up in-store, or (2) deliver to home.	Ebay.com (Retailing), Qinqniancaijun (Food), Book.com (Book), Spoon Rocket (Food) Amazon (Retailing)
Try-On O2O	Ecommerce companies open a physical channel or develop home-try services so that consumers can try on items with non-digital features (i.e., the touch-and-feel experience) before they purchase.	Ecommerce extends a physical channel or develops home-try services to enable consumers to try on a non-digital attribute item before they purchase. Consumers reserve the desired item online and try it on offline.	GAP (Clothing), Trunk Club (Clothing), UniqloUTme (Clothing), Warby parker (eyeglasses), Bonobos (Clothing), Zappos (Clothing)
Promotional O2O	Firms attempt to persuade online visitors to purchase offline by providing useful promotion information to customers. Two subtypes of this O2O include (1) target marketing O2Os, and (2) alien marketing O2Os.	(1) Target marketing O2O Most O2O cases appear in the retail industry. Taking advantage of data such as location, membership information, shopping history, shopping behavior and so on from multiple channels will provide savvy business the ability to target their promotions to existing customers.	Walgreens (retailing), SaksFifthAvenue (retailing), Target (retailing), Bijenkorf (retailing), Yahoo chaoji shangcheng ecommerce app (retailing), GOHAPPY.com (retailing)
		(2) Alien marketing O2O Firms do not use much data; instead, they develop something fun and interesting as an easy way to convince consumers to obtain a coupon or discount information online and then bring their coupon or information to make an in-store purchase.	Mcdonald's surprise alarm app (Food), Cocacola Chok!Chok!Chok! (Beverage), Starbucks coupon (Beverage) UNIQLO LUCKY LINE (Clothing)
Experience O2O	Firms provide a service via mobile app to help customers quickly obtain product information in an offline store.	Offline companies open online shops and then place products/services information online. In addition, several companies develop apps to make consumers' buying processes easier.	Macy's (Retailing), BESTSELLER (Clothing), Come to book app (Book)
Crowdsourcing O2O	Ecommerce companies lower their operation expenses by harnessing a network of resources, such as offline partners and individual consumers.	Ecommerce companies create websites or mobile apps that concentrate on the same types of products/services to serve as a platform that connects the demand side (e.g., consumers) with the supply side (e.g., individuals, restaurants.) Consumers enjoy services offline if the match is successful.	Uber (Transportation), Instacart (Retailing), KitchSurfing (Food), Airbnb (Rental), Homejoy (Cleaning), EZTable (Food) Groupon (Internet)

(3) Promotional O2O

The first subtype is target marketing O2O (for known customers). Most O2O cases appear in the retail industry. Retailers pay a great deal of attention to data application, such as location, membership data, shopping history, shopping behavior and so on, from multiple channels, thus providing savvy business with the ability to make targeted promotions to existing customers. The second subtype is alien marketing O2O (for unknown customers). Firms do not use many data applications. They develop some useful or fun function to allow consumers to obtain a coupon or discount information easily from websites, social networks, apps, online catalogues and so on; these coupons and information will attract them to offline stores to make their purchases.

One example of a target marketing O2O is Yahoo's chaoji shangcheng ecommerce app, which allows consumers to scan UPC codes to determine whether discounted products are available nearby and if so, at what price. The app locates customers using LBS technology to offer targeted promotion information, an appropriate shop or a suitable product to encourage purchases. One example of an alien marketing O2O is the popular case study of McDonald's surprise alarm app, which is an app developed by McDonald's that connects to a user's alarm clock. Users download the app and when it begins to ring in the morning, users can receive an opportunity for a discounted breakfast.

(4) Experience O2O

Customers' shopping behavior has become both dynamic and ubiquitous. The buying process is no longer limited to online and offline experiences. Customers can obtain information via an app (i.e., online) while "on the go", experience the item at an offline retail store, purchase it on a website after sales staff provide a recommendation, and wait for the item to come to them—all without picking up the item with their hands. Companies began to develop various apps to attract customers and to seamlessly connect their online and offline buying experiences.

For example, an app called "Come to book", developed by Book.com Taiwan, helps consumers search information about books by scanning a UPC on an item in-store, thus allowing them to easily compare the book's price in physical bookstore to the price on Book.com.

(5) Crowdsourcing O2O

The platform of websites and mobile apps typically link the supply- and demand sides to share resources and capacity in an efficient manner. For example, Airbnb provides a rental accommodation marketplace that links the supply side—i.e., people who want to rent out empty rooms—and the demand side—i.e., those who want to rent a suitable, comfortable room. Similarly, Uber provides a personal pick-up service marketplace that links riders in need of transportation with drivers via a reservation app, thus furnishing riders with a speedy pick-up service offline.

This commercial crowdsourcing outsources the collection, organization and confirmation of directory data, which indicates same-type goods or services in crowdsourced

O2O companies. These directory data can consist of a variety of restaurants from Opentable, coupons from Groupon, and consumption goods from Instacart. Customers prefer to compare a single product from different brands before purchasing. Crowdsourcing commerce simplifies comparison shopping and offers consumers a single point of entry to a concentration of products/services for purchase.

v. Conclusion

A. Summary

This research intends to examine what types of O2O business model are and how enterprises plan and execute an O2O business model. It is expected that enterprises can learn from the multiple cases about O2O implementations and understand clearly the O2O overview.

In order to answer the research question "What are the types of O2O business models?", the study analyzed officially published data of famous case studies across industries and countries and previous literatures. The research identified 5 major types of O2O business models—(1) Commerce O2O; (2) Try-on O2O; (3) Promotional O2O; (4) Experience O2O; and (5) Crowdsourcing O2O. Both Commerce O2O and Try on O2O present that enterprises provide product information online (about what products best suit customers) and engage in product fulfillment offline. In addition, Try on O2O offer customers to try on items before purchase. Promotional O2O is that enterprises attract customers to store by promoting product information to customer via smartphone and websites. We classify two subtypes of models. They are target marketing O2O (for known customers) and alien marketing O2O (for unknown customers). Experience O2O offers customers a convenient and appealing shopping environment that sometimes involve technology, such as LBS technology, AR, QR code and so on. The final is crowdsourcing O2O that enterprises develop a platform to link demand-side and supply-side to share resources and capability.

B. Research Contribution

In recent years, industries have been confronted by great changes brought about by the Internet, and O2O strategy is an emerging pattern in this regard. As seen from case studies in this research, the various types of O2O business models have been adopted across the retailing, apparel, accessory, and food industries. All of these models were all developed by various types of firms, leading to different implementation methods and effects. Therefore, this research provides the overview of O2O business model, and uses content analysis to develop a framework of 5 major types of O2O business model.

C. Limitation and Future Research

Some important limitations of this research must be considered. First, due to the latest technical advances in mobile computing, technology is another critical factor that stimulates and accelerates O2O business models in the marketing landscape. For instance, Walgreens cooperates with Foursquare, a location-based social networking website, to offer customers electronic coupons on their mobile devices from the moment that they enter a Walgreens store. Future

research would need to put the technical factors into consideration and evaluate which technology applications would be tailored to the unique requirements of consumer segments and product categories. Second this research focuses on the conceptual O2O word. To succeed in O2O projects, firms should consider CSFs when building O2O business models. Future research should dig deeper into influential factors involving technology, management, and organizational dimensions. These needs lead us to consider the critical factors for building a successful O2O business model.

References

- [1] Anderson, R. E., Swaminathan, S. and Mehta, R. 2013. "How to Drive Customer Satisfaction," MIT Sloan Management Review (54:4).
- [2] AsiaOne. 2014. McDonald's Surprise Alarm app gives out over 5.9 million prizes. Retrieved from <http://news.asiaone.com/news/digital1/mcdonalds-surprise-alarm-app-gives-out-over-59-million-prizes> McKenzie, G. (2011). Gamification and Location-based Services. In Workshop on Cognitive Engineering for Mobile GIS.
- [3] Bell, D. R., Gallino, S., and Moreno, A. 2014. "How to win in an omnichannel world," MIT Sloan Management Review (56:1)
- [4] Bell, D. R., Choi, J., and Lodish, L. 2012. "What Matters Most in Internet Retailing," MIT Sloan Management Review (54:1)
- [5] Brynjolfsson, E., Hu, Y. J. and Rahman, M. S. 2013. "Competing in the Age of Omnichannel Retailing," MIT Sloan Management Review (54:4)
- [6] Horwitz, J. 2014. Yahoo Taiwan aims to launch online-to-offline ecommerce by year's end. Retrieved from <https://www.techinasia.com/yahoo-taiwan-aims-to-launch-online-to-offline-ecommerce-by-years-end/>
- [7] iiMedia Research Group. 2012. 2011-2015 the Growth of China O2O Market. Retrieved from <http://www.iimedia.cn/29120.html>
- [8] Kane, G. C., Palmer, D., Phillips, A. N. and Kiron, D. 2014. "Finding the Value in Social Business," MIT Sloan Management Review (55:3)
- [9] Laudon, K. C. and Laudon, J. P. 2010. Management Information Systems: Managing the Digital Firm (11th Edition). London, UK: Pearson Education.
- [10] Macdonald, A. 2014. UBERDATA: UBER'S ECONOMIC IMPACT ON THE CITY OF CHICAGO. Retrieved from <http://blog.uber.com/ChiEconStudy>
- [11] Mulpuru, S. 2014. US Cross-Channel Retail Sales Forecast: 2014 to 2018 : Web-Influenced Offline Sales Total More Than \$1 Trillion in 2014. Forrester Research. Retrieved from <https://www.forrester.com/US+CrossChannel+Retail+Sales+Forecast+2014+To+2018/fulltext/-/E-res115515>
- [12] Parr, A. and Shanks, G. 2003. Critical Success Factors Revisited: A Model for ERP Project Implementation. In Shanks, G., Seddon, P. B., & Willcocks, L. P. Second-Wave Enterprise Resource Planning Systems Implementing for Effectiveness (p.196-219). CAMBRIDGE UNIVERSITY PRESS.
- [13] Regalado, A. 2013. Beyond the Checkout Cart. MIT Technology Review. Retrieved from <http://www.technologyreview.com/news/520786/its-all-e-commerce-now/>
- [14] Rigby, D. 2011. "The Future of Shopping," Harvard Business Review. The December 2011 Issue.
- [15] Rose, S., Clark, M., Samouel, P. and Hair, N. 2012. "Online Customer Experience in e-Retailing: An empirical model of Antecedents and Outcomes," Journal of Retailing (88:2), p.308-322
- [16] Schonfield, E. 2013. Forrester Forecast: Online Retail Sales Will Grow To \$250 Billion By 2014. Forrester Research. Retrieved from <http://techcrunch.com/2010/03/08/forrester-forecast-online-retail-sales-will-grow-to-250-billion-by-2014/>
- [17] Shankar, V., Venkatesh, A., Hofacker, C., and Naik, P. 2010. "Mobile Marketing in the Retailing Environment: Current Insights and Future Research Avenues," Journal of Interactive Marketing, p111-120
- [18] Zhang, A. 2008. "Examining product and process effects on consumer preferences for online and offline channels," Business Process Management Journal (14:1)



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