



The 8 Layers of Location

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Note: Portions of this discussion were included in a chapter prepared for [The Everything Guide to Mobile Apps](#), Peggy Anne Salz and Jennifer Moranz, 2013.

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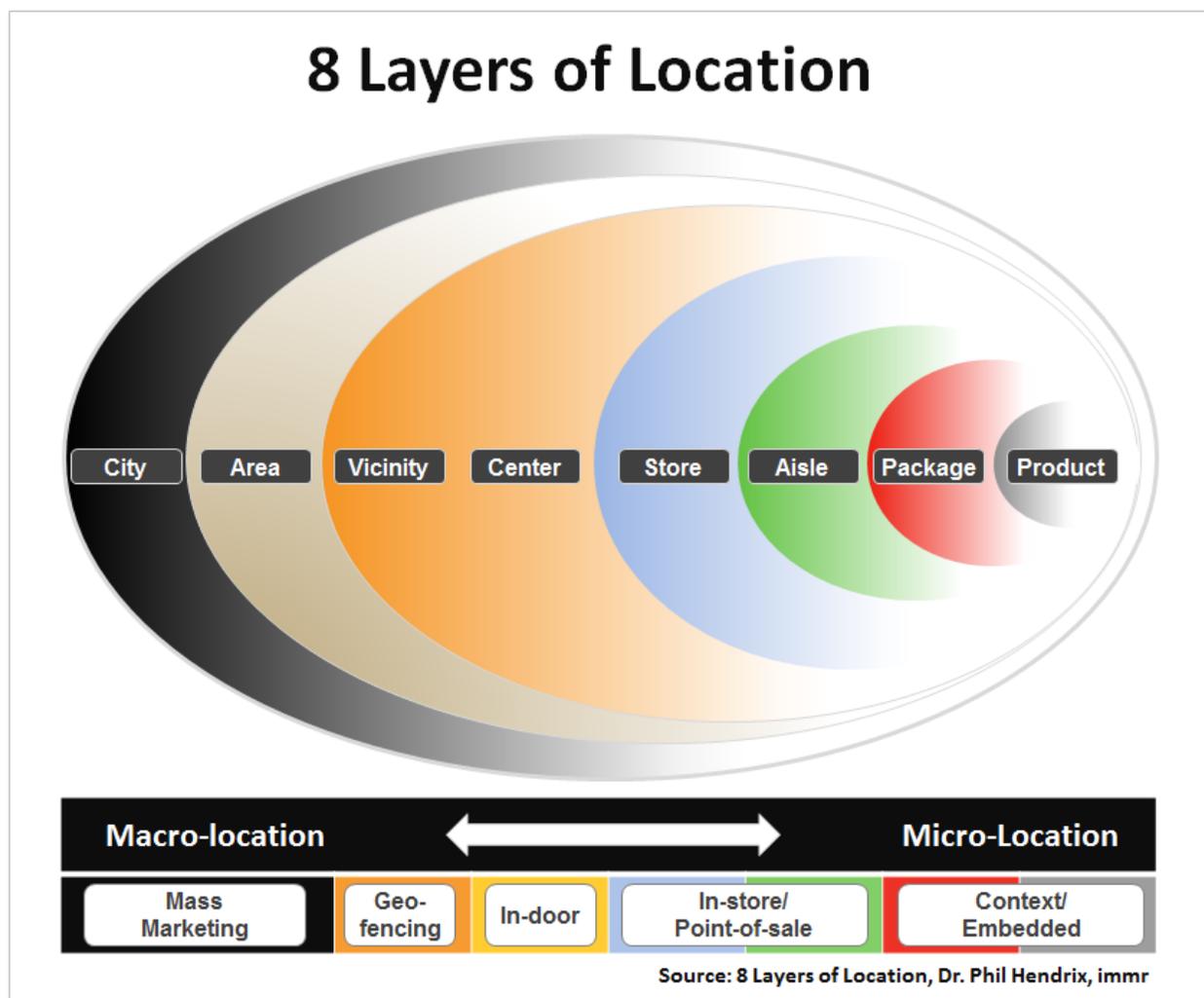
INTRODUCTION

Because mobile consumers are situated in time and space, knowing and making use of their location are critical. Location is not merely a position as reflected by Lat-Long – it is a continuum, ranging from the macro – wide areas, such as a city or even state, to the micro – narrowly defined, specific locations, such as a department, aisle or shelf-facing within a store. At an even more granular level, location can attach to an object, such as a poster or package, or with sensors even be embedded in products themselves.

These levels can be viewed as Layers of Location. As shown and discussed below, 8 Layers of Location are especially important for marketing, advertising, and mobile app developers.

As the figures suggest, with location-specific sensors and BLE (Bluetooth Low Energy), QR codes, and NFC (near-field communications), more granular, specific instances of location – especially in-store and at POS (point-of-sale) – are becoming increasingly popular.

Each of the 8 Layers presents unique opportunities for brands, retailers and advertisers, as suggested below.



CITY

The widest layer, City refers to the coverage area(s) served by conventional broadcast media - for instance, newspapers with their ads and circulars and local radio and TV commercials. Since the area is by definition broad and targeting limited, the City layer is most useful for widely consumed products and relatively low-cost advertising vehicles – for example, consumer products advertised in newspaper inserts.

AREA

Area represents a section of a City, defined either by convention, such as neighborhoods or school district, by natural geographic boundary, or by specification, such as ZIP code. PlacelQ, for example, has divided major markets in the U.S. into roughly city-block size areas and profiled each area using a wide range of data. Since cities are often stratified by socio-economics, the Area layer is suitable for products marketed to age, income and other demographic segments. Conventional media that have long been used for Areas include out-of-home, such as billboards, and direct mail. Now, PlacelQ is enabling digital and mobile media to target consumers within block-size Areas by time of day, providing granular audiences that are dynamic (e.g., changing throughout the day) as opposed to static audiences consisting of residents of an Area.

VICINITY

An area surrounding (typically) a place of business, the Vicinity layer is defined by radius (e.g., within a mile of a store) or polygon, which takes into account geographic boundaries, traffic patterns, etc. Geo-fencing refers to the process of specifying a vicinity and focusing advertising to consumers within that area. Vicinities, of course, are especially relevant to retailers, restaurants, venues and other businesses that serve "nearby" consumers. Companies such as xAd and ThinkNear (recently acquired by Telenav) allow businesses to direct mobile ads and offers to consumers based on Vicinity, time-of-day and other criteria, increasing the relevance to consumers and yield on the ads.

CENTER

The next layer, Center, refers to a building or area containing a group of co-located businesses - for example, malls, shopping centers, shopping districts, etc. Companies like Placemeter are measuring traffic flows, dwell time, conversion (percent of passersby who enter the store), and other important shopper metrics. Individual businesses can use these data to measure the effectiveness of location, signage, window displays and other media designed to attract shoppers.

STORE

The Store layer consists of premise-based businesses, including retail, food and beverage, dealerships, museums, sports venues, etc. The layer also includes pop-up (temporary) stores, food trucks and other mobile businesses, as well as stand-alone vending machines. Stores have become the new battleground for mobile commerce, as retailers and brands target shoppers with mobile apps, ads, offers and even

strategies such as "conquesting" (targeting shoppers in or near a competing store in an attempt to bring them into your store).

AISLE

The Aisle layer consists of areas within Stores and includes not just aisle, but also departments (such as appliances), front-of-store/checkout, and sections (for example, dairy). Retail stores have long measured traffic into their stores as well as wait times at checkout. With solutions such as Brickstream and others, they are now measuring in real-time "footstream" traffic, analogous to clickstream on digital properties. These data allow businesses to measure the effectiveness of store layout, displays, signage, etc. With QR codes, NFC and now BLE, businesses are also putting in place the equivalent of digital concierge – when queried or triggered, these sensors can provide ads, information, and even offers to shoppers. While brands have always competed for placement and shelf facings within stores, with digital the Aisle becomes an even more important battleground for promotion, new product introductions, and even sales and support – for instance, answering for shoppers such questions as "which product do other consumers prefer?" and "what other product goes with this product?"

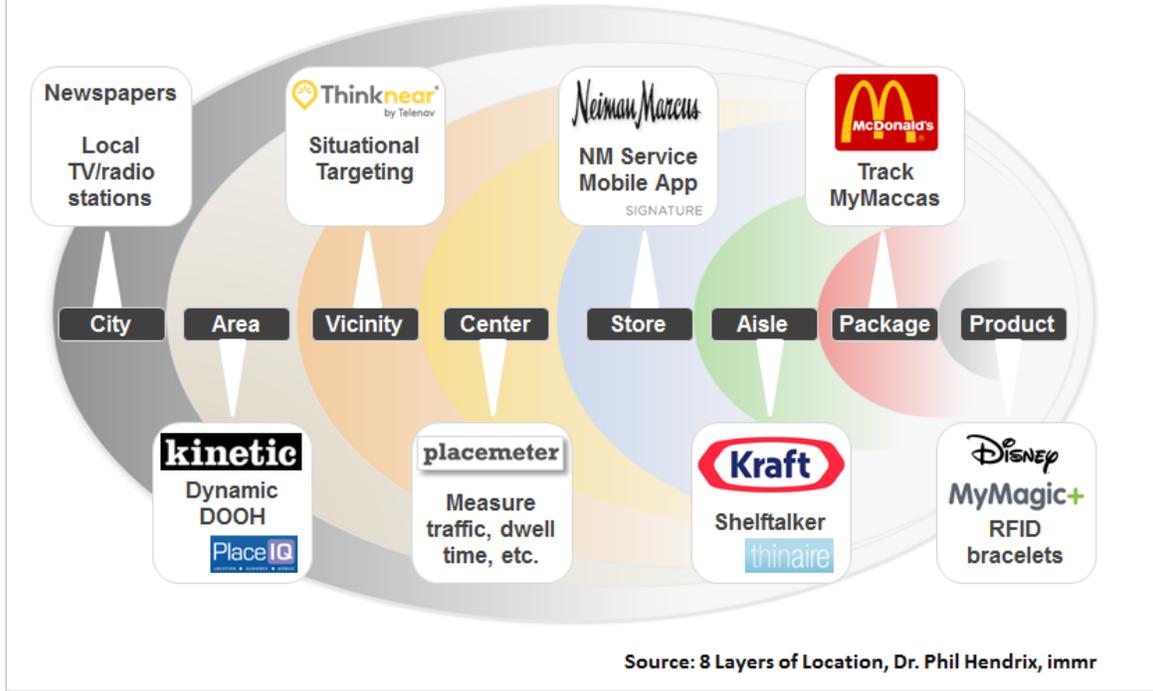
PACKAGE

Package consists of the outer layer containing the product – e.g., box, bottle, wrapper, etc. Much like barcodes, QR codes and other media are becoming increasingly common on packages. By scanning the media with a mobile device, users can gain access to a wide range of information and even services - for example, mobile app m-ize allows users to scan a barcode or QR code and register a product, contact customer service, query other owners, check for recalls, receive alerts on recalls, obtain information or offers on upgrades, etc.

PRODUCT

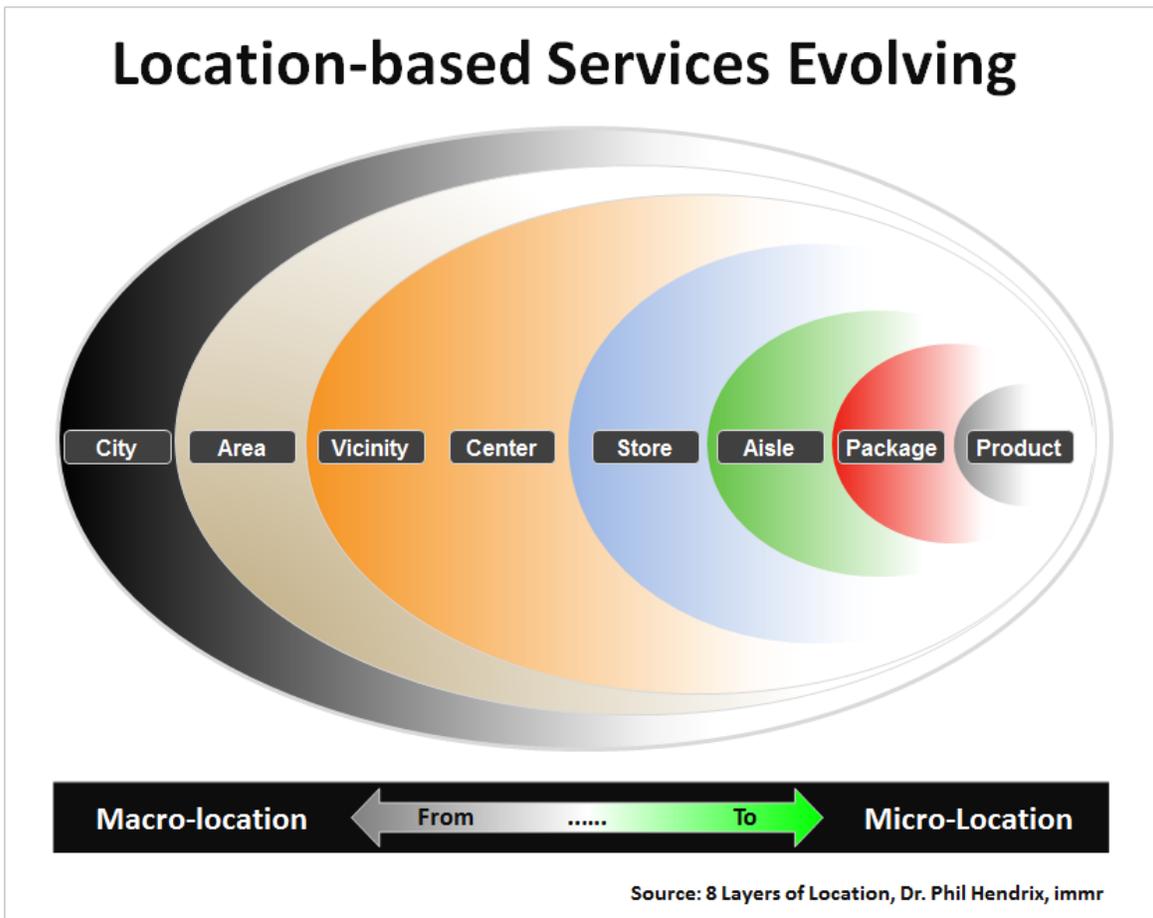
Like mobile phones, Products themselves can have embedded sensors that are "location-aware." While many examples are health-related (e.g., Nike+, Fitbit, etc.), more and more connected devices, especially in the car and home, contain location intelligence. As the Internet of Things becomes a reality, products will connect to the internet, recognize context based on location, and adapt in ways that improve users' experience. For instance, as one's car pulls into the driveway, services such as AT&T's Digital Life could (i) turn on outside security lights; (ii) using Philips Hue bulbs, set lighting to match your mood; (iii) transfer a song you've just "liked" on your drive home to the playlist on your in-home entertainment system; etc. Intelligent products such as the Nest thermostat will allow consumers to compare energy usage to other "similar households" in their neighborhood. In the near future, products will compete based on location-aware features, contextual intelligence and social network integration.

Examples of Location-based Strategies

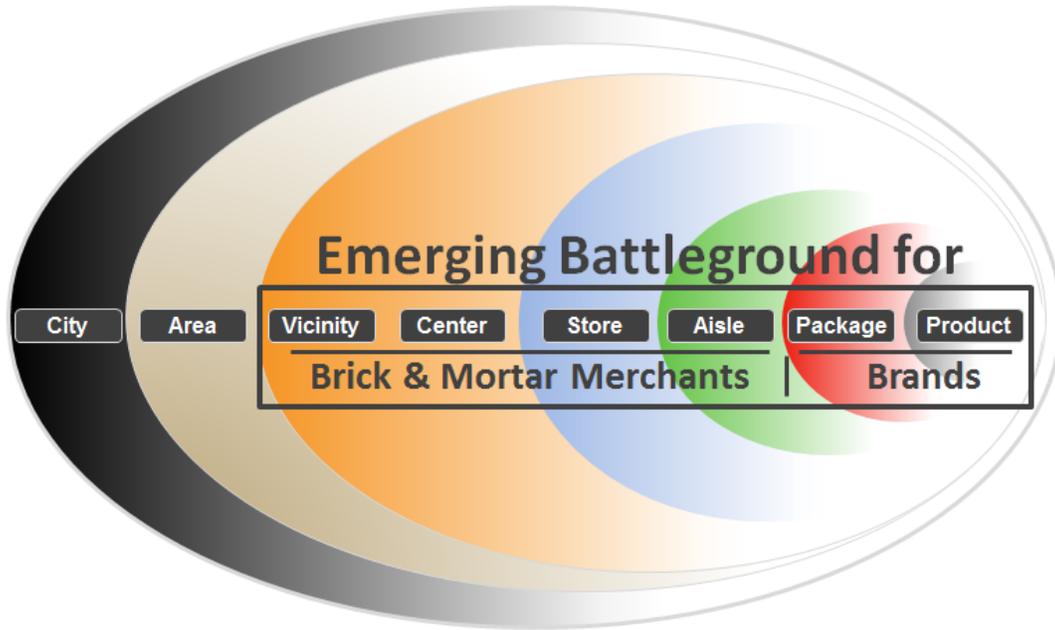


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Location-based Services Evolving



Technology Creating New Opportunities in Location-based Services



Source: 8 Layers of Location, Dr. Phil Hendrix, immr

ABOUT IMMR



Dr. Phil Hendrix wears three hats – he is the founder and director of [immr](#), an analyst with [Gigaom Research](#), and advisor to startups in digital and mobile. Focusing on market opportunities for disruptive new products and services, Dr. Hendrix helps clients validate product-market fit, develop compelling value propositions, and spur growth and adoption. Within the digital landscape, much of Phil's work is at the intersection of mobile, location and social (SoLoMo), M-commerce and mobile payments.

As an analyst, Phil focuses on mobile innovation and the implications for companies across industries. He is a regular contributor at leading industry conferences, including GigaOm's [Mobilize](#), [Structure:Data](#), [Street Fight](#) (hyperlocal), [ad:tech](#), [iMedia Summit](#), [Social-LoCo](#), the [World Summit Awards](#) (Abu Dhabi), and others. His current work focuses on mobile and its impact on consumer behavior, especially shopping, M-commerce and mobile payment.

As a consultant and advisor, Phil has led significant engagements with startups and Fortune 100 clients in mobile, consumer electronics, and retail as well as insurance, financial services, transportation, and other categories. He works closely with senior management and project teams on key issues, including market sizing, segmentation, positioning, and branding as well as innovation, user experience, and customer retention. Over the course of his career, Phil has helped clients conceive and successfully launch dozens of new products, services and businesses. Phil has advised numerous startups, most recently in beacons, location, content discovery, customer engagement, and mobile security.

Before founding immr, Phil was a partner with [DiamondCluster](#) (strategy and technology consultancy, now part of PwC), founder and head of IMS (Integrated Measurement Systems), and a principal with Mercer Management Consulting (now [Oliver Wyman](#)). He has held faculty positions at Emory University and the University of Michigan, where he taught courses in marketing, research, and buyer behavior for MBAs and executives. While at Michigan Dr. Hendrix also held a joint appointment as a research scientist in the Survey Research Center, Institute for Social Research.

Additional information on immr perspectives and reports prepared by Dr. Hendrix is available at [immr](#) and [Slideshare](#), with additional information available at [Gigaom Research](#).

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