



@phil_hendrix
#EmoryMarketing

How Big Data is Reshaping Marketing

July 29, 2013

Dr. Phil Hendrix
Director, immr and GigaOm Research analyst
www.immr.org
1 (770) 612-1488
phil.hendrix@immr.org
[@phil_hendrix](https://twitter.com/phil_hendrix)



Overview

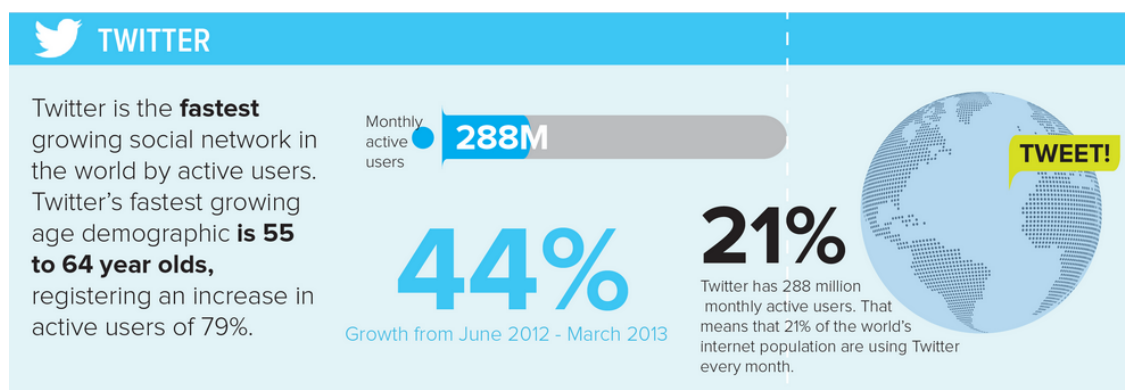
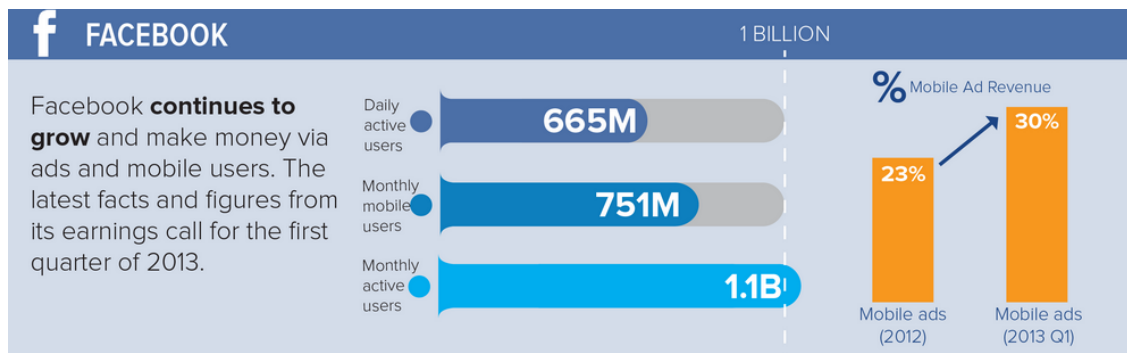
- ❖ **The Era of Big Data**
- ❖ **What's Driving Big Data**
- ❖ **How Leading Companies Are Using Big Data**
- ❖ **How Big Data will Disrupt Marketing**



Era of Big Data



Social Media Stats – July 2013



Source: <http://growing-social-media.com/social-media-statistics-and-facts-of-2013-infographic/>

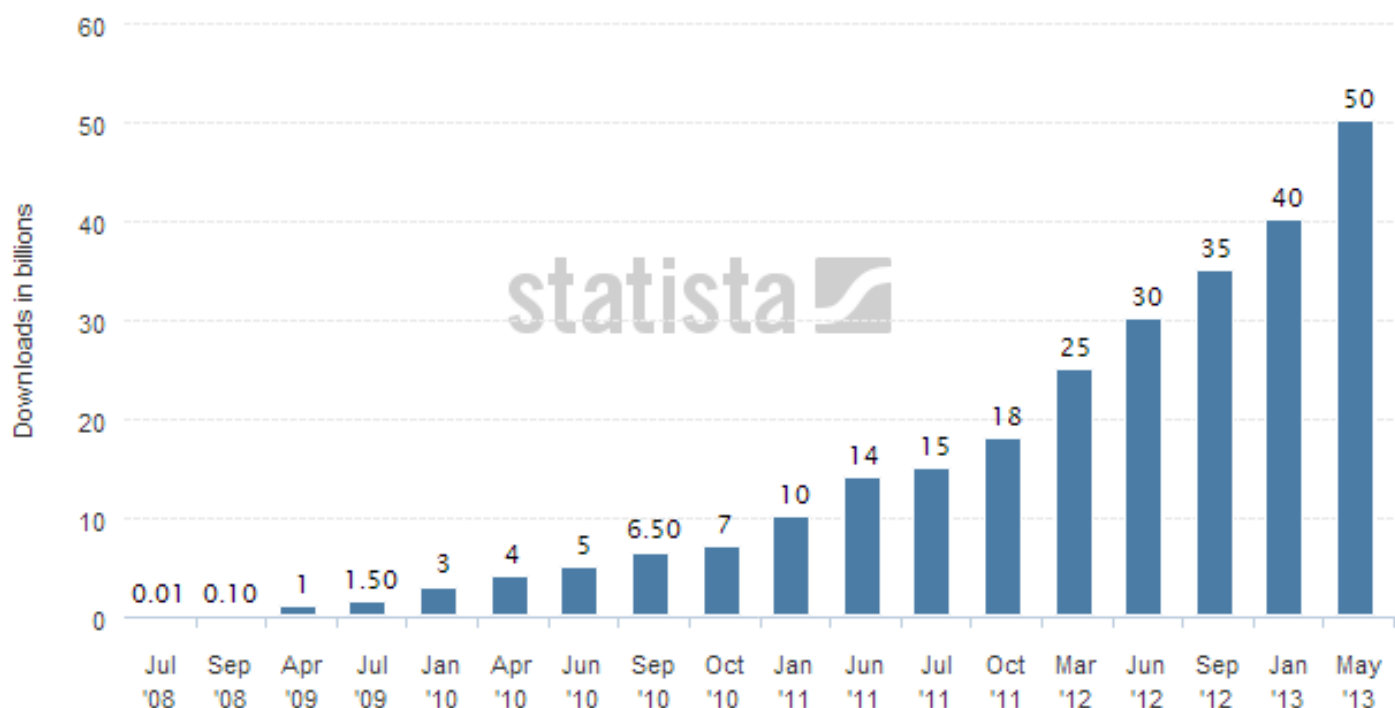


Cumulative # of Downloads – Apple App Store

APPLE APP STORE: NUMBER OF DOWNLOADS AS OF MAY 2013

Cumulative number of apps downloaded from the Apple App Store from June 2008 to May 2013 (in billions)

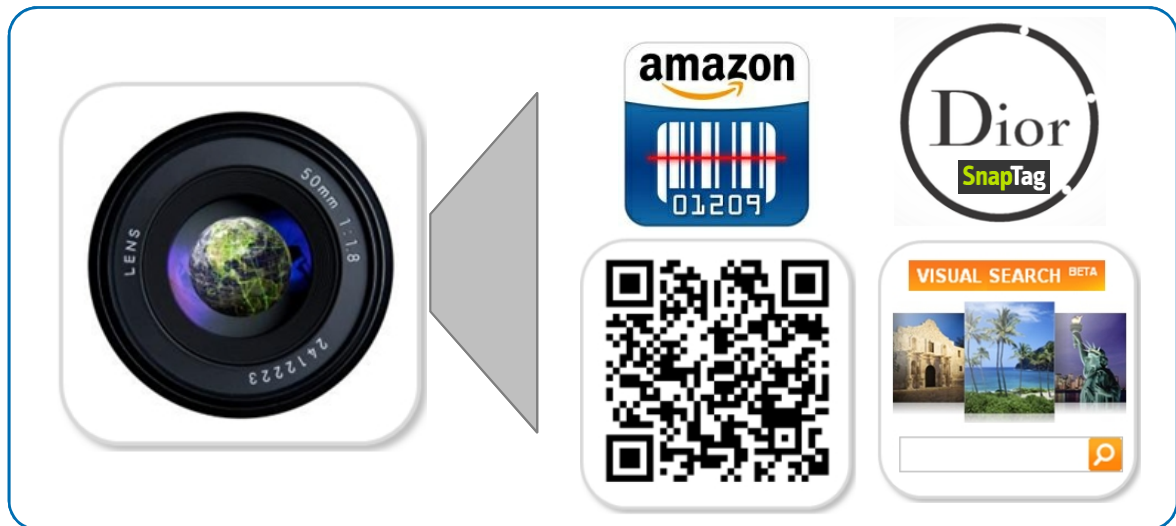
50B



i Worldwide; Apple; July 2008 to May 2013

Source: Apple

Data to Grow Exponentially



YouTube

Pinterest



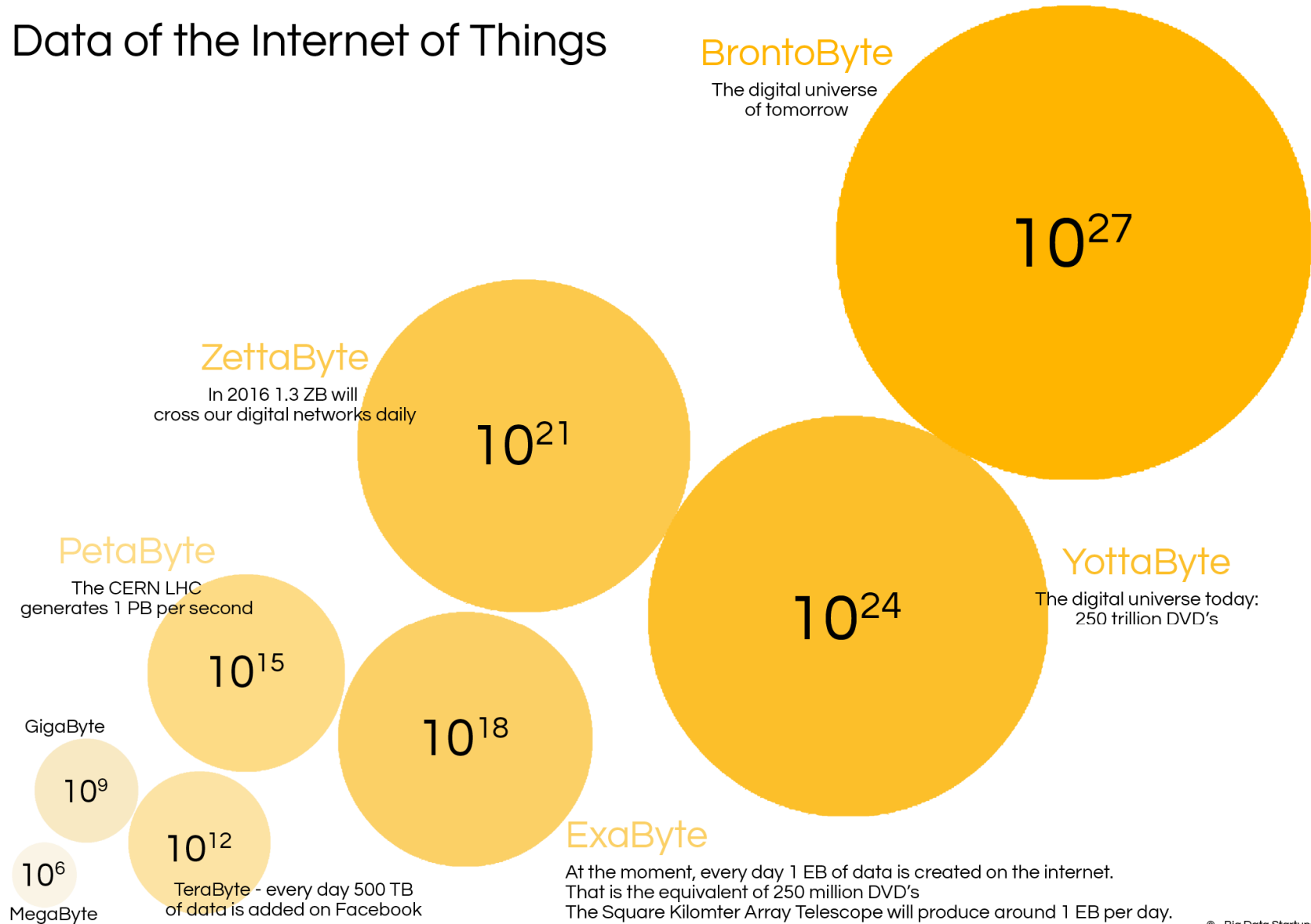
NETFLIX

Google now



Data Tsunami

Data of the Internet of Things



© - Big Data Startups



The “Data Layer”



Search Data: The original database of intentions, and tons more search signals.



Social Data: Social graph, but also identity data, Plus how people interact, etc.



Location Data: This is data about where people are, how often, who else is there, etc.



Interest Data: Declarations of what people are interested in, like tweets, checkins, etc.



Purchase Data: This is the information about who buys or "almost" buys what.



Content Data: This is data about who reads/watches/consumes what, when, etc.

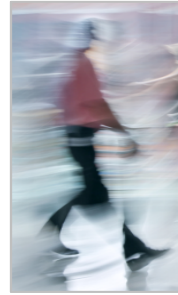


Wildcard Data: This is data that is uncategorized, but could have huge implications.

Source: John Battelle, Web 2.0 Conference, <http://map.web2summit.com/#dl>



Tuning into Consumers' Digital Signals



Digital Channels

Internet

- Websites
- Microsites
- Search
- Ads

Social

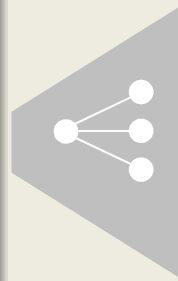
- Publish
- Share
- Discuss
- Review

Mobile

- Apps
- Location
- 2D codes
- NFC

Interactive

- Social TV
- OOH



Digital Signals

Traces produced
as consumers
interact with Digital
Channels

Location

Social

History

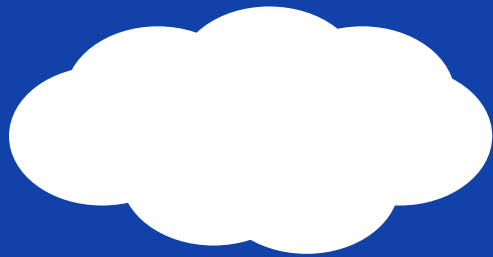
Source: Tuning into Consumers' Digital Signals, Dr. Phil Hendrix, immr



How Companies Are Using Big Data



“Big Data” includes Cloud, Algorithms



Algorithms

Location



Social



History



Search

- Auto-complete
- Google Instant
- Proximity Search
- Image Search
- Personalized SERs

Augmented Reality



Messages, Ads, and Offers

Urban Airship
..... powering modern mobile

xtify

where

PLACECAST






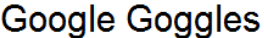



thinknear

@WalmartLabs
Social + Mobile + Retail



Big Data Applications

Shown below are illustrative use cases for Big Data, with an app/provider shown for each. While these applications are not unique to mobile, they are especially important in the context of mobile, given small screen sizes, users' limited attention spans, dynamic and contextual usage, etc.














Category	Description	App/Provider
Audience Profiling and Targeting	<ul style="list-style-type: none"> Ingests large amounts of data, including unstructured, location-based data (photos, place data, event data, digital, social, etc.) Applies ML to extracts patterns from the data Profiles discrete audience segments in terms of "dynamic context" 	 
Mobile Advertising Optimization	<ul style="list-style-type: none"> Employs automated, algorithmic solutions to adjust bids in real-time based on the performance of prior impressions 	
Recommendation Engines	<ul style="list-style-type: none"> Automatically uncovers unexpected buying patterns Learn from previous successful/unsuccessful recommendations 	
Content Optimization	<ul style="list-style-type: none"> Shows visitors optimal content, based on interests, viewing behavior, time-of-day and many other variables 	
Audio and Image-based Search	<ul style="list-style-type: none"> Compares, finds object in a database similar to a given sample (e.g., clip from a song, TV program; image of a product; etc.) 	 
Text Analytics/ Sentiment Analysis	<ul style="list-style-type: none"> Analyzes unstructured text, infers meaning Used in wide range of applications, from sentiment analysis to opinion mining, market research and others 	 

†Acquired by Walmart Sept. 2011



Big Data Suppliers

Shown below are leading Big Data vendors, with a brief explanation of their role in the value chain.

Category	Description	Vendors
Data Sources	<ul style="list-style-type: none"> Companies that aggregate and supply data from social media, demographics, geo-referenced databases and many other sources 	   
Cloud computing	<ul style="list-style-type: none"> Provide cloud storage and computing capabilities Offer the flexibility to dynamically scale as demand expands/shrinks, pay on a variable basis 	 
Databases	<ul style="list-style-type: none"> Provide databases specifically architected for big data, MPP (massive parallel processing) and speed 	 
High-performance Computing	<ul style="list-style-type: none"> Provide computing platforms specifically developed to process and analyze big data 	  
Machine Learning/ Algorithms	<ul style="list-style-type: none"> Provide advanced analytics to solve large, complex problems at scale and in (near) real-time 	
Visualization	<ul style="list-style-type: none"> Given the complexity of analyzing and interpreting Big Data, visualization of results, especially for Business Intelligence applications, is important 	

Opportunities for Brands and Retailers



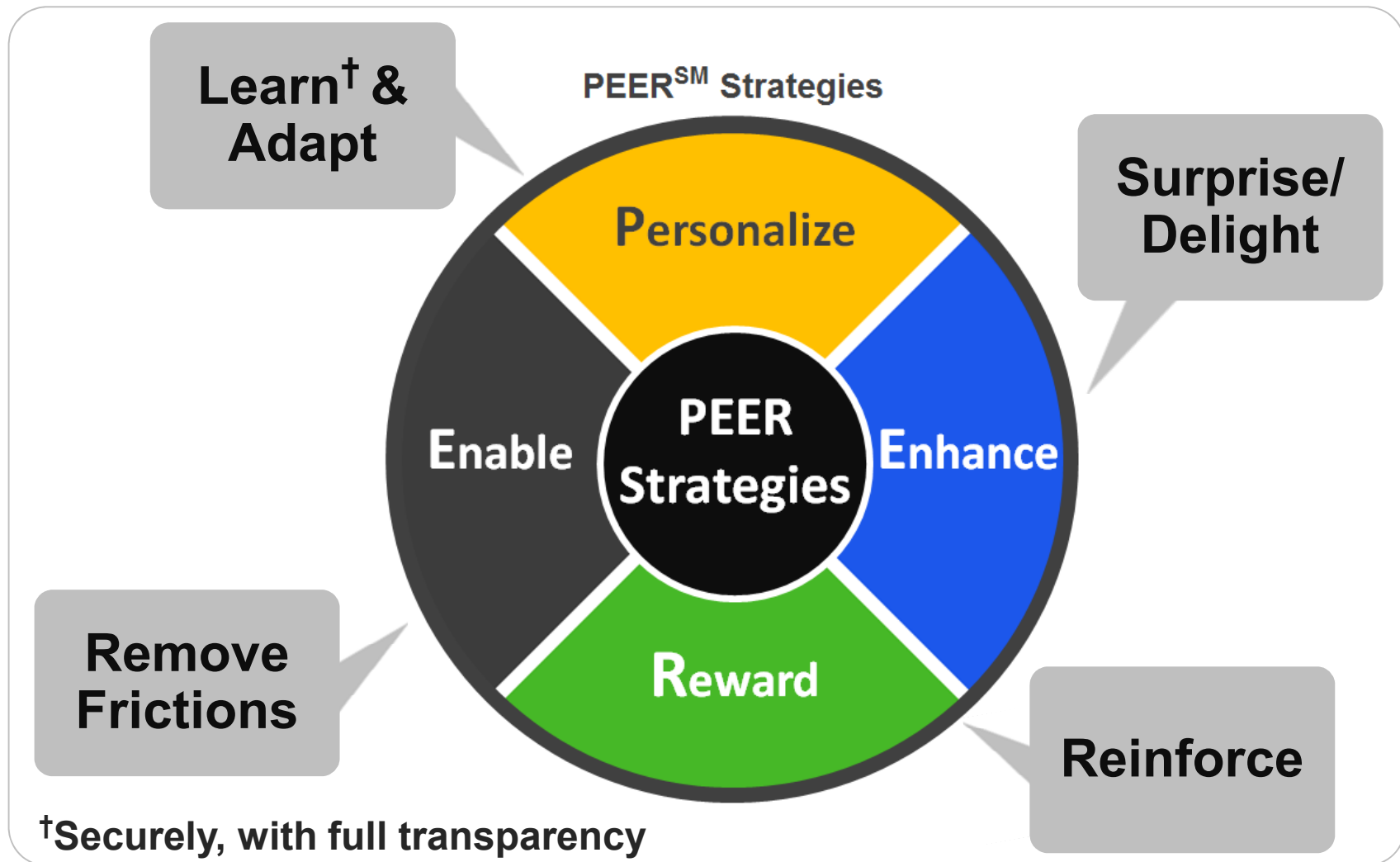
Consumers' Expectations Rising

Consumers expect trusted business partners to know...



Source: How SoLoMo is Empowering Consumers, Transforming Shopping and Disrupting Advertising and Retailing, Dr. Phil Hendrix

From the 4 P's to PEER



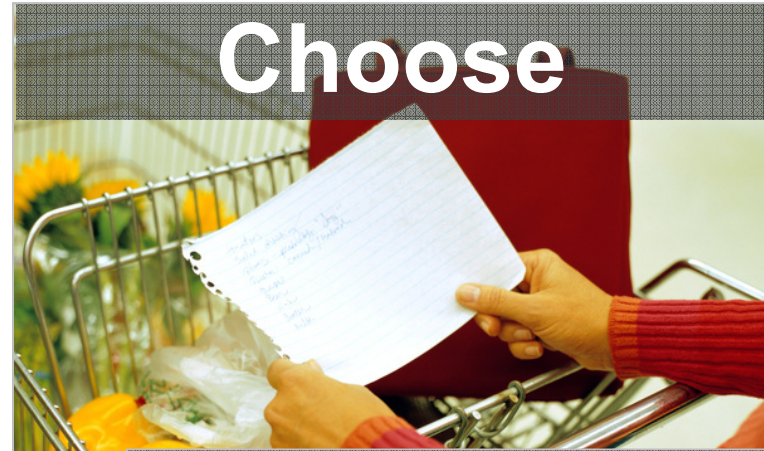
Source: Raising the Bar – How Leading Companies are Boosting Customer Loyalty with Mobile and PEER Strategies, Dr. Phil Hendrix, immr

Customer Experience > Path-to-Purchase

Discover



Choose



Buy



Use



Love-Hate Relationship



Checkout



WARRANTY
INFO






Customer support



†Source: immr Shopping Survey

Engaging by Consumers' Rules

 New Terms of Engagement in the Era of Mobile and Social			
Dimension	Old		New
Markets	Segments	↔	Individuals
Consumers	Targets/Users	↔	Producers/Co-creators
Addressible	Demographics/Psychographics	↔	Mobile, Location, Social Networks
Relationship	Intrusive	↔	Permission-based
Purchase Path	Funnel	↔	Journey
Flow	B2B and B2C	↔	P2P
Feedback	Lagging	↔	Real-time
Word-of-mouth	Confined/Limited	↔	Viral/Unlimited
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div>			
Strategy	Own	↔	Cultivate
Communications	Broadcast, Scheduled	↔	Personalized, Continuous
Manage	Transactions	↔	Lifecycle
Focus	Mass marketing	↔	Personalization
Actions	Asynchronous	↔	Real-time
Policies	Rigid	↔	Adaptable
Differentiation	Features	↔	Experiences

Personalized

Relevant

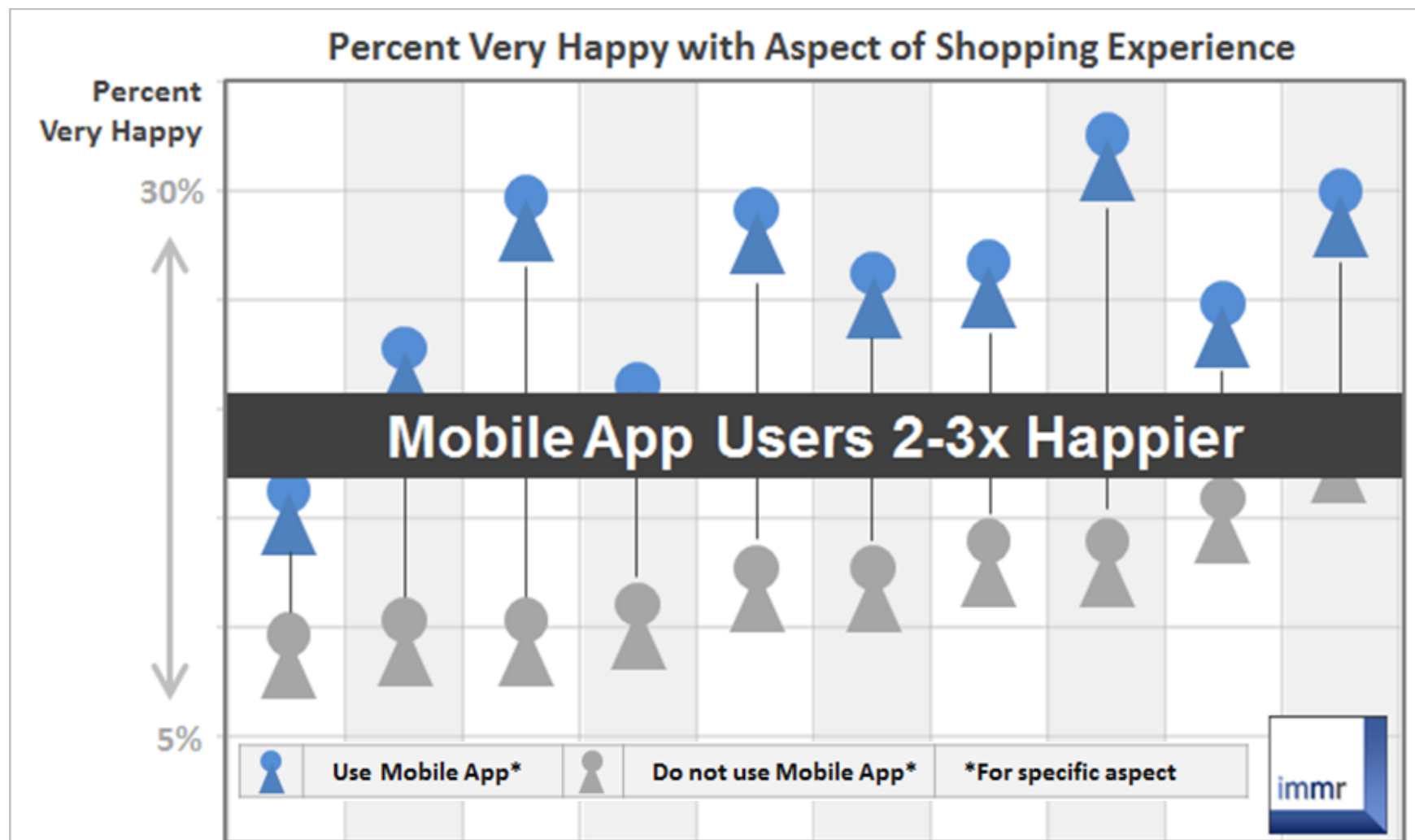
Right-time

Rewarding

Source: Drive Revenue and Loyalty by Engaging Mobile and Social Consumers, Dr. Phil Hendrix, immr



Can Mobile Save Shopping?



Source: If Shopping is Broken, Can Mobile Fix It? Dr. Phil Hendrix, immr

Profound Implications for Marketing

- ❖ Driving out latency, other frictions
- ❖ Internet in our pockets
- ❖ Luke Wroblewski's theorem
- ❖ Word-of-mouth becomes Social Currency
- ❖ Algorithms rule
- ❖ CX (Consumer Experience) matters even more
- ❖ Agile Marketing
- ❖ Digital signals
- ❖ The world is an auction
- ❖ Quantified self

Source: Extending the Extended Self in a Digital World, Dr. Phil Hendrix, June 2013



Appendix



Additional Perspectives

If Shopping is Broken, Can Mobile Fix It?

Dr. Phil Hendrix,
Director immr and GigaOm Pro analyst

April 2013



Published by GigaOm Pro



Raising the Bar – How Leading Companies are Using Mobile and PEERSM Strategies to Boost Customer Loyalty

Prepared by
Dr. Phil Hendrix, Director immr and GigaOm Pro analyst



April 2013

A whitepaper sponsored by



Tuning into Consumers' Digital Signals

Prepared by
Dr. Phil Hendrix, Director immr and GigaOm Pro analyst



October 2011

Acknowledgement:

This whitepaper is co-sponsored by GeoIQ. The author would like to express his appreciation for the input, feedback and support provided by GeoIQ. The opinions and views expressed are those of Dr. Phil Hendrix.

Available at www.immr.org



Bio – Dr. Phil Hendrix



Dr. Phil Hendrix
Director, immr

www.immr.org

+1 (770) 612-1488

phil.hendrix@immr.org

[@phil_hendrix](https://twitter.com/phil_hendrix)

Dr. Phil Hendrix is the founder and director of [immr](http://www.immr.org), a research and advisory firm focused on market opportunities afforded by new technologies, and an analyst with [GigaOm Pro](http://GigaOm.com). He specializes in helping organizations evaluate and capitalize on opportunities that are new-to-customers and new-to-market. Dr. Hendrix has extensive experience uncovering customer needs, identifying triggers and hurdles to adoption, and developing strategies that unlock market opportunities, both B2C and B2B.

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 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 related categories, including financial services, transportation, insurance and others. 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.

Before founding immr, Phil was a partner with [DiamondCluster](#) (strategy and technology consultancy), 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](http://www.immr.org) and [Slideshare](#), with additional information available at [GigaOm Pro](http://GigaOm.com).



immr – Recent and Forthcoming Reports



- Drive Revenue and Customer Loyalty by Engaging Mobile and Social Consumers
- Engaging Connected Consumers – Strategies for Brands, Retailers and Local Businesses[†]
- If Shopping is Broken, Can Mobile Fix it?
- Raising the Bar – Mobile and Customer Loyalty
- Social + Location + Mobile: SoLoMo Analytics and the Transformation of Shopping[†]
- How Consumers Are Using Local Search
- Mobilizing the Enterprise with Custom Mobile Solutions: Pt. 1 and 2
- The Promise of Hyperlocal: Opportunities for Publishers and Developers
- Tuning into Consumers' Digital Signals
- How SoLoMo is Empowering Consumers, Transforming Shopping, and Disrupting Advertising and Retailing
- Location – the Epicenter of Mobile Innovation

[†]Forthcoming

