Customer Insights & Experience: Analytics for Mobile Services

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Basics - Mobile Analytics

- Marketers are constantly being challenged to get the most out of their marketing budgets

- The search for the optimal marketing mix, improved ROI and new consumer insights along the entire path to purchase is a constant requirement of successful marketers

- The process of measuring campaign performance that informs and delivers these results is often referred to as measurement or analytics

- Analytics is in a maturing process in the online realm, but it remains nascent in mobile.

Basics - Mobile Analytics

- Analytics is an indispensable part of successful marketing. It gives brand marketers, agencies, vendors, and publishers the ability to quantitatively measure consumer interaction with brands and their marketing campaigns.

- A small tome's worth of terms has sprung up to label and track the wake of information a mobile consumer generates.

- It informs marketing engagements, ad delivery, product design, web design, user experience, content schedules, and budgeting decisions.

- Analytics is a given of nearly any online engagement, yet it is surprising how little attention mobile analytics receives from the same firms getting so much worth from tracking their traditional and online media and marketing
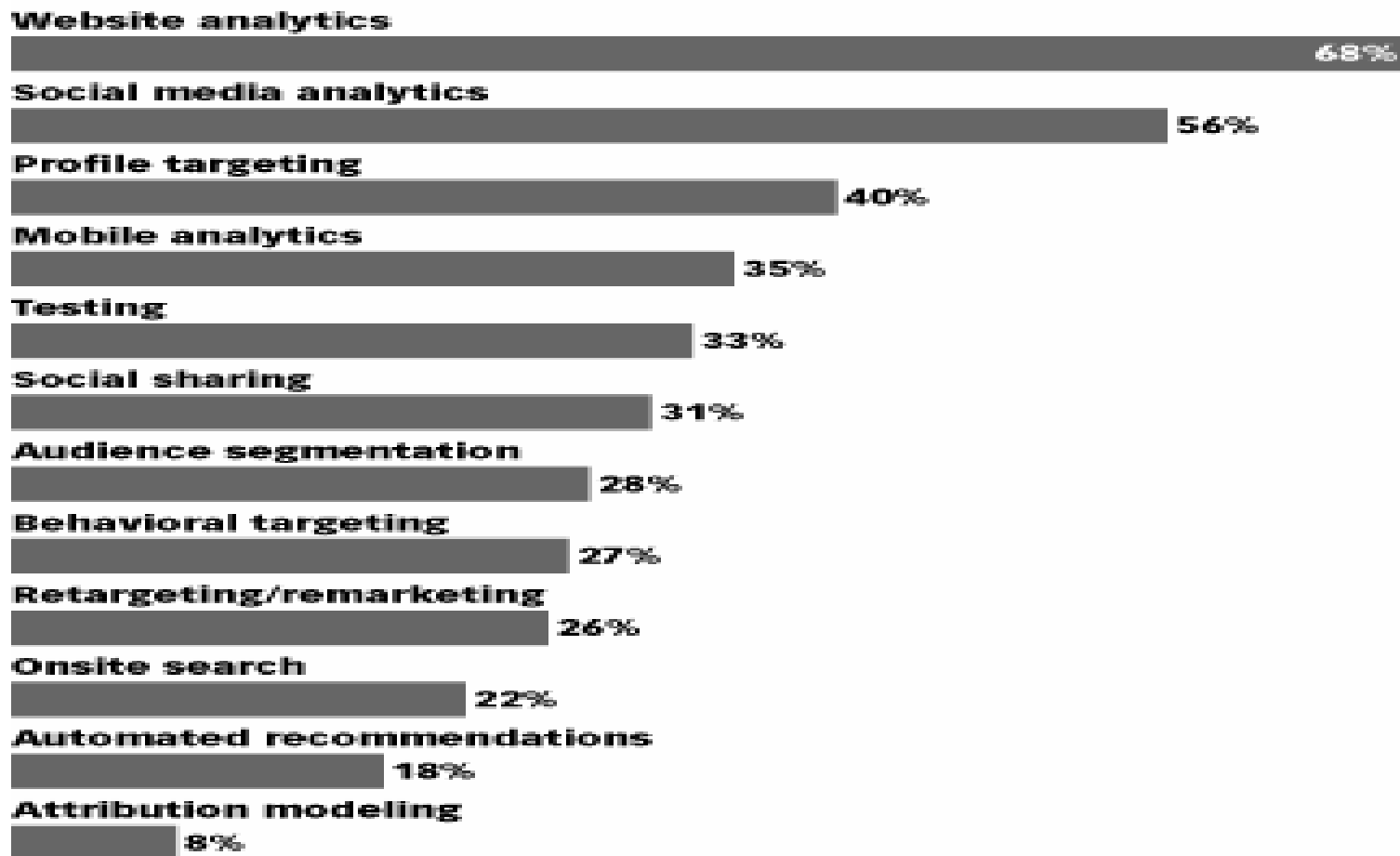
Basics - Mobile Analytics

- Mobile is a new channel for marketers. Because it is new, and there is limited experience and benchmarks, it tends to have a smaller budget allocation than other channels.

- Like the Internet, which was discounted and underestimated as a marketing channel at first, mobile is going through a worldwide period of explosive growth and maturation.

- As a leading industry analyst, Mary Meeker of Kleiner Perkins, pointed out, we spend 10% of our media time on our mobile devices, but the entire advertising industry only spends 1% of its budget in the channel3.

- A just released a meta analysis study that revealed that for certain product categories the optimal allocation of mobile within the marketing mix should be in the 7-9% range. This suggests that media spending in mobile, estimated to be a $1.5 Billion business in North America in 2012, should actually be $10.0 Billion or more

Fig 1: 2012 Digital Strategy

Optimization Strategies Digital Marketers Worldwide Plan to Employ Within the Next Year, Jan 2012

% of respondents

Website analytics
68%

Social media analytics
56%

Profile targeting
40%

Mobile analytics
35%

Testing
33%

Social sharing
31%

Audience segmentation
28%

Behavioral targeting
27%

Retargeting/remarketing
26%

Onsite search
22%

Automated recommendations
18%

Attribution modeling
8%

Understanding Mobile Analytics
A Framework

- Mobile analytics shares many terms and concepts that are, at first, familiar to marketers who have experience with online analytics.

- A smartphone and a desktop computer can both access the web and find the same content using a browser built by the same company. The same metric reported for a desktop user does not mean the same as it would for a mobile user.

- The key to this difference is in understanding how the context and capabilities of mobile interact with consumer behavior. The most important difference is the nature of consumer engagement, which is heavily influenced by the intimacy and personal nature of mobile.

- At the heart of mobile analytics is an understanding of this engagement.

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- For instance, seeking information on a mobile device is more akin to spearfishing than casting a wide net. Mobile users are often very task-focused when using their devices rather than casually browsing the Internet.

- For example, Microsoft Advertising reports that nearly 70% of smartphones users conduct search and take action within an hour of starting

- Because of this, time spent on mobile is precious and the requirement to be contextually relevant is much higher in a mobile environment than on the traditional desktop web. This distinction is explained in Table 1.

Understanding Mobile Analytics
A Framework

Table 1: Engagement Informs Analytics Interpretation		
	Mobile	**Desktop**
Total visitors	Mobile web visitors are typically fewer than on desktop, but considering that users are less likely to be browsing casually browsing than seeking specific information on a mobile device, they consist of more of your core audience than a desktop.	Desktop traffic, at least in the US, is far greater than mobile traffic but its audience is far more generic in scope.
Time spent	Many mobile apps and websites have tool-focused features that are designed to be used as easily and quickly as possible.	Desktop's greater screen space and bandwidth makes it easier to put more links, rich media, and other content in front of the user.
Pages per visit	Modern mobile devices have made scrolling in-page easier than browsing across multiple tabs or pages. Mobile users may have fewer pages per visit, but those pages may make up a greater percent of mobile content.	Clicks to other pages yield near instantaneous results and are easier to exit back to your previous experience, both of which enable more clicks.

Apply Mobile Analytics to Leading Mobile Marketing Programs

- There are numerous mobile marketing media path mobile campaign experiences and mobile enablers that enrich the mobile experience

- This includes mobile messaging like SMS, MMS, and mobile email; voice interaction; mobile search; mobile web; applications; location based services enabled through GPS, WiFi, Bluetooth, or NFC; QR codes; mobile payments; augmented reality; mobile advertisements delivered through various channels; and other mobile media capabilities depending on unique device features.

- Each brings with them a wealth of quantifiable metrics, and even some qualitative ones, that could be discussed at length in their own papers. As this is document is a primer, it will just touch on the pillars of a number of the leading mobile marketing programs.

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- Text and Multi-Media Mobile – Rich in Analytics
  - Text and Multimedia messaging are understated mobile marketing channels when compared to the options smartphones typically offer.

  - Messaging is used from everything from sending updates and offers, to sharing information, and making peer-to-peer payments (that is, one individual using mobile to send money to another).

  - Many of these actions are prime for proximity-based mobile marketing. That said, any mobile marketing campaign that includes SMS, MMS or even email for that matter will need to track and measure usage.

  - As a standalone tactic, SMS, MMS and email analytics are straightforward. As an integrated tactic, say as a reminder an app sends a user, marketers need to be able to know how a user may interact with their app, which messages that user chooses to opt-in and opt-out of and when, and then link that data with the measurements listed

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- Apps Analytics may be difficult to Access
  - Applications and application stores have fundamentally changed the way in which users buy content and interact with marketers. Data on downloads, user location at download, ratings, app deletions, and other data generally resides within the application stores. Data from the application itself, like application launches, session times, utilization of native device functionality (like using the camera or gyroscope), specific consumer actions, and the wealth of data an app can generate, is captured by the brand or publisher in their analytics systems
  - Multiple stores, which reflect the multiple OS environments of smartphones, present even more complexity in gaining access to this information. A single brand may use different publishers to develop their app for separate platforms, giving them potentially different analytics for each version of the application. Additionally, each application store may provide different information, making deeper analytical analysis even more difficult.
  - Each store effectively creates it's own data silo which complicates the job of the marketer in forging a complete picture. However, some analytics packages can seamlessly integrate store data together with behavioral data to give marketers a holistic picture of what's happening with their app. In the absence of this, marketers are forced to stitch together this data externally which is a time consuming and difficult task.

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- Understanding mobile engagement, mentioned previously, is necessary in interpreting application analytics. Consumers may use a brand's application differently than they use its mobile website—although this may be because the application offers unique features, is easier to use from a user experience standpoint, or are there demographic explanations behind who uses a brand's mobile website versus its application.

- Applications that enable users to login to an account tie together this consumer behavior with a personal profile on the publisher side. This provides for a whole new layer of potential analytics for marketers.

- Enabling login comes with its own set of technical and strategic considerations that impacts application and feature design and deeper integration into existing CRM systems.

- There is no set way of managing these considerations, and marketers need to work with application stores, publishers, and each other to make full use of the consumer information potential mobile applications provide.

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- Mobile Web Analytics
  - Mobile web analytics should be conceptually familiar to marketers who work with traditional web analytics. They are both useful in understanding not only how consumers are consuming content but also what changes can be made to optimize their browsing behavior.
  - As shown above in Table I, their similarity in terms and goals still yield differences in their interpretation. Mobile's technological and behavioral considerations—e.g. the smaller screen size, using a touchscreen rather than a mouse, the speed of the carrier network—make a finely tuned user experience of utmost importance to the mobile web.
  - The explosion in the number of hybrid apps––a mobile website that is build around the shell of a native operating system application, thus give the consumer the experience of the benefits of both a mobile website and application––have created a technical challenge.
  - Hybrid apps are becoming very prominent with mCommerce applications because they effectively support creating one code base for the app (HTML5 experience for mobile website) and then placing it in a native wrapper that enables the consumer to download and place on icon on the phone screen, the hybrid app thus has the familiar app look and feel. The issue here is that this effectively creates two unique visits to the same app.

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- Mobile Advertising
  - Mobile advertising simply defined is the placement of an ad within one of the various forms of mobile media discussed above. Mobile ads can leverage many content types, from text, to audio, images, video and even rich media (ads that employ all content types, thus creating a visually appealing and interactive experience).
- Mobile Context and Commerce
  - The most important analytics information mobile phones provide is context for user behavior. Context can be considered the location, time, proximity, and device related to use. A user may interact differently with a brand at home, on the street, or even in a retail location. Context gives marketers an ability to understand where and when consumer engagement occurs, which in turn provides insight deep enough to target a mobile marketing experience for a customer that has just left work but not yet arrived home.

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Table 2: Context can generate a wealth of analytics information

Context

Location	Time	Proximity	Device
• Bluetooth	• Recency	• Call-to-action	• Manufacturer
• GPS	• Frequency	• Distance from location	• Operating System
• Geo-coordinates	• Session Length	• Dwell times	• Type
• WiFi	• Daypart	• Speed	• Model number
• Cell tower triangulation		• Direction	• Carrier
• Opt-in/out		• Conversion	• Browser
• IP Lookup		• Opt-in/out	• Screen size / resolution

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- Mobile location is one of the most important and most sensitive piece of contextual information. No other media, traditional or digital, provides anything like it.

- Desktop location tracking is possible through its IP address but such information is fixed, strictly limiting its contextual uses, and less accurate when compared to mobile location information.

- Mobile location information is reported differently depending on the service. Mobile operators can provide location-based information, or marketers may use hardware options like Bluetooth, Wi-Fi and GPS to collect user location information.

- Mobile location is frequently used in conjunction with other actions, making it important to be able to link user location with the specific action—navigation-based location information is used very differently than delivering geo-targeted hyper-local content.

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- Such a sophisticated capability doesn't come without its drawbacks. Mobile location reporting needs to be opt-in which means mobile location services are sometimes turned off.

- Consumers tend to be sensitive about reporting their mobile location, especially when the benefit to them is unclear. Privacy considerations also impact when location information can be collected, how it can be used, and what other consumer information can be attached to it.

- Time is simpler to report and lacks the same privacy sensitivity.

- Proximity gives marketers the ability to create and measure hyper-local campaigns.

- Consumer device information underscores the complexity of the technology that enables mobile marketing. Device manufacturer, operating system, and software versions will differ from user to user. Each of these factors provides potentially useful differentiating behavior that marketers can use

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- Integrating mobile payment solutions is complex and sensitive
  - Mobile payment systems are generating more complexity even as they introduce extremely useful services for consumers. This includes a service like Boku that allows mobile devices to scan traditional plastic cards or the competing mobile wallets offered by Amazon, Google, and PayPal. In the broad world of mobile payments, these solutions exist alongside premium SMS and NFC-enabled points of sale.
  - Additional solutions will surely develop before any kind of consolidation of payment analytics reporting occurs. Each mobile payment option comes with its own set of pros-and-cons and way of working with data. Payment data includes subscriber ID as well as purchase history, although the identity of the end user may be anonymous.
  - Typically, this data resides with the provider of a particular mobile payment solution and must then be assimilated into an analytics solution (unless the provider insists they own the end user data, in which case the data may not be able to integrate with an analytics solution).

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- Mobile Enablement of media and cross channel effects
    - Mobile is unique in that it is not only a direct channel to consumer engagement, it is an interactive enabler of all traditional media channels, including television, outdoor media, print, radio.
    - Mobile has an incredible cross-media impact. For example, as part of a 360 degree campaign, Taco Bell added QR codes to its packaging and print ads and built a mobile experience specifically for the campaign.
    - The program ran for six weeks and was scanned over 430,000 times by over 375,000 unique users, providing each of them a deeply engaging experience on their mobile device8. Consider how valuable such a personal and direct experience this allowed Taco Bell to deliver to its customers.

Leveraging the Funnel potential

Figure 2: Full Funnel Tracking with Mobile Marketing

Awareness
- Deal Alerts
- Gift from friend

Consideration
- Download App
- Review product info

Intent
- Search for store
- Reserve product in advance

Purchase
- Pay by phone
- Scan QR code in store-info/discounts

Experience
- Browse social content
- Sign up for loyalty program

Loyalty
- Vote on favorite product
- Share pictures engaging with product

Advocacy
- Share specials via app, web, SMS
- Rewards for sharing, posting

Industry Challenges for Mobile Analytics

- Data Silos
  - The variety of data available in the mobile ecosystem necessarily brings with it a high level of complexity. SMS, mobile web, app behavior data, app store data, location-based data, mobile ad and QR code data all tend to reside in separate data silos.
  - Stitching this information together is challenging, and the mobile marketing industry should endeavor to break down these silos.
- Tagging and Tracking users
  - Tagging and tracking mobile user behavior is essential to collecting analytics, but it is a still-developing mobile capability.
  - JavaScript is a standard tagging mechanism, but this is only effective for smartphones capable of handling JavaScript and completely omits feature phones.
  - This is becoming more common as users switch to smartphones with "modern" mobile OS browsers – iOS, Android, and Windows Phone browsers – which all support JavaScript.
- Privacy, Regulaltory Requirements, Regional /National differences affect technical capabilities

Where do we go from here?

- Key Reqmts: partnerships, CRM, technology, resources and resolve
- Asking the Analytics providers the right questions
    - Which mobile channels do they provide analytics for? (This list includes mobile web, apps, SMS, mobile search, mobile display, mobile video, 2D barcodes, and mobile commerce.)
    - Which SDKs do they support?
    - What tag management capability do they have?
    - Do they have visitor level behavior tracking?
    - Can you enable consumer segmentation?
    - Does their segmentation ability give you dynamic content optimization options?
    - Does their analytics integrate with social networking on mobile?
    - Does their analytics offer WWW-site integration?
    - Can you access app store data within the analytics platform itself?
    - Is there real-time API support?
    - Do they have a sufficient privacy SLA?
    - Do they allow for simplified importation/data exportation and are there charges associated with this?

Product Development Considerations

- Upfront Requirements for Reporting, Automation , etc for Campaigns
- Thorough analysis of the user profile
- Usage Patterns
- Business Parameters
- Operational Parameters
- Performance
- Scalability and Capacity

Thank You