Marketing Technology + Human Insights =

UNTAPPED OPPORTUNITIES

SORRY, KID, OUR MACHINE LEARNING CRM WITH PREDICTIVE ANALYTICS SAYS YOU'RE GETTING COAL THIS YEAR.

© marketoonist.com

Lisa Horwich
Pallas Research Associates
About me...
Agenda

- Current State & Trends
- Demystifying “MarTech”
  - Real-Time Analytics
  - Business Intelligence
  - Artificial Intelligence
  - Machine Learning
- Limitations and Opportunities
How did we get here? Where is it headed?

CURRENT STATE & TRENDS
Why MarTech?

- AI Can Remove Guesswork from your Influencer Marketing Campaigns
- Artificial Intelligence is Ever More Critical to Brand Strategy
- Learn How to Engage with Customers Using AI
- Making the AI Marketing Journey a Piece of Cake
- The Key for Data-Driven Marketers? Real-time Customer Analytics
- Use Predictive Personalization to Drive Increased Conversion Rates
Predictions

“By 2017 CMO’s will spend more on technology than CIO’s”
- Laura McLellan, Gartner
Predictions

“By 2017 CMO’s will spend more on technology than CIO’s”
- Laura McLellan, Gartner

- 2016 CMOs allocated 3.24% of revenue to technology spending - CIO’s earmarked 3.4%
MarTech Spending

- MarTech now accounts for 29% of the total marketing expense budget
Why?

- Most CMO’s own/share P&L responsibility
- Many are responsible for digital commerce channel
- Marketing funds and designs cross-functional CX initiatives
- Prove **ROI** of activities
Growth of MarTech Companies

- 2011: ~150
- 2012: ~350
- 2014: ~1,000
- 2015: ~2,000
- 2016: ~3,500
- 2017: ~5,000
- 2018: ~6,800
- 2019: 7,040
Where’s the Focus?
Where’s the Focus?

6 Technologies Will Demand Marketing’s Attention in 2018

- Mobile marketing analytics
- Cross-device identification (XID)
- Multitouch attribution (MTA)
- Predictive analytics
- Artificial intelligence (AI)
- Customer data platforms (CDPs)

gartner.com/SmarterWithGartner
Mobile Marketing Analytics

- Track, measure and understand how mobile users are interacting with mobile sites and apps
Mobile Marketing Analytics

- Track, measure and understand how mobile users are interacting with mobile sites and apps
Mobile Marketing Analytics

- Track, measure and understand how mobile users are interacting with mobile sites and apps
Multitouch Attribution
Customer Data Platforms (CDP)

**DATA SOURCES**
- Web Activities
- Paid Advertising
- Email Campaigns
- Live Events
- Social Interactions
- Mobile App Data
- CRM Data
- Other Data
- Transactional and POS Data
- Demographic and Personal Data
- Behavioral Data
- Engagement Data
- IOT and Device Data

**CUSTOMER DATA PLATFORM**
- Clean Data
- Transform Data
- Unify Data
- Enrich Data
- Segment Users

**CROSS-CHANNEL ACTIONS**
- Web Site Personalization
- Ad Campaigns
- Email Campaigns
- Push Messaging
- Social Campaigns
- Direct Mail

“CRM is to Sales as CDP is to Marketing” - Kevin Marcus, Versium
MARKETING TECHNOLOGIES

Real-Time Analytics
Business Intelligence
Artificial Intelligence
Machine Learning
Marketing Technologies
Marketing Technologies

Data:
- Transactional
- Observational
- Experimental
Marketing Technologies

Business Intelligence & Real-Time Analytics

Data:
- Transactional
- Observational
- Experimental
Marketing Technologies

Artificial Intelligence

Business Intelligence & Real-Time Analytics

Data:
- Transactional
- Observational
- Experimental
Marketing Technologies

Artificial Intelligence

Machine Learning

Business Intelligence &
Real-Time Analytics

Data:
Transactional
Observational
Experimental
How can companies harness their data effectively?

REAL-TIME ANALYTICS
Real-Time Analytics

- Definition:
  - Unified customer data platforms incorporating predictive analytics and contextual customer journey interactions - delivering real-time customer interactions across touch points and devices
Real-Time Analytics Dashboard
Real-Time Analytics Benefits
Real-Time Analytics Benefits

Customer retention & loyalty
Real-Time Analytics Benefits

Customer retention & loyalty

Understand the customer journey
Real-Time Analytics Benefits

Customer retention & loyalty

Understand the customer journey

Increase customer lifetime value
Primary Benefit of RTA

Ability to quantify Marketing ROI.
How do companies measure their effectiveness?

BUSINESS INTELLIGENCE
Business Intelligence

- Definition
  - BI is an umbrella term that includes the applications, infrastructure and tools, and best practices that enable access to and analysis of information to improve and optimize decisions and performance
Business Intelligence Benefits

- Provides historical, current, and predictive views of business operations
- Leverages data that has been gathered into a data warehouse, data mart or transactional data
  - Sales, marketing, operations, finance, and other sources of data
- Provides reporting, dashboards, visualization, queries, analysis and discovery
Customer Experience BI Example
What is it? How does it work? How do companies use it?

ARTIFICIAL INTELLIGENCE
Artificial Intelligence

Hi, I’m Cortana.

“Alexa turn on Movie Night.”

“Alexa, turn on Kids’ Bedtime.”

“Alexa, turn on My Morning Motivation Routine.”

“I’m outta here. Alexa, turn on the Leave Home Routine.”

Siri, was it something I said?

Hi, how can I help?

Google Assistant
Artificial Intelligence

- **Definition:**
  - The theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages.
Artificial Intelligence - Drivers

- Harness Big Data to optimize marketing campaigns
  - Personalization
- Retain current customers
- Reduce customer churn
- Upsell/Cross-sell existing customers
Artificial Intelligence - Benefits

- Identify gaps in existing marketing content
- Optimize campaigns for specific niche audiences
  - Images
  - Incentives
- Understand which segments aren’t being served
- Revive dormant customers
AI Example
AI Example

Customer Data

Customers

Modelling & Enrichment

Enriched Data

Marketer
AI Example

How Amplero Works

- Customer Data
- Modelling & Enrichment
- Enriched Data
- Marketing Assets

Customers
Marketer
AI Example

Modelling & Enrichment

Enriched Data

Customer Data

Customers

Marketing Assets

Marketer

KPIs:
“45-day revenue”
“60-day engagement”
“90-day retention”
AI Example

KPIs:
“45-day revenue”
“60-day engagement”
“90-day retention”
AI Example

KPIs:
“45-day revenue”
“60-day engagement”
“90-day retention”
AI Example

KPIs:
“45-day revenue”
“60-day engagement”
“90-day retention”
How do machines ‘learn’?

MACHINE LEARNING
Machine Learning

- **Definition:**
  - Machine Learning is the science of getting computers to learn and act like humans do, and improve their learning over time in autonomous fashion, by feeding them data and information in the form of observations and real-world interactions.

- **Benefits:**
  - Highlight or find patterns in big (or other) data that would have otherwise been missed by human beings.
Where do these technologies falter?
What are the opportunities for qualities?
Challenges

- Data
  - Quality
  - Quantity
Challenges

- Data
  - Quality
  - Quantity

- Having enough content
  - Gartner predicts 90% of brands will practice at least one form of marketing personalization, but content will be the bottleneck and cause of failure by 2020
## Limitations = Opportunities

<table>
<thead>
<tr>
<th>Limitations</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decisions are made solely on data</td>
<td>Use the data as a launching point for deeper qualitative analysis</td>
</tr>
<tr>
<td>Existing data is not predictive enough</td>
<td>Create and maintain communities to identify predictive behavior</td>
</tr>
<tr>
<td>Need exponentially more content</td>
<td>Assist in narrowing target messaging</td>
</tr>
<tr>
<td>Insufficient ‘training’ data</td>
<td>Provide personas and other descriptive metrics to help ‘train’ algorithms</td>
</tr>
<tr>
<td>Lack of ‘domain specific’ attributes</td>
<td>Create feature lists to describe the data</td>
</tr>
<tr>
<td>Dimensionality inhibits predictive modeling</td>
<td>Help narrow down number of variables with human insights</td>
</tr>
</tbody>
</table>
# Limitations = Opportunities

<table>
<thead>
<tr>
<th>Limitations</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decisions are made solely on data</td>
<td>Use the data as a launching point for deeper qualitative analysis</td>
</tr>
<tr>
<td>Existing data is not predictive enough</td>
<td>Create and maintain communities to identify predictive behavior</td>
</tr>
<tr>
<td>Need exponentially more content</td>
<td>Assist in narrowing target messaging</td>
</tr>
<tr>
<td>Insufficient ‘training’ data</td>
<td>Provide personas and other descriptive metrics to help ‘train’ algorithms</td>
</tr>
<tr>
<td>Lack of ‘domain specific’ attributes</td>
<td>Create feature lists to describe the data</td>
</tr>
<tr>
<td>Dimensionality inhibits predictive modeling</td>
<td>Help narrow down number of variables with human insights</td>
</tr>
</tbody>
</table>
# Limitations = Opportunities

<table>
<thead>
<tr>
<th>Limitations</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Decisions are made solely on data</td>
<td>• Use the data as a launching point for deeper qualitative analysis</td>
</tr>
<tr>
<td>• Existing data is not predictive enough</td>
<td>• Create and maintain communities to identify predictive behavior</td>
</tr>
<tr>
<td>• <strong>Need exponentially more content</strong></td>
<td>• <strong>Assist in narrowing target messaging</strong></td>
</tr>
<tr>
<td>• Insufficient ‘training’ data</td>
<td>• Provide personas and other descriptive metrics to help ‘train’ algorithms</td>
</tr>
<tr>
<td>• Lack of ‘domain specific’ attributes</td>
<td>• Create feature lists to describe the data</td>
</tr>
<tr>
<td>• Dimensionality inhibits predictive modeling</td>
<td>• Help narrow down number of variables with human insights</td>
</tr>
</tbody>
</table>
## Limitations = Opportunities

<table>
<thead>
<tr>
<th>Limitations</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Decisions are made solely on data</td>
<td>• Use the data as a launching point for deeper qualitative analysis</td>
</tr>
<tr>
<td>• Existing data is not predictive enough</td>
<td>• Create and maintain communities to identify predictive behavior</td>
</tr>
<tr>
<td>• Need exponentially more content</td>
<td>• Assist in narrowing target messaging</td>
</tr>
<tr>
<td>• <strong>Insufficient ‘training’ data</strong></td>
<td>• Provide personas and other descriptive metrics to help ‘train’ algorithms</td>
</tr>
<tr>
<td>• Lack of ‘domain specific’ attributes</td>
<td>• Create feature lists to describe the data</td>
</tr>
<tr>
<td>• Dimensionality inhibits predictive modeling</td>
<td>• Help narrow down number of variables with human insights</td>
</tr>
</tbody>
</table>
## Limitations = Opportunities

<table>
<thead>
<tr>
<th>Limitations</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Decisions are made solely on data</td>
<td>• Use the data as a launching point for deeper qualitative analysis</td>
</tr>
<tr>
<td>• Existing data is not predictive enough</td>
<td>• Create and maintain communities to identify predictive behavior</td>
</tr>
<tr>
<td>• Need exponentially more content</td>
<td>• Assist in narrowing target messaging</td>
</tr>
<tr>
<td>• Insufficient ‘training’ data</td>
<td>• Provide personas and other descriptive metrics to help ‘train’ algorithms</td>
</tr>
<tr>
<td>• Lack of ‘domain specific’ attributes</td>
<td>• Create feature lists to describe the data</td>
</tr>
<tr>
<td>• Dimensionality inhibits predictive modeling</td>
<td>• Help narrow down number of variables with human insights</td>
</tr>
<tr>
<td>Limitations</td>
<td>Opportunities</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>--------------------------------------------------------------------</td>
</tr>
<tr>
<td>• Decisions are made solely on data</td>
<td>• Use the data as a launching point for deeper qualitative analysis</td>
</tr>
<tr>
<td>• Existing data is not predictive enough</td>
<td>• Create and maintain communities to identify predictive behavior</td>
</tr>
<tr>
<td>• Need exponentially more content</td>
<td>• Assist in narrowing target messaging</td>
</tr>
<tr>
<td>• Insufficient ‘training’ data</td>
<td>• Provide personas and other descriptive metrics to help ‘train’ algorithms</td>
</tr>
<tr>
<td>• Lack of ‘domain specific’ attributes</td>
<td>• Create feature lists to describe the data</td>
</tr>
<tr>
<td>• Dimensionality inhibits predictive modeling</td>
<td>• Help narrow down number of variables with human insights</td>
</tr>
</tbody>
</table>
# Limitations = Opportunities

<table>
<thead>
<tr>
<th>Limitations</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decisions are made solely on data</td>
<td>Use the data as a launching point for deeper qualitative analysis</td>
</tr>
<tr>
<td>Existing data is not predictive enough</td>
<td>Create and maintain communities to identify predictive behavior</td>
</tr>
<tr>
<td>Need exponentially more content</td>
<td>Assist in narrowing target messaging</td>
</tr>
<tr>
<td>Insufficient ‘training’ data</td>
<td>Provide personas and other descriptive metrics to help ‘train’ algorithms</td>
</tr>
<tr>
<td>Lack of ‘domain specific’ attributes</td>
<td>Create feature lists to describe the data</td>
</tr>
<tr>
<td>Dimensionality inhibits predictive modeling</td>
<td>Help narrow down number of variables with human insights</td>
</tr>
</tbody>
</table>

“People and machines work best together.” - Greg Linden
“Marketers who follow the data map without keeping an eye out for real-world conditions – most notably the customers – are going to end up in a ditch.” - Scott Brinker, VP Hubspot

How does qualitative research fit in?

VALUE OF HUMAN INSIGHTS
Four Forces of MarTech

- **Efficiency**
  - Global, standardized process, data & tools.

- **Innovation**
  - Locally optimized process, data & tools.

- **Centralize**
  - Global mission, culture and beliefs.

- **Decentralize**
  - Focus on individual customers in context.

- **Automate**
  - Technology

- **Scale**
  - People

- **Speed**
  - Automation

- **Humanize**
  - Authenticity
Four Forces of MarTech

Automate

Efficiency
- Global, standardized process, data & tools.

Innovation
- Locally optimized process, data & tools.

Centralize
- Global mission, culture and beliefs.

Decentralize
- Focus on individual customers in context.

Scale

Technology

Speed

People

Brand

Humanize

Authenticity

© chiefmartec
Integrating Insights

- Continue to use Primary Research like NPS
- Brand tracking
- Qualitative exploratory research
  - Barriers
  - Relationship drivers
  - Preferences
- Get better handle on intent and overall ‘feeling’ about a product
  - Understand sentiment that the machine cannot

“We still find a lot of value in hearing explicitly from our members, of course, as opposed to just the data.” - AI MarTech User
# Marketing Technology Tools

<table>
<thead>
<tr>
<th></th>
<th>Definition</th>
<th>Use Cases</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Real-Time Analytics</strong></td>
<td>Unified customer data platforms predictive analytics, and contextual customer journey interactions.</td>
<td>Deliver real-time customer interactions across touch points and devices</td>
<td>Needs data volume and variety, data analytics strategy and unified data analytics infrastructure</td>
</tr>
<tr>
<td><strong>Business Intelligence</strong></td>
<td>Applications, infrastructure and tools that enable access to and analysis of information.</td>
<td>Improve and optimize decisions and performance; Identify trends; Improve efficiency</td>
<td>Only shows past and present state; Decisions are made on data alone</td>
</tr>
<tr>
<td><strong>Artificial Intelligence</strong></td>
<td>Any intelligent system that notably augments human decisions or independently come up with conclusions that appear to be well considered.</td>
<td>Optimize marketing campaigns; Upsell options; Reduce churn; Revive dormant customers; Customer retention</td>
<td>Lack of sufficient data for algorithms to run quickly; Need exponentially more content; Large data sets are expensive to move around</td>
</tr>
<tr>
<td><strong>Machine Learning</strong></td>
<td>Any system that learns from past data to make judgments about previously unseen new data.</td>
<td>Optimize ad campaigns and other metrics; Predict churn</td>
<td>Can't figure out designs, messages, or metric importance</td>
</tr>
</tbody>
</table>
Thank you!

Interested in learning more?
Feel free to reach out with questions, comments...

Lisa Horwich
206.523.1953
lisa@pallasresearch.com