Facebook's Center for Marketing Science

Emotional AI/Neuro Analysis

Digital media: conflicting roles in young peoples' lives

- Taps into developmental needs – relationships, identity exploration, autonomy, etc.

- Tool for expression, civic & political participation

- Concerns about "screen time," addictive tech design, social media & anxiety, etc.

How Kids' Digital Media is Turning into a Multi-Billion-Dollar Opportunity

The Spending Power of the Modern Tween

- Tweens in the United States are estimated to provide at least $260 billion in direct sales every year.
- More than 75% of the money that Tweens get to spend on their own comes as gifts, either from their parents or from their extended family.
- More than half [58%] of Tweens also receive money from an allowance or chores.
- About 10% of that spending originates from the pockets of the Tweens themselves.

As the 'Instagram Effect' Grips Gen Z, Consumers Spend $830 Billion on Them
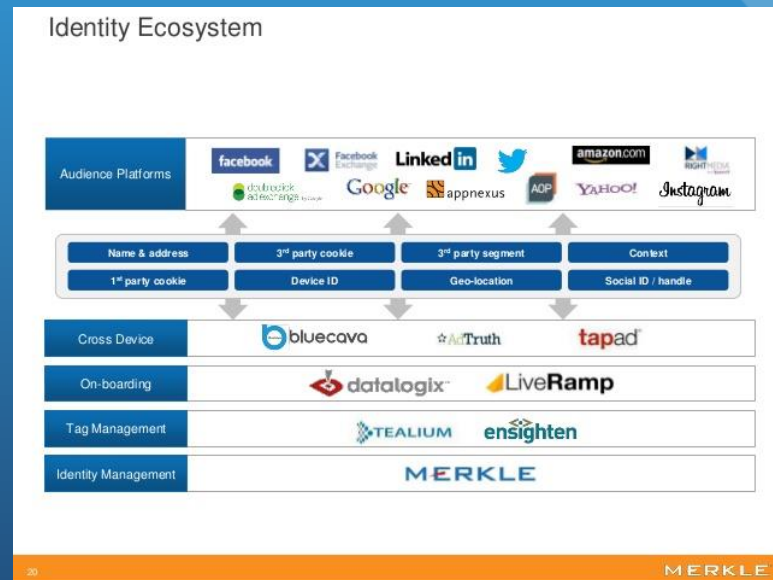
Forces of Big Data shaping contemporary marketing practices

- Increasingly sophisticated digital marketing apparatus

- Data collection & marketing are now completely intertwined

- Cross-device tracking & targeting

- Programmatic – anytime, anywhere, real-time

- Personalized

- Growth of new formats

Data collection, measurement, and targeting are woven into content and functions of digital media.

- Explosion of industry metrics for researching young people's interactions with media

- Every behavior is measurable; online & off

- Constant, real-time, cross-platform analysis

- Triggering and measuring actions

- UPC-like codes on ads & digital content

- Levels of granularity unprecedented

Identity Ecosystem

| Audience Platforms | facebook, Facebook Exchange, Linked in, amazon.com, RIGHTMEDIA, doubleclick adexchange by Google, Google, appnexus, AOP, YAHOO!, Instagram |

| Name & address | 3rd party cookie | 3rd party segment | Context |
| 1st party cookie | Device ID | Geo-location | Social ID / handle |

Cross Device	bluecava	AdTruth	tapad
On-boarding	datalogix	LiveRamp	
Tag Management	TEALIUM	ensighten	
Identity Management	MERKLE		

MERKLE

# Major food & beverage companies now in big data business

How McDonald's Is Getting Ready For The 4th Industrial Revolution Using AI, Big Data And Robotics

Forbes

Tracking consumers on "path-to-purchase" journey

- Monitoring customer's behaviors - from online influence to offline decision, "micro-moments"

- "geofencing" near fast food restaurants & other retail establishments

- In-store surveillance, "smart shelves," "beacons," etc.

- Shopper analytics

- "digital coupons"
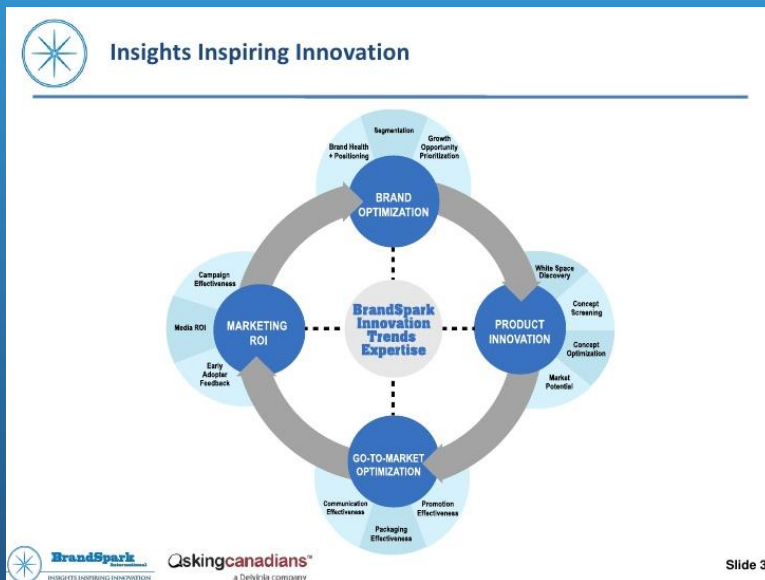
Advertising integrated into video content

- "Native advertising"

- "Snackable content" – across digital media landscape – social media, games, television, music, etc.

- Food and beverage companies allied with major media players

- "Branded" content & channels

- Children as "Influencers" -- "unboxing"

Challenges for researchers

- Complex, multidimensional marketing system; difficult to isolate advertising messages

- Personalized, "dynamic-creative" ads tailored to individuals, and changing in real time

- Social nature of marketing and influencer strategies

- Exposure vs. engagement

- Opaque, proprietary marketing, targeting, & analytics processes

- New approaches needed to understand full dimensions of digital media & marketing effects

Opportunities

- Promising academic research models & methods:
  - Computer science researchers analyzing data practices on children's apps
  - Campaign for Tobacco-Free Kids – use of netnography to track social media influence
  - Harvard School of Public Health "Ecological Momentary Assessment" - analysis of media experience in real time

- Digital market analysis/case studies of marketing campaigns

- Adapting digital industry's analytics, measurement, "brand safety" tools

- Outside audits of social media & other platform practices

- Collaboration with privacy & data protection researchers