THE RELATIONSHIP BETWEEN
FASTER MOBILE SITES AND BUSINESS KPIs

CASE STUDIES FROM THE MOBILE FRONTIER

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PRESIDENT & CO-FOUNDER STRANGELOOP

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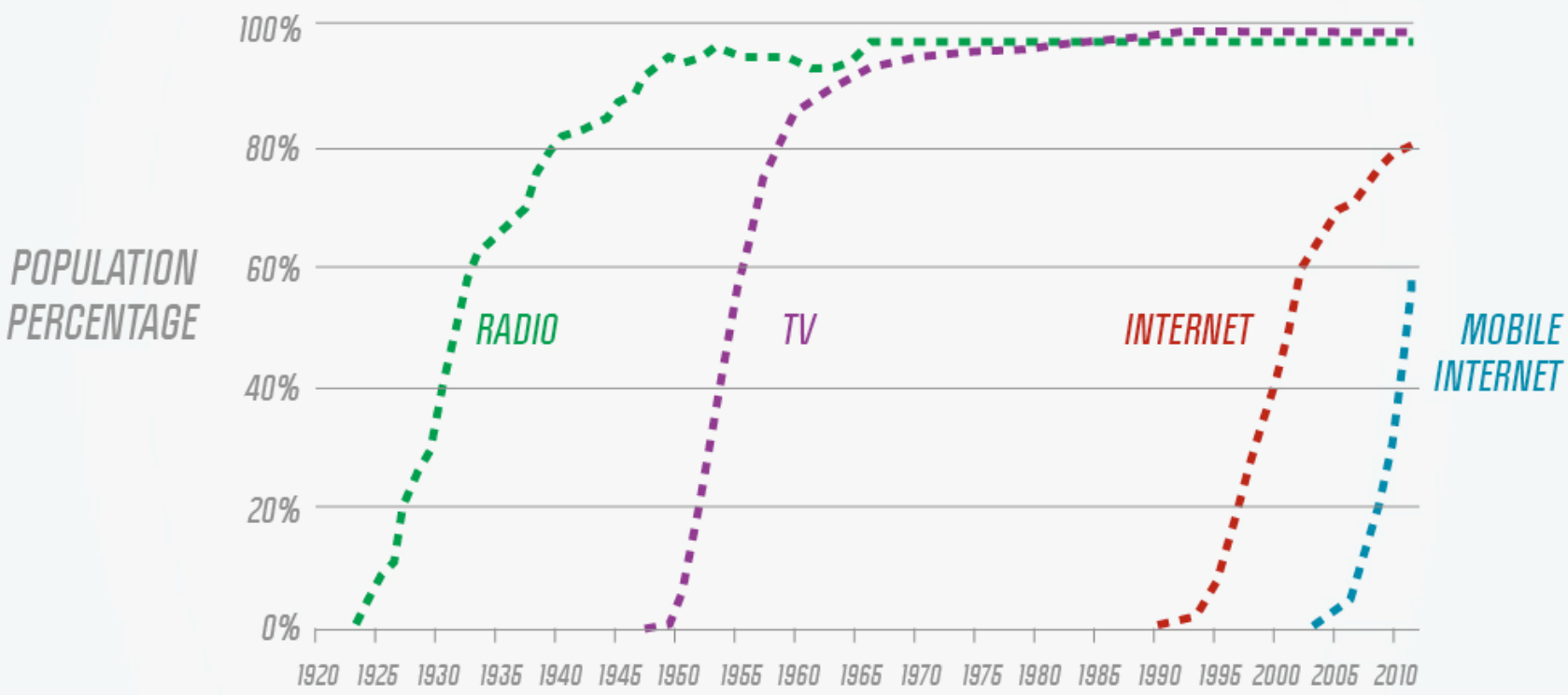
www.webperformancetoday.com

TECHNOLOGY ADOPTION MEASURED BY POPULATION PENETRATION



SOURCE: Broadcasting & Cable Yearbook 1998, World Bank, Morgan Stanley Research, Mary Meeker

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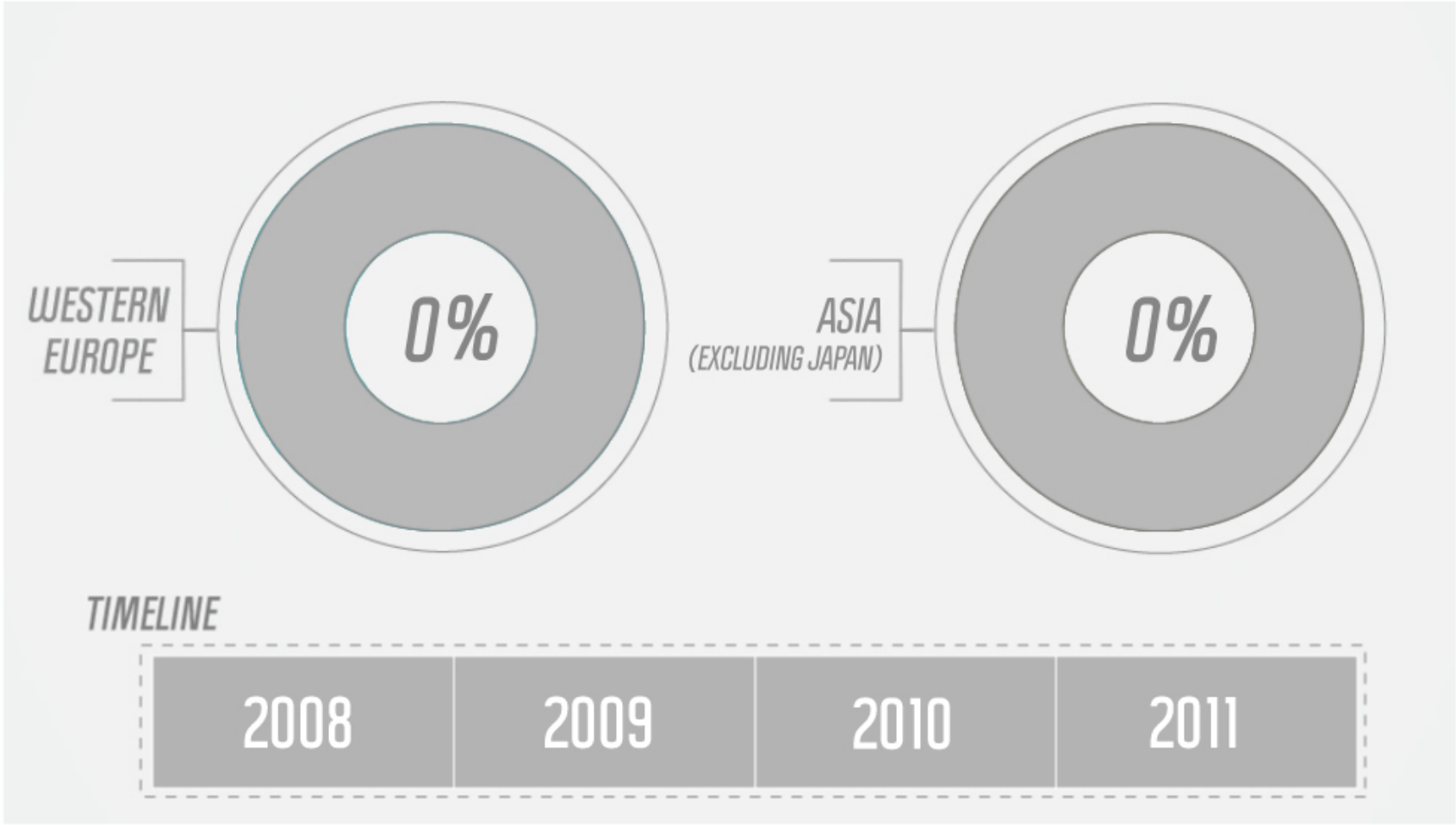
SMARTPHONE SHIPMENTS AS % OF TOTAL MOBILE SHIPMENTS



SOURCE: Data per Ehud Gelblum, Morgan Stanley Research, Mary Meeker

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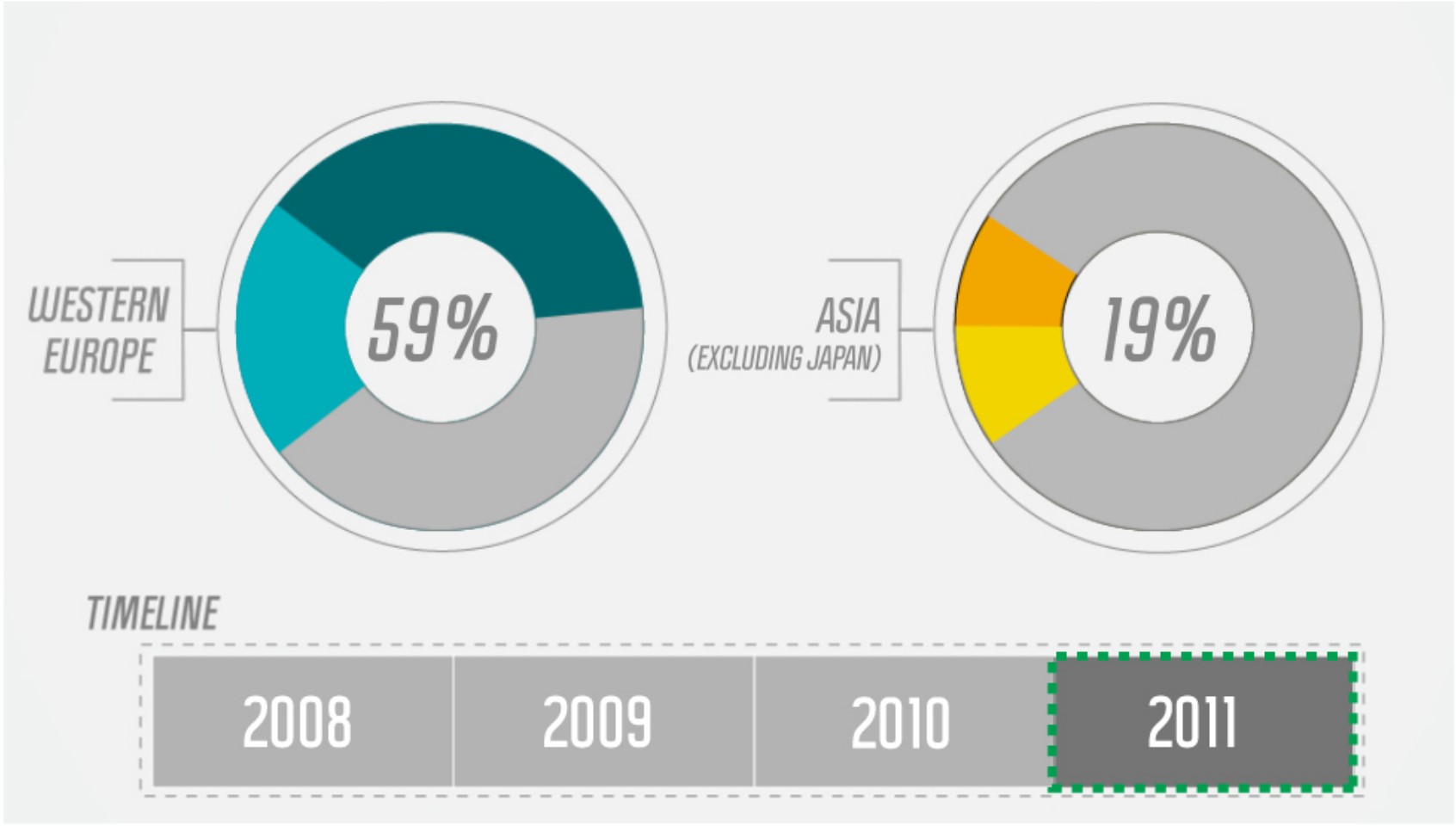

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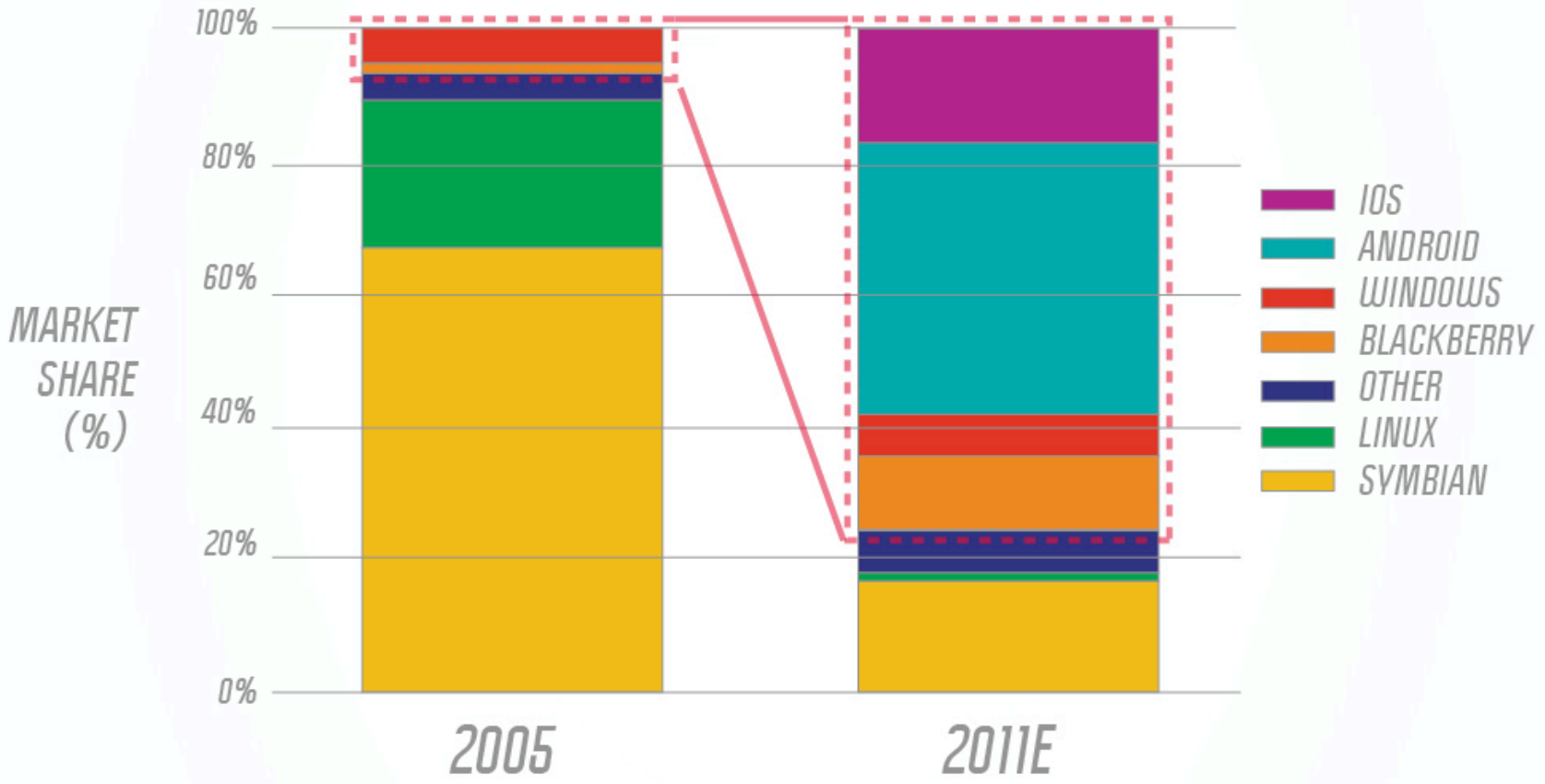
SMART PHONE OPERATING SYSTEM MARKET SHARE

2005 vs. 2011E



SOURCE: Morgan Stanley Research, Gartner, Mary Meeker

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PERCENTAGE OF TRAFFIC FROM MOBILE DEVICES 2008-2011

TIMELINE

2008	2009	2010	2011

SOURCE: Pandora S1, Twitter, Facebook, Mary Meeker.

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PERCENTAGE OF TRAFFIC FROM MOBILE DEVICES 2008-2011

TIMELINE

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MOBILE SALES or PAYMENT VOLUME

SOURCE: eBay. Amazon.com, Target, Square, Mary Meeker

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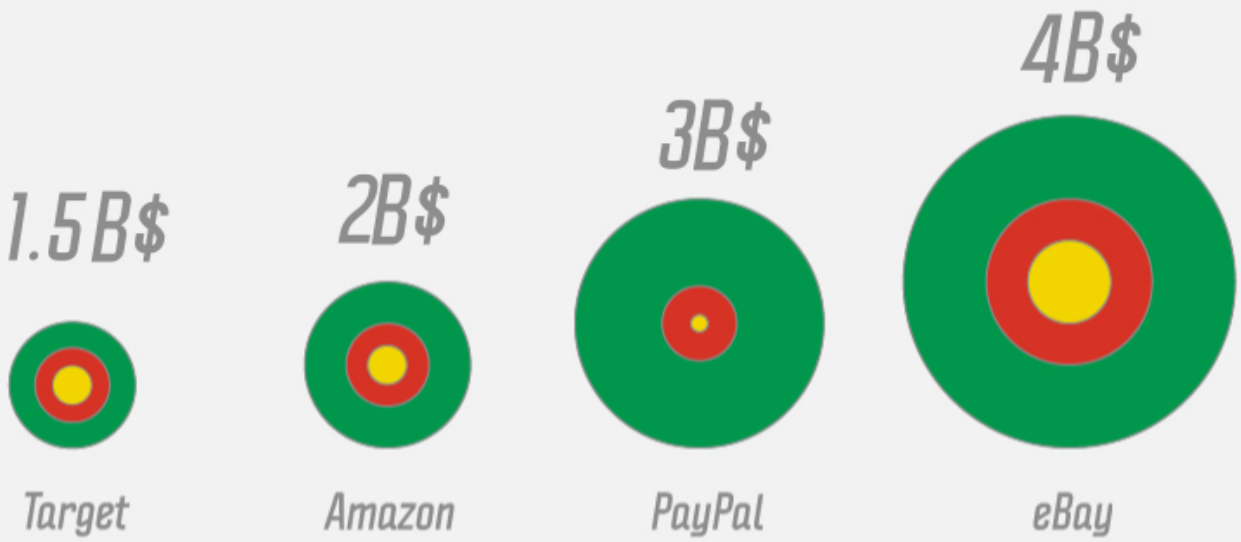

TIMELINE

SOURCE: eBay. Amazon.com, Target, Square, Mary Meeker

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REAL WORLD CASE STUDIES

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Data collection and experimentation

Real end user monitoring

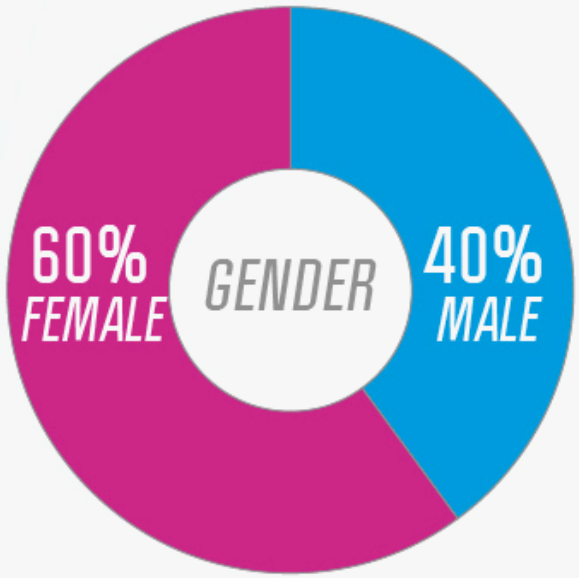
- Google Analytics
- Real end user monitoring
- Latency and bandwidth checks
- Experimentation platform
- Big data

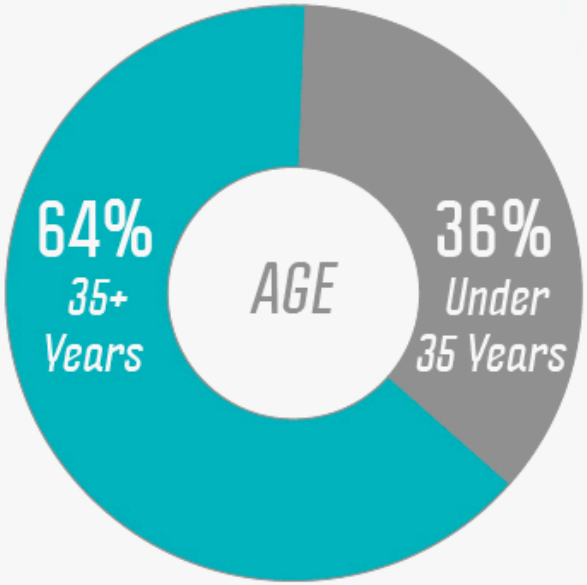
Retail customer

COMPANY BACKGROUND

- Top 200 Internet Retailer site
- US based
- Target geography: US and Europe
- $3 billion in revenue
- 30,000 employees

SHOPPER PROFILE





INCOME

62% Earn $72K+

SOURCE: Google Analytics and Real End User Monitoring

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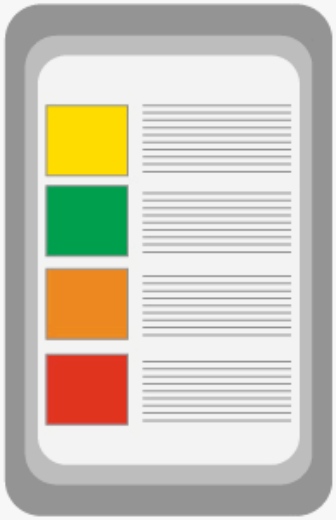
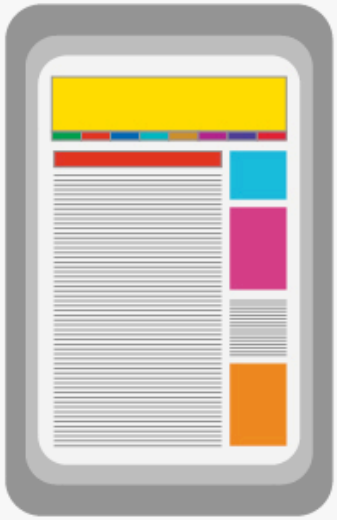
MOBILE PRESENCE



M.SITE



FULL SITE

APP

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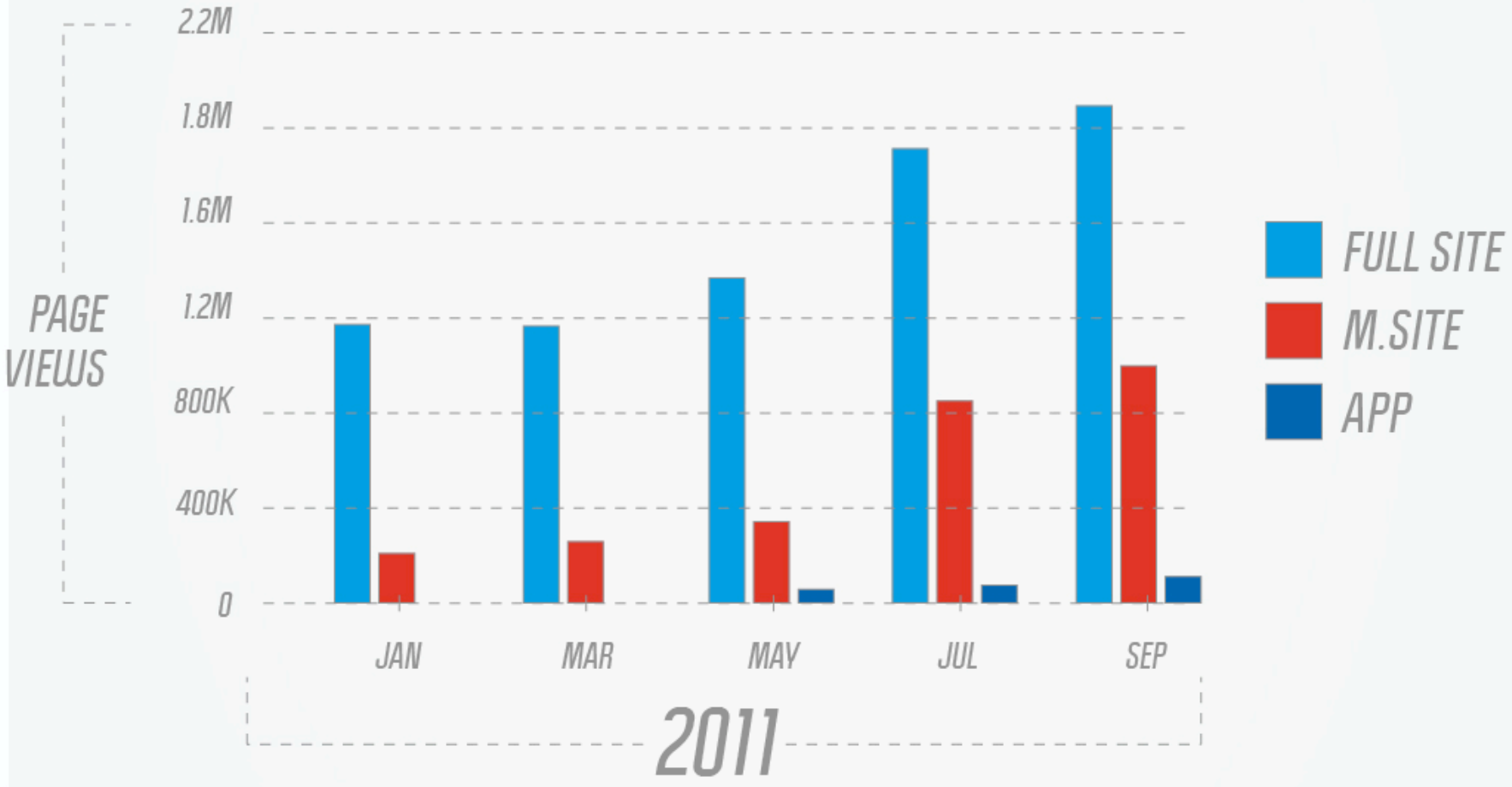
MOBILE TRAFFIC SOURCE



SOURCE: Google Analytics and Real End User Monitoring

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FOR EVERY $100 SPENT ONLINE

SOURCE: Google Analytics and Real End User Monitoring

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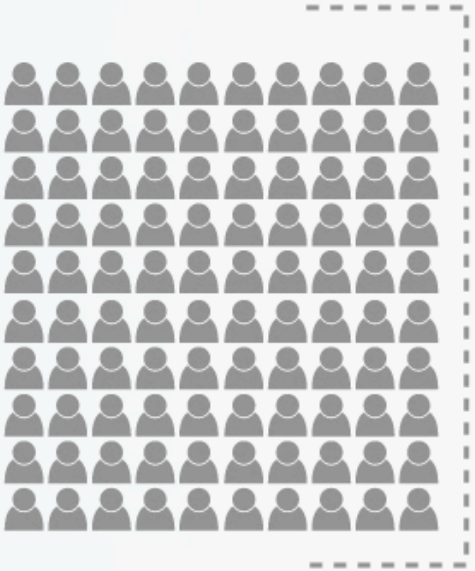
M.SITE TRAFFIC



FOR EVERY 100 SITE VISITORS

SOURCE: Google Analytics and Real End User Monitoring

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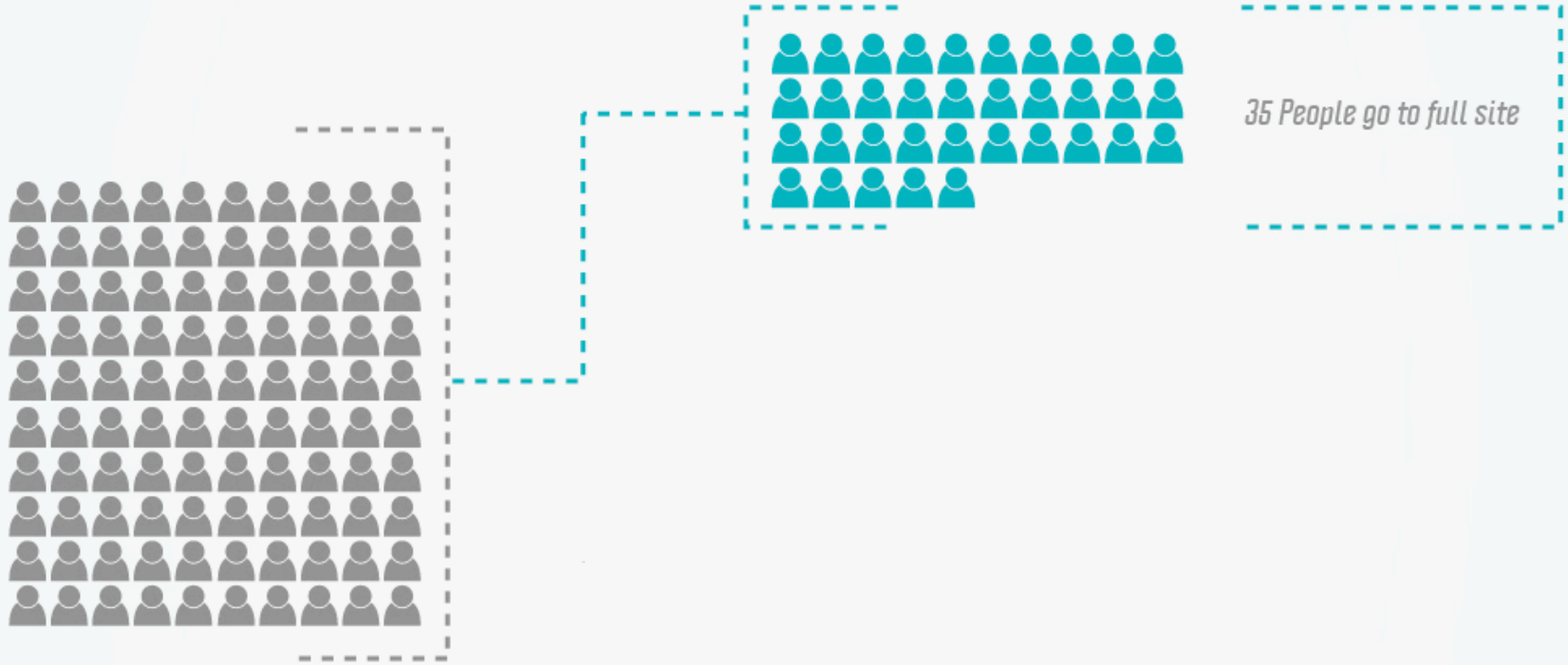
M.SITE TRAFFIC



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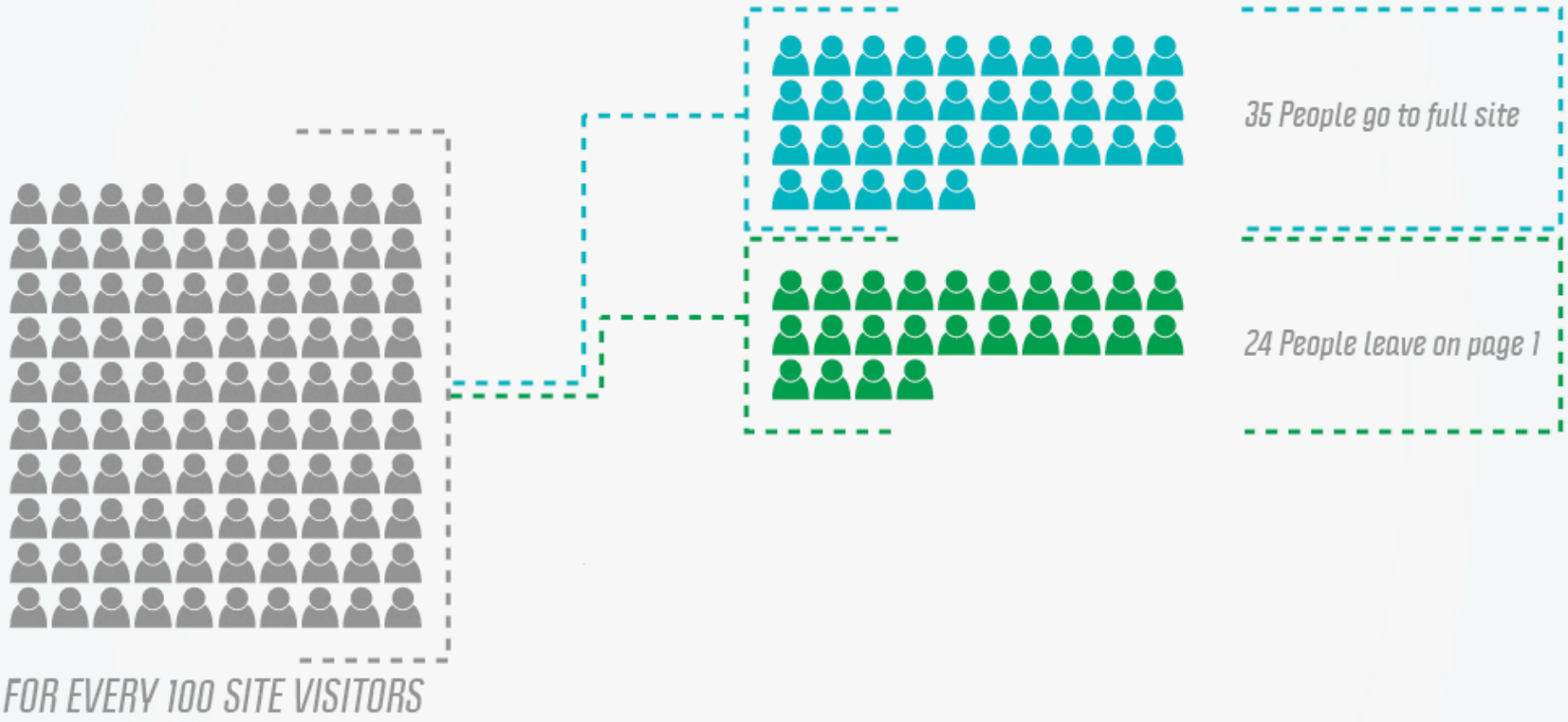

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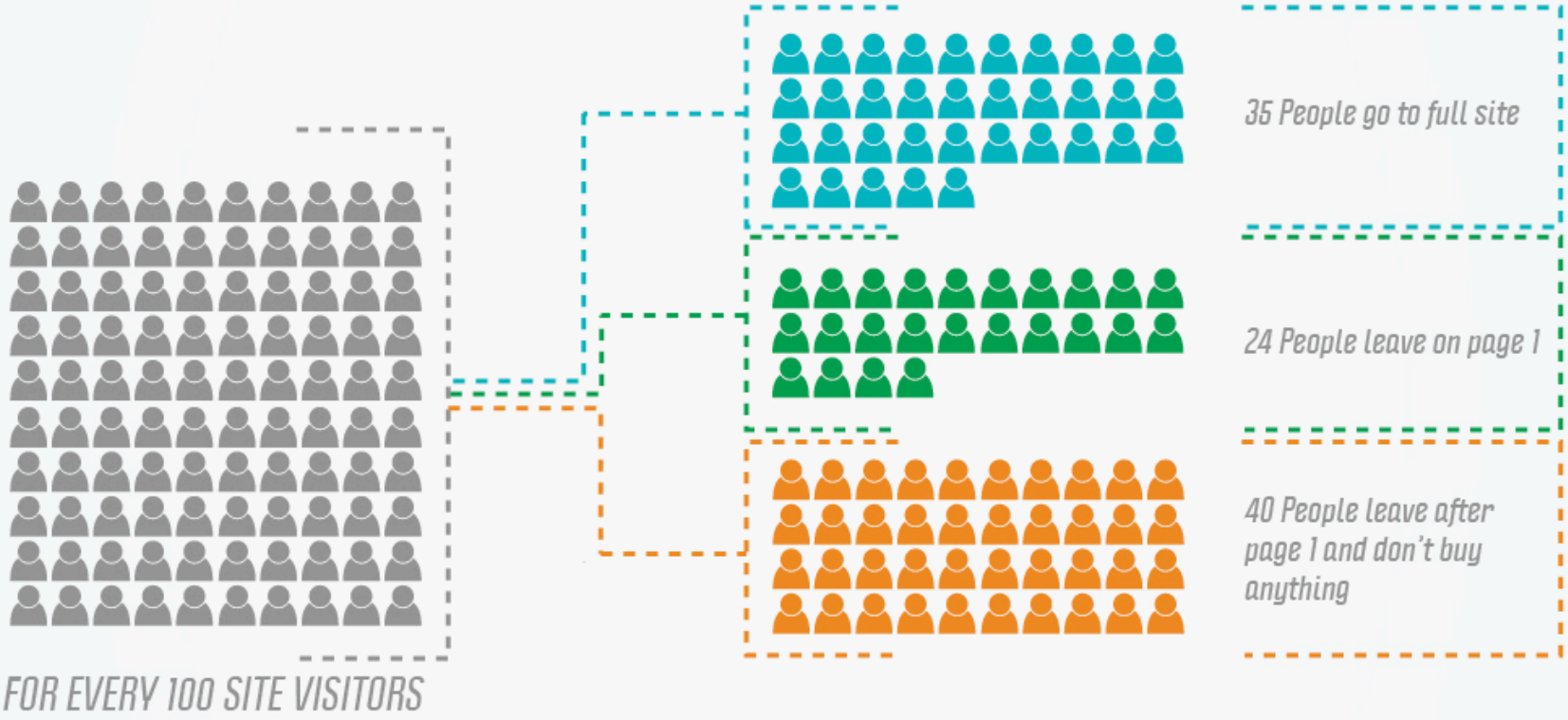

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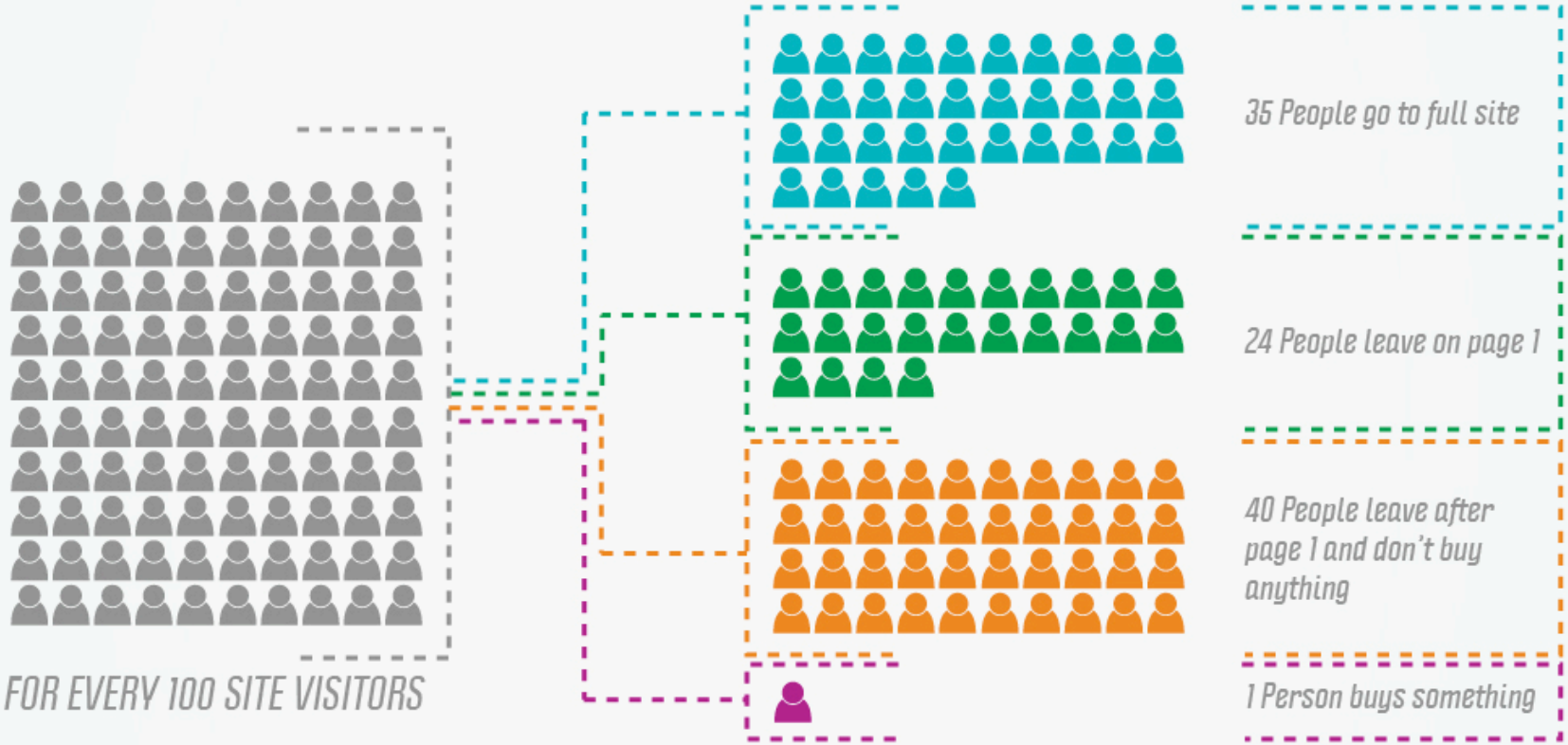

SOURCE: Google Analytics and Real End User Monitoring

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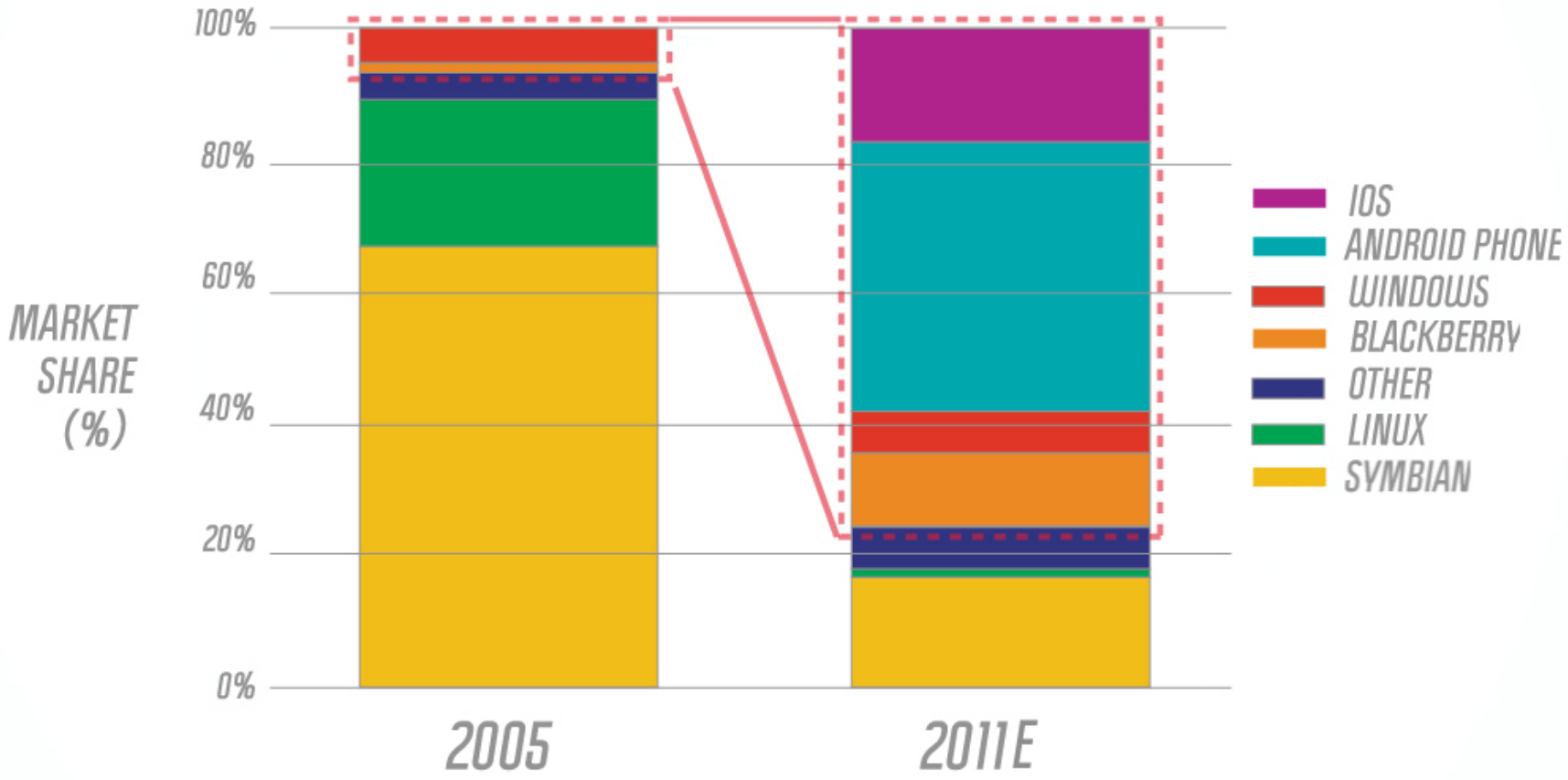
SMART PHONE OPERATING SYSTEM MARKET SHARE 2005 vs. 2011E



SOURCE: Morgan Stanley Research, Gartner, Mary Meeker

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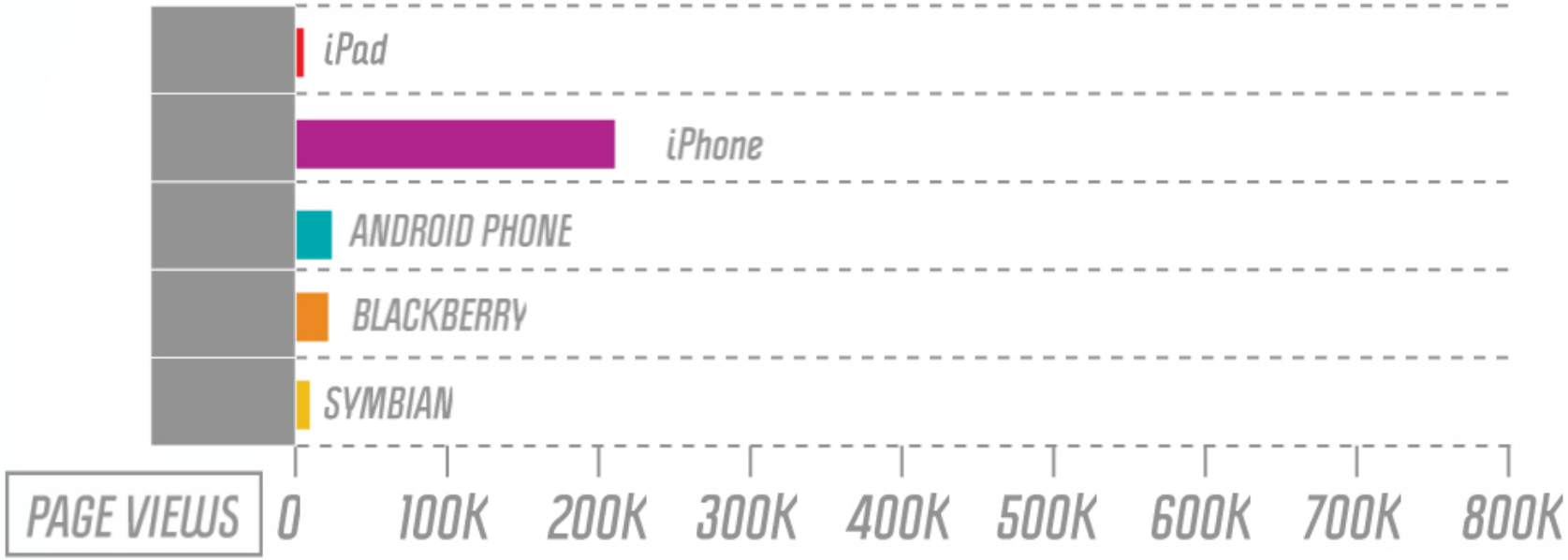
PAGE VIEWS BY MOBILE DEVICE

% of Total Page Views: 1.16%



TIMELINE

SOURCE: Google Analytics and Real End User Monitoring

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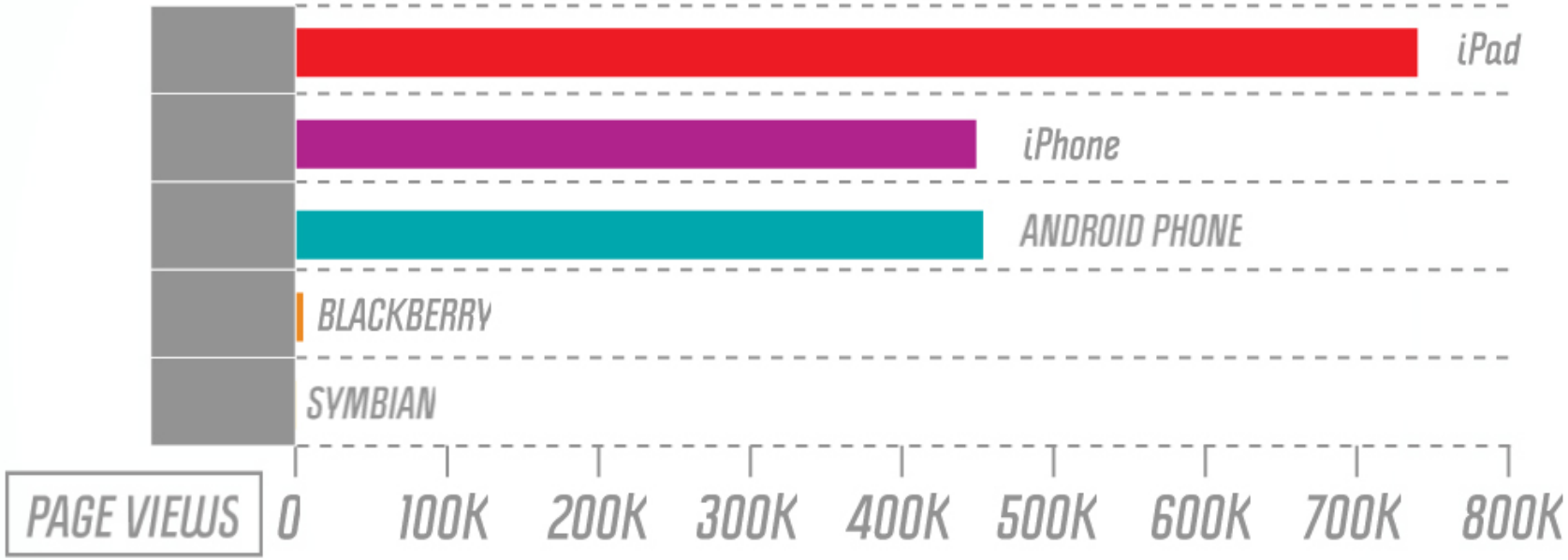
PAGE VIEWS BY MOBILE DEVICE

% of Total Page Views: 8.51%



TIMELINE

SOURCE: Google Analytics and Real End User Monitoring

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% PAGE VIEWS: CUSTOMER 1 - OCT 2011

	JS Based Analytics	Log Based Analytics
iPad	46.46%	44.47%
Android Phone	28.72%	28.28%
iPhone	24.26%	24.36%
Blackberry	0.52%	2.47%
Symbian	0.04%	0.43%

SOURCE: Google Analytics and Real End User Monitoring

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HTML DELAY EXPERIMENT

GOAL

- Determine impact of server delays

METHODOLOGY

- Delay before sending HTML page
- Different experiments with different delays
- Small % of traffic
- Monitor negative impact

SOURCE: ENTER SOURCE HERE

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HTML DELAY EXPERIMENT RESULTS

	BOUNCE RATE	CONVERSION RATE	CART SIZE	PAGE VIEWS
200 ms	—	—	—	-1.2%
500 ms	-4.7%	-1.9%	—	-5.7%
1000 ms	-8.3%	-3.5%	-2.1%	-9.4%

— NO SIGNIFICANT CHANGE

FINDINGS:

-Strong negative impacts

-Roughly linear changes with increasing delay

SOURCE: Google Analytics and Real End User Monitoring

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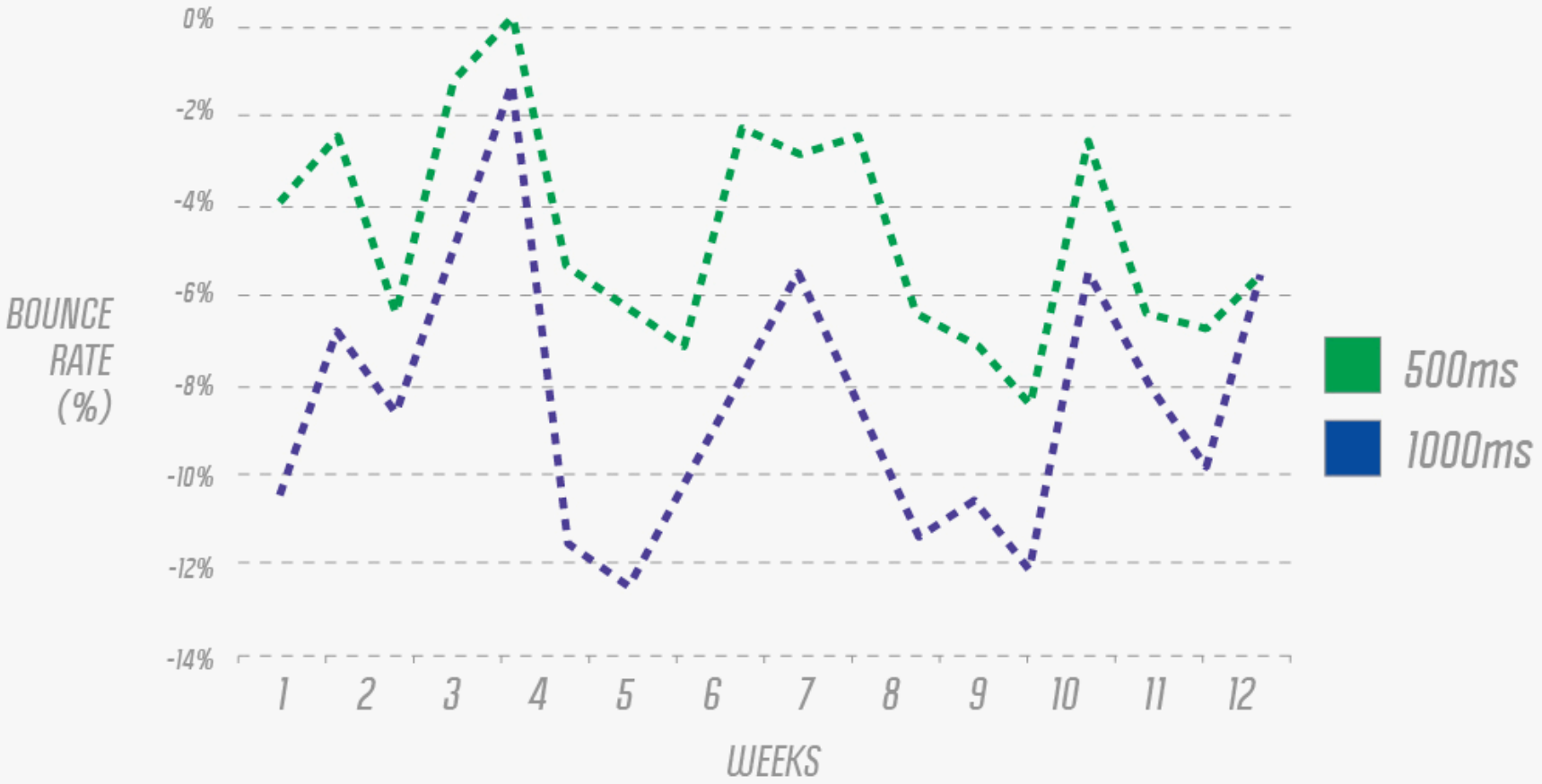
IMPACT OF HTML DELAY ON BOUNCE RATE



SOURCE: Google Analytics and Real End User Monitoring

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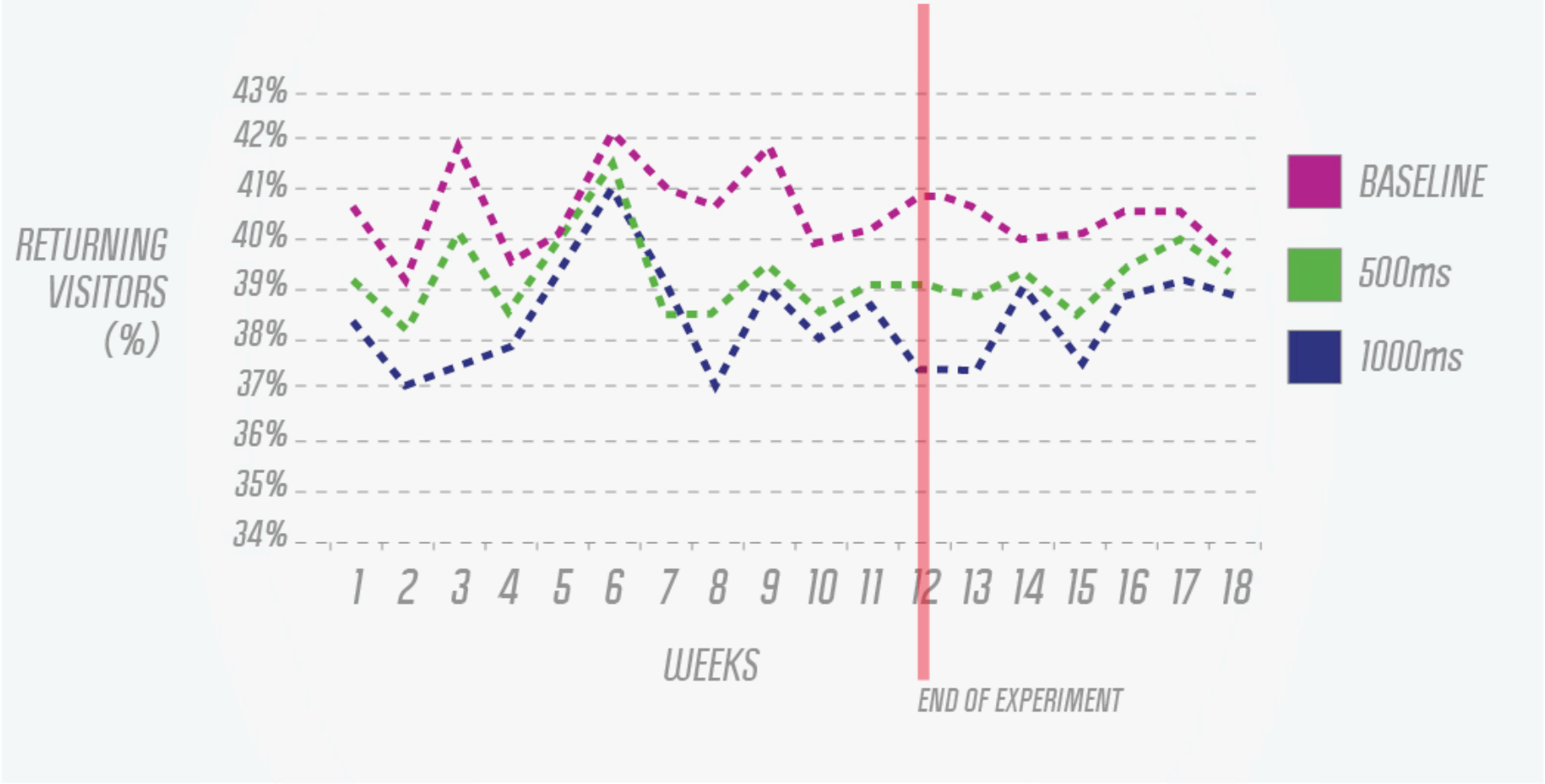
IMPACT OF DELAYS ON RETURNING VISITORS



SOURCE: Google Analytics and Real End User Monitoring

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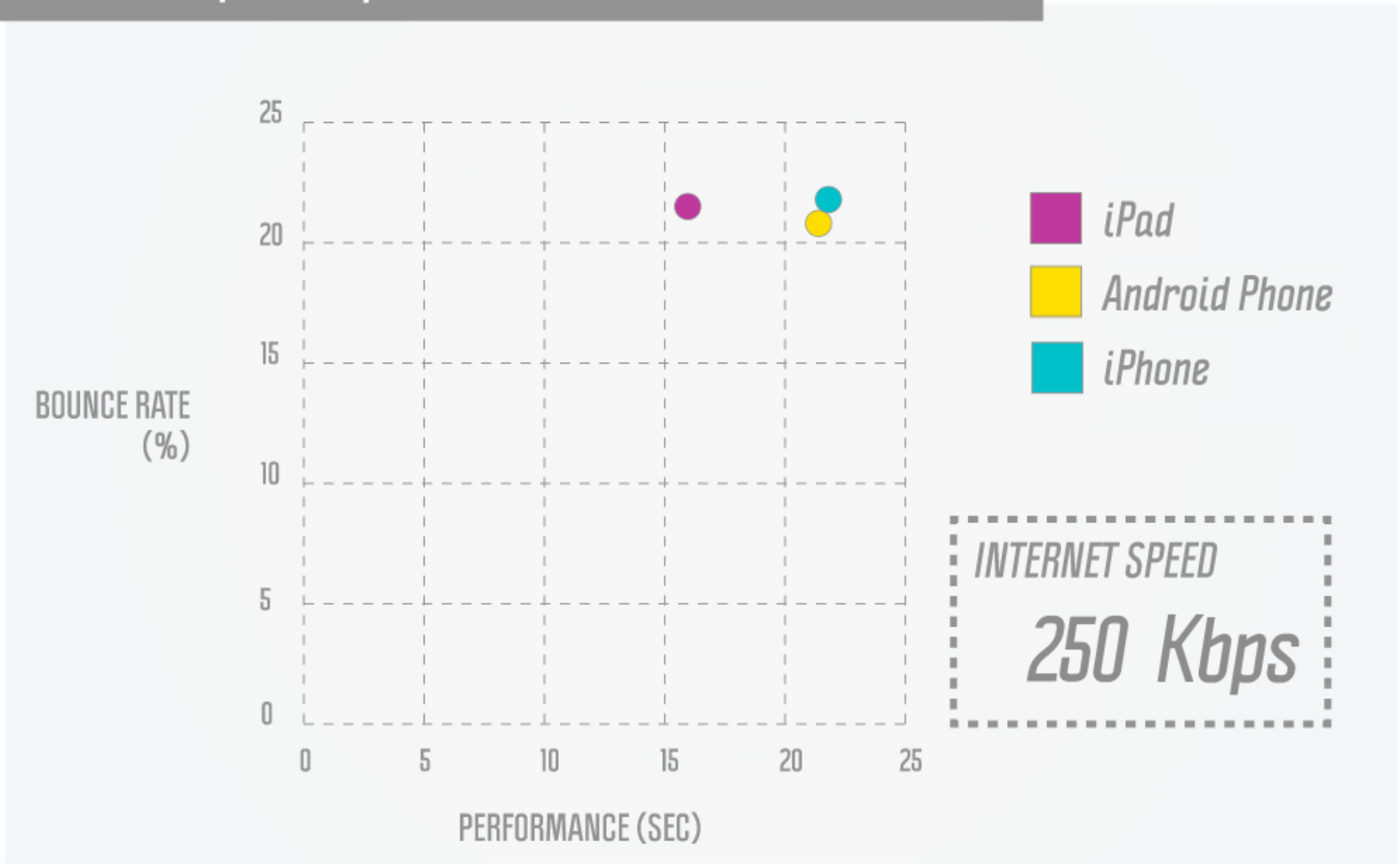
NETWORK QUALITY, PERFORMANCE AND BOUNCE RATE



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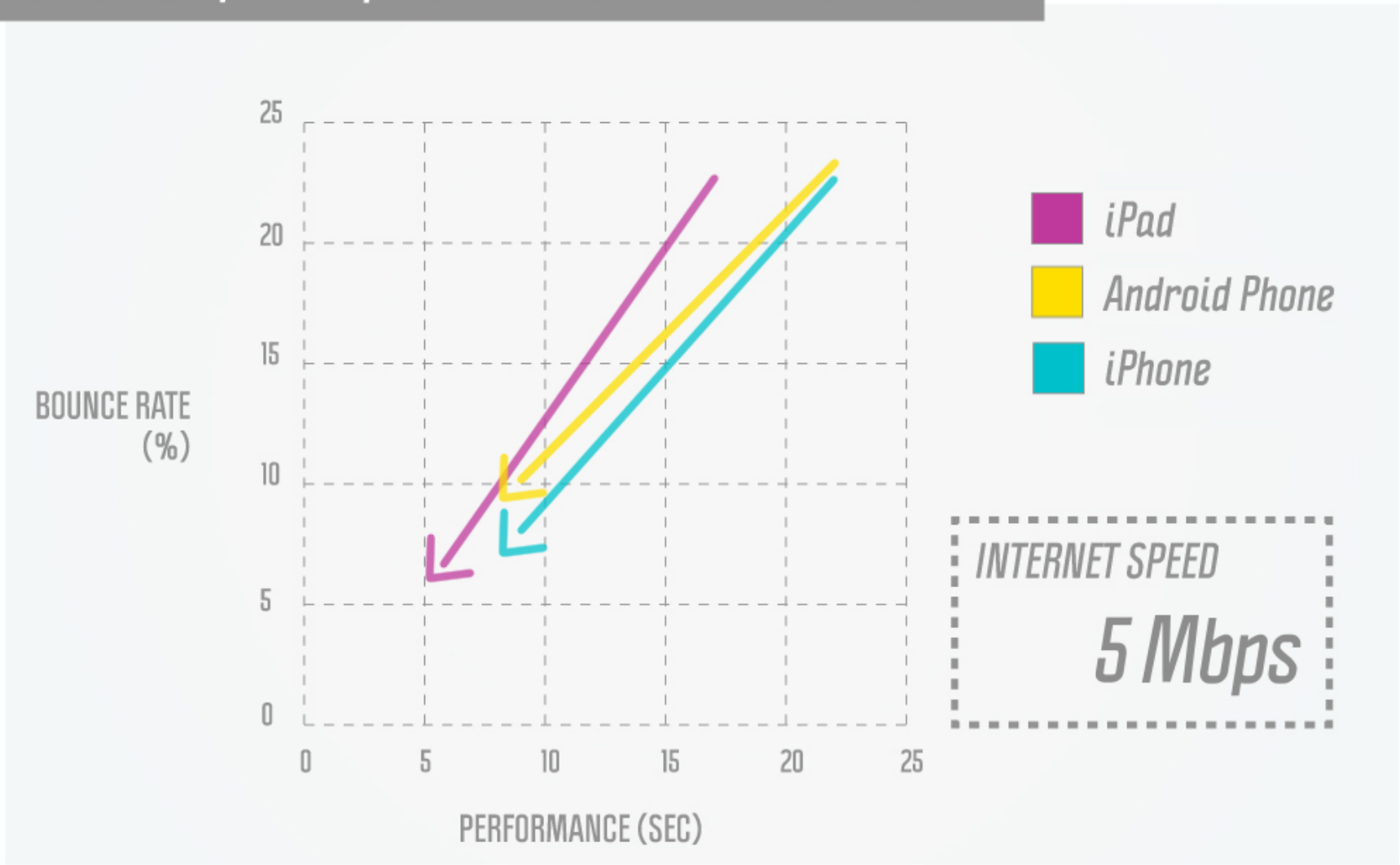

SOURCE: Google Analytics and Real End User Monitoring

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Enterprise Application

COMPANY BACKGROUND

- Extranet application: login required
- Task based
- US based
- Target geography: US, Europe, and Asia
- Application launched in 2011

SOURCE: ENTER SOURCE HERE

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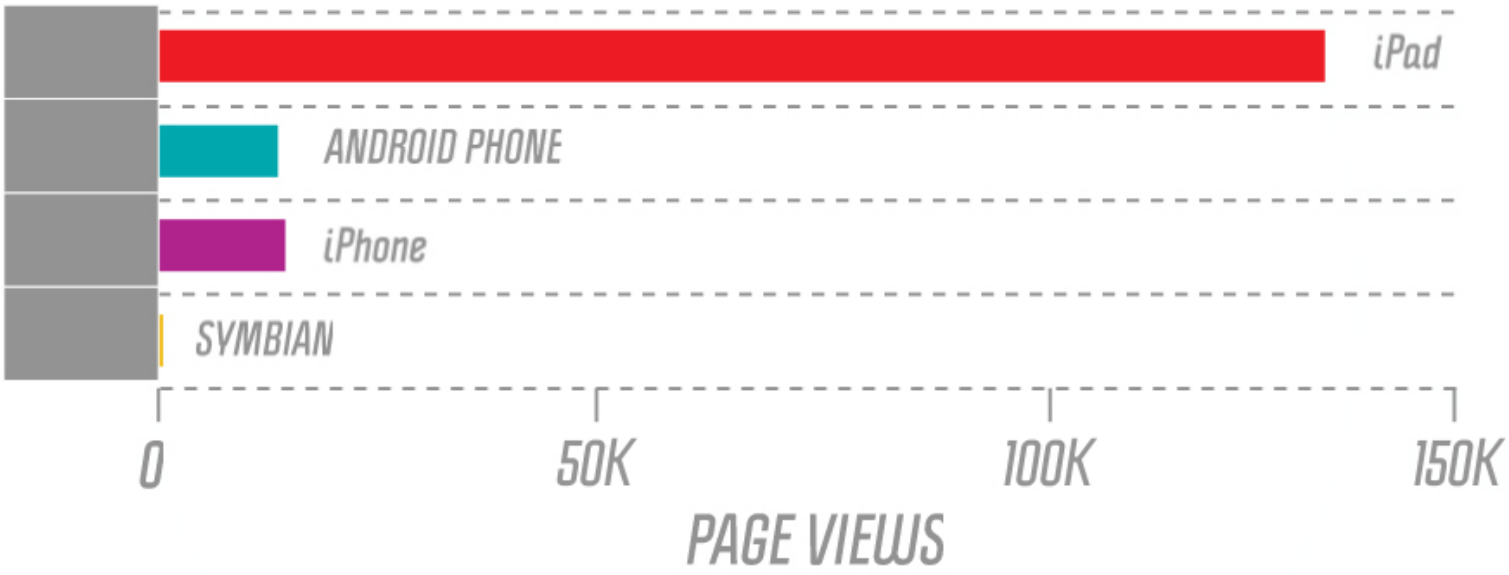
PAGE VIEWS BY MOBILE DEVICE



TIMELINE: 2011

SOURCE: Google Analytics and Real End User Monitoring

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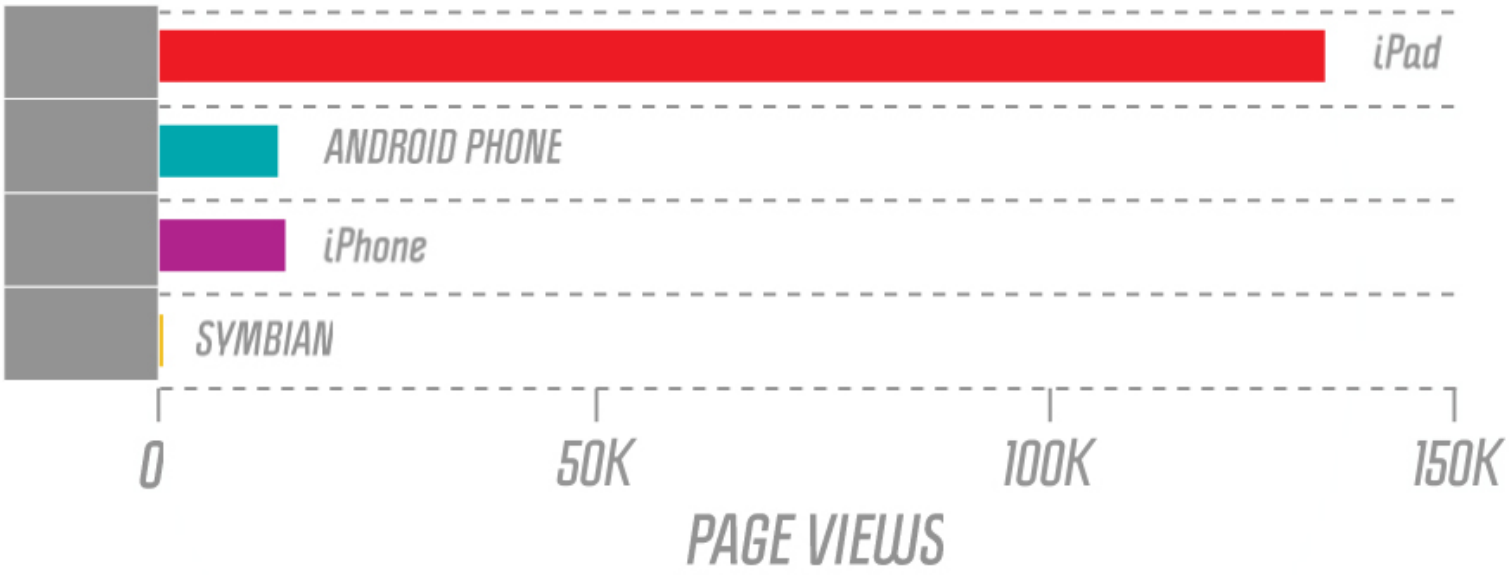

TIMELINE: 2011

SOURCE: Google Analytics and Real End User Monitoring

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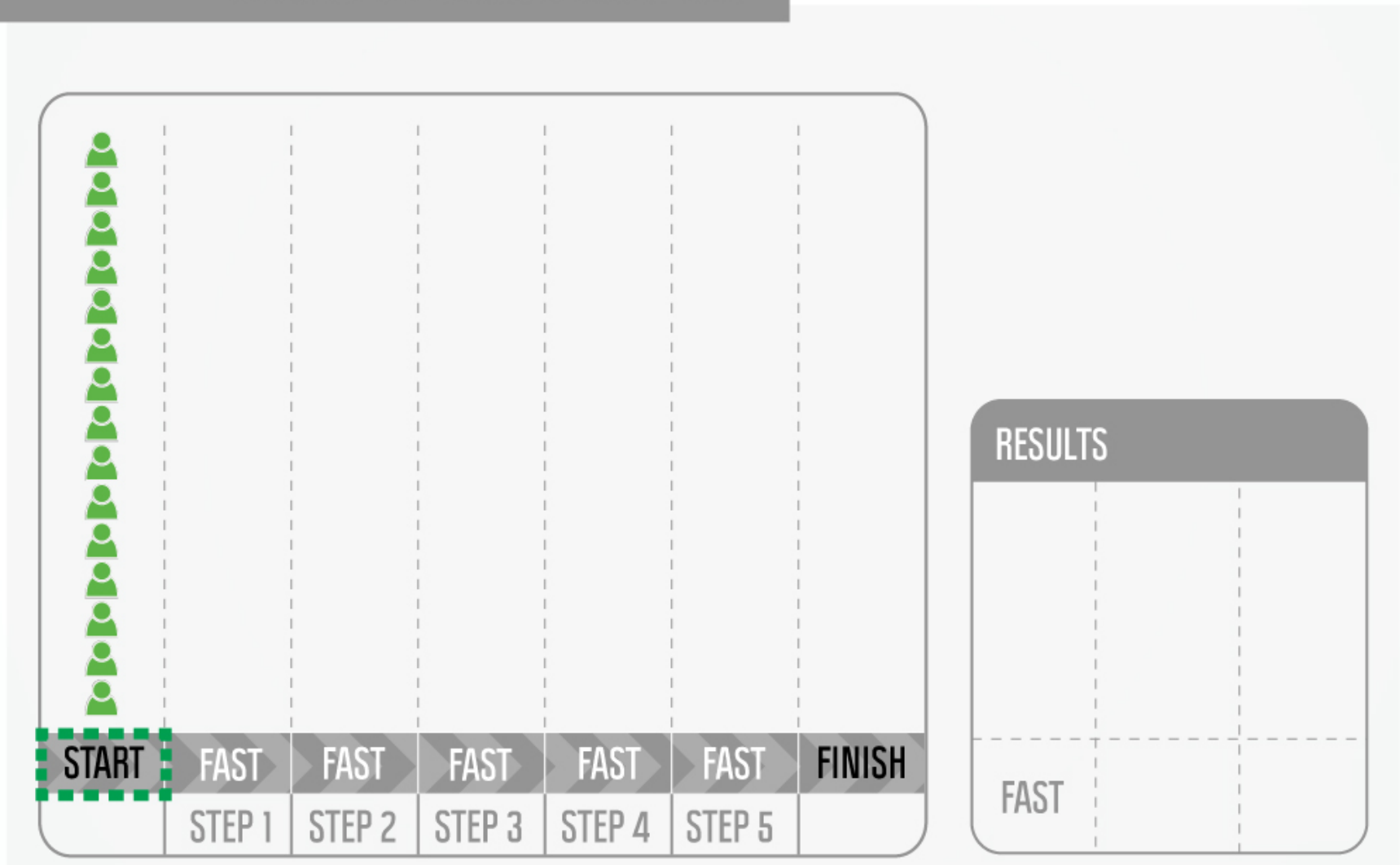
BOUNCE RATE ACROSS FLOW



SOURCE: Google Analytics and Real End User Monitoring

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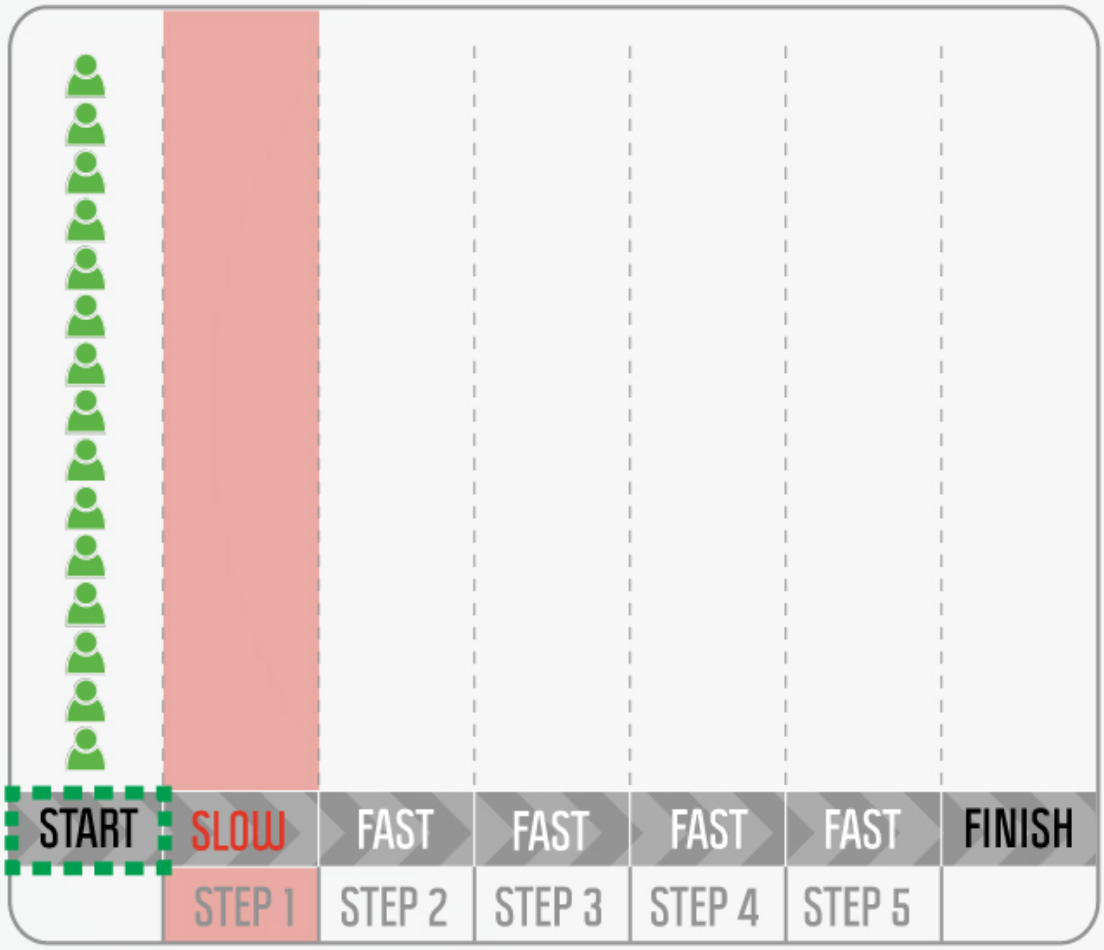

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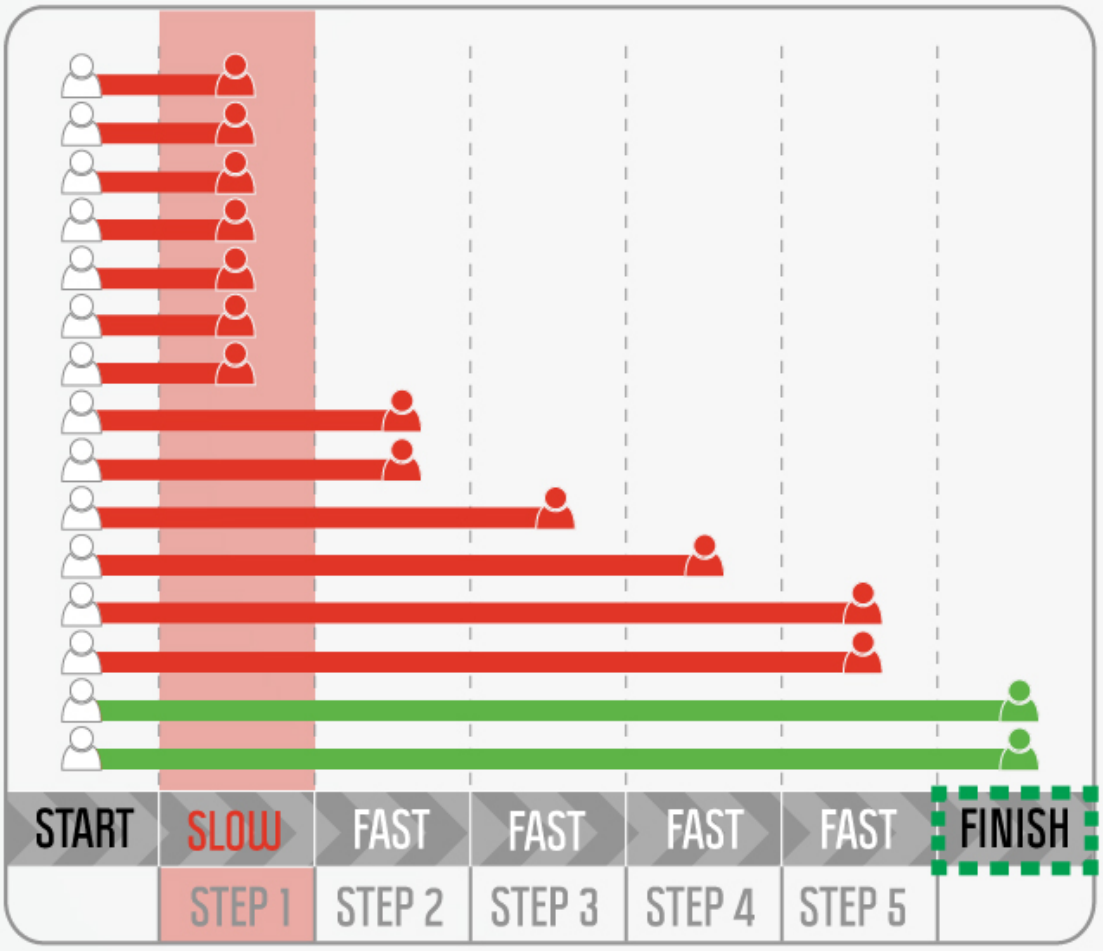

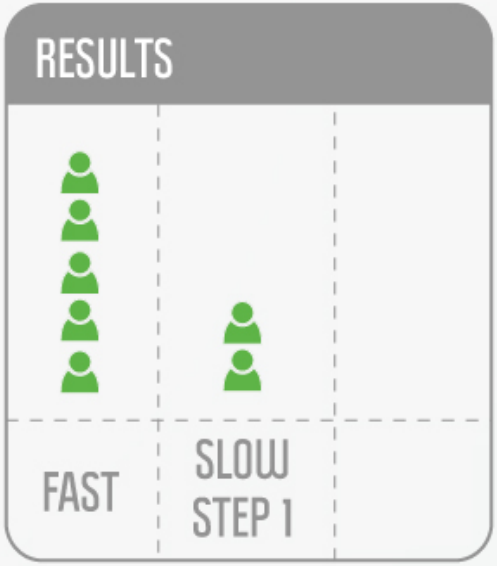

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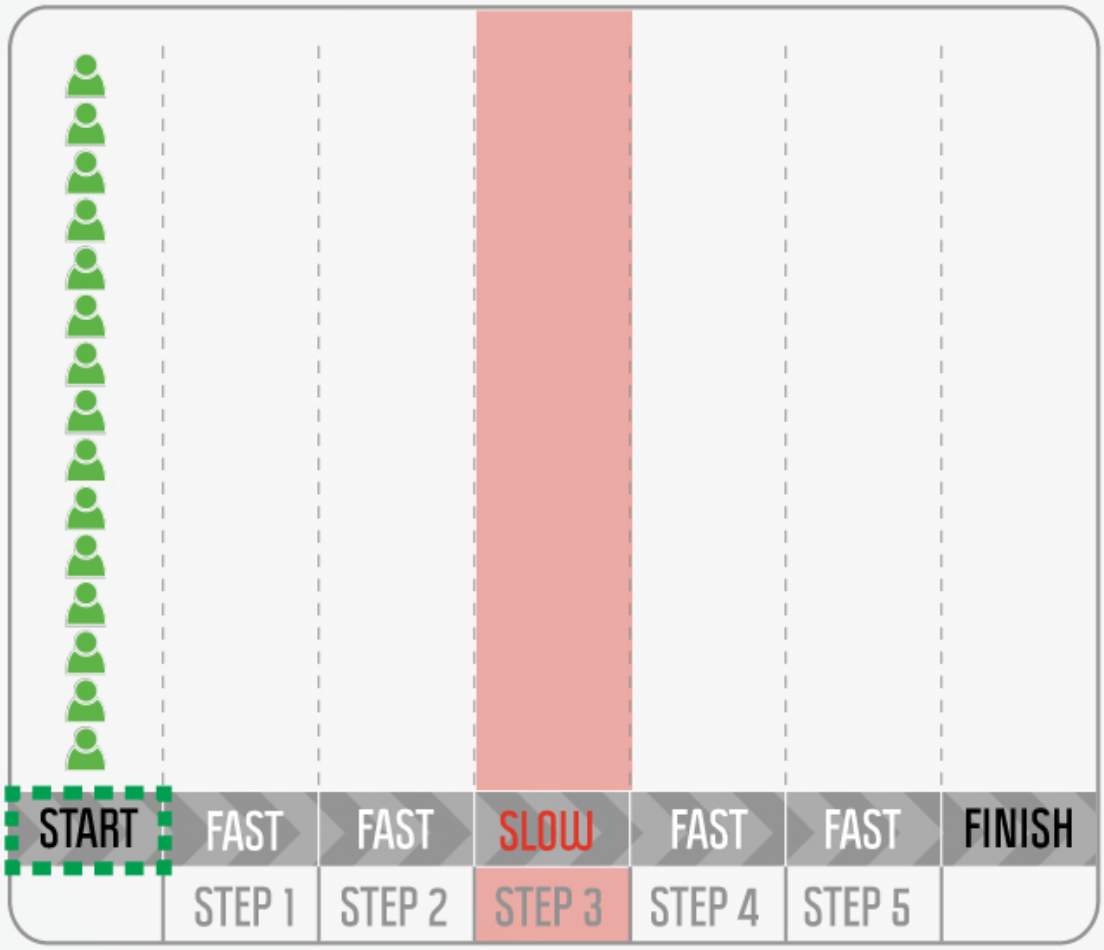

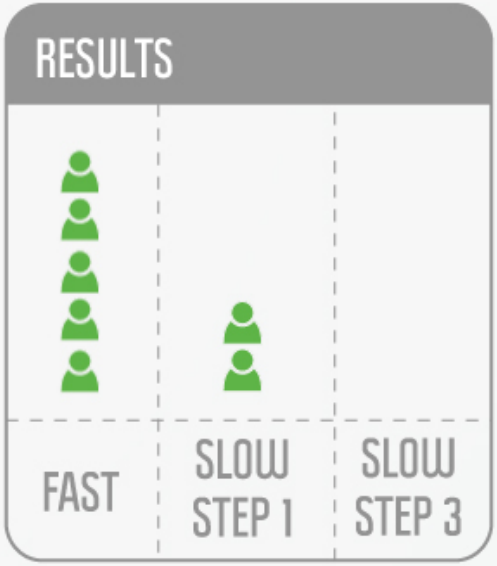

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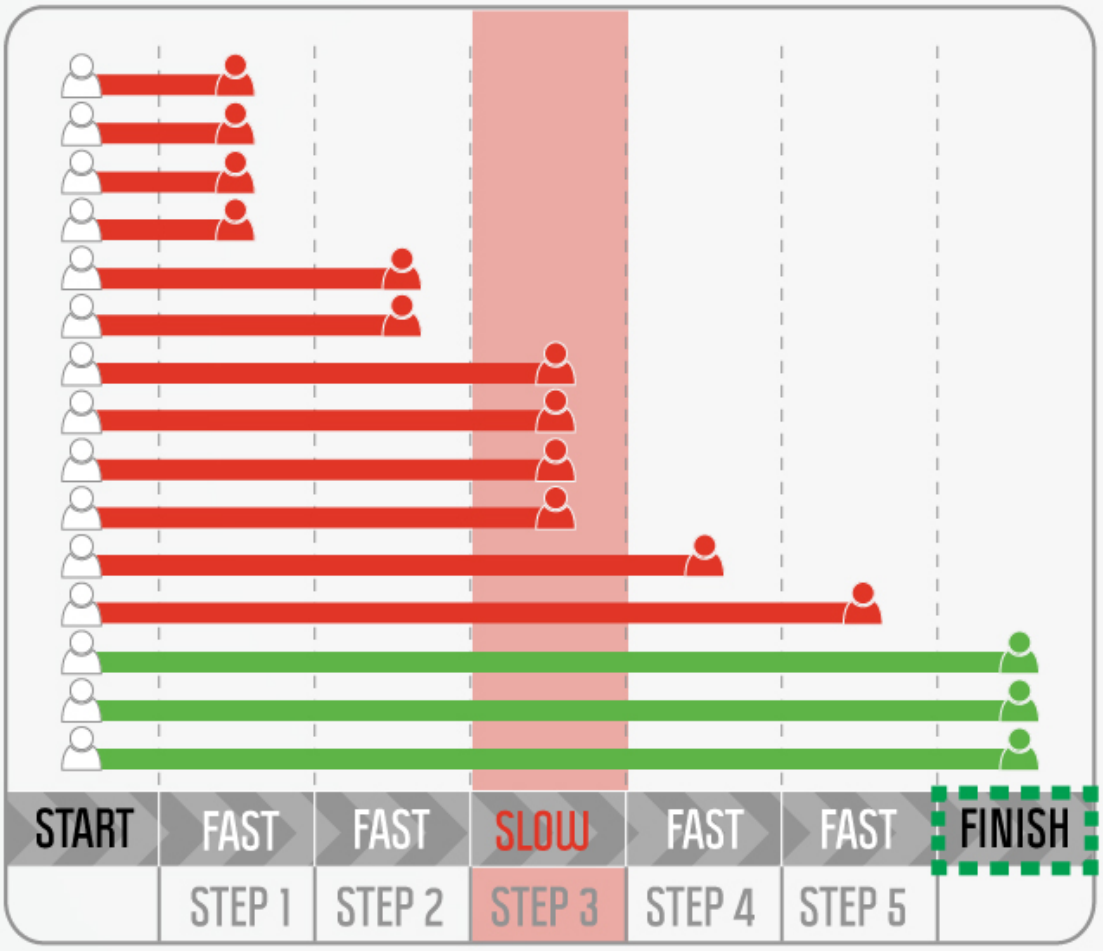

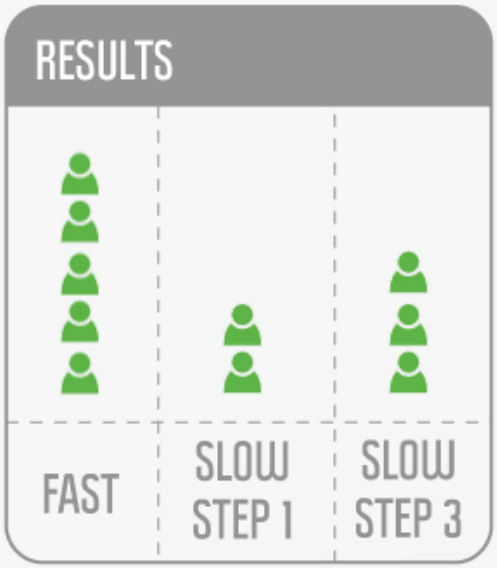

SOURCE: Google Analytics and Real End User Monitoring

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OBSERVATIONS

- Smartphones have hit the tipping point
- Apps only apply to specific sites
- Users don’t want m.sites
- Mobile speed = Revenue

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MEASURE YOUR MOBILE PERFORMANCE

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