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Analyzing The Value Of Responsive Web Design Can Be Messy

by Mark Grannan, June 6, 2014

KEY TAKEAWAYS

ROI Analysis For RWD Investment Is Blurred By Broader Digital Investments

RWD investments become blurry when additional background research, foundational technology investments, and net-new digital capabilities compound your organization's digital investments. If you aren't adding new web channel support (e.g., smartphone) in this environment, attributing an uptick in customer conversion rates to RWD is nearly impossible.

Gather The Right Data With Forrester's Mobile Measurement Framework

Forrester's mobile app measurement -- also applicable to mobile Web -- provides a foundation to measure mobile web metrics over time and across three categories: 1) technical, 2) engagement, 3) business, which should satisfy the entire spectrum of stakeholders.

Communicate The One-Web Message; And Our TEI Methodology If You Must Show ROI

Value varies for each RWD initiative, and due to the inherent complexity of digital experience delivery, Forrester recommends using the one-web message to frame the philosophical and practical benefits of a RWD approach. If you must show ROI, Forrester's TEI methodology provides a robust way to showcase the future benefits of RWD.



Analyzing The Value Of Responsive Web Design Can Be Messy

by Mark Grannan
with Stephen Powers, Jeffrey S. Hammond, Peter Sheldon, and Steven Kesler

WHY READ THIS REPORT

Digital experience leaders turn to responsive web design (RWD) to meet their customer's rapidly-growing multidevice demands. Unfortunately, RWD takes longer than traditional desktop design-development, responsive development skills command a higher wage, and older digital delivery systems (e.g., web content management [WCM]) don't always natively support responsive templates and workflows. Given the higher costs, budget holders are pushing RWD leaders to prove value and return on investment (ROI). This report discusses the strategies digital experience leaders need to embrace to show value via a "one-web" message.

Table Of Contents

2 **ROI Analysis Is A Tangled Mess In A Red-Hot Digital Landscape**

3 **Focus On Value Measurement And Communication**

Gather The Right Data: Use Forrester's Mobile Measurement Framework

No Clear-Cut Business Impacts Yet? Communicate The "One Web" Message

Can't Escape ROI? Use Forrester's TEI Methodology To Factor In Future Benefits

WHAT IT MEANS

10 **The Long View: RWD Is The Cost Of Business In A Multidevice World**

10 **Supplemental Material**

Notes & Resources

Forrester interviewed three vendor and user companies, including McGladrey, Razorfish, and USG.

Related Research Documents

Six Responsive Website Project Pitfalls And The Best Practices For How To Avoid Them
January 16, 2014

Measuring Mobile Apps
November 18, 2013

More Than Hype: Determining When To Use Responsive Web Design
November 13, 2013

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ROI ANALYSIS IS A TANGLED MESS IN A RED-HOT DIGITAL LANDSCAPE

Forrester has heard from AD&D leaders and their agency partners that responsive web design (RWD) takes between 20% to 50% longer (some outliers ranged up to 250% longer) than traditional desktop web design efforts. However, due to today's red-hot digital climate and RWD's complex nature, additional costs muddy the waters for ROI analysis. Specifically, this is because:

- **Journey mapping and content audits can add weeks or months up front.** If your website or content strategy was never built to handle more than a desktop use case, you should take steps to understand your customer's needs across multiple devices. If your organization needs this level-set, then plan for weeks or months of additional consulting resources and corresponding internal stakeholders and budget holders. All told, the content and CX house-cleaning step can easily cost your company six figures.

- **Delivery system replatforming and architecture can cost millions.** Enterprises may need to invest in a new middleware, API management system, or enterprise service bus (ESB) to enable greater systemwide flexibility and scalability to handle mobile requirements.[1] However, many organizations must also invest in web content management or eCommerce engines in order to support responsive workflows internally and responsive websites to end users, which can easily hit $500,000 in licensing costs and a comparable sum in implementation costs.[2]

- **RWD expertise is hard to find and commands higher pay.** If you plan to develop your RWD site in-house then you must ask yourself the following question: Are our existing creative designers and front-end developers up to the job? The likely answer is no, but you can't simply lay off and replace these resources with RWD ninjas — and if you could, they may command a higher salary due to limited supply of experienced developers. Factor in the training costs required to re-skill your existing resources with RWD, as well as budget for outside consultants or agency staff that are necessary to bootstrap your internal capabilities.

- **Development costs go through the roof if development includes net-new capabilities.** Personalization, social-depth, and real-time analytics are just a few of the emerging investments that organizations are embracing. Each new capability carries a price tag and some also command a lengthy integration cycle. The cost for these capabilities easily stretches into the millions of dollars.

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FOCUS ON VALUE MEASUREMENT AND COMMUNICATION

So the question becomes: how do you attribute our increased traffic, conversions, or revenue to a single philosophy investment like RWD? The realistic answer: you don't. Instead, recognize that RWD is a facet of the overall shift to digital business operations and multichannel customer experience, while you focus on driving the most value for your customers and your organization. Lisa Schmitt Collins, digital solutions strategist at USG, told us that her team actually benefitted from this broader mandate because the only near-term metric they needed to see was a rise in mobile device traffic. In the long term, her team's efforts, along with their partners at Pricewaterhouse Coopers, contribute to a sales process overhaul, new eCommerce initiatives, and overall digital business transformation.

"Value" is a nebulous term. Your value metrics will vary based on customer experience mandates, and you won't always know what to measure from the outset. For example, a services firm drives sales leads from digital touchpoints and uses indirect metrics like traffic volume, while a consumer brand may see direct, top-line growth from increased sales on web channels, especially previously unsupported channels such as smartphones and tablets.

As a first step, align your measurement and monitoring capabilities against the business strategy, but if you don't know where to start use Forester's framework. However, before you begin your measurement efforts, understand that this must not happen in a vacuum. Your next step — once you have concrete goals and data — must include communication. Razorfish told us that one of their enterprise manufacturing clients was able to reduce their campaign cycle time from six weeks to four weeks after pivoting to RWD — a 33% decrease! Armed with that win, they were able to maintain executive support to drive further investment in their digital marketing capabilities.

Gather The Right Data: Use Forrester's Mobile Measurement Framework

You must set expectations regarding the relevant business impacts your site launch will drive (see Figure 1). However, scattershot metrics tracking based on scope will not satisfy all of your stakeholders. Mobile app measurement overlaps heavily with mobile web measurement. Forrester recommends starting mobile measurement with historical monitoring (e.g., page views by device type and resolution) data to uncover problems that arise over time (e.g., performance issues for specific browsers), and consequently gain more support from other stakeholders to gather more and better information.[3]

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Ken Foster, director of digital media at McGladrey, told Forrester that his team and digital partners at Siteworx started focusing on technical first, then engagement metrics over time. After their new responsive site launched, they quickly saw their mobile traffic climb. While this movement reaffirmed their investment, "value" started to come into focus when content consumption (e.g., time on site, pages visited) rose by 50% for mobile users. They realized that the majority of online ad driven traffic is on mobile devices, which makes their marketing advertising budget pack a bigger punch without any additional investment.

As your organization's maturity increases, focus increasingly on real time metrics, balanced across three categories of stakeholder interests including: 1) technical metrics that allow you to monitor website functionality and performance; 2) engagement metrics that reveal your customer's brand-awareness, loyalty, usage, and satisfaction; and 3) business metrics that showcase your website's impact on revenue and cost savings (see Figure 2).

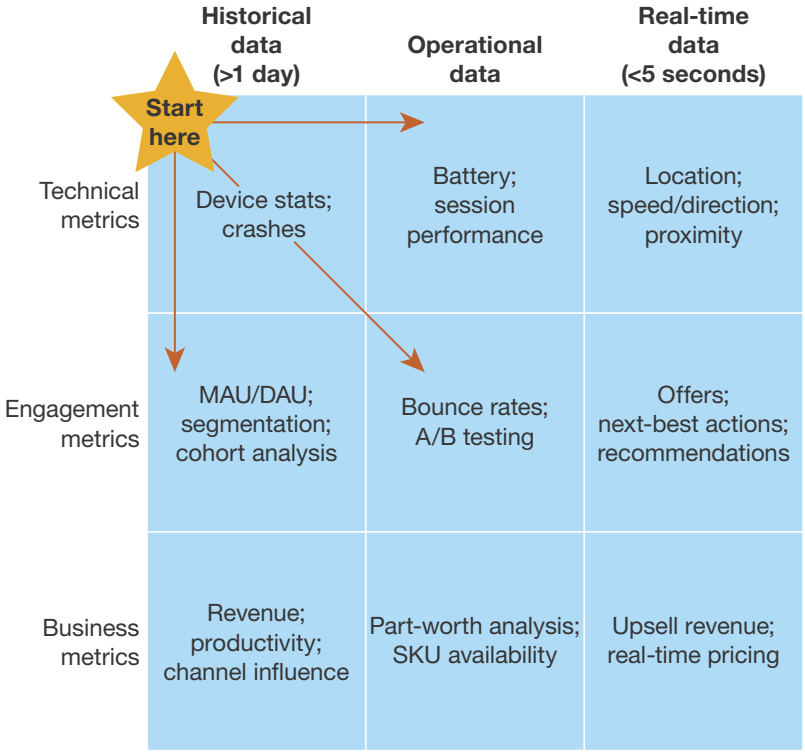
Figure 1 Matching Business Value Metrics To Development Scope

Page functionality	Relevant business value metrics
Home page	• Site traffic • Time on site
Landing page	• Campaign effectiveness • Click-through rate
Product pages	• Visit/consideration • Time on site • Visit/order • Average order size
Shopping cart/checkout	Shopping cart abandonment
Social depth	• Product ratings/site feedback • Recommendations
Sign-up/log-in/profile management	• Renewal rates • Visitor/customer conversion
Customer support	Reduced contact center load

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Figure 2 Forrester's Mobile Metrics Framework



Source: November 18, 2013, "Measuring Mobile Apps" Forrester report

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No Clear-Cut Business Impacts Yet? Communicate The "One Web" Message

Perhaps the most well-known, well-established RWD example is the Boston Globe.[4] As Damon Kiesow, senior product manager for mobile, told Forrester in Q4, 2013, RWD allows the Globe to embrace the one-web mantra: "One code base, one workflow, one everything . . . there is no false demarcation between desktop and mobile for everything from staffing to processes to web content management systems."

Don't try to paint a completely rosy portrait of RWD — skeptics will simply see through the one-web message. The easiest way to overcome this weakness of one-web is to admit your growing pains. A senior digital experience executive at a services firm told Forrester that "because our site is more complex now — spanning across five breakpoints — we're working diligently to ensure the experience remains intact as we make changes. One misstep in our global navigation menus could ripple across breakpoints such that our QA and regression testing multiplies." Forrester believes that systems, processes, and skills will mature in the next 18 months, but in the meantime, it's okay to

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admit RWD may stifle your perceived agility over the short term. Furthermore, beware that metrics may take a temporary downward trajectory post launch. The transition period could be painful as consumers get a handle on the new experience, site map and redirect errors are corrected, and web crawlers index the new content.[5] RWD project owners should communicate this possibility to stakeholders to avoid knee-jerk "rollback" reactions in the days after launch.

The one-web message is more than kicking the ROI can down the road. One-web is valuable for both philosophical and practical reasons. Philosophically, your digital experience efforts are constantly being pulled in different directions. The one-web message will frame the RWD question in the appropriate light: If our customers are expecting a coherent experience across touchpoints, why are we siloing efforts by a narrow device category definition? Practically, one-web reinforces the needs for unified systems, processes, and teams that drive real-world cost savings and digital business efficiencies.

Can't Escape ROI? Use Forrester's TEI Methodology To Factor In Future Benefits

If your organization simply demands a cost/benefit analysis, then your team should leverage Forrester's Total Economic Impact (TEI) methodology. The TEI framework transparently showcases costs and benefits, factors in risk (based on your confidence of data assumptions), and accounts for future benefits based on the flexibility that your new RWD core provides.[6] Leverage Forrester's sample metrics across the TEI framework to make all of the appropriate calculations and assumptions to build your TEI analysis (see Figure 3). Based on our conversations with large organizations and service providers that are leading responsive web projects, future projects are easier with a global/international and responsive foundation in place. For example, Mandarin Oriental worked with their Siteworx partners to build responsive content for use beyond the website in a new responsive digital magazine for tablet consumption in their hotel properties.

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Figure 3 Sample RWD Benefits, Costs, Risks, And Future Options For TEI Analysis

3-1 | Sample benefits of RWD

Benefit	Explanation	Sample calculations
Revenue	Top-line growth stemming from increases in site traffic and engagement leading to higher conversions and order size	{Site traffic (delta) * active visitor % * lead conversion % * average order value} = increased revenue
User productivity	• Decrease in contact center resources needed due to increased web self-service. • Content creators time saved due to streamlined template • Increased future web design/ development cycle times • Streamlined web development staffing/management	{Contact center FTE wage/hr.*average call length (hrs)*average number of calls/ year(delta)} + {development hours per release (delta)*developer wage/hour* release/year} + {content creator wage/hr* content creation hours annually(delta)} = annual labor savings
Capital efficiency	• Visit/consideration • Time on site • Visit/order • Average order size	{Mobile-only systems cost licensing, hosting/year}= Avoided systems costs

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Figure 3 Sample RWD Benefits, Costs, Risks, And Future Options For TEI Analysis (Cont.)

3-2 | Sample costs of RWD

Benefit	Explanation	Sample calculations
Planning and design	• Internal time for design meetings • Costs of design/planning tools • External costs for consulting/ advisory and design/development services.	{(LoB leader salary + marketing leader salary + technical lead salary) * (# of days on design/development/280 working days)} + {blended external T&M/hour rate * number of consultants/developers * length of planning/design phase in days} + {prototyping tool annual costs} = one time planning/design costs
Implementation	• Potential pew systems costs (e.g., WCM, CDN service) • Internal time for development • External services for development/ deployment • Testing systems/services	{WCM implementation @ 1.5x annual licensing fees} + {web development salary @1.5x for skilled responsive hires * # FTE's for development * length of development (in years)} + {external development services} + {external testing services costs} = one-time deployment costs
Operations	• Ongoing license fees • Ongoing web server maintenance/ hosting fees • Translation/localization fees	{web server license costs/year} + {CDN and localization cost per region/country * number of countries/regions} = annual operations costs
Maintenance and modifications	Incremental upgrade costs	{# of releases per year * development salaries or T&M/release} = annual upgrade costs

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Figure 3 Sample RWD Benefits, Costs, Risks, And Future Options For TEI Analysis (Cont.)

3-3 Sample risk categories of RWD

Risk categories	Typical impacts
Implementation risk	• Cost or time estimates are incomplete or optimistic. For an initial RWD project, Forrester has consistently heard anywhere from 50-200% increase over a desktop-only project. • Expected infrastructure proves to be inadequate as planned. Additional systems investment could become necessary to launch your responsive site. • Technical snags drive up project costs. Additional external development expertise will become necessary to overcome
Impact risk	• Project fails to deliver expected benefits, such as traffic declines due to SEO or performance snags. • Users fail to change behavior, such as diverting from more expensive channels like call centers. • Customers may react negatively at first to new UI/UX.
Strategic risk	Poorly understood goals lead to strategic miss, such as the need for a mobile app instead of a mobile website.
Measurement risk	Lack of post-project analysis breaks link between project costs and expected benefits such increased productivity of web teams and processes.

3-4 Sample flexibility options of RWD

Flexibility option	Value of option from:
Customers' device preferences	Ability to expand your site experience into more device breakpoints with reduced costs and time
Standardized architecture	Ability to reduce time and cost for follow-on application projects, especially for application server integration efforts to drive dynamic experiences
Training flexibility	Ability to quickly ramp up staff when business needs dictate new technology or direction. Even if you pivot to a new WCM system, your web teams will pivot as one

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WHAT IT MEANS

THE LONG VIEW: RWD IS THE COST OF BUSINESS IN A MULTIDEVICE WORLD

Instead of focusing on short-term front-end development costs, digital experience delivery leaders in this space push internal conversations toward a holistic view of customer experience. These progressive leaders justify the cost to their stakeholders by asking a few questions: What would it cost to build individual experiences for every device type that our customers use, even if we focused on the top two or three? Could that effort scale as digital devices continue to proliferate? By embracing a RWD philosophy forward-thinking digital leaders solve a good chunk of digital experience fragmentation problems now, and going forward.

SUPPLEMENTAL MATERIAL

Companies Interviewed For This Report

McGladrey

USG

Razorfish

ENDNOTES

[1] Mobile is pushing IT organizations to rethink their architecture. New requirements are outpacing the kludgy workarounds of a web architecture. In the new mobile world, the velocity of releases, the performance unknowns of the last wireless mile, and a growing third-party collection of business and service partners will derail this old web-centric model, because it isn't agile, can't flex, and doesn't scale. See the October 18, 2013, "Mobile Needs A Four-Tier Engagement Platform" report.

[2] Forrester conducts in-depth research into WCM and eCommerce solutions, including some estimations on cost ranges for market-leading solutions. See the April 8, 2013, "The Forrester Wave™: Web Content Management For Digital Customer Experience, Q2 2013" report and see the September 24, 2012, "The Forrester Wave™: B2C Commerce Suites, Q3 2012" report.

[3] As you develop your mobile measurement strategy, Forrester recommends an approach that starts by collecting technical data on a historic basis and then moves out to engagement and business metrics, while gradually pushing the information half-life down to operational and real-time levels. This strategy will make it easy to get early wins, demonstrate the value that feedback provides to your decision-making process, and whet your developers' and business sponsors' appetites for more and better information. See the November 18, 2013, "Measuring Mobile Apps" report.

[4] The Globe launched their responsive site in 2011 and over the intervening years has developed a robust multichannel strategy that continues to support print, broadly embraces RWD, and even added an iOS app in June 2013.

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[5] There are a number of errors that can result in a sharp downturn in organic traffic. For example, SEO vendor Moz has illustrated that a customer's failures (e.g., missing sitemaps, redirects, tags, etc.) caused organic brand traffic to decrease by 45% compared with the previous week and year on year organic traffic was down by 49%. Source: Steven Macdonald, "Restructuring Your Website and How to Minimize Traffic Loss," Moz, August 29, 2012 (http://moz.com/blog/restructuring-your-website-and-how-to-minimize-traffic-loss).

[6] Forrester's TEI Methodology is built on a robust framework of academic and business methodologies. For example, the TEI methodology uses the Black-Scholes or the binomial option pricing models to quantify the value of these flexibility options. The methodology has been covered in detail and is supported by Forrester's dedicated TEI consulting team. See the January 24, 2013, "The Total Economic Impact™ Methodology: A Foundational Framework For Investment Decisions" report.

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