November 29, 2010

Defining A Scalable Site Optimization Process

Process Enables Sustained Online Testing Success

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EXECUTIVE SUMMARY

Online testing is an extremely effective site optimization technique, but few Customer Intelligence (CI) professionals have successfully scaled their testing initiatives to affect customer experience or business performance. Online testing is complex and involves many participants and skills, and for most firms, process remains the missing ingredient. To help, Forrester has identified the goals and objectives of the process that CI professionals must master to ensure success with online testing.

PROCESS MAKES OR BREAKS ONLINE TESTING PROGRAMS

On the surface, online testing appears to be an alluringly simple concept: Serve multiple variations of content to Web site visitors, and then watch for the combinations that perform best. In reality, online testing is a highly involved undertaking, spanning multiple corporate stakeholders and disciplines.[1] This inherent complexity exposes online testing programs to numerous potential points of failure.[2] Specifically, online testing users struggle to:

- **Support testing with time and resources.** Prioritizing test initiatives is the number one process issue cited by online testing users. Lean analytics and marketing teams — already struggling under their current workload — struggle to add an online testing program to the mix. Few organizations have mastered the process of adequately presenting the online testing program in the context of resource constraints and performance mandates.

- **Design experiments.** The second most frequently cited process issue is establishing testing scenarios. Online testing tools allow marketers to use a wide variety of techniques to test nearly unlimited permutations of variables and subsequent variations on the Web site. This richness of options confuses marketers, leading to reduced productivity and, in the worst case, poorly designed experiments that don't yield productive outcomes. These issues are symptomatic of a lack of clear testing goals, clear hypotheses, and design parameters.

- **Make test outcomes actionable.** Acting on test results is what separates online testing from an academic exercise, yet this remains the third most cited challenge by users. The obstacles in this situation can be twofold: 1) Test outcomes are not always black and white — this ambiguity makes it a challenge to interpret results and determine if a suitable winner emerged from the experiment, and 2) approval to make winning test combinations permanent on the Web site are hard to obtain. The underlying issue with both obstacles? Poorly articulated metrics that fail to explain test performance to stakeholder satisfaction.

PHASES OF THE ONLINE TESTING PROCESS

CI professionals can manage the most common obstacles like resource constraints and inconclusive results by following a defined process for online testing. The characteristics of online testing programs — iterative, team based, and measurement centric — demand a defined operational framework (see Figure 1). Our research shows that the most successful and scalable online testing processes focus on:

- **Planning in advance.** The planning phase kicks off the testing process with the development of a written plan that acts as a reference guide for the duration of the experiment. The optimization team works with the business to conceptualize the test and its goals and then builds the test plan in conjunction with the business and IT teams (see Figure 2). This phase concludes with plan approval by the business team and testing manager, initiating the formal testing process.

- **Designing technical and marketing elements in parallel.** The design phase includes the initial creation of the test components as specified in the testing plan. The marketing team prepares the test's creative elements (such as copy, graphics, page designs, etc.); and the optimization team builds the analytical test design (such as statistical technique selection, setting up test factors, etc.). Any additional legal, regulatory, finance, or other internal approvals are also sought at this stage. This phase concludes in a meeting of stakeholders to review and approve the creative and test designs prior to implementation.

- **Implementing the test.** The development phase covers the technical implementation of the test components. The optimization team finalizes the test design within the testing application and confirms the JavaScript code — or any other deployment mechanisms — that will execute and track the test on the Web site. The IT team then deploys the testing scripts on the test pages. Finally, the optimization team verifies that the testing scripts are operating correctly.

- **Ensuring accuracy.** The quality assurance phase provides independent validation that the implemented test components are consistent with the plan and working properly. The optimization team tests the functional and creative aspects of the pages in the test. Each page should be thoroughly tested for both performance and functionality. Additionally, the test permutations are reviewed for accuracy in content and rendering. This phase concludes with final approval to proceed with live testing.

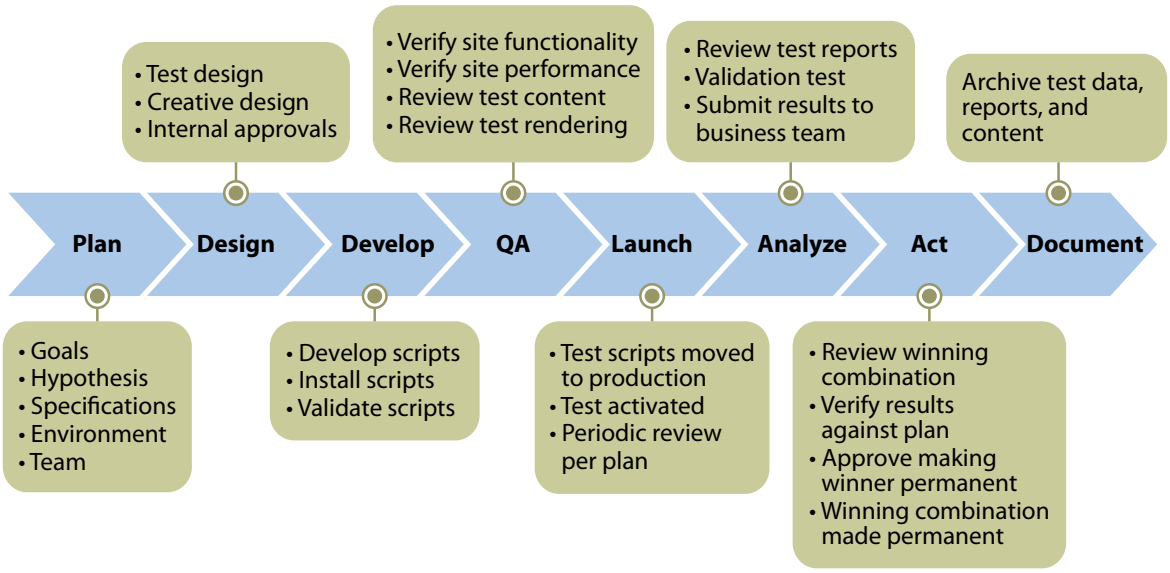
- **Executing the test.** The launch phase is the point at which the test migrates from development to active testing on the Web site. The optimization team launches the test by pushing the testing scripts to the Web site production servers and activating the test via the testing application. Once in production, the optimization team periodically tracks test performance and verifies that the test is progressing per the plan. This phase concludes when the test has collected enough data to achieve statistical significance, indicating that the test results are based on true visitor preferences rather than chance.

- **Understanding test results.** In the analysis phase, a review of experiment outcomes determines next actions. The optimization team evaluates the test results using the reports provided by the testing application or other analytical system. Ideally, this phase concludes when winning combinations are submitted for consideration to become permanent Web site content. Alternatively — particularly in the case of multivariate tests — further validation of the winning combination against the control content may be appropriate to verify its suitability for permanent use.

- **Acting on test learnings.** The action phase guides winning test combinations from analysis to permanent placement on the Web site. The optimization team presents the test results to the marketing team to compare the winner with the test plan, verifying that it supports the original goals and hypothesis and that the metrics generated are in line with expectations. The phase concludes once decision-makers grant approval and either the site optimization team makes the winner permanent via the testing tool or the IT team permanently changes the Web site code to incorporate the winning content.

- **Building the knowledge base.** The documentation phase supports the development of institutional testing knowledge over time and drives a logical progression of tests that builds upon previous experience. Upon completion of any test, the plan, content, and analysis reports will be saved in a physical or electronic repository of testing information and made available to testing stakeholders for future reference. A test is only ever considered complete when this final phase reaches its conclusion.

Figure 1 The Site Optimization Process



58151 Source: Forrester Research, Inc.

Figure 2 Elements Of An Online Testing Plan

Elements	Description
Test name	Create a unique name for the test and a high-level, plain English description.
Testing team	Identify and list all participants and stakeholders in the test.
Goal	Define the overall goal of the test, this drives test measurement. What will increase and by how much? What is the desired action? How will you measure the desired action (metric, conversion page, etc.)? Which pages are goals?
Hypothesis	Define a hypothesis for the experiment, an educated guess predicting the outcome.
Constraints	Identify any known factors that may affect site traffic or test performance, such as concurrent marketing campaigns, industry events, product launches, seasonality, and corporate announcements.
Test location	Define the Web site, pages, and sections that are being tested.
Metrics	Define the desired conversion action that denotes test success and how it will be measured, such as a goal page, action, or funnel.
Target audience	Define which visitors will be tested, via which traffic sources and target segments, and the percentage of target visitors who will be tested.
Test design	Define the test design and the elements being tested, and link to a creative brief if possible. Outline variables, variations, default and control content, and original pretest pages.
Analytics	Define the testing technique, target level of statistical significance, and distribution of control versus test combinations.
Pro forma plan	Denote the anticipated traffic and ROI calculations for the test, including number of visitors and conversions, value or costs of conversions, and costs of executing the test.
Time frame	Denote the anticipated test duration to achieve statistically significant results.
Environment	Define technical details of the test pages, such as static versus dynamic content, URLs, and security considerations.
Technical requirements	Define the required development work to support the test, such as scripting requirements on test and goal pages and business rules.

58151 Source: Forrester Research, Inc.

RECOMMENDATIONS

RUN AN AD HOC ONLINE TESTING PROGRAM AT YOUR OWN RISK

The promise of online testing to generate positive results across all levels of user sophistication is compelling.[3] But, the gaps and inefficiencies in an online testing program become increasingly disruptive as testing efforts scale up in terms of complexity, frequency, and concurrency. Poor test management reduces productivity and increases the probability of design or analytics errors. The most successful online testing programs bolster their process management efforts by:

- **Prioritizing.** Few Web sites lack online testing opportunities. Core Web analytics metrics provide a baseline for identifying weak points and areas that require immediate attention, such as pages with high bounce rates, frequent exit pages, and spots in the conversion funnel where traffic predominantly drops out. Prioritize the wish list to make the most of limited time and resources by focusing on experiments that optimize revenue and resolve known problems.
- **Iterating.** Online testing is a long-term site optimization strategy based on continual improvement. Break complex or multistep Web site tasks into their constituent parts and optimize each element in succession. The highly dynamic nature of the Web rewards simpler, more frequent tests that can reach strong conclusions quickly.
- **Using planning tools.** Build accurate testing plans and schedules by taking advantage of the planning resources provided by online testing vendors or the in-house optimization team to project the time and traffic requirements for each test. Understanding the effect of parameters such as analytical technique, conversion rate, and test duration helps the optimization team design effective and efficient experiments.

ENDNOTES

[1] Regardless of the ownership model, the optimization team contains a core set of skills. Organizations must identify and staff the skills to match the overall optimization objectives. See the August 10, 2010, "Organizing For Site Optimization" report.

[2] Online testing users cite a number of specific challenges to operating their online testing programs, but of the top eight concerns only one — attaining enough site traffic for statistically significant tests — is not process related. See the November 17, 2010, "The State Of Online Testing" report.

[3] Although online testing is complex, users overwhelmingly report that their online testing programs deliver business value. The obstacles firms encounter do not appear to result in poor testing outcomes, but create bottlenecks to more effective and prolific site optimization programs. See the November 17, 2010, "The State Of Online Testing" report.