User Interface Design Using Screenshots

Industry White Paper by:

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Creating Value with Web Page Preview Technology

Working within today's technology-rich environment provides tremendous opportunities for extending your brand and accessing markets that were previously difficult to reach. But with this growth comes a new set of challenges that must be addressed to achieve successful market penetration, namely how to cut through the noise of a constant stream of digital information to successfully reach and impact your targets.

As technology evolves, so does the way in which we interact with it and our expectations for what it can provide. Contemporary users have extremely short attention spans, are decidedly impatient and fickle, and have little tolerance for reading through large amounts of text. To mitigate these factors, employing mechanisms that maximize user interaction with your material should be an essential component of any well-considered content development plan. Incorporating contextual visual content into your marketing and technical materials is one proven way to provide your audience with a meaningful and valuable experience.[1,3]

The Importance of Contextual Visuals

Even with expanding Internet usage and familiarity with online content delivery methods, the fundamental ways in which people interact with data hasn't changed. Users want to get what they need and get out, and when given the right tools, they have remarkably good evaluation skills for determining what content is important.

Figure A –Stock Photography

A common marketing mistake that many businesses make is to assume that any image is better than no image at all. It is true that visual data can be extremely powerful. Our brains are wired to process nonverbal communication and visual input faster and with a higher priority than any other form of information. This does not mean that any visual imagery will garner positive results; in fact, it is quite the contrary. Precisely because we are so adept at processing visual content, we are also highly skilled at discerning "false" content. Users know when an image is meaningless stock photography (Figure A) or was selected simply to fill a design requirement, and not surprisingly, this often has a negative effect.

One of the most critical components of effective image selection is relevance.[2] Viewers respond very poorly to any image they determine is irrelevant, even if the determination is made subconsciously. However, removing all images is not a wise solution, as an overly text-heavy page will render equally poor results as bad imagery.[3]

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1 A. Oliva and A. Torralba. "The role of context in object recognition," *Trends in Cognitive Sciences*, Vol. 11, Issue 12, December 2007, 520–527.

2 E. Marsh and M.D. White, "A taxonomy of relationships between images and text," *Journal of Documentation*, Vol. 59, No. 6, June 2003, 647-672.

3 J.R. Levin, "A Transfer-Appropriate-Processing Perspective of Pictures in Prose," (in H.Mandl and J.R. Levin [eds.]) *Knowledge Acquisition from Text and Pictures* (Amsterdam: ElsevierScience Publishers, 1989). 83-86.

Users are accustomed to seeing visual representations of products, ideas, and services, and they expect to be able to preview before they purchase. The absence of relevant imagery can easily give the appearance that your offering is not legitimate or has a flaw you are hiding from potential customers.

Web Page Previews

Web page previews, commonly referred to as "thumbnails," are contextual visuals that provide a snapshot image of a web page (Figure B). The primary objective of a web page preview is to show a visual representation of the design, layout, and content of a page to complement any corresponding textual content or to help users decide between multiple options. Since web page previews are exact depictions of the products or services offered, they inherently provide context and enrich the content of the message.

Figure B – Web Page Preview

More advanced types of web page preview services provide screenshots that are dynamic, available in multiple resolutions for different implementations, and capable of capturing any potentially visible portion of the page, including full screen captures. Even more advanced services allow you to specify full path, quality, and timing of captures.

Using Web Page Previews

Web page previews are a flexible, highly extensible component that has a wide range of potential applications. Key customers who are already leveraging the strength of web page previews include bloggers who want to regularly showcase different websites and have them automatically update as the site changes, developers who need to include snapshots of web interfaces in software and device applications, web and template designers who want to highlight and visualize their offerings, and progressive search engines.

A valuable use for web page previews is in marketing materials for any SaaS, cloud, or web-based product or service where design and usability are key factors in the success of the product. Imagine trying to pitch analytics software (Figure C) or a real-estate management system without providing potential customers with a glimpse into the design and functionality of the offering. Undoubtedly, you would you not achieve your sales potential.

Figure C – Marketing with Web Page Previews

Web page previews aren't just for external markets either. They also have significant value for documenting project specifications, maintaining records of project development, and providing attractive status reports to upper management or a funding board.

One specialized use is to dynamically update web page captures on a schedule or even store old versions for historical and archival or for change control purposes. Application code could programmatically crop, resize, and automatically apply custom effects.

One of the most well-known implementations of web page previews is their use in search engines that provide previews that correspond to the websites displayed in the results (Figure D). For more than a decade, studies of user interaction with different kinds of search results have conclusively shown that results featuring a combination of text and web page preview thumbnails increase the user's ability to discern value and appropriateness. The direct benefit of incorporating meaningful images into an offering is succinctly discussed in a study by Microsoft[4] that concludes: "Thumbnails give the appearance of relevance to more documents than text summaries alone."
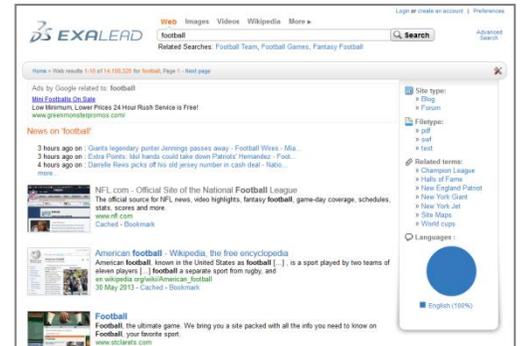

Figure D – Search Results with Previews

Implementing Web Page Previews

Introducing a web page preview presence into your website, presentations, software, or online help is quite easy to achieve using the right tools to comply with your requirements. A range of manual and automated options are available, though a custom combination tailored to your unique needs is often the best solution.

By Hand

Implementing screen captures by hand is the old-fashioned process that works great if you only have a few screenshots to incorporate and all images will be captured at the same time, on the same machine, in the same browser, and will remain static after capture. However, manually generating a single screenshot with custom effects, sizes, and cropping parameters is a daunting task in and of itself. Multiply that by thousands or millions and the need for automation becomes clear.

Automated Capture

When you need to implement a larger quantity of web page screenshots or want custom features, such as interior pages, unusual sizes, delayed capturing of pages with Flash content, or scheduled refreshing of images on a periodic basis, an automated capture mechanism is the most efficient, value-added method to use.

There are a variety of ways to initiate automated capture, including use of a web-based program, adding a snippet of code to the pages you want to display your web page screenshots, or taking advantage of one of the available apps or plugins that coincides with your existing technology deployment. Once you overcome the obstacle of automation, you can use these applications to dynamically update web page captures on a schedule or to store old versions for historical, archival, or change control purposes, and you can leverage application code to programmatically crop, resize, and automatically apply custom effects.

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[4] Dziadosz, Susan and Chandrasekar, Raman, "Do Thumbnail Previews Help Users Make Better Relevance Decisions about Web Search Results?", SIGIR '02 Proceedings of the 25th annual international ACM SIGIR conference on Research and development in information retrieval, online at http://dl.acm.org/citation.cfm?id=564446&dl=ACM&coll=DL

Evaluating Providers

There are a number of web page preview providers on the market, though the gap between the major players and the less established brands is significant. Shrink The Web, Websnapr, and Thumbshots are the primary providers worthy of consideration.

Each of these providers offers a free service, as well as paid plans that incorporate a selection of premium services. The free services differ widely across all three providers. Shrink The Web limits the access a free user is allowed each month and no PRO features are included, while Websnapr requires use of a JavaScript include that diverts traffic to their site, and Thumbshots strictly limits usage and puts a very low priority on new requests. But it is in the paid plans where you really see the differentiation. If seeking the most robust offering, then you should consider available features, reviewable sample code, reliability, scalability, and/or acceptance among related plugins that incorporate web page previews.

Quality

All web page preview thumbnails should be of high quality, with a crisp appearance and no discernible pixilation.

Consistency

The provider interface should allow for consistent output regardless of whether the service is initiated by different users, on different platforms, or on different computers with varying resolutions.

Automation

Functional automation capabilities should be a key offering from the provider, as this is one of the distinct advantages of outsourcing web page preview production.

Flexibility

Access to apps and plugins that fit into your content development structure is an important feature to ensure maximum flexibility for how you initiate and manage the screen captures. You can reasonably expect offerings to include a web-based interface, plugins for the major CMS modules and development frameworks (such as WordPress, Joomla, Drupal, and Django), and apps for Apple and Android products.

Ease of Use

The interface should be lightweight, easy to install, and easy to use, as there is no need to introduce unnecessary confusion into your development process.

Conclusion

One of the great benefits of our exploding technological advancement is that for every problem, there is almost always a solution that offers quality, consistency, and automation to streamline the process. Creating a rich content experience for your users that showcases your offering using high-quality website previews is no exception. By selecting a specialized web page preview provider, you can easily implement this no-hassle, high-impact solution to take your website, interfaces, and marketing materials to the next level.