

WHITE PAPER

# BUILDING AND OPTIMIZING MULTI-CHANNEL WEB EXPERIENCES



Leading enterprises strive to achieve higher levels of customer engagement through online channels, and this means they must easily, quickly, and cost effectively provide fresh, personal, relevant content anytime, anywhere, on any device, all through a consistent and dynamic end-user experience. Traditional Web CMS solutions are no longer sufficient, and a richer and broader range of capabilities that enable Web Experience Management (WEM) — managing and optimizing the site visitor experience across all channels including the Web, mobile, social networks, and more — must now be considered in this new era of engagement.

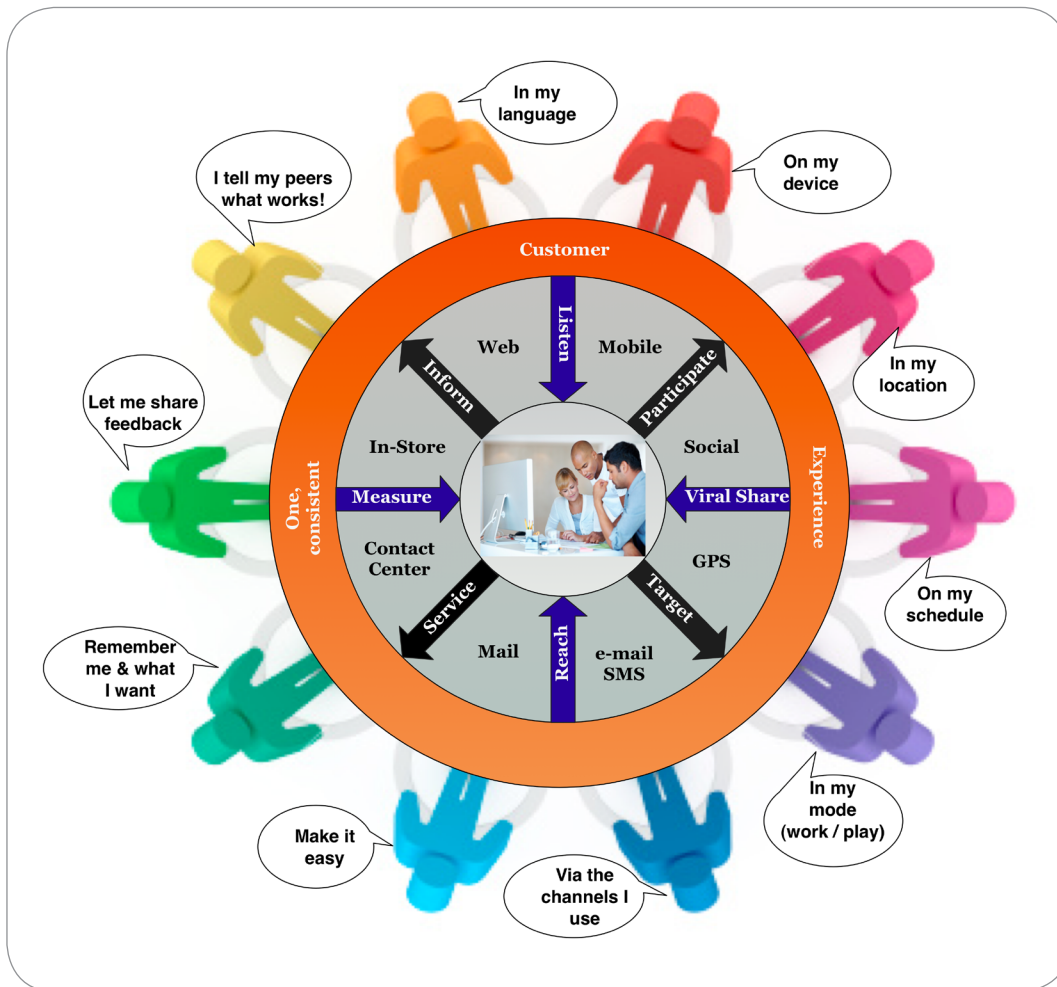


Figure 1. Enterprises must engage with customers through multiple online channels in a relevant, timely, and personal manner.

## THE TRENDS DRIVING THE NEED FOR WEB EXPERIENCE MANAGEMENT

Over the last few years, the internet has undergone a tremendous amount of fundamental change in its landscape, and we are now entering into a new reality with today's Web. This change is driven by three major trends:

1. Social — The Web is becoming increasingly more social and much less anonymous.
2. Personal — While the internet is continuously expanding in terms of ubiquity, at the same time, it's becoming much more local and much more personal in terms of user experience.
3. Mobile — the growth of mobile access to the internet is rapidly expanding to the point where access from tablets and phones will soon exceed that from desktops and laptops.

Each of these trends is a significant development in user experience in their own right. However, these trends feed and reinforce one another in a way that's accelerating change and adoption across all trends. Long gone is the broadcasting era of Web 1.0, and the participation age of Web 2.0 is quickly giving way to an "always-on", immersive Web 3.0. The very way we communicate with and understand our customers is changing, and when foundational change like this occurs, those who recognize the change and move quickly to adapt have the most to benefit.

Adapting to these important changes should be on your near-term road map. Let's take a look at each of these trends in more detail to get a deeper sense of reasoning and urgency for change.

### Social

Social Media is ubiquitous now, with Facebook reporting over 900 million total users and Twitter users estimated to exceed 150 million. With these numbers — combined with the fact that studies show that while only 14% of consumers trust traditional advertisement, 78% trust peer recommendations. Social communication is personal, emotional, timely, relevant and propagated amongst peers — it's easy to see why social is so important.

### Personal

We all know that over the last twenty years the Web has made the world a much smaller place by knitting our global communities together through an increasingly ubiquitous network. This trend continues today, but on a whole other level. The internet is increasingly being used to deliver the activity, news, reviews, sales and other relevant data and services that are occurring and are available to us right in our immediate vicinity. All this information is being delivered right to us in real time through our mobile devices. While the world may be getting smaller, our personalized experience is growing larger.

### Mobile

There are 6.8 billion people in the world, and 4.7 billion of us own an internet-enabled mobile device of some kind. According to Gartner's projections, mobile Web access is set to surpass traditional desktop access sometime in 2013. And Forrester projects that tablet use will grow as fast as that of any device, ever. Within enterprises, the iPad dominates with a 90% share of the tablet market. As of April 2012, Apple reported that total unit sales of iPads exceeded 67 million.

## MEETING THE DEMANDS OF A NEW ERA OF ENGAGEMENT

Each of these trends reinforces the others, and fuels further adoption and drives innovation. It is these

technologies — and the behaviors and capabilities they foster — that have brought us to a new era, which Forrester calls the “era of engagement”. This is a new reality where the distinction between on-line and off-line is becoming ever more blurred and the experience ever more immersive.

Driving these trends are people — our friends, leads, customers, critics, and fans. This is our audience and the other half of the conversation. And it’s no surprise that in today’s reality — that is, in the age of engagement — they want to participate and expect us to engage them on their terms — on their schedule, in the context of their location, in their language, and optimized for their device.

Your audience has also become accustomed to a personal experience, and they expect a personalized, coherent and consistent customer experience regardless of whether they are in your brick and mortar store, on your Facebook page, or on your website. To effectively tackle this challenge of serving a mass audience with limited resources, enterprises require strategy and effective tools to help get the job done.

Web Experience Management (WEM) provides us with the toolset to take on this otherwise daunting task. The capabilities of WEM allow you to create, manage, and deliver dynamic, targeted and consistent content across various online channels including your website, social media, marketing campaign sites, mobile applications, and more. In short, it takes a lot more than a traditional Web CMS to meet these needs.

## KEY PRINCIPLES OF WEB EXPERIENCE MANAGEMENT

To effectively implement WEM, enterprises must start with business strategy and goals. These form the foundation of messaging and engagement strategy, which in turn drives content strategy. In other words,

|                                    |                               |                                 |                                   |   |
|------------------------------------|-------------------------------|---------------------------------|-----------------------------------|---|
| Dynamic, interactive presentation  | Product catalog & management  | Cart & e-commerce               | Rights management & enforcement   | A / B testing                           |
| Faceted search & navigation        | Content model                 | Rich authoring forms            | Site & content preview            | User generated content                  |
| SEO                                | Content graphs & dependencies | Business model                  | Workflow & auditing               | Campaign management                     |
| Analytics & BI                     | Authoring permissions         | Messaging & engagement strategy | Deployment / publishing framework | Multi-channel including mobile & social |
| Understanding / Sentiment Analysis | Asset search                  | Content strategy                | Policy & lifecycle enforcement    | Lead automation & CRM                   |
| Social web integration             | Asset transformation          | Versioning                      | Metadata extraction               | User profiles                           |
| Collaboration & project tools      | Asset management              | Translation & localization      | Targeting & personalization       | Delivery permissions                    |

Figure 2. An effective WEM solution starts with strategy (purple), supported by core Web CMS (blue) and user engagement capabilities (green).

the business strengths, weaknesses, threats and opportunities should be considered first and foremost. Too often organizations fail to do this by jumping straight into a technology selection by simply following others, doubling down on old assumptions and acting without due consideration of the business drivers.

Around this foundation, we wrap the fundamentals of Web content management. It's important to remember that content is still king. Business users and marketers need easy-to-use, yet powerful content authoring and publishing capabilities. They need rich content models that allow them to create engaging visitor experiences, ways to easily create new content assets, quickly find and repurpose existing content, and they need real-time in-context editing, review, and publishing capabilities.

Upon the foundation of business drivers, content strategy and a core Web CMS, an effective WEM solution provides a comprehensive collection of capabilities that allow organizations to create, manage, and deliver dynamic, targeted and consistent content and visitor experiences across multiple touch points — corporate website, dedicated marketing campaign sites, mobile applications, social media sites, and more.

WEM encompasses a broad set of capabilities for engaging with website audiences consistently across many channels, and measuring the impact so to ensure business strategies, goals, and objectives are met. While certain WEM requirements are going to vary from organization to organization, some of the most critical features needed by essentially all enterprises include:

- **Content Targeting, Personalization, and Regionalization** — Users are online more often but in shorter bursts than ever before, making it important to speak to them directly. Shotgun messaging is easily ignored given the ocean of content in today's user experience. Delivering targeted, personal and consistent content and services across various channels is a key ingredient to initiating and holding meaningful conversations. The best indication of what the user wants is based on activity that signals engagement. Viewing a page is a relatively weak indicator; however, engagement based activity such as opting into a newsletter, adding an item to a cart, or printing an article is a strong indication of interest.
- **Mobile Device Support and Mobile Applications** — As the tables turn towards an internet dominated by mobile devices, we need Web properties and dedicated applications that can respond properly — with an appropriate user experience for different types of devices. It's critical to take a mobile first strategy. As there are many form factors, you want to limit the number of templates being built and maintained. Leverage the principles of responsive Web design, and take advantage of the capabilities of HTML5 and CSS3. And when appropriate, consider the use of a native mobile application to engage your audience most effectively.
- **Advanced Search and Navigation** — Having rich content alone doesn't do the job. Users need to be able to easily find the right content when they need it, all through a simple user-friendly interface for navigation, search, filtering, and browsing. Today's most relevant WEM solutions must include powerful search capabilities that include filtering on facets, data type awareness that enables operations such as filtering on product or service attributes, fuzzy matching for similar terms, and result boosting to ensure the most important items show at the top of the search results. These powerful capabilities enable users to search and navigate your site, and find relevant content quickly. Moreover, they may be combined with visitor profiles and other data streams to deliver dynamic targeted content.
- **Integrated Web Analytics** — Just as important as getting the message out is the need to capture feedback, measure the response and to react to the effectiveness of your communications. Effective communication

requires the ability to listen and to respond quickly and accurately. Modern WEM solutions should provide robust integrated Web analytics capabilities, or easy integration with leading third-party Web analytics packages, or both.

- **Multi-channel, Multi-site Publishing** — Publishing to all online channels — including one or more websites, mini- and micro-sites, social media sites like Facebook and Twitter, mobile applications, among others — is imperative. We want to facilitate and engage in conversations across all channels, and speak directly to individuals with high-value, immediately useful information.
- **Campaign Management** — Websites are important marketing tools for the organization. The ability to integrate with CRM, email marketing, and other third-party marketing platforms means you can tie your website directly into your marketing campaigns and facilitate a faster, more responsive sales process.

## TECHNICAL READINESS

Selecting the right technology with the right tools is critical to the success and effectiveness of WEM strategy execution. For instance, content publishers need tools that allow them to quickly and collaboratively compose content and engaging user experiences for multiple channels. We also need a system that allows publishing of the same content through more than one template, and the ability to apply the proper template for a given channel.

Prior to publishing content, authors need the ability to see how the content will look across the various delivery channels — a capability we call multi-channel in-context preview. Your WEM solution should be able to present your site appropriately for all target devices.

## THE CRAFTER SOFTWARE APPROACH

So what does it take from a technology perspective to achieve effective multi-channel WEM? For today's era of engagement, an open source solution based on Crafter provides a best-in-class approach to successfully implement a WEM strategy. Crafter is a complete and comprehensive WEM application built on top of Alfresco — the leading open content platform — that provides multi-channel Web experience management through a rich user interface and a high-performance content delivery system, while leveraging Alfresco's foundational Web content services.

## ALFRESCO CONTENT PLATFORM OVERVIEW

Alfresco is the leading open platform for content management, with over 6 million downloads and over 2500 enterprise customers. Alfresco has been architected to scale and perform in mission-critical enterprise environments. From day one, Alfresco has been built to be open. It's developed and distributed under an open source license, allowing developers to download, test and extend, and supports more open content standards than any other content management platform.

Alfresco's robust content management platform capabilities include:

- **Document Management** — Alfresco offers full content management functionality delivered through a single unified repository to manage any content — documents, images, video, audio, XML, CSS, Javascript, and more. Alfresco is compliant with open standards and is as easy to use as shared network drives with CIFS, WebDAV, IMAP and the SharePoint File Sharing protocol.
- **Web Content Services** — These powerful services enable the management and publishing of content to the

Web through a variety of presentation-tier frameworks and are built on industry-standard technology that can be extended using popular development tools. As the number of online delivery channels continues to grow, the ability for multi-channel publishing is a necessity for enterprises to provide a consistent end-user experience.

- **Mobile** — Alfresco’s mobile apps allow users to access and manage corporate content, download, edit, “like” it, add comments and upload new content into Alfresco.
- **Cloud** — Alfresco in the cloud is built for business collaboration with the flexibility of the cloud, and offers site-based collaboration, private organization networks, and social content features.
- **Scalability** — Alfresco scales up or out, and provides simple-to-configure clustering and offers multiple options for deployment, allowing each Alfresco solution to grow with the organization.
- **Security** — Alfresco’s fine-grained permissioning system for individual users or groups allows organizations to define exactly who can see what content — by folder, individual files, or, in the cloud, by network. Alfresco supports fine-grained user security roles that govern access to content on a per-user basis, with support for LDAP, Active Directory, and OS security.
- **Open Standards** — Alfresco is open source and built using open standards to ensure compatibility and the ability to achieve the highest levels of integration. Its numerous APIs, including CMIS, allows for the platform to be extended, and customization using JavaScript and REST allows developers to leverage existing skills.
- **Administration** — Alfresco is designed to be easy to set up and manage. The administration console allows you to manage groups, while the repository, users, social publishing channels and subscription can be managed through a Web interface.

Alfresco provides the right foundation for WEM with features critical to the success of a well-executed WEM solution.

## CRAFTER SOFTWARE WEM APPLICATION OVERVIEW

Crafter Software is an open source WEM application built on Alfresco and consists of two major applications — Crafter Studio and Crafter Engine.

Crafter Studio leverages all the content management services of the Alfresco platform to enable authoring, management, and publishing of all content. Crafter Studio provides a comprehensive set of user-friendly yet powerful features for managing and optimizing of experiences.

Crafter Engine provides high-performance content delivery services that can power any type of Web or mobile application. It consumes content published through Crafter Studio and provides developers with the foundation for quickly building high-performance, flexible Web and mobile applications. Crafter Engine provides out-of-the-box integration with numerous data sources and application services. A key feature of Crafter Engine is its ease of integration. Modern WEM applications must integrate with one or more enterprise systems or third party services. Crafter Engine can easily be integrated with other applications such as CRM and sales force automation, marketing and email campaign management, and other enterprise systems required for optimizing the Web experience for your audience.



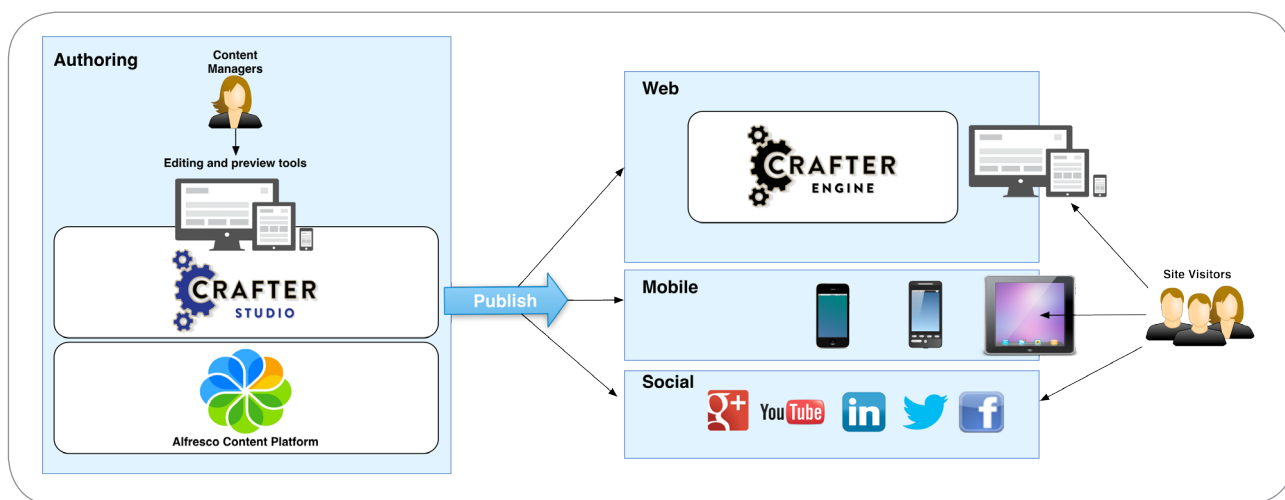


Figure 3. An Open and Agile Architecture for Web Experience Management.

The management and delivery of content is decoupled and separate, allowing each system to be optimized for its purpose, audience and scalability requirements. Multi-channel publishing is naturally supported, and mobile devices and applications are enabled by means of both native device support (iOS and Android) and HTML5 support.

## WEB EXPERIENCE MANAGEMENT IN ACTION

Crafter Studio provides the main user interface for building and managing websites and the rich Web experiences for them. Its capabilities include dashboards, content authoring and editing tools (e.g. advanced forms, WYSIWYG editors), interface for workflow initiation and status reporting, and search to enable content selection and reuse.

There is an authoring toolbar overlay on top of a live, real-time preview of the site, allowing for in-context editing and browsing of content through simple site navigation. Real-time in-context preview is enabled via access to both the Alfresco content repository and the site database, which may contain other data sources not managed by business users or content editors, such as visitor profiles, analytics data, CRM data, and more. Most importantly, business users can edit and preview content for all online channels and their renditions, including for the Web and mobile devices.

The advanced content publisher pushes content out to the preview site for any site experience controls, and when all is set, is published to the live production site(s) based on approval or timed schedule. The advanced publisher is an extension of Alfresco's native content publisher, allowing for intelligent multi-site publishing, as well as publishing to content delivery networks like Akamai.

Once content is live, business users can continually update, enhance, and optimize the site visitor experience with built-in Web analytics. Crafter Studio ships with built-in Google Analytics integration, and enables easy integration with any other third-party Web analytics platform.



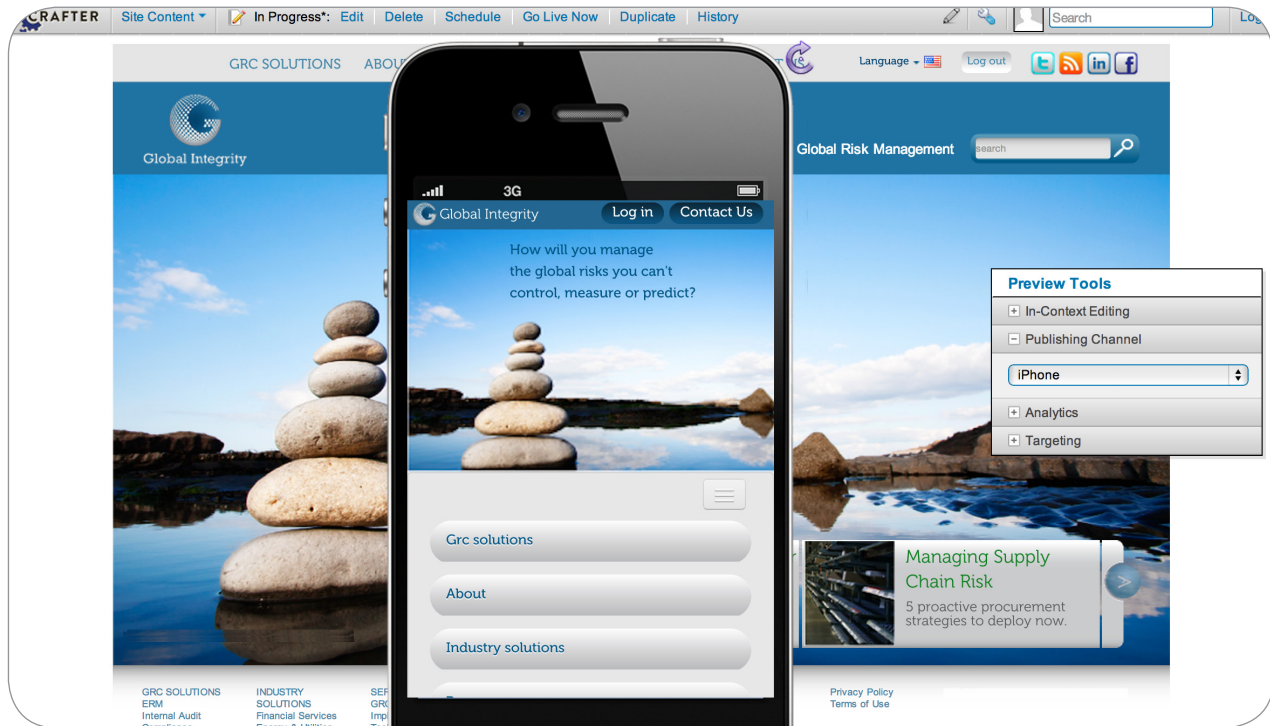


Figure 4. Crafter Studio provides multi-channel editing and preview.

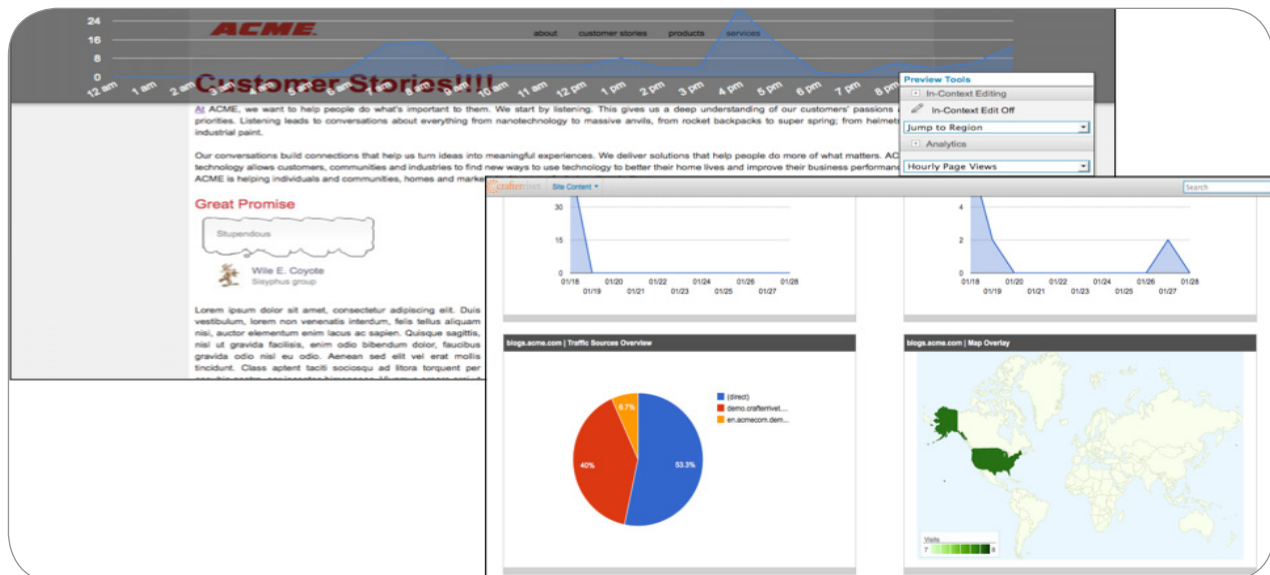


Figure 5. Crafter Studio provides a built-in integration with Google Analytics, and easily integrates with all other leading third party analytics platforms.

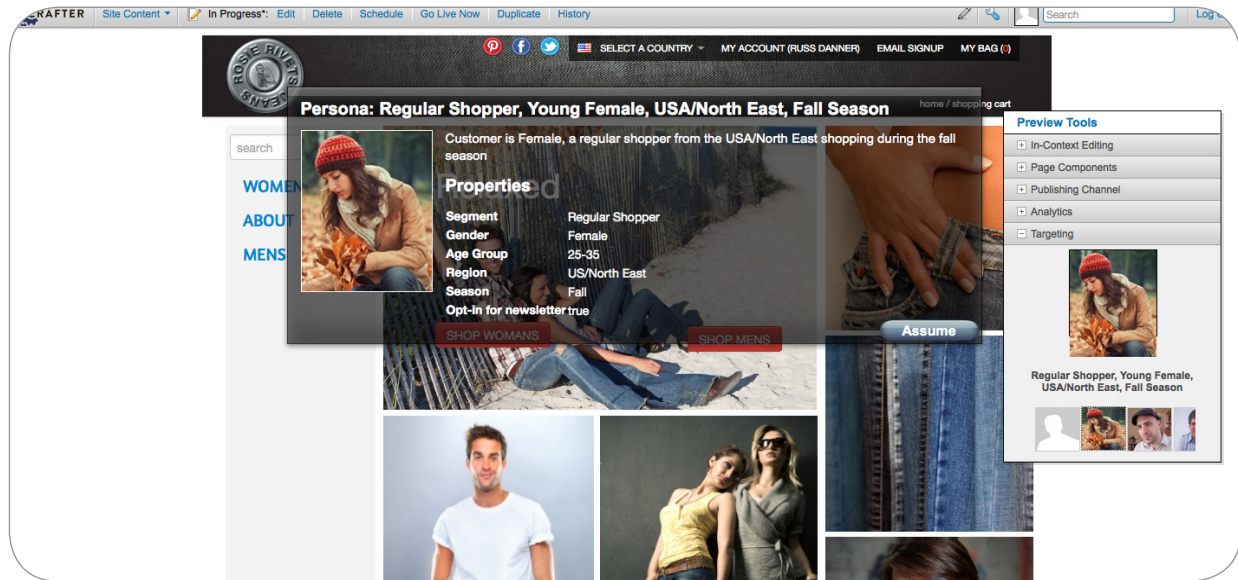


Figure 6. Crafter Studio offers personalization and content targeting to provide customized user experiences.

## CHOOSING THE RIGHT SOLUTION

Through a well-executed WEM strategy, organizations can now deliver their valued content across a variety of channels through one platform, without compromising on the quality or user experience.

An open and agile WEM solution based on Crafter and Alfresco provides enterprises with a robust and reliable enterprise-grade platform that's flexible enough to cater to each organization's unique needs. Crafter Software enables business users, marketers, and content editors to easily create and manage sophisticated, dynamic Web experiences across multiple online channels. By leveraging leading enterprise-grade open source technology to deliver engaging customer experiences, Crafter provides the flexibility, agility, and innovation organizations need to quickly accomplish the tasks that drive results and propel business growth.

## GET STARTED TODAY

Managing an online presence across various channels to ensure customer engagement requires a strategic approach to Web Experience Management. Crafter Software has partnered with leading system integrators to provide expert consulting services for our customers. Through uniquely tailored open source solutions that enable innovation and project success through best-of-breed tools and seasoned development expertise, organizations can now transform static content and outdated technical infrastructure into more productive and creative strategies and flexible systems to create personalized and engaging Web experiences for their customers.

## TO LEARN MORE

For more information about Crafter, visit our website at [craftersoftware.com](http://craftersoftware.com).

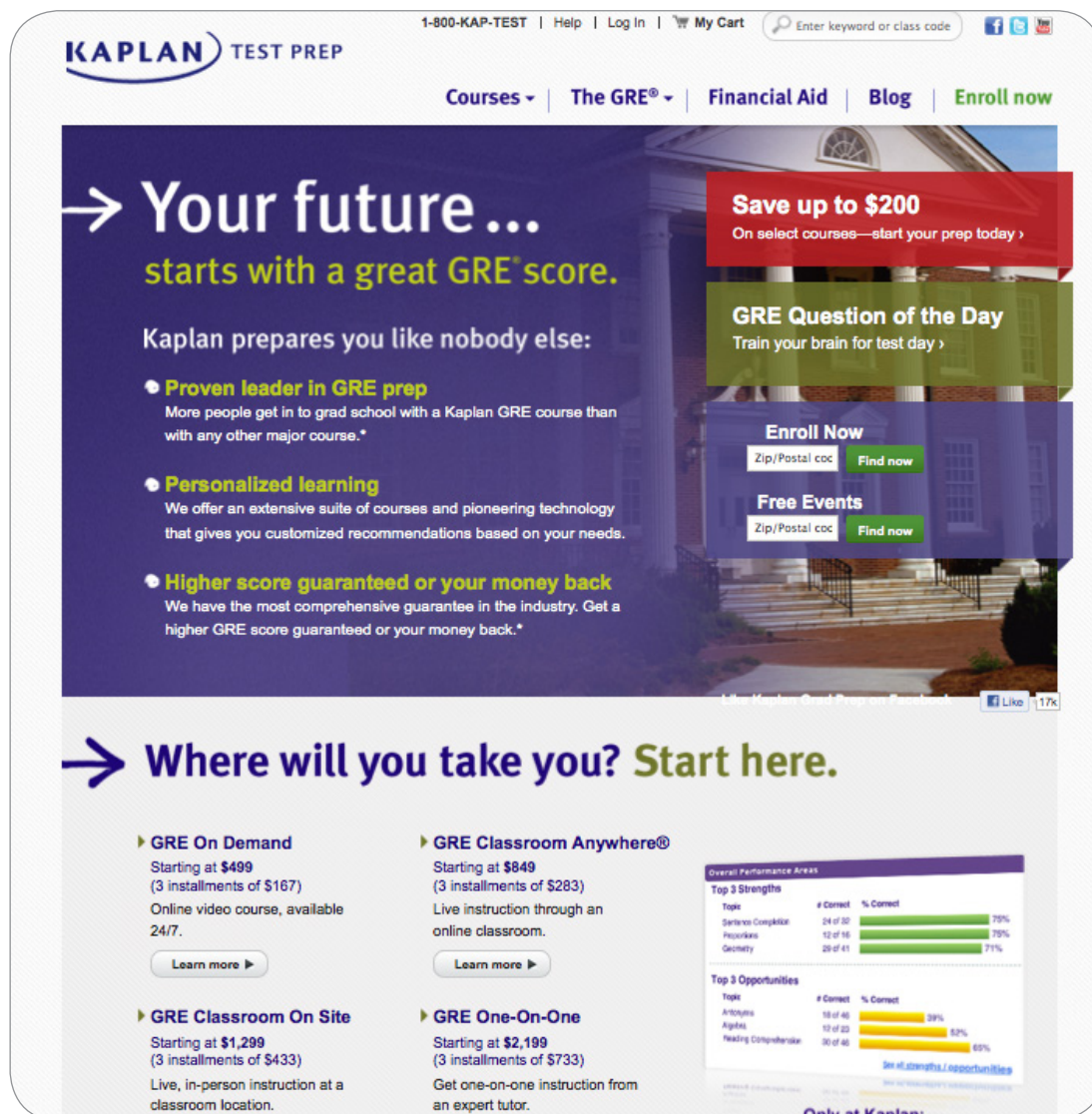


Figure 8. Leading enterprises such as Kaplan leverage Crafter for Web Experience Management.

## ABOUT CRAFTER SOFTWARE

Crafter Software enables the creation of rich and engaging websites, mobile applications, and multi-channel digital experiences. The company's software solutions are based on the award-winning Crafter CMS open source project, which was built from the ground up as a modern platform for creating more relevant web experiences through targeted delivery of personalized content.

Serving as the lynchpin between enterprise systems and end users, Crafter's solutions enable marketing, sales and support teams to author and manage content while harvesting analytics and data-driven insights to deliver engaging experiences across all digital channels - the web, mobile, social, and more. For more information, visit [craftersoftware.com](http://craftersoftware.com) and [craftercms.org](http://craftercms.org).