Building and Managing a Cross Media Workflow

CROSS MEDIA PUBLISHING IS NO LONGER AN OPTION; IT IS A FACT OF LIFE. THE ADDITION OF EMEDIA CHANNELS LIKE SEARCHABLE WEB, TABLET, MOBILE, SOCIAL MEDIA, EMAIL, ETC., TO THE ESTABLISHED PRINT CHANNEL AS ALTERNATIVE MEANS TO REACH MARKETS HAS CREATED LOTS OF CONFUSION—AND OPPORTUNITY.

BY DAVID L. ZWANG

The channel landscape is volatile and will continue to be so for the foreseeable future. Print is finding a new niche and its deserved credibility again. The searchable Web is continuing to evolve and grow, and social media is changing daily from a way for individuals to express themselves to a required channel for those who do business.

What is the new magic behind cross media (print+eMedia) publishing and production, and how can you adapt your systems and processes to support it? First, if we look at the basics of publishing—no matter what channel we are using—the answer is fairly straightforward. Publishing consists of the following processes: Content Creation, Content Management, Content Packaging, and Content Distribution. The common thread is Content. This may sound rather simplistic but it is the key to fully understanding the requirements of the process. Maintaining separate processes is costly, time consuming and more error prone. So it is important to prepare an optimized workflow—based on standards—that can be used across all media.
PERSONNEL

One of the biggest concerns of graphic communication companies is staffing. With an established workforce that understands the company, customers, and concepts around production in a service-based organization come difficult choices: Can we re-train existing employees, do we bring in new people who are not saddled with old systems and processes, or do we outsource? Whenever you look at the issue of bringing any new products or processes into your business, the most critical skill is being able to address and absorb change, and it needs to be an integral part of your company culture.

This next skill is one that almost any printer or premedia operation should already have: the ability to work under pressure to deliver many different projects while meeting client expectations.

These two skills, while seemingly basic, are core requirements for any successful business in the fast-changing world of graphic arts. In addition, there are also new technical and production skills required.

The good news is that many technical skills overlap print and eMedia. Experience in print design provides an advantage over eMedia designs— as does managing a data network and acquiring and managing electronic jobs from clients. Knowledge of many of the same software applications and file types is a big help in the production of new media projects.

However, you still need to look at the skills you don’t have and determine how to develop them. If you don’t have skill sets in database management, you need to address that critical piece. The need for hard-core programmers is not the necessity it used to be, although in some cases, especially in some of the new tablet development applications, there may be a need. In any case, you probably should have someone in your organization who can handle basic scripting services. Increasingly, solutions you purchase or already own and workflows you need to build require levels of integration and automation. In many cases, scripting can address that need.

One of the best ways to bring new processes and technologies into your business and grow your internal skills is through a process champion. Often that champion
exists in your company. There is usually at least one employee who loves to experiment and investigate new technology. By giving that employee an opportunity to find a good solution under a focused direct assignment or even a skunk works project, you can leverage existing talent and develop new processes internally.

Alternatively, you can bring in someone who has the needed skills. In the case of eMedia, unfortunately there aren't a lot of people with extensive experience. While there are some prospective candidates with experience, you will find many good candidates are just out of college and ready and willing to take on almost any challenge.

You can also partner with outside sources while you learn the ins and outs of new processes. There are a lot of young companies out there working with eMedia that have no print experience and would be willing to work with you.

**INFRASTRUCTURE**

As is the case with any production process, you need to start with a good infrastructure. In this case, that would be a fast, internal and external production network and a good content management system. There are hundreds of content management systems available in the market. Some are proprietary and some are open source. Most were developed to fill a specific niche and have expanded to address a broader market. Choosing the right one is important. It needs to not only effectively support your processes but also eliminate the need for multiple content management solutions.

If you are a printer or a publisher, chances are you already have some way to store and manage images and files. Additionally, you might already have a DAM (Digital Asset Management) solution in place. In many cases, these DAM systems also provide a customer-facing web component that allows your customers to push and pull these assets in a self-service model. Each of these types of solutions usually only supports manual or semi-automated processes, and is relegated to managing images or files.

To get the most out of cross media production, you need to manage all of the content at the object level and support fully automated processes and workflows.

A good CMS (Content Management System) is at the heart of the infrastructure that facilitates the use of metadata. The CMS manages ALL of the content assets down to the object level using a combination of the file and the corresponding metadata information. This includes images, text, video, audio, interactive content, etc. Development of CMS and DAM systems actually started in parallel with DAM systems designed to support image management and CMS to support delivery of content to websites. Today, they are becoming a single solution, with DAM features being integrated into CMS solutions.

Finding the right CMS for your operation can be a daunting task, but an important one. There are hundreds of these systems available. Some are proprietary systems from industry stalwarts like IBM, Microsoft, OpenText, etc. These are usually feature-rich and can be quite costly. However, suppliers do offer support (at a cost) and extensive integration services.

These systems are usually built around standards that facilitate integration with other database systems. They may be more than you need today, but during your decision process, you should determine where you want to take this aspect of your business and invest in a solution that will be able to grow with you.

There are also many open source solutions that are either free or available at a minimal cost, and the support is more "communal." In some cases, this can be better than what is available from the more costly branded proprietary systems—both in terms of the speed and quality of responses to support requests. The advantage of open source CMS solutions beyond cost is that they leverage an extensive user community to develop the software and share new features and functions.

Increasingly, there are many independent integrators that support these open source solutions.

While there are differences in how they are constructed and what they support, they all handle basic file and metadata-based management. Some add production or process tool sets to the package. For example, the most widely acclaimed and used open source CMS solutions for website support, as well as some other eMedia requirements, are Drupal (drupal.org), Joomla! (joomla.org), and Wordpress (wordpress.org). Each has PHP tools built in. PHP (Hypertext Preprocessor) is an HTML scripting language that provides a comprehensive set of tools for dynamic website development. There are many other CMS solutions that provide different tools or just basic services that allow you to integrate your own workflow and tool sets.
Some CMS systems were developed as a part of a more complete vertical market production solution such as Apogee Publish from Agfa, K4 from MEI, and others. More comprehensive solutions are being introduced that can support a variety of media output requirements. Content Station and its corresponding Enterprise 7 Content Publishing Platform from Woodwing (woodwing.com) are good examples of this new breed of solution.

There are also many ways to host a CMS to support your needs. For many, if not most, production requirements, having the CMS on your local network is probably the best solution. However, there are cases in which you can do your production processing locally and use hosted CMS services to support the requirements of building dynamic web pages. There is also a movement to offer CMS solutions as a SaaS (Software as a Service). An example would be Drupal, now available as a SaaS solution through Acquia (acquia.com). Sometimes it might make sense to start with a hosted or SaaS system that can be migrated in-house if more desirable and when volumes justify doing so.

Once you have determined your needs, the selection becomes somewhat easier. But you may be well served by working with a consultant or integrator to help you define the requirements and narrow your search.

**CONTENT IDENTIFICATION**

When organizing content, it must be identified in such a way as to make it easily retrievable. This identification takes the form of metadata tags in the object content, a capability supported by all content management solutions. This is crucial not only to automate processes, but also to allow for processes that support cross media production. There are many ways to associate that information with the objects. With good production tools and processes, a lot of this can be done in a more automated way. Additionally, you want to make sure you are using standards to ensure present and future compatibility.

**TOOLS**

Cross media tools that can be productively used by designers and production people are finally coming to the market. With the release of Adobe CS5, we see a suite of tools that actually supports most of the available display and media channels.

Adobe is developing a content management infrastructure solution to better support its tools and the required workflows. Quark is also working on a more comprehensive solution to support cross media workflows. Then there are companies like Woodwing that have solutions that support cross media workflows today. There are more of these tools coming out almost weekly, both as local server-based applications and SaaS solutions.

Designing and preparing the content as well as packaging content for distribution to the various channels is “where the rubber meets the road” in cross media. Determining which tools you need depends on your product goals.

The primary file types for cross media production—except for video and some interactive content—use the same design and creation tools currently used in print.
Interactive and video content creation is an area you will undoubtedly need to address. Video capture and content creation is available in different tools with a wide variety of costs and different levels of expertise. HD video capture is available from high priced professional cameras on one end to cell phones on the other, and depending on your requirements, either might work. Video editing tools are available in simple tools like Apple iMovie or MS Movie Maker, or in prosumer and professional applications like Apple Final Cut Studio, or Adobe Premier Pro and its other components as a part of Creative Suite Production Premium or Master Collection.

Adobe Illustrator does offer ways to begin to create interactive content. Flash Professional and Flash Catalyst are the software tools necessary to take those basic illustrations or videos and make them interactive. Adobe has done a good job of trying to help bridge the skill gap between each of the Creative Suite Applications to allow their existing base of print content creators to move into cross media content production.

In a print workflow, you already know layout packages like Adobe InDesign or QuarkXpress will allow you to package your content objects into a page that can be reproduced and distributed in print. Those same tools are some of the tools of choice in addressing new media. Over the last few years, Adobe and Quark have extended their software programs to take on the creation and export of web pages and, more recently, cell phone, tablet, etc. In some cases, this feature extension is only a limited set inside the individual applications; however, they have worked with other software partners to add the newly required tools. Yet, in each of these cases, workflows required to create, produce and distribute the content to many channels is a manual or semi automatic process at best.

Since most of these workflows require some level of templated layout to address the channel or device requirements, they are a natural for automation. As noted, there are CMS systems that have built-in tools to support some of this automated production through their composition engines. However if you are looking for rich composition engines that support the level of design control familiar to print production, you need to look at incorporating either InDesign Server or Quark Server into your solution.

While you can license either of these composition engines and build your own system, there are many software integrators that have already done that for you. Many have integrated one of these rich composition engines with a CMS and some other tools to offer you an almost plug and play, cross media production solution. In many cases, additional integration or workflow tools may better fit your existing systems or future workflows. Systems from Agfa, MEL NorthPlains, Texterity and Woodwing are a few examples.

Because of the many changes in channels and devices, there are many new tools entering the market. While all are built on the same basic premise of content creation, layout/packaging and distribution,

To get the most out of cross media production, you need to manage all of the content at the object level and support fully automated processes and workflows.

*ABOUT THE AUTHOR*

David L. Zwang is principal consultant of Zwang & Company, a firm specializing in process analysis and strategic development of firms in electronic publishing, design, premedia, and printing across the globe. He began in the graphic arts as a commercial photographer and has since founded several prepress and printing operations. His expertise spans cross media publishing, with an extensive background in premedia and printing. He is the chairman of the Ghent Workgroup.