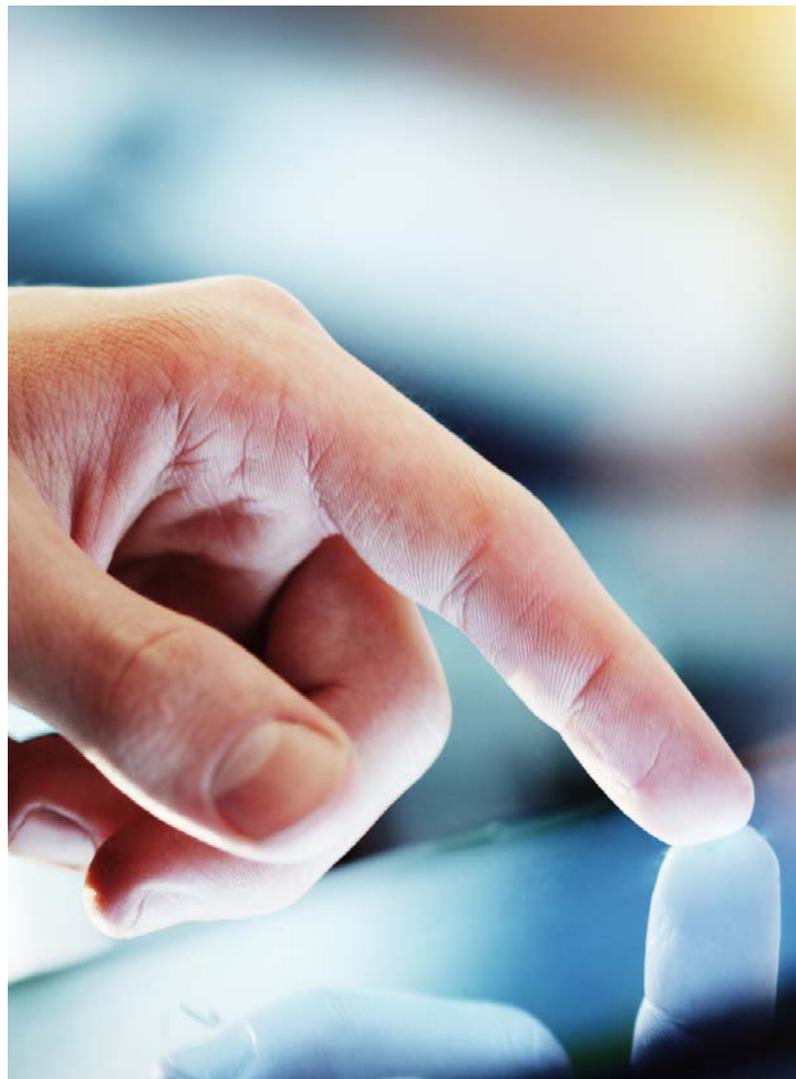




## Take two tablets...

...and publish in the morning. An in-depth look at the available tablet apps.



When Steve Jobs unveiled the iPad in 2010, he demonstrated the new *Wired* magazine app, which was created with InDesign and an early version of Adobe Digital Publishing Suite (DPS). Publishers large and small rushed to create digital content for the iPad, eagerly anticipating huge consumer demand for the chance to read graphically rich, interactive content on these shiny new devices.

DPS quickly established itself as a market leader, at least in part because it is an Adobe product. But competitors such as App Studio, Aquafadas, Mag+, and Twixl Publisher quickly came along to fill niches, workflows, and price points that DPS didn't address. All of these solutions are the same in one respect: they allow non-programmers

to create rich, interactive content with pixel-perfect precision using InDesign. These solutions also provide tools to help build an app to house your content, and a delivery system to publish content into the finished app.

Now, five years later, where are we at? Instead of coalescing into a single, best-practice solution, as many of us expected, the publishing landscape on mobile devices is still highly fragmented. There continues to be great debate over whether one should publish digital content as a mobile-friendly website, reflowable EPUB, fixed layout EPUB, PDF, or as a native app. Should there be open standards? Should different types of content be delivered using different



types of output? What about accessibility? Unfortunately, the experts, and the market, don't agree on answers to these and many other questions.

For the purposes of this article, let's assume that you've decided that the best solution for your needs is to publish your content into a native app (rather than another solution such as PDF, EPUB, FXL, or a website). Which solution should you use? Which solution incorporates the best technology? Which is the best value? Which supports the widest range of interactivity? Which is best for small publishers?

My goal is to try to answer as many of these questions as I can. This is not intended to be a comprehensive "white paper" comparing all the details of each solution. Instead, I'll give my opinions about the strengths and weaknesses of each solution, beginning with DPS, and then five more solutions in alphabetical order. All six of these solutions offer free trials, so my advice is to narrow your selection down to a couple

of solutions, and then try them both out. Research is great, but there is no substitute for actually using a product to determine if it is a good fit for your needs.

## Adobe DPS

In July of this year, Adobe once again shook up the tablet-app landscape by introducing a shiny new version of DPS...along with a subtle name change. DPS now stands for Adobe Digital Publishing *Solution* (not Suite), aka [DPS 2015](#). As of this writing, the new DPS is completely different than its competitors, due to its emphasis on "article-based" publishing and dynamic "browse pages."

### Article-based publishing

Adobe believes that today's mobile device users don't want to wait a month or more for an entire "issue" of content—and that users are better served by a continual stream of individual articles or other small content "chunks," served frequently, like a blog. They claim that this will lead to greater retention of readers and keep readers engaged with your brand. The entire workflow of DPS is built around easily publishing individual "articles" on a frequent basis (Figure 1). These articles can be arranged in "collections" by theme, date, product, or any other criteria you specify.

| Adobe Digital Publishing Solution / Content & Layouts / Content |               | Gilbert Consulting   Partner - Internal Use |                  |                  |           |
|-----------------------------------------------------------------|---------------|---------------------------------------------|------------------|------------------|-----------|
| Content & Layouts                                               |               | Above North Tours & Travel                  |                  |                  |           |
| Content                                                         | Title         | Type                                        | Last Modified    | Last Published   | Status    |
| <input type="checkbox"/>                                        | Climbing      | article                                     | 8/31/15 12:20 PM | 8/31/15 12:20 PM | Published |
| <input type="checkbox"/>                                        | Waterfalls    | article                                     | 8/12/15 2:17 PM  | 8/12/15 2:20 PM  | Published |
| <input type="checkbox"/>                                        | Flora         | article                                     | 8/12/15 2:16 PM  | 8/12/15 2:20 PM  | Published |
| <input type="checkbox"/>                                        | To the Cliffs | article                                     | 8/12/15 11:48 AM | 8/12/15 11:48 AM | Published |

Figure 1: Published articles listed in the DPS portal.

## Dynamic browse pages

DPS displays an image representing each article as a “card” arranged on a grid-like “browse page.” These cards and the grid configuration of the browse pages can be highly customized (Figure 2); they can be changed at any time without needing to update the app itself.

So now, instead of just a single, static “library” or “storefront” view of your content, you can display articles, collections of articles, and banner artwork in an attractive, easily customized grid within your app, which can be changed as your needs evolve (Figure 3, next page). As a bonus, this grid arrangement is responsive, fluidly adapting to multiple screen sizes and aspect ratios.

“Rules” determine the type of card that is used to display each article image. For example, articles that you tag as “featured” could appear with large cards, and normal articles with small cards.

Though somewhat complex to set up, once cards, rules, layouts, and collections

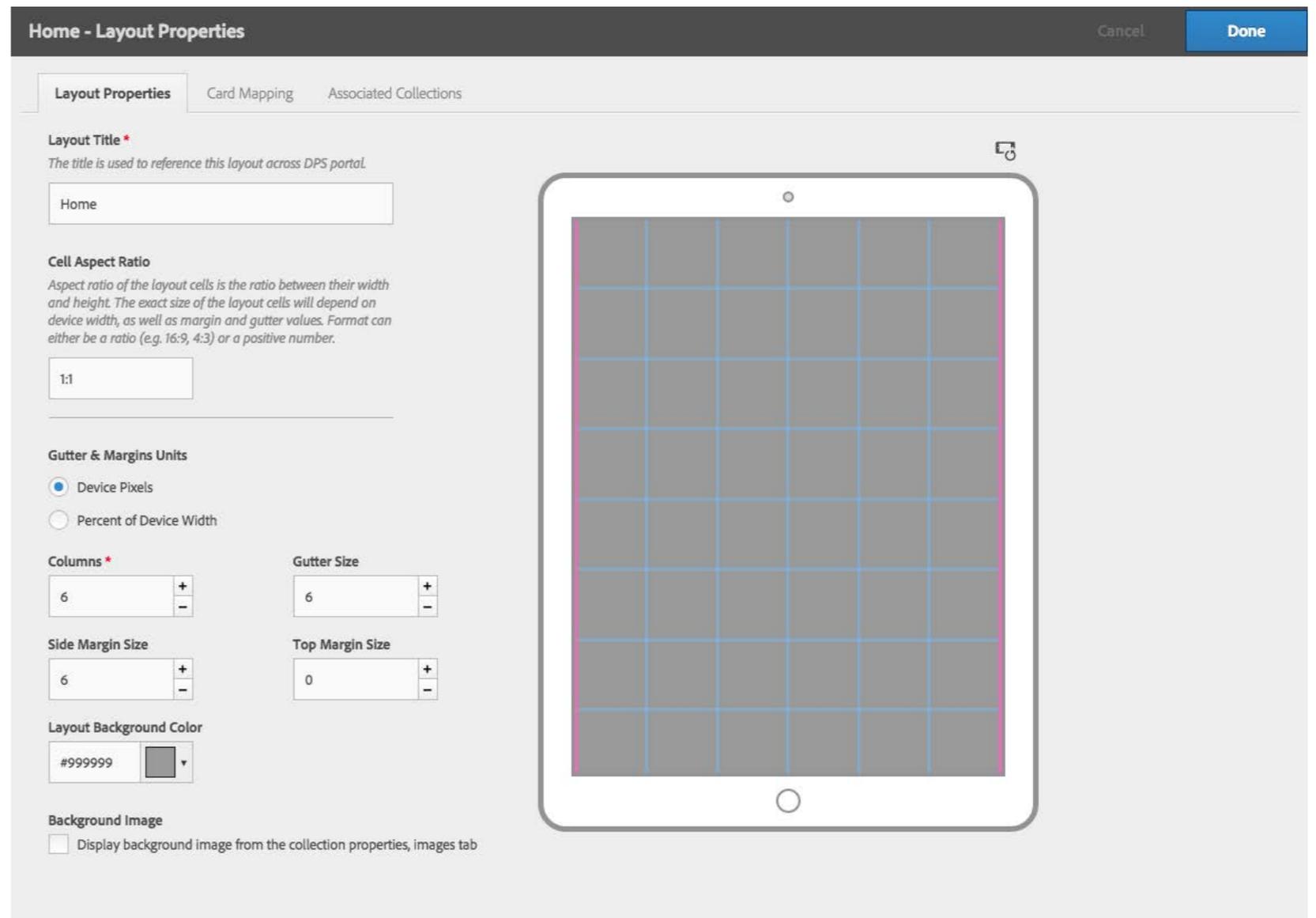


Figure 2: The DPS Layout Properties screen is used to specify the appearance of a browse page grid.

are in place, it is quick and easy to publish a steady stream of articles into the app.

In the new world of DPS 2015, “issues” or “folios” of content can still be mixed in

with this article content, if you prefer. In addition, Adobe still offers the older DPS 2014 for use by customers who prefer that platform.

Content for DPS 2015 apps can be a mix of articles created with InDesign CS6 or later, HTML content from tools such as Dreamweaver or Muse, or HTML content created from a content management system (CMS) such as Adobe Experience Manager, WordPress, or Drupal.

Another strength of Adobe DPS is support for “entitlement” with the leading subscription management companies. If you use CDS Global, Time Customer Service, Palm Coast Data, Dovetail, or Hallmark Data Systems to manage a subscriber list, these companies have pre-built connections to DPS to make it relatively easy to offer paid subscriptions in your DPS app.

DPS is the only solution reviewed here that outputs apps for Windows 8.1–10 devices. However, it does not build apps for Amazon devices. DPS 2015 just became available at the end of July, and it remains a work in progress. It will be interesting to see if any of Adobe’s competitors follow suit

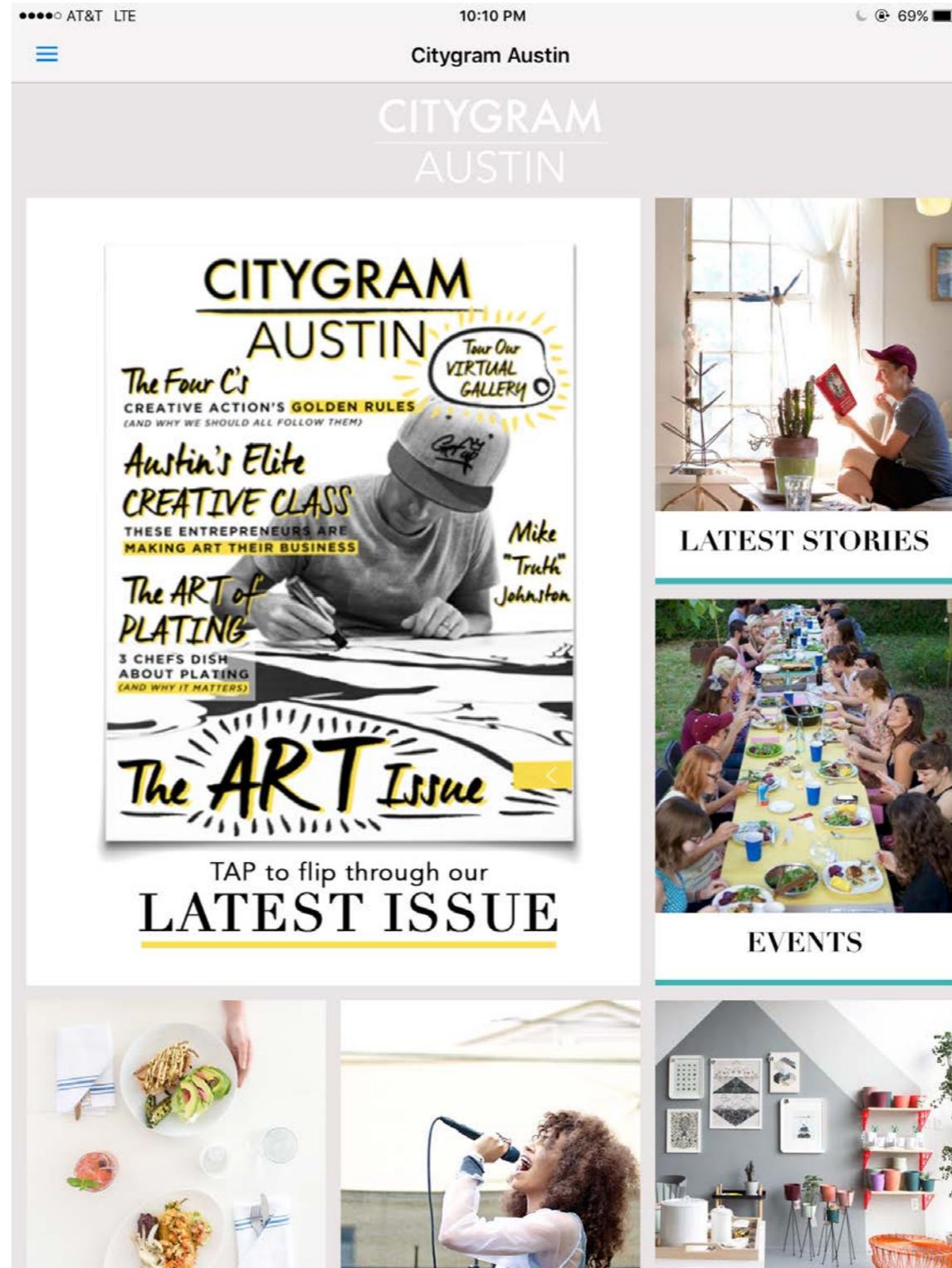


Figure 3: A browse page created with DPS 2015.

with similar approaches in their digital publishing products.

### Pricing

The pricing of DPS 2015 is not published anywhere on Adobe.com. It is subscription-based, with an entry price starting in the range of \$17,000 per year. It is clearly oriented towards mid-size to large accounts publishing periodicals or sales tools.

You can view a gallery of apps that have been created with Adobe Digital Publishing Solution at [adobe.ly/1Lu3GBi](http://adobe.ly/1Lu3GBi).

## App Studio

App Studio is owned by Quark. Yes, Quark! But, surprisingly, content for App Studio can be authored in InDesign.

App Studio is very different than its competitors. It converts InDesign content into App Studio content using HTML5 as the underlying screen technology. To do this, it needs to “squeeze” all the typographic and layout richness of InDesign into the simpler

container of HTML, CSS, and JavaScript. The first thing you will notice when learning how to create content for App Studio is the long list of “don’ts,” such as no hyphenation, no justified text, no kerning, tracking, baseline shift, text wrap, snap-to-baseline grid, vector graphics in interactive content (other than rectangles), rotation, or flipping of page items, CMYK swatches, or content on master pages (Figure 4).



Figure 4: The App Studio Exporter panel contains a validation feature that alerts the user to page elements that don’t meet the strict criteria required by App Studio.

One big benefit of using HTML5 as the underlying format for the output is that it gives you fully selectable and searchable text within the app. Quark also claims that it results in smaller file sizes.

App Studio's many constraints certainly make it more challenging to convert print-based materials to digital content for an app. This solution is probably best suited for highly repetitive, templated publications. They seem to have a lot of medical journals on their customer list, which are probably a good fit.

### Pricing

|                     |                                                                                                                          |
|---------------------|--------------------------------------------------------------------------------------------------------------------------|
| Single Edition app  | \$199 per app per device for iOS<br>\$499 per app per device for Android<br>\$99 per year fee to allow for minor updates |
| Multi-Issue Pro     | \$1139 per year<br>iOS apps only<br>One app, unlimited issues<br>1500 downloads per month                                |
| Multi-Issue Premium | \$5699 per year<br>iOS, Android, and Kindle apps<br>One app, unlimited issues<br>2500 downloads per month                |

You can view a gallery of apps that have been created with App Studio at [www.appstudio.net/en/Clients/](http://www.appstudio.net/en/Clients/).

## Aquafadas AVE Mag

Aquafadas is a French company, part of Rakuten, a Japanese e-commerce company based in Tokyo. Rakuten also owns Kobo, a Canadian e-book reader company. According to Wikipedia, Rakuten had 2014 revenues of about \$5 billion USD (more than Adobe).

Aquafadas produces a complete ecosystem of tools to create AVE (Adaptive Viewing Experience) files. These include AVE Mag, AVE PDF, AVE Reflow, and AVE Comics. AVE Mag is the solution for creating interactive mobile app content from InDesign.

Aquafadas includes a large set of interactive enhancement widgets with AVE Mag, and several more are available for purchase for an extra fee. These include some unique interactive elements such as mazes, games, and puzzles (Figure 5). In addition, the

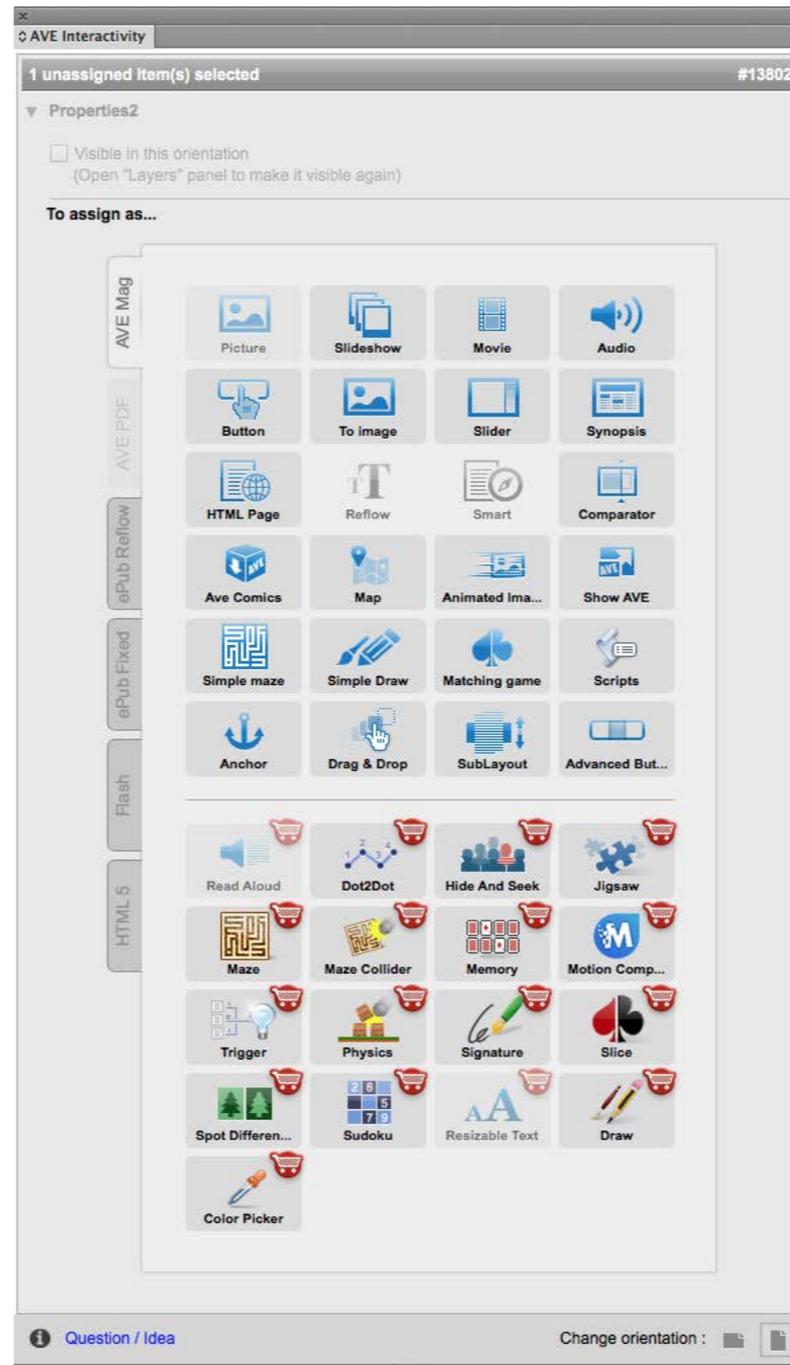


Figure 5: The AVE Interactivity panel lists the different types of interactivity that can be created in InDesign for Aquafadas AVE Mag.

Animation and Timing panels in InDesign are partially supported by Aquafadas. This support for a broad range of interactivity makes Aquafadas particularly appealing for app content that is targeted to children or the education market.

Content created with Aquafadas contains a very nice parallax effect that is applied to page elements automatically. This effect provides an interesting transition as the user swipes from one screen of content to the next. None of the other solutions offer anything like this. If you don't like the parallax effect, it can be turned off (Figure 6, next page).

Aquafadas provides a full text search that highlights the exact word or phrase that the user is searching for. Of the solutions reviewed here, only App Studio, Aquafadas, and in5 provide a robust search.

## Pricing

|                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| One single-issue app on all supported platforms                         | \$720 per year. This one-year license enables you to create a single-issue app and app updates for one year. When the license expires, the app will still be available on the stores, but you will need to purchase another one-year license when and if you need to update the app.                                                                                                                                                                                                                                          |
| One “Kiosk-Bookshelf” app on all supported platforms, 4 issues per year | \$4000 per year. This one-year license enables you to create one app and app updates for one year. When the license expires, the app will still be available on the stores, but you will need to purchase another one-year license when you need to update the app. Unlimited downloads included. Several different kiosk (store and library) configurations are included. Analytics and push notifications available for an extra charge. For an entitlement solution, add \$1500 for the first year, \$500/year after that. |

See [bit.ly/1EV1HQI](http://bit.ly/1EV1HQI) for complete pricing info.

You can view a gallery of apps that have been created with Aquafadas solutions at [bit.ly/1UDZLUT](http://bit.ly/1UDZLUT).

## “Roll your own app” with in5

Like the other solutions described in this article, Ajar Productions’ [in5](#) lets you create



**Figure 6:** Click to play a video showing the automatic parallax page transition.

rich interactive content from InDesign. Unlike the other solutions, it offers no app-building, subscription, or e-commerce tools. Instead, the sole purpose of in5 is to

output your interactive content as a folder of HTML, CSS, and JavaScript, with appearance preserved and full interactivity. Then you can add this output to a website, or use tools and services such as [PhoneGap Build](#) (free with a Creative Cloud subscription), [Baker Framework](#), or [Liquid State](#) to build an app to house the in5-generated content.

in5 has many options to control exactly how the HTML is output. Pages can be rendered with text converted to images (for pixel-perfect precision), with text formatted with embedded fonts, or with text converted to SVG. The HTML can be output in standard web format, configured in the HPUB format for Baker Framework, structured properly for inclusion in Liquid State, or as various flavors of “web apps” ([Figure 7, next page](#)).

in5 converts complex InDesign layouts to HTML pages with perfect fidelity if text is converted to images, and with really good fidelity, preserving many layout features, if text is included with embedded fonts.

Almost all the native InDesign and DPS interactive elements are supported. This includes full support for the Animation and Timing panels and interactive form elements. In fact, because Adobe DPS doesn't support the Animation and Timing panels, in5 has a feature specifically for DPS users that exports a selected animation in HTML format ready to use in DPS.

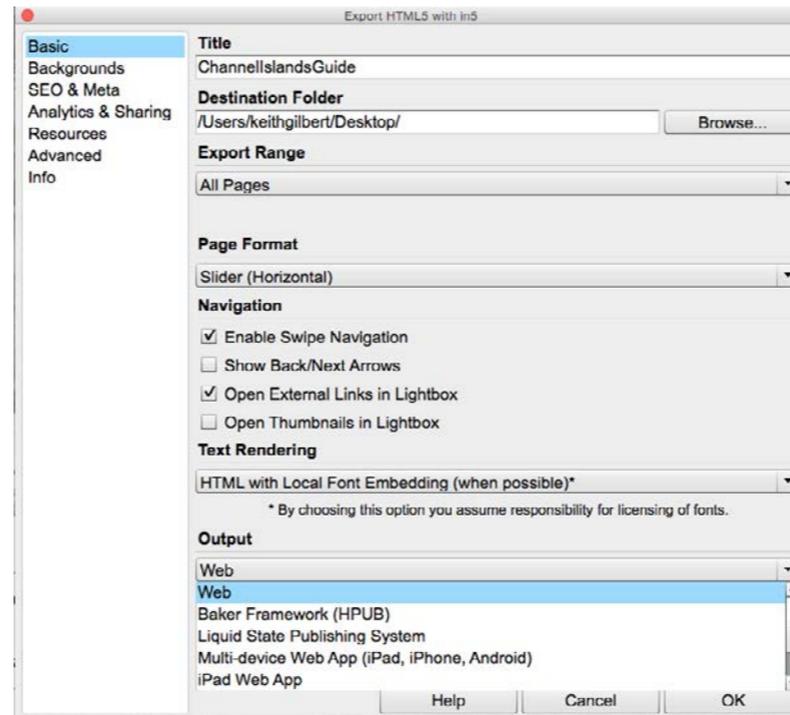
For those on tight budgets, in5 may be the *only* way to get into the app game, as it is by far the least expensive of all these solutions to create interactive, graphically rich content for distribution on mobile devices and websites.

### Pricing

Unlike all the other solutions in this article, in5 is software with a perpetual license per seat, not a monthly or yearly subscription.

|                 |       |
|-----------------|-------|
| Student version | \$279 |
| 2-seat license  | \$299 |
| 6-seat license  | \$699 |

See [bit.ly/1Hsu6E4](http://bit.ly/1Hsu6E4) for complete pricing info.



**Figure 7:** in5 offers many options for exactly how the exported HTML should be configured.

For more information about in5, see the review in [issue 54 of InDesign Magazine](#).

Two good examples of web experiences created from InDesign using in5 can be viewed at [bit.ly/1UBRnud](http://bit.ly/1UBRnud) and [bit.ly/1RuMjSB](http://bit.ly/1RuMjSB).

## Mag+

Mag+ is owned by Bonnier AB, the Swedish parent company of Bonnier Corp. Bonnier

Corp. publishes *Popular Science*, *Popular Photography*, *Field & Stream*, and many other magazines. Mag+ was originally developed as a custom solution for *Popular Science* magazine, and soon after, a separate company was formed to market the solution to other publishers.

Curiously, in July 2014, Bonnier Corp. announced that they would begin using Adobe DPS instead of Mag+ for its U.S. magazine titles (see [bit.ly/1LhtD6d](http://bit.ly/1LhtD6d)). Mag+ seems to be repositioning itself as a solution for corporate communications, sales enablement, and other uses outside of consumer magazines.

The early issues of *Popular Science* on the iPad featured a unique user experience that consisted of long scrolling screens. As the user swiped up and down through a long screen to read a lengthy column of text, the background image would change as certain breakpoints were encountered in the long vertical screen. The entire Mag+ product was engineered to make this type of user

experience easy to create. Mag+ also adds some “pinning” capability that makes it fairly easy to create dual-orientation content (Figure 8).

The question is, do readers actually want this type of long scrolling page experience? I find publications that use this type of navigation to be wearisome to read and difficult to navigate. I also find that most people no longer care about content being dual-orientation.

If long, scrolling pages of the type offered by Mag+ are key to your publishing strategy, then this is the solution for you. Mag+ is also very capable of creating more conventional “snapping page” types of screens, but the process is more complex in Mag+ than in its competitors. Overall, I found Mag+ to be the most difficult to learn and use of all the products discussed in this article.

On the other hand, there is a substantial payoff for your efforts. The app “chrome” or user interface that is created automatically for the user by Mag+ is, in my opinion, the



Figure 8: Click to play a video that shows the unique user experience made possible with the Mag+ tools.

nicest of any of these solutions. Clear yet subtle icons indicating progress through the publication appear at the top of the screen when a user swipes horizontally, and small icons appear on the left of the screen when

the user swipes vertically between screens. A very nice “page scrubber” appears across the bottom when a user taps in the middle of the screen. These are the clearest automatic navigation and wayfinding guides of any of the solutions.

You can view a gallery of apps that have been created with Mag+ at [www.magplus.com/clients/](http://www.magplus.com/clients/).

### Pricing

|                                                                     |                                                                                                                |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| One single-issue app on all supported platforms                     | \$99 per month                                                                                                 |
| One app, all supported platforms, multiple issues                   | \$499 per month<br>Unlimited downloads, analytics and push notifications included                              |
| One app, all supported platforms, multiple issues, with entitlement | \$699 per month<br>Unlimited downloads, analytics and push notifications included<br>Access to entitlement API |

See [bit.ly/1HsIYn7](http://bit.ly/1HsIYn7) for complete pricing info.

## Twixl Publisher

Twixl Publisher is definitely the third party solution most similar to Adobe DPS 2014. Anyone who has used DPS 2014 will be able to learn how to create interactive content with Twixl Publisher very quickly. In many ways, Twixl Publisher is a twin of DPS 2014, but at a very different price point.

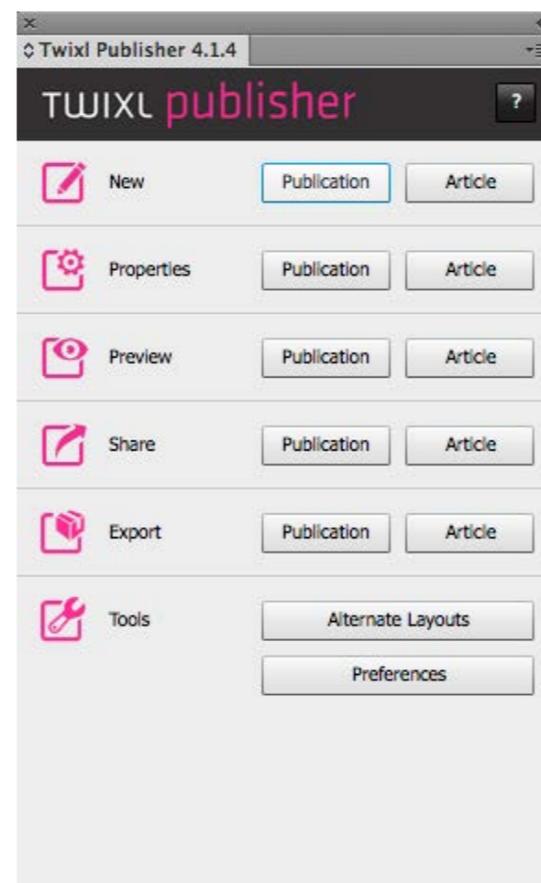
Twixl Publisher has the easiest-to-learn and easiest-to-use interface of any of the solutions. A single panel in InDesign contains all the options necessary for interacting with Twixl Publisher. When it comes to sharing an article or an issue with others for proofing or approval, Twixl makes it extremely simple—so much easier than Adobe DPS or any of the other solutions in this important, frequent task (Figure 9).

Twixl Publisher takes advantage of InDesign’s Alternate Layouts feature for creating dual-orientation apps, and the Book panel for organizing articles into issues.

The “Twixl Distribution Platform” for publishing issues into an app is very flexible.

It can distribute Issue and Article content exported from InDesign with Twixl Publisher, as well as PDF and HPUB content, which provides some interesting publishing flexibility not available with any of the other products.

The chrome provided by the Twixl app builder is the most basic of any of the



**Figure 9:** A single InDesign panel contains all the options needed to create Twixl Publisher content with InDesign.

solutions. It is the only solution that doesn’t offer a thumbnail or scrubber view in the user interface.

### Pricing

|                                                        |                                                                                                                                                                         |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unlimited single-issue apps on all supported platforms | \$850 per year                                                                                                                                                          |
| One app, all supported platforms, multiple issues      | \$1950 per year<br>5000 downloads included—additional downloads 4¢ each<br>Includes analytics and push notifications<br>Add \$1400 per year for an entitlement solution |

See [bit.ly/1JXj5bo](http://bit.ly/1JXj5bo) for complete pricing info.

### For further reading

The Ghent Workgroup has released a [white paper](#) that provides test results and best practices for quality control of tablet publishing solutions.

## Comparison of tablet publishing solutions

|                                                                       | <b>Adobe DPS</b><br> | <b>App Studio</b><br> | <b>Aquafadas</b><br> | <b>in5</b><br> | <b>Mag+</b><br> | <b>Twixl Publisher</b><br> |
|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| <b>Creates apps for the Apple App Store</b>                           | Yes                                                                                                    | Yes                                                                                                      | Yes                                                                                                     | Yes*                                                                                              | Yes                                                                                                | Yes                                                                                                           |
| <b>Creates apps for Google Play</b>                                   | Yes                                                                                                    | Yes                                                                                                      | Yes                                                                                                     | Yes*                                                                                              | Yes                                                                                                | Yes                                                                                                           |
| <b>Creates apps for the Amazon App Store</b>                          | No                                                                                                     | Yes                                                                                                      | Yes                                                                                                     | Yes*                                                                                              | Yes                                                                                                | Yes                                                                                                           |
| <b>Creates apps for Windows 8.1-10 laptops, desktops, and tablets</b> | Yes                                                                                                    | No                                                                                                       | No                                                                                                      | No                                                                                                | No                                                                                                 | No                                                                                                            |
| <b>Creates apps viewable in a desktop web browser</b>                 | Coming soon                                                                                            | No                                                                                                       | Yes                                                                                                     | Yes                                                                                               | Yes                                                                                                | Yes                                                                                                           |
| <b>Creates apps for Enterprise (private) distribution</b>             | Yes                                                                                                    | Yes                                                                                                      | Yes                                                                                                     | Yes*                                                                                              | Yes                                                                                                | Yes                                                                                                           |
| <b>Supported authoring tools (Mac and Windows)</b>                    | InDesign CS6 and later, PowerPoint, HTML editors, CMS                                                  | InDesign CS5 or later, QuarkXPress, HTML editors, CMS                                                    | InDesign CS5 or later. Photoshop CS5 or later also required                                             | InDesign CS4 and later                                                                            | InDesign CS4 and later. Photoshop CS4 or later also required                                       | InDesign CS6 and later                                                                                        |
| <b>Full text search</b>                                               | No                                                                                                     | Yes                                                                                                      | Yes                                                                                                     | Yes, via browser                                                                                  | No                                                                                                 | Yes (user is brought to correct screen, but location of the search term not highlighted)                      |
| <b>Selectable text</b>                                                | No                                                                                                     | Yes                                                                                                      | No                                                                                                      | Yes, via browser                                                                                  | No                                                                                                 | No                                                                                                            |

\* via integration with PhoneGap Build, Baker Framework, or Liquid State

## How to Choose the Right Solution

Which of these six choices is right for your needs? Here are my recommendations:

- » **Familiarity** If you are looking for a solution that is the most like Adobe DPS 2014 (the “old” version of DPS) in terms of functionality and capability, Twixl Publisher is the clear winner.
- » **Simplicity** Of all the solutions described, Twixl Publisher is also the easiest to learn and easiest to use, based on its single-panel interface and good support.
- » **Interactivity** in5 is the solution that best translates all the native InDesign interactive features, such as the Animation and Timing panels, form fields, and DPS overlays into final app content. That said, Aquafadas offers the widest range of “canned” interactive experiences, such as puzzles, mazes, Sudoku, etc.
- » **Text Capabilities** Aquafadas and App Studio offer the most robust text searches, not only bringing the user to the page containing the search word, but also highlighting the search word on the page. For comparison, Twixl Publisher only brings the user to the correct screen, and DPS and Mag+ have no search functionality at all.
- » **Cost** If you just have a one-off app to create, such as an annual report or an interactive guide, look at in5, Aquafadas, or possibly App Studio, depending on your needs. These solutions have the best pricing for single-issue apps.
- » **Sales Applications** If you need an app for distributing sales materials to a corporate sales force via enterprise (private) distribution on iPads, look at DPS 2014 and Twixl Publisher.
- » **Periodicals** If you create periodicals, you should first look closely at DPS 2015 and decide if the radical new approach taken by this solution is right for you and your workflow. If not, look at any of the other solutions described here, as they all can be used for a periodical workflow.



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