Makzin: Identifying Design Practices In Tablet Magazines

Bradley R Trinnaman

A thesis
submitted in partial fulfillment of the requirements for the degree of

Master of Design

University of Washington
2014

Committee:

Annabelle Gould
Kristine Matthews
Dominic Muren

Program Authorized to Offer Degree:

School of Art: Visual Communication Design
The practice of editorial design has been continually refining itself as an effective communication method of visual story telling for the last 200 years. In print, magazines are designed in a way that gives readers a hybrid experience between the daily information delivery of newspapers and the enduring content of books. There are many different solutions to deliver news and information digitally. Tablet computers, have introduced new possibilities for designers to create magazine applications that have the rich reading experience found in print, but enhanced with interactivity. Makzin is a publication application created to catalogue outstanding tablet magazines in the digital publishing landscape, identify best practices used in their creation, and disclose usability behaviors.
# Table Of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Thesis Proposal</td>
<td>6</td>
</tr>
<tr>
<td>Fall Quarter Research</td>
<td>8</td>
</tr>
<tr>
<td>User Research</td>
<td>12</td>
</tr>
<tr>
<td>Winter Quarter Writing</td>
<td>14</td>
</tr>
<tr>
<td>Spring Quarter Production</td>
<td>36</td>
</tr>
<tr>
<td>Grid Structure</td>
<td>38</td>
</tr>
<tr>
<td>Interface</td>
<td>40</td>
</tr>
<tr>
<td>Visual Cues</td>
<td>42</td>
</tr>
<tr>
<td>Screen Captures</td>
<td>44</td>
</tr>
<tr>
<td>Exhibit At The Henry Art Gallery</td>
<td>74</td>
</tr>
<tr>
<td>Reflection On Makzin</td>
<td>75</td>
</tr>
<tr>
<td>Bibliography</td>
<td>76</td>
</tr>
</tbody>
</table>
Initial Thesis Proposal

Project Statement
My intent with this project is to survey the current digital publishing landscape and document current design practices. By exploring the different digital devices, delivery channels, design work-flows, and potential interactive possibilities, I hope to gain a better understanding of how to create an effective user experience. My final deliverable for this could be a digital magazine that performs well across platforms, discover the skills needed for designers to construct careers in digital publishing, or develop a personal system of design practice.

Related Work
The Internet has provided many opportunities for publishers to create and distribute their work. Electronic tablets have also innovated how people consume electronic publications. Adobe Indesign’s Digital Publishing Suite is innovating production with software that lets designers create highly interactive and responsive electronic magazines. Publishers like Condé Nast have been pioneers as they introduced interactive elements, and video to a tablet version of Wired Magazine. Condé Nast seems to set the bar higher with each issue, but there are other publishers and developers creating different experiences on for tablets. Astronaut Magazine is a video documentary magazine released in 2011 for iPad that has over 90 minutes of video content, but also delivers a user experience similar to a print publication. As the possibilities for digital publication broaden, other areas are looking to be explored on small mobile devices, websites, and distribution.
_Project Outline_

_Fall Quarter: 10 Weeks_
- Conduct Design Research
- User Testing
- Ethnographic Interviews
- Magazine Landscape Research
- Persona Development
- Transcribing/Coding

_Winter Quarter: 10 Weeks_
- Begin Copy Writing
- Finish Transcribing/Coding
- Begin Design Development
- Learn Origami Engine

_Spring Quarter: 10 Weeks_
- Finish Copy Writing
- Film/Photography
- Layout and Design Visual Language
- Edit Video
- Transcribing
- Finalize Personas

_Significance_
My proposal is to search out missing gaps found in current Internet publishing options, and find opportunities where traditional print experiences can be applied. Also, designers who practice editorial design will need to know how their practice can be expanded into the digital realm.

_Follow Up To Initial Proposal_
After conducting research into the digital magazine landscape, I narrowed the scope of my project to identifying the design practices of magazine applications created exclusively for tablet computers. I abandoned researching responsive web design practices and integrating computer coding into digital publishing. I confirmed the idea of creating an application publication for the iPad that contained information on design practices of tablet magazines, comparing development software, and detailing user behaviors/expectations from a research project I conducted.

_Development Software_
I began my project with the intention of using Adobe’s Digital Publishing Suite. The DPS provides a development environment with familiar settings for print design, but I made a switch to Origami Engine because it has the ability to recreate effects and interactions commonly seen in iOS products. Origami Engine also provided me with the ability to create Parallax scrolling without the use of computer programming. Additionally, Origami engine was used to create several of the magazine applications featured in Makzin and I could recreate example demonstrations. It also is superior to DPS with integrating video in to layouts. That was important because my primary way of demonstrating examples of interactions was with video clips.
My first research steps were taken by purchasing an iPad and downloading magazine applications to begin to categorize how they were designed. I identified common page navigation methods; development software used, and studied news aggregation applications like Flipboard. I categorized a typology of applications. One category was magazine applications that host direct-from-print PDF versions of a printed magazine. Second are applications designed for reading on an iPad that have a print counterpart, sometimes referred to as digital replicas. Lastly, there are magazine applications designed only for the iPad that do not have printed versions associated with them.
Magazines Studied

Made with Custom Code
- Astronaut, Issues 1, 2
- Post-Gravity, Issue 3
- Letters To Jane – Shadows, Late Autumn
- Bloomberg Business
- Skateboarder Magazine
- Spin Magazine

Made with InDesign
- Martha Stewart Living, Jan/Feb 2014, special Issue
- Wired, 19.05, Nov 2013, Dec 2014
- GQ, Dec 2013
- TLO, Issue 3
- La Vita Nova, 2, 4 Dec 2012, 3.1 Apr 2013
- DONE_2012
- The New Yorker

Made with Origami Engine
- Katachi, issues 1, 2, 3
- Kvadrat
- Stipla, Issue 1 2013
- Experimenta, Issue 1

Magazine Apps
- Flipboard
- HP Mag Plus
- Zinio
- Strossel / News Reader
Comparing Print Design Practices To Tablet.

Selections from my notebook where I researched the differences between the design on print magazines and what currently being done with tablet editions.
Print Magazine Best Practices 10-24-2015 11:21

1. Image Placement
   - Used to drive the story
   - Pictures of faces looking towards the spine
   - Create harmony
   - Harmony/Balance between text/image

2. Spatial Issues
   - A balance of imagery, color, display copy, headings, white space, text/body copy, etc.
   - To counterbalance
   - Grey Effect
   - If the article is over written, creating an imbalance
   - Design becomes problematic

3. Visual Hierarchy
   - There are no definite rules on how to scan a page, but designers
   - The use of visual hooks can be used to draw the eye
   - Rule of thirds
   - Reader attention
User Research

Research Question
With this design research project, I would like to ask the following question: How do people respond to the experience of reading a high-fidelity iPad magazine for the first time? I would like to accomplish this by finding 7–8 research candidates who own an Ipad but do not use it to read digital magazines. I would ask them to download a free copy of Wired, or Martha Stewart Living and spend time engaged in the content. Afterwards, I will conduct interviews to collect data on the candidate’s experiences.

Explanation
I find this an area of interest due to the recent emergence of digital magazines read on tablet devices. According to Wired Magazine’s Editor-in-chief Scott Dadich, due to the iPad and Apple’s News Stand App, there is renewed consumer interest in editorial materials and how they are delivered. New jobs and skills in design, publishing and software development are emerging thanks to this technology. In addition to this, new types of content delivery applications have been created like Flipboard, a media aggregator that provides readers a customized editorial experience. The creation of the Adobe Digital Publishing Suite was realized through a partnership with Adobe and Conde Nast. They have done extensive research into the design, reception and experience provided to their readers. Also, a few independent agencies have begun to create magazine apps that are similar to Adobe’s model. With this study, it is my hypothesis that understanding current consumer interests, and expectations, I can begin to find new design areas for editorial materials. At the end of this study, I hoped to have a report of areas that I can make a difference in editorial experiences.
Transcript Coding

Selections from my notebook where I categorized user expectations behaviors and interactions.
When the research phase was finished, I began to write the content for Makzin. The book contains three chapters. Chapter One is a survey of the tablet magazine landscape, and Chapter Two identifies best design practices. The Third chapter contains details on my user study, and includes design personas that represent different user expectations. I interviewed Johannes Eckert who is an experience designer currently working for Adobe on the Digital Publishing Suite and the creator of the tablet magazine DONE. I applied the interview to each persona and designed it as a Q&A article three different ways.

**Introduction to Makzin**

Early in my career, I was involved with the redesign of UVU Magazine, an alumni publication for my university. It was an intimidating project. I was unsure how my design aesthetic would translate to the magazine’s established brand, and whether I had enough experience to handle such complex and varied content. Once I began working with talented photographers, writers and editors to help bring their stories to life, however, it became an incredibly rewarding experience. I fell in love with the way that editorial design combines a systematic approach together with seemingly limitless possibilities. My work with the magazine opened the door for opportunities to design other publications.

Several years later, during the launch of the pilot issue of a trade publication my client approached me and asked, “How do we get an iPad version of it?” The iPad had only recently been launched and my reply was: “I have no idea, but let’s look in to it.” Even initial research led to endless questions,
from the strictly functional: “How do I layout pages for a tablet?,” to the more philosophical: “Should the tablet version mimic the printed version, or are they two completely different things?”

My time earning my Masters degree at the University of Washington has been dedicated primarily to answering those questions. I was fortunate enough to begin my course of study in a publication design class with Prof. Annabelle Gould. In her class, students create an original publication in both print and digital form. It was an excellent beginning to my re-education in magazine design. I have created Makzin as a platform to describe best practice in digital publication design, detail my usability research, and showcase some publications that are making exciting inroads into this dynamic new design space.

_The Magazine Metaphor_

Editorial design has evolved as a tool for visual story telling over the last 200 years. In print, magazines are designed to give readers a hybrid experience: something that lands between the daily information delivery of newspapers and the enduring content of books. Magazine content usually includes a balanced combination of short and long-form copy, colors, and images organized in a systematic visual hierarchy. At the core of every successful magazine is a storehouse of content that builds a relationship with the reader. The relationship is defined by both content and visual delivery: the curation of informed journalism, along with the design of that content.

Today, print magazines continue to serve as an inexpensive source of news and information. Advancements in technology such as color printing and desktop publishing have vastly increased the availability and production of print periodicals to a mass audience. Other media increasingly crosses over into the realm of the magazine, include video documentaries, posters, and even t-shirts. Furthermore, with the advent of the Internet, magazines have been reinterpreted as websites and blogs. Recently, mobile applications like Flipboard, Pulse, and Zite have emerged, using
smart algorithms designed to curate and restyle RSS news feed content into an editorial format.

Many print magazines have evolved in response to the new variety of information channels. Some like SPIN, have re-branded. Others offer special interest publications delivered in a book-like fashion, printed on high-quality paper in non-standard sizes. Publishers have experimented with different business models, offering free content on their websites while selling their premium content for a monthly fee. Despite these adjustments, there is often a gap created between print magazines and their accompanying websites. With recent advancements in the tablet computing market, including the introduction of the iPad in 2010, a new typology of editorial design has emerged. This new form mixes the quality of the printed page with the dynamic possibilities of the web: the digital publication for tablets.

**Surveying the Tablet Magazine Landscape**
While browsing in your favorite app store, you may discover a large variety of applications labeled as magazines. Reviewing what is available reveals that tablet magazines can be categorized in three different models. First, is the direct from print model where a PDF is uploaded to a viewing application made to display on devices. Second is where a digital counterpart is created along side a printed piece. Third, magazine applications created only for use on a tablet. A majority of magazine applications are for individual brands where you can download the app for free. After launching, the application offers in-app purchases of current and past issues through a newsstand.

There are so many emerging designs that it would be difficult to include information on everything. For this reason, outlined below is a selection of outstanding magazine examples that will be referenced throughout this publication.

**Direct From Print Model**
Direct from print magazines are most commonly found by downloading
applications like HP Magcloud, which is a digital newsstand selling numerous differing brands. There are subscription-based applications like Zinio that operate similar to Netflix. By paying a monthly fee, readers have access to thousands of popular magazine brands. The interactions are limited to navigation, switching orientations, zooming in/out on text, viewing photographs, and occasionally hyperlink text. The content layout is directly from the print counterpart with little design consideration for the tablet device. These types of direct from print magazine apps are still primarily abundant in the marketplace.

Print & Tablet Counterpart
Before the iPad was launched, Wired magazine’s Creative Director Scott Dadich began working on a tablet magazine prototype for publisher Condé Nast. He worked with a team of interaction designers from Adobe, eventually leading to the creation of Adobe’s Digital Publishing Suite. Wired launched their magazine application on May 22, 2010, introducing a new features that take advantage of what a magazine on an iPad could be. Issues of Wired introduced what one would assume to be what a digital magazine should take advantage of. For example, video clips, interactive slideshows, text formatted for viewing on iPads, audio clips, and animations. Another important contribution from Dadich is introducing a new viewing architecture that benefits from the iPad’s gestural abilities. Dubbed by Dadich as “Stacks”, content is formatted on a dual-axis plain where individual articles are accessed by swiping horizontally from left to right, and read vertically from top to bottom. Admittedly, Dadich recognizes that other developers had similar ideas stating, “In terms of our own personal survey of digital magazines at this point, there are a lot of people who’ve come to the same conclusion...”

iPad Edition Only
The world of magazines designed for the iPad does not end with the translation from a print edition to digital. There are some high quality magazine applications created exclusively for the iPad without the use of Indesign. One of the first magazine apps to arrive is entitled Letter to
Jane, developed independently by Tim Moore. Letter to Jane began its life as a PDF before the iPad, but upon its release as a tablet magazine, it soon became a popular download on the Apple App store. Letter To Jane is described on its website as an arts magazine for the iPad, giving artists an unfiltered platform to share creative work without compromise. Knowing he would not have the budget for a print edition, Moore chose to develop Letter To Jane using Apple’s Xcode. The design of LTJ is meant to be an immersive experience focused on content responding to the reader with a minimalistic interface.

Also developed using Apple’s Xcode, and only available on iPad, is Astronaut Magazine. Unlike the Condé Nast publications, there is no printed artifact to reference for layout. Therefore, content can be designed specifically for the iPad. Astronaut is an outstanding example of a well thought out design. Some of the digital content is hidden and designed to give the reader a pleasant surprise when discovered. There are currently two issues available to download.

Developing magazines with Xcode is not necessarily a practical option for print designers transitioning to digital even though it gives them control over the entire design of the application. There are other options available. Katachi magazine was founded in 2010 and highlights the software Origami Engine created exclusively for iPad publication design. In addition to showcasing the software, Katachi demonstrates the potential of what an interactive magazine could be by taking full advantage of the iPad’s capabilities. For example, in Issue 3: Gold, the cover activates the forward facing camera on the iPad to create an illusion of the reader’s image reflected in gold. Interactive elements like animations, video, and scrolling objects are integrated throughout the content strategically placed to enhance story telling and engage the reader.

_Tablets Put Reading On A Screen In Your Hands_

The idea of being able to use hand held computers is not new, but tablets have had trouble finding their space in the market. In what seems like
technology dog years, tablet computers have been gaining popularity for
the last four years, but feel like they have been with us for longer. In the
current market there are many tablet devices with the potential to read a
magazine on. Getting to know what is available to the current landscape is
a good start to designing apps on them.

After Amazon introduced the Kindle tablet in 2007, they sold more E-books
than actual printed books. The first generation Kindle was a revolutionary
device with a grayscale display and the ability to store 250 megabytes of
books on a single drive. It sold out in five and a half hours after it’s release
on Amazon.com and since it’s arrival the Kindle has been redesigned with
new features like larger storage drives, E-ink displays, keyboards, larger
screens, and mobile network access. Currently, the Kindle Paperwhite
3G is Amazon’s most advanced E-reader tablet with an improved E-ink
display showing text at a 212 ppi resolution. It is the perfect device for
book lovers, but where exactly do magazines fit in with the niche market
carved out with the Kindle?

Since the introduction of the iPad in 2010, Apple has steadily dominated
the tablet market. During the announcement keynote held at Apple
headquarters, founder Steve Jobs reviewed all of the iPad’s features
reserving a portion of the presentation for it’s E-reader capabilities. He
introduced the iBooks application and how readers now had access to
color photography, text and video in an E-book vastly different from the
reading experience found on a Kindle. The iPad is physically designed to
provide the user with a similar experience as holding a book or magazine.
The touch screen allows control touch gestures built into the software
making for a highly immersive and intuitive experience. A noticeable
exclusion from the keynote was the absence of magazine content for the
iPad, rather the websites for The New York Times, Times magazine and
National Geographic were demonstrated. Like the Kindle, the iPad has
continued to evolve and the most current models are called the iPad Air
and iPad Mini. In response to the iPad, other technology companies like
Microsoft, Amazon, and Google have created their own tablet computers.
With the increase in tablet devices, opportunities for digital content have emerged concurrently introducing new challenges for print designers as content transitions to digital delivery.

**Design Fidelity**

Soon after Wired’s digital conversion, Condé Nast announced all of their “digital replicas” would be developed using Adobe’s Digital Publishing Suite. While considering this adaption, the question arises as to how faithful the digital replicas should be to the brand?

Not every magazine title is the same at Condé Nast and with help from the experience design team at Adobe they developed a design fidelity spectrum considering each brands distribution, contents and audience. It is not a measurement of quality but rather how accurate the digital realization is to the print equivalent of the brand. Analyzing their catalog reveals the representation of their brands is still in the hands of the editorial staff, taking full advantage of having the beauty and engagement of their print counterparts, while including the benefits of web 2.0 technology like and the low cost of digital distribution. At Condé Nast creative control is in the hands of the individual design teams. This leads to rapid innovation and they have found that this drives collaboration and higher fidelity designs. The spectrum is used to determine what types of interactive features each title will receive and device priority. Depending on the content, the different titles move up and down the spectrum and enabling decisions on what type of technologies will produce the best story telling.

**Development Platforms**

Whether you are designing a magazine for the iPad only, or a digital version of existing print content, it is important to know what types of development environments are available. Two platforms that work well with out prior coding knowledge is the Digital Publishing Suite found in Adobe Indesign, and the lesser known Origami Engine. With both, designers have the ability to create applications with media rich layouts including: slide shows, animations, video players, social media sharing,
overlays, and hyperlinks, all without having to learn any coding. Designers also have the choice to enable additional functionality to media objects with HTML 5, Javascript, and CSS. Both systems have their advantages and disadvantages when it comes to achieving a suitable design outcome.

**InDesign Digital Publishing Suite**
Because it has become an industry standard, the most accessible platform is Adobe’s Digital Publishing Suite, included with InDesign CS5.5, 6 and Creative Cloud. All of the familiar page layout features in InDesign are still available with the added ability to create dual orientation pages specific to iPad and various other tablets.

**Origami Engine**
A Mac OS desktop application created to tap into the interactive potential emerging with the iPad’s touch screen display and iOS. For example, interactive overlays created in Origami Engine operate on gestural conditions activated with one or two moving touches. Like the DPS, designers are able to create media rich content without having prior coding knowledge making it easy to focus on the design and interactivity of the magazine.

**Apple XCode**
Registering to become an Apple developer and working with XCode is also an option for creating magazines. XCode is the development environment containing the tools used to make graphical applications for Mac OS and iOS. Designers would need to take the time to learn how to develop within the XCode environment but would have total creative freedom on their magazine’s navigational features, interactive elements and interface. XCode is a free application and becoming an Apple developer is moderately inexpensive costing One Hundred dollars a year.

**Transitioning From Print To Digital**
Although digital design is familiar territory for graphic designers, the role of a print designer is changing. Building digital media from scratch can
be intimidating for even the most seasoned print professional. It is key to understand that the artifact created is not a website with various entry points and a large information architecture, but rather an independent application with a beginning and end. However, opportunities to take advantage of existing interactive design practices is beneficial to the design of tablet magazines. In today's design landscape, it is inevitable for a print designer to incorporate interactive and video practices into their work, adding to an already extensive skill set.

Of course, developing magazines from scratch is only one scenario. Editorial teams can be large and interdisciplinary. If the role of developer is not placed on the designer, an understanding of interaction design and coding can only strengthen the communication and performance of teams. However, it appears that the creation of digital media most often falls into the lap of the print design and editorial teams. An example of this is the team at Sports Illustrated. The design and editorial teams credit their magazine's successful design fidelity to the fact that the in-house staff is extremely familiar with the brand. There is not a separate digital department, but rather the primary editorial staff assigns stories while giving priority to either print, web or tablet delivery. They always start with the print version of the magazine and the teams produce a tablet edition for the iPad along with editions for Android and their website in tandem. The Sports Illustrated design team uses software called WoodWing that allows designers to have a more integrated workflow. If they make changes to the print document, the tablet editions change at the same time.

When designing for tablets, designers need to consider multiple factors: different screen sizes, varying user engagement, screen-size allowance, pixel density, readability, orientation, and interactive elements. It can be overwhelming to add even a few of these variables on top of the already complex challenge of designing a traditional print magazine. A baseline understanding of best practice in digital publication is essential to getting started.
The first step a designer must take when designing magazines for a tablet is to purchase a tablet and become familiar with its functionality. By downloading other applications you can begin to see how users interact with the operating system, what types of gestures are used to trigger interactions and how images and text appear. Being able to rapidly test designs is another reason to purchase a tablet.

A tablet magazine application is comprised of three areas to be designed. The first area is the layout of the pages with the body copy and graphical elements, then the interactive overlays, and then the design of the container interface with the scrubber. A more detailed examination of these areas will be discussed in the future articles and all examples shown in this magazine will be from an iPad.

Screen Sizes
The tablet market has grown in size and variety since the release of the iPad. Designing for all of the different devices with their varying screen sizes and pixel densities can present significant challenges for the designer. Understanding how these can affect your design will help in planning out a workflow. Unlike designing for the web that takes into account for desktop and mobile displays, there is a smaller range of screens to design for with tablets. To deal with the varying screen sizes, the best course of action is to become familiar with your device aspect ratio, and pixel density. The most common aspect ratios for tablets is 4:3 and 16:10. By creating page sizes that correspond to those ratios, designs can be scaled up or down with relative ease.

If you are planning on designing for multiple devices, then Adobe DPS is the best option as a development platform because you have the ability to design for multiple screen sizes at the same time. Owning both Apple and Android devices is ideal to test with, but as the DPS has simulators for different screen sizes, it’s possible to get away with only one.
Screen Density & Hardware Pixels
Screen density is defined as the number of hardware pixels within the physical area of a screen. Hardware pixels represent the smallest points that a screen can display. The physical pixels are comprised of red, green, and blue sub-pixels. Because hardware pixels cannot be physically distorted or subdivided, they provide an adequate measurement to design with. In addition to the growing amount of screen sizes with tablets, advances in manufacturing have made it possible to have computer displays that contain a dense amount of hardware pixels on small screens giving rise to high-density screens (retina displays).

What does this mean for designers? The origins of measuring how content is displayed on a computer display are found in the typographic point system where 72 points makes an inch. Apple’s iOS Human Interface Guidelines suggest designing assets at twice their typical printed size in order to account for retina screens. Vector graphics are ideal and can be resized without losing clarity, but raster images are affected tremendously. However, this does not mean you have to design raster elements for every density.

Page Navigation Methods
There are two methods commonly used when laying out the content of a digital magazine. A majority of digital magazines are created using the stacks method. Readers swipe to the left and right to access different articles, and swipe up and down to read articles similar to how users would read content on the Internet. Some magazines use a cards method only allowing readers to swipe left and right to access different articles. With the use of hyper-linked buttons, a non-linear method can also be applied where readers open pages not included in the main flow of the issue.

Type Setting
Using points as a measuring unit for type size is standard for print design. On paper, text font size in points is dimensioned in inches. The definition of a Point is 1/72 of an inch, and so there are 72 points per real inch on paper, but this is not the case in digital type setting. For example, if you
are familiar with setting type for the web, then you may have noticed that you set your type in pixels at larger sizes than you would for print. Again, this has to do with screen density and your type will look uncontrollably different depending on what display it is viewed on.

**Setting Type For Retina**
Whether you are adapting existing print content for tablets, or starting a new digital only magazine, you need to format your type for the screen. Through some trial and error you can arrive at a comfortable reading size. Alternatively, knowing that an iPad scales files down to fit the pixel density of the screen makes it easy to adjust your workflow. A file that is 1024 pixels wide at 72 points per inch is interpreted at roughly 14 inches. When uploaded to an iPad the file scales down to the physical 7 in wide screen and the 72 ppi increases to match the pixel density. With retina displays, it may be tempting to treat type like raster graphics by quadrupling pixel height, but in both Indesign and Origami Engine there is no need to. In Indesign, there is an option to have vector type so it will appear sharp at any size, and in Origami Engine type will be interpolated down. In both programs, set type size and leading at twice the size as you would normally do in print.

**Setting Type For The iPad Mini**
Even designing layouts solely for iPad has a small degree of screen variance because of the iPad Mini. The iPad Mini has the same amount of hardwired pixels as the iPad Air but on a physical screen of 6.3 by 4.7 inches. Apple sells the iPad Mini on the premise that owners get the total iPad experience in a smaller package and this is exactly what it does, albeit with applications slightly scaled to fit the new size. This affects type size and if you are concerned with trying to design one application for both machines, you can consider type sizes that are comfortable to read on both screens. The type may look slightly larger on a standard iPad but will be comfortable to read on the iPad Mini.
Choosing A Type Face
Because the retina screens are so sharp, type looks incredible. Type is displayed so refined that it can appear to look slightly lighter on an iPad compared to paper. The world is your oyster with type choices, but selecting a typeface with even colour can be very beneficial, again due to the sharp retina displays. For these typography examples, two contemporary typefaces will be used. Katachi Sans and Serif was designed specifically for Katachi Magazine and to be viewed on an iPad. Franziska is a new typeface designed to be with monolinear contrast that gives it the ability to be legible at small sizes for the screen.

Layout Orientation & Grids
Because the retina screens are so sharp, type looks incredible. Type is displayed so refined that it can appear to look slightly lighter on an iPad compared to paper. The world is your oyster with type choices, but selecting a typeface with even colour can be very beneficial, again due to the sharp retina displays. For these typography examples, two contemporary typefaces will be used. Katachi Sans and Serif was designed specifically for Katachi Magazine and to be viewed on an iPad. Franziska is a new typeface designed to be with monolinear contrast that gives it the ability to be legible at small sizes for the screen.

Designers have the options of making landscape- or portrait-only layouts, or a combination of both to create a more responsive reading experience. Uniformity and consistency is key to creating a magazine that your users will find easy to navigate, read and understand. By organizing your content on a grid, you can deliver a good reading experience for your user, including more intuitive navigation. When reinterpreting layouts from print, you will not be able to use the same grid system. A new interpretation of your grid can make the most of the tablet reading experience.

Hyperlinks
With a grid system in place, you can begin to layout your content and introduce graphical interface elements. A common use of navigational
elements in digital magazines is hyperlinking articles and text to referenced and related content. Hyperlinks can guide readers to pages inside your publication, or to an outside URL. Many cover designs allow readers to navigate directly to articles of interests simply by tapping the associated cover lines. It is common practice to hyperlink photographs used in the table of contents to allow readers direct access to associated articles; this practice also eliminates the need for page numbers. The use of hyperlinks is common in web design, but inside of a digital publication application context, there is no need to include hover states and visited states. Even though a digital publication is not a website, it is important to consider that readers associate any text that is highlighted or underlined to be hyperlinked.

.Buttons & Symbols
When first coming to an article in a digital magazine, the reader will look for interactive possibilities. By making simple symbols, you can make clear to the reader the outcome of tapping on a button. There are two areas of a digital magazine where there is a need to create buttons. If using development platforms like DPS or Origami Engine, the supplied container interface comes with buttons already associated with its usability. Including additional custom buttons to the container UX need to be designed to match the existing icon appearance. When creating a symbol set to use for buttons inside the magazines content, it is appropriate to create a symbol set that speaks the same visual language as the magazine content. This is where the designer is allowed to experiment with different shapes, colors and sizes to integrate buttons to reflect the brand. Buttons need to be large enough to be easily touched by the user yet small enough to not distract from the reading material. A common symbol set includes indicators for playing video, audio, pop out windows, pinch and zoom areas, progress bars, and navigational cues.

.Navigational Cues
Navigational cues or “Coach marks” have become common in most digital magazines. These are symbols to help guide the reader to different
articles if they are swiping through the content. They are usually found on the bottom of individual pages. The most common is an arrow, but an arrow can also have unintended user perceptions. For example iOS users tap arrow icons to navigate to different screens in applications and while browsing in mobile Safari. It is not uncommon for readers to tap arrow icons and it can be confusing if they do nothing but point in a direction.

A good example of using navigational cues other than arrows can be seen in DONE magazine. The navigational cues are small dots connected to one another by a small line that bleeds off the page, “linking” each page to let the reader know where to swipe next. Instead of arrow icons, some magazines use progress bars that give the reader a sense of the article’s length. Additionally, designers can use graphical content to guide readers, for example having elements like headlines, photos, or paragraphs bleed off the page to indicate that the article carries on in that direction.

Interactive Overlays & Cover Design
As previously discussed, programs like InDesign and Origami Engine give designers the ability to create interactive content without learning code. These interactive elements are known as overlays and both programs offer a wide variety to choose from that can be mixed and applied in various ways. Presented below are a few examples of how overlays can be applied to layouts.

Cover Design
In print magazines, the cover is designed to collectively showcase the contents contained inside each issue. The cover is challenging to design because it needs to retain a consistent familiarity to the brand, but is ever changing depending on the addition of new content per issue. The newsstand has also played an essential part in the evolution of cover design. Mastheads are usually placed at the top of the cover so the name of the brand can be seen if other magazines are stacked in front of it. Large photographs and headlines, relating to the content found inside, entice viewers to purchase a copy and read on.
In respect to purchasing tablet magazines, cover designs can serve a different function. If a magazine application has a print counterpart, then the cover design serves as the icon readers see while browsing in a digital newsstand, and is viewed at a smaller size. Purchases are made similar to physical newsstands. However, if your application is a stand-alone app, having a polished icon design helps to get reader’s attention when browsing the app store. Furthermore, magazines showcased in the upper-carousel of the iTunes store have a greater chance of getting noticed and downloaded.

Once downloaded, covers of tablet magazines can be created without the large headlines, and usually contain some form of interactive element. The interactivity of the cover is a chance for the designer to introduce a tone to the application and its contents.

_Research In Reading Behavior_

We have discussed examples of magazines that are highly interactive along with others where interactions are very limited. How much interactivity is appropriate to include? Additionally, how do people actually respond to interactive tablet magazines as a designed artifact? Also, how can one know if design decisions are well received by users? Pondering these questions myself, I looked for answers by applying design research methods to tablet magazines.

_The Project_

According to Scott Dadich, due to the iPad and Apple’s News Stand App, there is renewed consumer interest in editorial materials and how they are delivered. Based on this statement, I began asking people what they thought of digital magazines and was surprised to find that almost all of my initial research candidates never used their iPads for reading magazines. If they did, they downloaded direct-from-print PDFs and were not impressed. This lead me to speculate as to the importance of first impressions. If user expectations were not met the first time out, what that would mean for the design of the publication? I studied how people
experience high fidelity tablet magazines for the first time, documenting their expectations and behavioral patterns, and looking for areas with design potential. I asked subjects to choose a free issue of either Wired or Martha Stewart Living. Both titles are solid examples of digital magazines, as the brands are already familiar, they are aesthetically pleasing, and they contain an array of interactive components.

First, the candidates were asked to download their preferred title and spend time with each issue. Second, they took part in ethnographic interviews where they related their experiences. Third, they participated in a “Speak Out Loud” activity where they were asked to narrate their thinking while reading and interacting with their selected magazine.

I began to see behavior patterns emerge. Though most subjects considered themselves avid readers, only one finished reading an entire article. The others preferred to skim over the text and move on, once they understood the basic idea of the article. Candidates expressed that although they did not like reading on LCD screens, they were surprised to find that they did not mind reading on the iPad.

Even though the magazines are a combination of static and dynamic pages, they were treated just similar to web pages. Any design element on a page that was highlighted was assumed to have interactive potential. For example, one article from Wired had bright pink icons as supportive graphics. Candidates repeatedly tapped them as buttons, even though they did nothing, which led to confusion and irritation.

Subjects typically began by quickly swiping through pages and looking at traditional elements such as photographs or headlines to determine which articles would merit their attention. However, once interfacing began, they immediately began skimming an entire article looking for all the interactive possibilities by vigorously tapping and swiping. Pleased with the exploration, they would return to read opening paragraph and the copy. In reading magazines, it is not uncommon to look first at photographs...
and pull quotes before reading an article. In a digital context however, readers could launch into an interactive module, tap a hyperlink and leave the article, or watch a video before understanding its relationship to the body of the content. Lastly, users were unanimously disappointed and uninterested in articles that lacked the integration of videos or motion animation. This new criteria presents a different set of challenges to the designer accustomed to the world of print.

_Reader Personas Applied_

When I concluded my research in tablet magazine user behavior, I wanted to put what I learned to good use. I decided to create three personas that could be used as a starting point for deciding how to create a magazine that had tailored interactions to a target audience. Each persona has there own personality and goals with it comes to using their iPad.

_Persona Mimi_

Mimi is a busy school administrator who is just bought a brand new iPad Air as a retirement present to herself. She is excited to try out all the new features the iPad has to offer, because she also owns an e-reader and wants to compare the experience. She considers herself an avid reader, and reads about 2 books a month. She mostly reads in the evening when she gets home from work, and when she is getting ready for bed at night. She enjoys photography, watching movies, looking at art, and interior design. She likes no non-sense applications on her smart phone and home computer. She can’t wait to cozy up in a corner and read on her iPad.

_Persona Stephen_

Stephen considers himself a very technology savvy person. He is always looking for new applications to try out on his smart phone while he rides the bus to his university. He is studying computer science and is interested in learning about application design. He enjoys going to concerts and hanging out with his friends. Even though he is in a computer science major, he does not like reading on a computer screen, but is willing to give a tablet a try. He expects applications to be clever with surprising interactions.
Persona Sarah
Sarah is an accountant and considers herself a serious reader. She starts reading close to thirty books a month. When she is reading on the Internet, she enjoys bookmarking web articles of interest, and collecting quotes in a folder on her desktop. If she feels that a writer is misinformed while reading a magazine, she will skim over the text to see if it is worth finishing. She is not too interested in using her tablet to watch movies and play music, but uses it to check social media and do office work. She takes pride in being very proficient, and is strategic with how she spends her free time.

The Secrets & Happiness of Johannes Eckert
Johannes Eckert is a graphic designer from Germany, living now in Seattle, to work for Adobe on the Digital Publishing Suite creating magazines, publications, and news experiences for digital devices. We caught up with him and learned all about his journey to Seattle, his design practices and how he started a popular blog about digital publishing and developed an award winning magazine for the iPad named DONE.

Q. Why were you drawn to designing a digital publication with Indesign while you were in school?
A. There was this idea to use a tool that I was using all the time like Indesign. A tool that I know how to use, and I learned from the ground up, where I could use typography and layout in that tool, and be visual expressive on a canvas. Using that tool with that digital output the potential to have this on an active canvas and to be really rich in terms of interaction or expressive ways. That really got my attention. I really wanted to use all the things that I learned during graphic design school, and putting that into digital output. Just the combination of using Indesign to do that was just the perfect cross over I was really looking forward to using.

Q. What got you excited about designing a magazine on a tablet?
A. The first time you see something from Indesign on a clear beautiful display like on an iPad... I guess it is like something like seeing your
print for the first time. You are printing something out and you can see how beautiful it looks on the paper, same feeling when you are seeing something as beautiful and clean on the iPad. That really drew me into it.

Q. What is the story behind DONE, and why did you name it that?
A. There is not so much in the conceptual idea behind all the content in DONE, it’s not even a magazine parse, it’s more a collection of projects of work that I have done while studying graphic design and using that format to highlight and present those projects. So it wasn’t a big metaphor or idea behind it, and I didn’t have the time to create new content, so I used the content that I have and only have rights to publish it. The ultimate goal was to get this published in the iPad on the App Store. It was just a little bit easy to get it done with my own content.

Q. Tell us about your design process?
A. I do not have a clear design process, I don’t have a clear design agenda that I am following. That is why I am always keeping my path open and I am exploring a lot before I am finishing it down, I am locking it down and I am constantly keeping ideas on my head and sketching them up, that is part of my digital work flow too, I have a lot of the stuff in my head before I even go and express them but I am always expressing them in a digital environment. I had a lot of ideas that I wanted to do. For each individual project, I was trying to find an appropriate way of expressing to find something, and for some other things it was obvious. I was using all different tools that I had available, and I was using code and HTML. I was using image manipulation in Photoshop, or time lapses to surface all those projects. I had all these different ideas that I wanted to do for this different projects and in the end I just had a list of things that I wanted to and instead of sketching them out and then doing them, I just go over the list and get them in digital right away. I wasn’t back and forth, that is in my head and then I am expressing them directly on digital.

Q. Why did you start your blog, The Secrets and Happiness of Digital Publishing?
A. Yeah. So while I did this app I was also doing the research for my thesis, for my work and for the study I was doing. I published all that on the blog. And the blog pretty much was highly exposed on whole to the community working with DPS, with the Adobe plug-in for Indesign. I was just talking about best practices that I learned, tricks and work arounds that I figured out for my magazine. A lot of people reference that blog for tips and tricks around creating those types of digital magazines with that particular tool. I was also talking little bit of the development and the industries different platforms.

Q. How did the blog lead to your employment at Adobe?
A. At some point, Adobe obviously saw this blog too, and the app itself, at one point, won an Adobe award, so my name traveled around Adobe and practically out of the blue, my manager now just sent me an email and asked me if I want to work for Adobe, and work on that particular tool that I was using to create my magazine. So all the work that I have done in making my work public, I guess, in the end turned out to be pretty good tool for myself. It eventually got me my job here at Adobe in Seattle.

Q. Is it challenging to design features in Indesign that cater to the needs of the whole publishing industry?
A. That definitely provides a challenge to design the user experience that works across publishers. It is definitely, I mean all are publishing their issues and publishing similar content, but there are some differences in each publisher that you can them. And it took me a long time for some projects just not apply to other publishers. We created the software that can be used by so many different publishers already. I don’t know exactly but DPS is practically the only big publisher solution out there that is used by every big publisher. It is also tying many other services, it is not just about the publishing, it is about the monetary revenue stream for publishers dealing with the subscriptions. Because publishers are also selling the magazines, they are also selling ads in the magazines and there is a whole workflow connected to it in analytics and getting to know how people use these magazines and getting data out that DPS provides. That
is important for publishers. It is not just the user experience that they are looking for, it is a lot of other moving parts in the DPS that are important for publishers and they can be very specific. In general in the end, you are reading the magazine that has pages, and has a cover, and has pages and then has a certain sequence and that seems to work for a lot of publishers for DPS.

_Video Production_
In addition to the interview with Johannes Eckert, I produced a short video about Johannes and his magazine to be used in the article for the Mimi persona.
Production for Makzin began with adapting my written content outline into a book form. I organized all my chapters and began to sketch out how I wanted to layout each article and what type of interactive elements I wanted to include.
Grid Structure

I finalized my grid structure, which was a modular five-column grid that would be able to work with images that could not be cropped. Image examples needed to fit a 4:3 ratio. I decided to only design in landscape orientation on the iPad due to the fact that I was planning on using a large amount of video.
Body copy can either be placed in the outer double-columns that was split by the middle-column reserved for caption information. Or the middle three columns were used to do a single-column of body copy. The middle-column was also intended to be a place for the reader to tap and scroll with their finger to not interrupt reading the body copy.
Interface

HOW TO GUIDE

- Scrolling Text

- Pull down with two fingers to access the Table of Contents and Scrubber

- Dots Indicate Slideshows
The tool bar is accessed by gently pulling down on the screen with two fingers. The only button I placed in the first edition was to take users to the bookshelf of the application for demonstration purposes.

The table of contents, or scrubber is accessed by pulling down on the screen forcefully with two fingers. The reader can observe the entire contents of the publication and browse through thumbnails of each article by swiping.

The information area of the scrubber contains a brief summary of the articles, the title, and page numbers.
## Visual Cues

**Body Copy Weight Variation**

<table>
<thead>
<tr>
<th>Katachi Sans</th>
<th>Franziska</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thin</td>
<td>Light</td>
</tr>
</tbody>
</table>

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry’s standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen.

<table>
<thead>
<tr>
<th>Katachi Serif</th>
<th>Franziska Italic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular</td>
<td>Book</td>
</tr>
</tbody>
</table>

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry’s standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen.
Scrolling areas are indicated by gray or white side bars. As the user scrolls, a red progress bar indicates how far along the user is in the content.

Image slide shows are indicated by small dots that show how many slides are available to view. Also, the dots indicate the user’s position while viewing the slides. Interactive features in Makzin are indicated with a red highlight color.

Navigational cues had to be designed so they were not easily confused with the cues from examples shown in layouts. The down arrows in Makzin are integrated into the layout and also help delineate longer articles. Most interactive elements in Makzin are contained in a gray slide show.
Screen Captures
Introduction

Early in my career, I was involved with the redesign of UVU Magazine, an alumni publication for my university. It was an intimidating project. I was unsure how my design aesthetic would translate to the magazine’s established brand, and whether I had enough experience to handle such complex and varied content. Once I began working with talented photographers, writers and editors to help bring their stories to life, however, it became an incredibly rewarding experience. I fell in love with the way that editorial design combines a systematic approach together with seemingly limitless possibilities. My work with the magazine opened the door for opportunities to design other publications.

Several years later, during the launch of the pilot issue of a trade publication my client approached me and asked, “How do we get an iPad version of it?” The iPad had only recently been launched and my reply was “I have no idea, but let’s look into it.” Even initial research led to endless questions, from the strictly functional: “How do I layout pages for a tablet?” to
CHAPTER ONE

Surveying the Digital Landscape

A Magazine

Editorial design has evolved as a tool for visual storytelling over the last 200 years. In print, magazines are designed to give readers a hybrid experience: something that lands between the daily information delivery of newspapers and the enduring content of books. Magazine content usually includes a balanced combination of short and long-form copy, columns, and images organized in a systematic visual hierarchy. At the core of every successful magazine is a storehouse of content that builds a relationship with the reader. The relationship is defined by both content and visual delivery: the curation of informed journalism, along with the design of that content.

Today, print magazines continue to serve as an inexpensive source of news and information. Advancements in technology such as color printing and desktop publishing have vastly increased the availability and production of print periodicals to a mass audience. Other media increasingly crosses over into the realm of the magazine, including video documentaries, podcasts, and even T-shirts. Furthermore, with the advent of the Internet, magazines have been reinterpreted as websites and apps. Recently, mobile applications like Flipboard, Pulse, and Zite have emerged, using smart algorithms destined to curate and restyle RSS
While browsing in your favorite app store, you may discover a large variety of applications labeled as magazines. Reviewing what is available reveals that tablet magazines can be categorized in three different models. First, is the direct from print model where a PDF is uploaded to a viewing application made to display on devices. Second is where a digital counterpart is created alongside a printed piece. Third, magazine applications created only for use on a tablet. A majority of magazine applications are for individual brands where you can download the app for free. After launching, the application offers in-app purchases of current and past issues thought a newsstand.

There are so many emerging designs that it would be difficult to include information on everything. For this reason, outlined below is a selection of outstanding magazine examples that will be referenced throughout this publication.
Makzin: Identifying Design Practices Of Tablet Magazines

Direct From Print Model

Direct from print magazines are most commonly found by downloading applications like HP Magcloud, which is a digital newstand selling numerous differing brands. There are subscription-based applications like Zinio that operate similar to Netflix, by paying a monthly fee, readers have access to thousands of popular magazine brands. The interactions are limited to navigation, switching orientations, zooming in/out on text, viewing photographs, and occasionally hyperlink text. The content layout is directly from the print counterpart with little design consideration for the tablet device.

These types of direct from print magazine apps are still primarily abundant in the marketplace.

However, there has also been an emergence of brands, designers, and editors who have embraced the idea of creating tablet specific versions of their magazines.

Print & Tablet Counterpart

Before the iPad was launched, Wired magazine’s Creative Director Scott Dadich began working on a tablet magazine prototype for publisher Condé Nast. He worked with a team of interaction designers from Adobe, eventually leading to the creation of Adobe’s Digital Publishing Suite. Wired launched their magazine application on May 22, 2010, introducing new features that take advantage of what a magazine on an iPad could be. Issues of Wired introduced what one would assume to be what a digital magazine should take advantage of. For example, video clips, interactive slideshows, text for...
iPad Edition Only
The world of magazines designed for the iPad does not end with the translation from a print edition to digital. There are some high quality magazine applications created exclusively for the iPad without the use of InDesign. One of the first magazine apps to arrive is entitled Letter to Jane, developed independently by Tim Moore. Letter to Jane began its life as a PDF before the iPad, but upon its release as a tablet magazine, it soon became a popular download on the Apple App store. Letter to Jane is described on its website as an arts magazine for the iPad, giving artists an unfiltered platform to share creative work without compromise. Knowing he would not have the budget for a print edition, Moore chose to develop Letter to Jane using Apple’s Xcode. The design of LJJ is meant to be an immersive experience focused on content responding to the reader with a minimalist interface.

Astronaut 1 & 2
Described as a video magazine providing a “Print-like” experience, and can be viewed in either portrait or landscape. Content includes articles and 90 minutes worth of videos about filmmakers, artists, and

Developing magazines with Xcode is not necessarily a practical option for print designers transitioning to digital even though it gives them control over the entire design of the application. There are other options available. Katachi magazine was founded in 2010 and highlights the software Origami Engine created exclusively for iPad publication design. In addition to showcasing the software, Katachi demonstrates the potential of what an interactive magazine could be by taking full advantage of the
iPad’s capabilities. For example, in Issue 3: Gold, the cover activates the forward facing camera on the iPad to create a illusion of the reader’s image reflected in gold. Interactive elements like animations, videos, and scrolling objects are integrated throughout the content strategically placed to enhance story telling and engage the reader.

All Magazines Featured in Makzin

- Astronaut No.1
  2011
- Astronaut No.1
  2013
- DONE
  2013
- EXD Mag
  2013
- QO
  December 2013

Design Fidelity

Soon after Wired’s digital conversion, Condé Nast announced all of their “digital replicas” would be developed using Adobe’s Digital Publishing Suite. While considering this adaptation, the question arises as to how faithful the digital replicas should be to the brand?

Not every magazine title is the same at Condé Nast and with help from the experience design team at Adobe they developed a design fidelity spectrum considering each brand’s distribution, contents and audience. It is not a measure of quality but rather how accurately the digital edition fits the print edition.
tribution, contents and audience. It is not a measurement of quality but rather how accurate the digital realization is to the print equivalent of the brand. Analyzing their catalog reveals the representation of their brands is still in the hands of the editorial staff, taking full advantage of having the beauty and engagement of their print counterparts, while including the benefits of web 2.0 technology like and the low cost of digital distribution. At Conde Nast creative control is in the hands of the individual design teams. This leads to rapid innovation and they have found that this drives collaboration and higher fidelity designs.

<table>
<thead>
<tr>
<th>Fidelity Spectrum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly</td>
</tr>
<tr>
<td>Monthly</td>
</tr>
</tbody>
</table>

The spectrum is used to determine what types of interactive features each title will receive and device priority. Depending on the content, the different titles move up and down the spectrum and enabling decisions on what type of technologies will produce the best story telling.

Design Fidelity Comparison
In this article from Wired, Nov. 2013, the tablet version replaces the double page spread from its print counterpart with a video. The diagram in the tablet version uses pop-up windows to display information. Due to limited screen real-estate, the tablet version appears nearly twice as long as the print version.
whether you are designing a magazine for the iPad only, or a digital version of existing print content, it is important to know what types of development environments are available. Two platforms that work well with out

Development Platforms

prior coding knowledge is the Digital Publishing Suite found in Adobe InDesign, and the lesser known Origami Engine. With both, designers have the ability to create applications with media rich layouts including: slide shows, animations, video players, social media sharing, overlays, and hyperlinks. all with out having to learn any coding. Designers also have the choice in enable additional functionality to media objects with HTML 5, Javascript, and CSS. Both systems have their advantages and disadvantages when it comes to achieving a suitable design outcome.

Read more about Adobe Digital Publishing Suite here

Origami Engine

A Mac OS desktop application created to tap into the interactive potential emerging with the iPad’s touch screen display and iOS. For example, interactive overlays created in Origami Engine operate on gestural conditions activated with one or two moving touches. Like the DPS, designers are able to create media rich content without having prior coding knowledge making it easy to focus on the design and interactivity of the magazine. Read more about Origami Engine here

Apple XCode

Registering to become an Apple developer and working with XCode is also an option for creating magazines. XCode is the development environment containing the tools used to make graphical applications for Mac OS and iOS. Designers would need to take the time to learn how to develop within the XCode environment but would have total creative freedom on their magazine’s navigational features, interactive elements and interface. XCode is a free application and becoming an Apple developer is moderately inexpensive costing One hundred dollars a year. 
The idea of being able to use hand held computers is not new, but tablets have had trouble finding their space in the market. In what seems like technology dog years, tablet computers have been gaining popularity for the last four years, but feel like they have been with us for longer. In the current market there are many tablet devices with the potential to read a magazine on. Getting to know what is available to the current landscape is a good start to designing apps on them.

After Amazon introduced the Kindle tablet in 2007, they sold more e-books than actual printed books. The first generation Kindle was a revolutionary device with a grayscale display and the ability to store 256 megabytes of books on a single drive. It sold out in five and a half hours after it’s release on Amazon.com and since it’s arrival the Kindle has been redesigned with new features like larger storage drives, E-ink displays, keyboards, larger screens, and mobile network access. Currently, the Kindle Paperwhite 3G is Amazon’s most advanced E-reader tablet with an improved E-ink display showing text at a 212 ppi resolution. It is the perfect device for book lovers, but where exactly do magazines fit in with the niche market carved out with the Kindle?

Since the introduction of the iPad in 2010, Apple has steadily dominated the tablet market. During the announcement keynote held at Apple headquarters, founder Steve Jobs reviewed all of the iPad’s features reserving a portion of the presentation for it’s E-reader ca-
CHAPTER TWO

Designing For The Screen

Transitioning From Print To Digital

Although digital design is familiar territory for graphic designers, the role of a print designer is changing. Building digital media from scratch can be intimidating for even the most seasoned print professional. It is key to understand that the principles apply to digital design as well.
Anatomy Of A Tablet Magazine

The first step a designer must take when designing magazines for a tablet is to purchase a tablet and become familiar with its functionality. By downloading other applications you can begin to see how users interact with the operating system, what types of gestures are used to trigger interactions and how images and text appear. Being able to rapidly test designs is another reason to purchase a tablet.

A tablet magazine application is comprised of three areas to be designed. The first area is the layout of the pages with the body copy and graphical elements, then the interactive overlays, and then the design of the container interface with the scrubber. A more detailed examination of these areas will be discussed the further articles and all examples shown in this magazine will be from an iPad.

Screen Sizes

The tablet market has grown in size and variety since the release of the iPad. Designing for all of the different devices with their varying screen sizes and pixel densities can present significant challenges for the designer. Understanding how these can affect your design will help in planning out a workflow. Unlike designing for the web that takes into account for desktop and mobile displays, there is a smaller range of screens to design for with tablets. To deal with the varying screen sizes, the best course of action is to be come familiar with your device aspect ratio, and pixel density. The most common aspect ratios for tablets is 4:3 and 16:10. By creating page sizes that correspond to those ratios, designs can be scaled up or down with relative ease.

If you are planning on designing for multiple devices, then Adobe DPS is the best option as a development platform because you have the ability to design for multiple screen sizes at the same time. Owning both Apple and Android devices is ideal to test with, but as the DPS has simulators for different screen sizes, it’s possible to get away with only one.
Screen Density & Hardware Pixels

Screen density is defined as the number of hardware pixels within the physical area of a screen. Hardware pixels represent the smallest points that a screen can display. The physical pixels are comprised of red, green, and blue sub-pixels. Because hardware pixels cannot be physically distorted or subdivided, they provide an adequate measurement to design with. In addition to the growing amount of screen sizes with tablets, advances in manufacturing have made it possible to have computer displays that contain a dense amount of hardware pixels on small screens giving rise to high-density screens (retina displays).

Pixel Density

Middle Top: The 5D pixels are represented as one unit of measurement. The raster image appears fuzzy in retina displays. Middle Bottom: On a retina display the same image occupy four pixels giving images a sharper appearance.

- Analyst Magazine

What does this mean for designers? The origins of measuring how content is displayed on a computer display are found in the type graphic point system where 72 points makes an inch. Apple’s iOS Human Interface Guidelines suggest designing assets at twice their typical printed size in order to account for retina screens. Vector graphics are ideal and can be resized without losing clarity, but raster images are affected tremendously. However, this does not mean you have to design raster elements for every density. 

Moleskin

Older than fancy notebooks is the need to dress for this occasion.

- Container UI

Custom gestures

The container interface supplied with Origami Engine allows designers to assign different gestures to access it. The most common gesture is pulling down with two fingers.

- Katouch Magazine
Type Setting

Using points as a measuring unit for type size is standard for print design. On paper, text font size in points is dimensioned in inches. The definition of a point is 1/72 of an inch, and so there are 72 points per real inch on paper, but this is not the case in digital type setting. For example, if you are familiar with setting type for the web, then you may have noticed that you set your type in pixels at larger sizes than you would for print. Again, this has to do with screen density and your type will look uncontrollably different depending on what display it is viewed on.

Choosing A Type Face

Because the retina screens are so sharp, type looks incredible. Type is displayed so refined that it can appear to look slightly lighter on an iPad compared to paper. The world is your oyster with type choices, but selecting a typeface with even colour can be very beneficial, again due to the sharp retina displays.

Katakhi Sans

```
ABCDFGHJKLMNOPQR
STU VWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890
```

Franziska

```
ABCDFGHJKLMNOPQR
STU VWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890
```

For these typography examples, two contemporary typefaces will be used. Katakhi Sans and Serif was designed specifically for Katakhi Magazine and to be viewed on an iPad. Franziska is a new typeface designed to be with monolinear contrast that gives it the ability to be legible at small sizes for the screen.

* All Measurements in Pixels
Setting Type For Retina

Whether you are adapting existing print content for tablets, or starting a new digital only magazine, you need to format your type for the screen. Through some trial and error you can arrive at a comfortable reading size. Alternatively, knowing that an iPad scales files down to fit the pixel density of the screen makes it easy to adjust your workflow. A file that is 1024 pixels wide at 72 points per inch is interpreted at roughly 14 inches. When uploaded to an iPad the file scales down to the physical 7.75 wide screen and the 72 ppi increases to match the pixel density. With Retina displays, it may be tempting to treat type like raster graphics by quadrupling pixel height, but in both InDesign and Origami Engine there is no need to. In InDesign, there is an option to have vector type so it will appear sharp at any size, and in Origami Engine type will be interpolated down. In both programs, set type size and leading at twice the size you would normally do in print.

Body Copy

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry’s standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but
**_Body Copy With A Dark Background_**

Katakshi Sans

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry’s standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry’s standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry’s standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry’s standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry’s standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry’s standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry’s standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.

---

**Comparing iPad Air to iPad Mini**

Both have the same amount of pixels but the iPad Mini is 66% smaller. On the left is the iPad Air and on the right is the iPad Mini. Graphics appear sharper on the Mini.

---

**Setting Type For The iPad Mini**

Even designing layouts solely for iPad has a small degree of screen variance because of the iPad Mini. The iPad Mini has the same amount of hardwired pixels as the iPad Air but on a physical screen of 6.1 by 4.7 inches. Apple sells the iPad Mini on the premise that owners get the total iPad experience in a smaller package and this is exactly what it does, albeit with applications slightly scaled to fit the new size. This affects type size and if you are concerned with trying to design one application for both machines, you can consider type sizes that are comfortable to read on both screens. The type may look slightly larger on a standard iPad but will be comfortable to read on the iPad Mini.
Makzin: Identifying Design Practices Of Tablet Magazines

Headline
Headline
Headline
Headline
Headline

Page Navigation Methods

ACTION! 3 GREAT SPORT FILMS

WHERE THE TRAIL ENDS (2001)
4 hours of unfiltered, adrenaline-fueled action.

Baby—win Oscars. So why not these incredible real-life tales?
There are two methods commonly used when laying out the content of a digital magazine. A majority of digital magazines are created using the stacks method. Readers swipe to the left and right to access different articles, and some magazines use a cards method only allowing readers to swipe left and right to access different articles.

With the use of hyper-linked buttons, a non-linear method can also be applied.
Buttons, Hyperlinks & Navigational Cues

Navigational cues or “Coast marks” have become common in most digital magazines. These are symbols to help guide the reader to different articles if they are swiping through the content. They are usually found on the bottom of individual pages. The most common is an arrow, but an arrow can also have unintended user perceptions. For example, iOS users tap arrow icons to navigate to different screens in applications and while browsing in Mobile Safari. It is not uncommon for readers to tap arrow icons and it can be confusing if they do nothing but point in a direction.
When first coming to an article in a digital magazine, the reader will look for interactive possibilities. By making simple symbols, you can make clear to the reader the outcome of tapping on a button. There are two areas of a digital magazine where there is a need to create buttons. If using development platforms like DPS or Origami Engine, the supplied container interface comes with buttons already associated with its usability. Including additional custom buttons to the container UX need to be designed to match the existing icon appearance. When creating a symbol set to use for buttons inside the magazines content, it is appropriate to create a symbol set that speaks the same visual language as the magazine content. This is where the designer is allowed to experiment with different shapes, colors and sizes to integrate buttons to reflect the brand. Buttons need to be large enough to be easily touched by the reader.
Layout Orientation & Grids

Duel Layouts

Eastern Egg Images
By swiping orientations in Astronaut, readers view different images making it fun to switch back and forth and find surprises. Having a duel orientation also works well when the reader is ready to watch a video, they do not have to adjust their hand position.

- Astronaut Magazine
Interactive Overlays & Cover Design

Frame Sequences

Framations
Image sequences are a way to create interesting transitions when readers are viewing images. Image sequences in Origami Engine are called Framations.

* Vattech Magazine
**Setting Type For Retina**

Whether you are adapting existing print content for tablets, or starting a new digital only magazine, you need to format your type for the screen. Through some trial and error you can arrive at a comfortable reading size. Alternatively, knowing that an iPad scales files down to fit the pixel density of the screen makes it easy to adjust your workflow. A file that is 1024 pixels wide at 72 points per inch is interpreted at roughly 14 inches. When uploaded to an iPad the file scales down to the physical 7 in wide screen and the 72 ppi increases to match the pixel density. With retina displays, it may be tempting to treat type like raster graphics by quadrupling pixel height, but in both Indesign and Origami Engine there is no need to. In Indesign, there is an option to have vector type so it will appear sharp at any size, and in Origami Engine type will be interpolated down. In both programs, set type size and leading at twice the size as you would normally do in print.

---

As previously discussed, programs like Indesign and Origami Engine give designers the ability to create interactive content without learning code. These interactive elements are known as overlays and both programs offer a wide variety to choose from that can be mixed and applied in various ways. Presented below are a few examples of how overlays can be applied to layouts.

**Slideshows**

- **Cross Fade**
  When developing in Indesign, the default slide show is a multi state object where viewing pictures is controlled by tapping buttons.
  - Wired Magazine

- **Combination**
  Left & Top Right Scrolling windows can be incorporated into a layout with a slideshow synced to

---

**Scrolling Windows**

"Animation was the missing link that connected my scattered loves."
Makzin: Identifying Design Practices Of Tablet Magazines

Tailoring To Your Audience

CHAPTER THREE

Research In Reading Behaviors
Mimi

Mimi is a busy school administrator who is just bought a brand new iPad Air as a retirement present to herself. She is excited to try out all the new features the iPad has to offer, because she also owns an e-reader and wants to compare the experience. She considers herself an avid reader, and reads about 2 books a month. She mostly reads in the evening when she gets home from work, and when she is getting ready for bed at night. She enjoys photography, watching movies, looking at art, and interior design. She likes no-nonsense applications on her smart phone and home computer. She can’t wait to cozy up in a corner and read on her iPad.

Stephen

Stephen considers himself a very technology-savvy person. He is always looking for new applications to try out on his smartphone while he rides the bus to his university. He is studying computer science and is interested in learning about application design. He enjoys going to concerts and hanging out with his friends. Even though he is in a computer science major, he does not like reading on a computer screen, but is willing to give a tablet a try. He expects applications to be clever with surprising interactions.
Sarah

Sarah is an accountant and considers herself a serious reader. She starts reading close to thirty books a month. When she is reading on the Internet, she enjoys bookmarking web articles of interest and collecting quotes in a folder on her desktop. If she feels that a writer is misinformed while reading a magazine, she will skim over the text to see if it is worth finishing. She is not too interested in using her tablet to watch movies and play music, but uses it to check social media and do office work. She takes pride in being very proficient and is strategic with how she spends her free time.

The Secrets & Happiness of Johannes Eckert

Johannes Eckert is a graphic designer from Germany, living now in Seattle, to work for Adobe on the Digital Publishing Suite creating magazines, publications, and news experiences for digital devices. We caught up with him and learned all about his journey to Seattle, his design practices and how he started a popular blog about digital publishing and developed an award winning magazine for the iPad named DONE.
to find something, and for some other things it was obvious. I was using all different tools that I had available, and I was using code and HTML. I was using image manipulation in Photoshop, or time lapse to surface all those projects. I had all these different ideas that I wanted to do for this different projects and in the end I just had a list of things that I wanted to and instead of sketching them out and then doing them, I just go over the list and get them in digital right away. I wasn’t back and forth, that is in my head and then I am expressing them directly on digital.

Q. Why did you start your blog, The Secrets and Happiness of Digital Publishing?
A. Yeah. So while I did this app I was also doing the research for my thesis, for my work and for the study I was doing. I published all that on the blog. And the blog pretty much was highly exposed on whole to the community working with DPS, with the Adobe plug-in for Indesign. I was just talking about best practices that I learned, tricks and work arounds that I figured out for my magazine. A lot of people reference that blog for tips and tricks around creating these types of digital magazines. I was also talking little bit of the development and the industries different platforms.

Q. How did the blog lead to your employment at Adobe?
A. At some point, Adobe obviously saw this blog too, and the app itself, at one point, won an Adobe award, so my name traveled around Adobe and practically out of the blue, my manager now just sent me an email and asked me if I want to work for Adobe, and work on that particular tool that I was using to create my magazine. So all the work that I have done in making my work public, I guess, in the end turned out to be pretty good tool for myself. It eventually got me my job here at Adobe in Seattle.

“A lot of people reference that blog for tips and tricks around creating those types of digital magazines”

Q. Is it challenging to design features in Indesign that cater to the needs of the whole publishing industry?
A. That definitely provides a challenge to design the user experience that works across publishers. It is definitely. I mean all are publishing their issues and publishing similar content, but there are some differences in each publisher that you can

them. And it took me a long time for some projects just not apply to other publishers. We created the software that can be used by so many different publishers already. I don’t know exactly but DPS is practically the only big publisher solution out there that is used by every big publisher. It is also trying many other services, it is not just about the publishing, it is about the monetary revenue stream for publishers dealing with the subscriptions. Because publishers are also selling the magazines, they are also selling ads in the magazines and there is a whole workflow connected to it in analytics and getting to know how people use these magazines and getting data out that DPS provides. That is important for publishers. It is not just the user experience that they are looking for, it is a lot of other moving parts in the DPS that are important for publishers and they can be very specific. In general, in the end, you are reading the magazine that has pages, and has a cover, and has pages and then has a certain sequence and that seems to work for a lot of publishers for DPS.
Johannes Eckert is a graphic designer from Germany, living now in Seattle, to work for Adobe on the Digital Publishing Suite creating magazines, publications, and news experiences for digital devices. We caught up with him and learned all about his journey to Seattle, his design practices and how he started a popular blog about digital publishing and developed an award winning magazine for the iPad named DONE.

Q. Why were you drawn to designing a digital publication with InDesign while you were in school?
A. There was this idea to use a tool that I was using all the time like InDesign. A tool that I knew how to use, and I learned from the ground up, where I could use typography and layout in that tool, and be visual expressive on a canvas. Using that tool with that digital output the potential to have this on an active canvas and be really rich in terms of interaction or expressive ways. That really got my attention. I really

1. Why were you drawn to designing a digital publication with InDesign while you were in school?

2. What got you excited about designing a magazine on a tablet?

3. What is the story behind DONE, and why did you name it that?
Exhibit At The Henry Art Gallery
I feel that there are some improvements to be made on this project. With more time, I could troubleshoot a few bugs that exist in the application and refine some of the interactions. While it was on display at the Henry Art Gallery, I was able to watch a wide range of people use Makzin with varying degrees of success and confusion. For example, I watched a young girl figure out the interactions on the chapter introductory pages quickly without the aid of any visual cues, and others struggle to navigate the pages of the entire app. On the Development Platforms article, people really struggled to navigate away from the page because I had an overlay set too wide. I was able to make changes to the article right away to solve that problem. I think more time user testing the application would help refine some areas in need of improvement. It is important to showcase these applications on a digital context. It is difficult to write about, or demonstrate interactivity with out a visual example. When designing tablet magazines, I found that it was exceptionally helpful to start with the layout of static content first and then begin exploring what type of interactive overlays can be applied to enhance the article.

After having discussions with designers after the completion of Makzin, I reaffirmed that there is a need for information on the design practices of these types of applications. If print designers are interested in developing tablet magazines, reading Makzin is a good start. However, Makzin does not contain everything someone would want to know. This is the beauty of cataloging these applications. They have only existed for about four years now, and some have become very successful and some have not. There is a lot of design potential, experimentation and innovation left in this space. It is my desire to publish Makzin to contribute to assist in the development of more tablet magazines.
_Bibliography_


