Designing graphic design history: teaching for the 21st century classroom

Phillip Peter Winfield

Louisiana State University and Agricultural and Mechanical College

Follow this and additional works at: https://digitalcommons.lsu.edu/gradschool_theses

Part of the Fine Arts Commons

Recommended Citation

DESIGNING GRAPHIC DESIGN HISTORY: TEACHING FOR THE 21ST CENTURY CLASSROOM

A Thesis

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural & Mechanical College in partial fulfillment of requirements for the degree of Master of Fine Arts

in

The School of Art

By
Phillip P. Winfield
B.A., McNeese State University, 2006
May, 2011
ACKNOWLEDGEMENTS

I would like to thank my wife, Marcelle Boudreaux, not least for her unwavering support and patience during my most grumpy moments, but also for her insightful feedback as this project progressed toward its natural conclusion.

My sincerest thanks to Zack Dever and Cole Wiley – this project couldn’t have been completed without you.

I should also like to thank the members of the LSU Graphic Design faculty: Rod Parker, Lynne Baggett, Courtney Barr, Gerald Bower and Paul Dean, for making the last four years the most enjoyable, challenging and fulfilling of my life to date.

Many thanks to my thesis committee members Courtney Barr, Lynne Baggett, Rod Parker, Ed Smith, and Mark Zucker for your guidance and encouragement.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>ii</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>iv</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>WEB-BASED CONTENT MANAGEMENT SYSTEMS: A REVIEW</td>
<td>5</td>
</tr>
<tr>
<td>CONCEPT OF GDHT</td>
<td>9</td>
</tr>
<tr>
<td>THE DESIGN PROCESS: CREATING GDHT</td>
<td>10</td>
</tr>
<tr>
<td>WORKFLOW: GRAPHIC DESIGN + COMPUTER PROGRAMMING</td>
<td>19</td>
</tr>
<tr>
<td>FINAL DESIGN: GDHT</td>
<td>21</td>
</tr>
<tr>
<td>CONCLUSION: GDHT WORKS</td>
<td>28</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>31</td>
</tr>
<tr>
<td>APPENDIX A: LEADING GRAPHIC DESIGN HISTORY WEBSITES ANALYSIS</td>
<td>33</td>
</tr>
<tr>
<td>APPENDIX B: WEBSITES USED FOR APPENDIX A</td>
<td>34</td>
</tr>
<tr>
<td>VITA</td>
<td>35</td>
</tr>
</tbody>
</table>
ABSTRACT

*Designing Graphic Design History: Teaching for the 21st Century Classroom* undertakes the development of a web-based Graphic Design History interactive timeline (GDHit), intended as a user-generated online database for potentially all graphic design enthusiasts, but specifically faculty and students within the traditional graphic design history course. GDHit seeks to continue the implementation of new media and emerging digital technologies in a traditional, lecture-oriented environment by inviting the user (or audience) to contribute the content for the timeline, while fostering new forms of course engagement for students in this digital age.

In keeping with the tenets of the digital age and its inherent spirit of cross-disciplinary collaboration, the author engaged two computer scientists over the thesis development period (academic year 2010-2011). They developed the framework for how content is entered into and filtered within the database, as well as aiding with technical aspects of the interactive timeline.
INTRODUCTION

What is the history of graphic design? Where did this profession originate from, and who are its main protagonists? These are questions which all students, designers and professionals should be able to answer, even in varying degrees of detail. However, to many in the industry, the history of graphic design remains a mystery.

Most students and many practitioners cannot even list or describe the field’s respective milestones or form-givers. I refuse to believe this is true in other creative fields—painting, film, architecture, or literature—but arguably the biggest void in graphic design education is a critical awareness (or literacy) of design history.

The study of graphic design history, in terms of its influential position in western societies, is crucial to the relevance of contemporary graphic design – to provide a comprehension of why things are the way they are, and how they came to be that way. Cultural progressions, political events, societal developments, and technological advancements shape and drive our way of life. Throughout history, graphic design has played an influential role in giving a visual voice to these narratives. In short, “graphic design history is world history”. Students who discover the inter-woven nature of graphic design and world history will undoubtedly have a better understanding of the roles played by graphic designers in contemporary society, and will be able to construct a more critical view of graphic design influences through a historical lens.

The broader social and historical contexts aside, if emerging graphic designers lack sufficient knowledge about the industry’s pioneers, movements, processes, technologies, styles, forms and methodologies, they will be bereft of meaningful inspiration and almost certainly fall into the trap of visual plagiarism and negligent reinvention. In order to produce original work, graphic designers should be aware of what has preceded them; this knowledge allows a deeper discussion about how to approach contemporary visual solutions.

Contemporary Education

Within the academic framework of a Liberal Arts graphic design degree, the inclusion of graphic design history in the curriculum generally functions as a survey course. The survey course typically follows a broad timeline, which may begin with prehistoric cave markings and run through twenty-first century design solutions. Philip Meggs’ pioneering comprehensive book *History of Graphic Design* is generally taken to be the standard bearer of worthwhile content, with leading industry and academic professionals such as Johanna Drucker stating:

All who work in the field are indebted to Philip Meggs, whose groundbreaking *History of Graphic Design* is a major reference work that has provided a descriptive historical foundation of the field.³

Over the past decade there have been numerous printed editions of graphic design history. Indeed, the industry is becoming saturated with new printed editions each year.

Preparing content to teach history of graphic design courses at the University of Southern Mississippi, Hattiesburg, MS, and Louisiana State University, Baton Rouge, LA, resulted in an extensive list of different texts as resources, including the texts by Meggs, Hollis, and Eskilson. It became clear that one book could not be prescribed as the master textbook for the course, so no textbook was required, but many were recommended. Rather, the resources, readings and talking points for the course were made available through an online blog, to be shared, read and discussed by the instructor and the students.

In this digital age, the inclusion of digital technologies and web-based media is increasingly commonplace in the classroom, especially in the graphic design studio environment. Digital technologies have also begun to be implemented into lecture-oriented courses such as art history, where professors are able to use content-management systems, such as Moodle, and blogging software, such as Wordpres, to provide course material. Not only do these new technologies make course content more readily available to the students when necessary, they are

effective tools for discussion and dialogue outside of class. Students now have the ability to contribute more freely to the dynamic of the course. These technologies enrich the course experience by allowing the student to investigate further into material beyond the classic slide and lecture routine.

Most graphic design students are required to purchase personal computers, tablet computers, and many own cell phones and smart phones. They take notes not with a pad and pencil, but with a laptop or Notebook. Students are permanently “online,” and in a society where “to Google” has become a verb, it is not unreasonable to begin implementing digital technologies into a traditionally lecture-oriented course. This is already underway, with technologies such as video conferencing being made available to faculty and students. An example of this is the Wiley Faculty Network, whose mission statement defines the organization as follows:

The Wiley Faculty Network (WFN) is a global community of faculty, connected by a passion for teaching and a drive to learn, share, and collaborate. Our mission is to promote the effective use of technology and enrich the teaching experience.4

**Graphic Design History Online: Current Status**

The Internet contains sporadic clusters of graphic design history – a generic timeline, an individual professor’s teaching blog, for example – but nothing that amounts to a comprehensive resource or an interactive environment to engage students on their level (see Appendices A and B). This is not the case within the realm of art history. Smarthistory.org5 provides an informative as well as visual dialogue concerning art history by partnering with various museums, galleries and collections. The Google Art Project6, recently released, takes the viewer on virtual art tours through some of the world’s major art galleries and museums. This kind of digital implementation has the potential to reform and reorder the structure of a lecture course,

---


5. Smarthistory.org is an interactive database configured by timeline, of the major art works since the prehistoric period, complete with a written synopsis of the work.

involving and providing interaction for the student/user in a way a textbook cannot, as textbooks are essentially linear. These new technological devices do not seek to supplant the textbook, but rather accompany it, and enrich the course’s overall effectiveness, creating an environment where the students can both absorb and contribute to the content.

**GDHit: Developing A Solution**

GDHit seeks to create an online community of faculty and students; later available to the public that willingly contributes knowledgeable content to the timeline of graphic design history through the portal of a web-based application. In essence, GDHit becomes a framework and vehicle by which a community of like-minded people is created, while simultaneously raising the level of discourse about graphic design history online. The participation online of the amateur publisher has become a signifier of modern popular culture. The community-driven database Wikipedia is approaching 3.5 million article contributions, and countless daily dialogues and conversations are conducted through the “blogosphere.” Social media hubs such as Facebook and Twitter continually shape public opinion and are a major source of human interaction. As society continues to embrace these new communication tools, so graphic design must continue to utilize the latest and emerging technologies to communicate to its audiences. Graphic design is continually evolving in parallel to society’s technological and cultural advancements. If graphic designers and educators are to continue engaging and informing their audiences, the paradigm of teaching graphic design history must evolve to incorporate emerging technologies.
WEB-BASED CONTENT MANAGEMENT SYSTEMS: A REVIEW

The development of new and emerging technologies is rapidly changing the dynamic of the classroom – more and more students are using laptop computers, and in the coming years they are sure to be switching over to tablet computers, such as Apple’s iPad and the Android Motorola Tablet. The iPad sold over 15 million units in 2010, and companies such as Apple are realizing the potential their products can have in the world of education.

“I think we realize that at some point in the future, textbooks will be digital and that we’ll be using a device like the iPad in the classroom.” – George Saltsman, Director of Educational Technology for the Adams Center for Teaching and Learning at Abilene Christian University

But new technologies are not limited purely to mobile devices. Since the introduction of the Internet to mainstream culture during the 1990’s, seekers of information have searched the World Wide Web for answers to infinitely varied questions. The Internet has evolved as a scholarly source of research, as major libraries, museums, organizations and institutions open their collections and archives to digital formats, spreading an unlimited wealth of data and information not previously accessible to the general public. As more information is placed in the public domain, we are able to increase our knowledge at a pace faster than previous generations, and search an ever-widening pool of content.

Open-Source Knowledge Collection

The formation and development of online communities – users sharing content and engaging in discussion and discourse – is thanks in part to Wikipedia: the Free Encyclopedia, and later the WikiMedia Foundation (a not-for-profit company housing the various Wiki

projects). Wikipedia grew out of a natural impulse (communication) facilitated by a new technology (the wiki)\(^8\). The WikiMedia mission states:

The mission of the Wikimedia Foundation is to empower and engage people around the world to collect and develop educational content under a free license or in the public domain, and to disseminate it effectively and globally…The Foundation will make and keep useful information from its projects available on the Internet free of charge, in perpetuity.\(^9\)

Wikipedia: the Free Encyclopedia made its World Wide Web debut in January 2001. To date, the English version of Wikipedia has over 630,000 user accounts contributing at least ten edits per month, and in excess of 3.3 million articles. Online communities are a major force in contemporary culture. Wikipedia: the Free Encyclopedia enjoys such a vast number of contributors due to the entirely open platform of content. Knowledgeable and correctly cited content is welcome on any subject matter, and while this model for housing content undoubtedly generates an unlimited resource, it does not show the direct correlation between events within the same context and or subject matter.

Bryony Gomez-Palacio and Armin Vit launched thedesignencyclopedia.org (TDE.org) in 2005 – two graphic designers flying under the banner of their company Under Consideration. TDE.org uses the Wikipedia model of a completely open platform for contribution, but focuses all subject matter on the word “Design.” Under Consideration defines TDE.org project as follows:

The Design Encyclopedia was launched in 2005 to piggy-back on the growing interest, both positive and negative, in Wikipedia…Using and acknowledging the same premise of users being able to create and modify content, The Design Encyclopedia aims to funnel as much information and imagery found online as well as references to print materials and publications to create a clearinghouse of resources and information about the broad practices of design.\(^{10}\)

---


As the excerpt suggests, TDE.org acts as a resource hub for the world of design, and has over 600-catalogued entries. As of the time of writing, Under Consideration had taken TDE.org offline, due to a technical breakdown in the database. TDE.org has broad appeal, and was derived from the frustrations with a lack of comprehensive design knowledge across the Internet – frustrations not dissimilar to those of this thesis project. As with Wikipedia, TDE.org is a pool of information, but it does not attempt to show connections and commonalities between content. This may hold true across all disciplines, but as more information becomes available for research, content management systems that allow users to make connections will be the next large movement.

Content-Filtering Web-based Applications

Other content-driven online resources include the aforementioned smarthistory.org and the Google Art Project. Although these center on the art world, they are not resources centrally intended for user contribution. They still entertain the format of the textbook, with one or several authors prescribing the material and methods of content to study. GDHit attempts to provide faculty and students with the online tools to publish works and content both collaboratively and individually.

In the graphic design field, there are very few online content-driven applications. Beyond TDE.org, the Timeline of Graphic Design History,11 while still currently online, is a woefully inadequate review of graphic design history in the form of an item-by-item timeline of sporadic dates and glossary terms.

Content-driven web applications have become increasingly common online since the advent of Google’s new web browser, Google Chrome. Google Chrome offers a platform for web developers to release “web-apps” – condensed websites that exist as single interfaces rather than multi-page websites. Examples of the new “web-app” are the New York Times App12 and

---

the Huffington Post: News Glide App. These two examples display changing daily content, rather than giving the user the opportunity to search archived historical content. The user must navigate to the full website to access these features.

The release of the Google Labs News Timeline illustrates the Internet’s potential to gather, archive, and visually display historical data. Within the public domain of online information, Google has archived historical content dating back to the Renaissance period and beyond. Google defines this project as follows:

Google News Timeline is a web application that organizes search results chronologically. It allows users to view news and other data sources on a browsable, graphical timeline. Available data sources include recent and historical news, scanned newspapers and magazines, blog posts, sports scores, and information about various types of media, like music albums and movies. 


CONCEPT OF GDHIT

The objectives for this project were essentially straightforward: design an interactive web-based application (as opposed to the creation and modification of a website) that facilitates user-initiated graphic design historical content within the structure of a timeline. The central theme for the web application is the timeline – and this is where the Graphic Design History Interactive Timeline (GDHit) differs from Wikipedia, TDE.org, or other user-generated databases. The content is filtered chronologically, and thus the user is always able to view the chosen event within its context. Configuring content chronologically was central to the timeline in order for it to be applicable within an academic setting, where graphic design history courses are primarily approached from a linear perspective. It was imperative, however, to be able to view content within the timeline contextually as well as chronologically. In order to do this, each article or content element contributed to the timeline is tagged with a set of key words. These key words, or “tags,” are searchable, acting as another way for the user to filter information. “Tagging” links content together that may be chronologically separate.

The design and functionality of the timeline is the second major concept that sets GDHit apart from Wikipedia, TDE.org, etc. Wikipedia as a research tool and online community has shown itself to be a successful model. However, the website lacks any form of design, aesthetics, and functionality beyond the most rudimentary grid layout, typographic hierarchy, and styled hyperlinks. It shall be termed the “No Aesthetic” aesthetic, for purposes of this paper. This can often be the case with many wiki and/or database-driven websites, as a result of the design becoming secondary to the technology powering the database. With GDHit, the primary objective is to create a logical and functional application where user interaction becomes a central component of the success of the timeline; therefore the interface must be visually interesting, where the grid, color scheme, typography, and any imagery used create an environment that the user is comfortable navigating, and the user interaction is as intuitive and seamless as possible.
THE DESIGN PROCESS: CREATING GDHIT

The process began by identifying what the interactive timeline needed to accomplish, and also what wasn’t required of the project. Keeping within personally defined guidelines created a structure and became a foundation for a workflow that remained focused on the necessary outcomes. Without clear guidelines, a project of this scope has the potential to spiral out of control. Therefore, guiding principles were established. GDHit must be: suitable for an academic setting; alignment with emerging technologies and new media; and a design scheme that creates an inviting environment for the user, mirroring the technology powering it.

Restrictions

Legibility and focus upon the content was a primary design consideration, as it is hoped the timeline will grow through a wealth of contributions. Early research to incorporate imagery into the timeline revealed the hurdle of copyrighted material on the World Wide Web, and the entanglement of Academic Fair Use, images in the public domain, partially copyrighted material, and 100% copyrighted material. Due to copyright constraints, the timeline will initially accept text contributions only, with the intention of incorporating imagery later, through similar models to those used by Wikipedia, and the possible partnerships with collections with museums, galleries and special collections. With respect to the time restraints of thesis study, the timeline spans only the twentieth century.

Print vs. Web Design

While brainstorming how the interface for GDHit would look and function, it became clear to this designer how designing for the screen is an entirely different process from designing for print. As a designer with a predominantly print-based background, this raised many new questions and challenges. When designing a brochure, poster, or publication, the core functionality is already established. Pages in a book are read from left to right and top to bottom, and physically turned in order to continue the story. Posters are viewed and absorbed, and the
interaction between the design and the audience is conceptual and contextual, rather than physical. Choices of grid, image, color, typography, hierarchy, flow and texture give the concept and intended message visual form, but the medium is essentially static, and once printed, permanent.

Designing for screen use is the opposite – even when a website or web application is pushed “live” online, it can be changed, tweaked, reconfigured and updated constantly. It is perpetual. However, the design building blocks and principles remain the same as print material, with the addition of dynamic user functionality and the user experience.

The success of a website or web application is largely based upon user functionality and the user experience, and in this regard, design should be as invisible as possible. If a website is well designed, the user will have no trouble navigating the site, finding required content, and remaining aware of where they are relative to the whole website.

“To me, good design means as little design as possible.”—Dieter Ram

If the functionality is intuitive (meaning it takes no extra thought from the user), it will seem as if it should have always been that way. Why would it ever have been different? Users come to a website with preconceived notions about patterns of flow, navigation and hierarchy due to previous experience of surfing the Internet. If the designer ignores these patterns, the result may be an illogical and dysfunctional site.

Consider the pocket of your jeans. It is a certain size and shape. Your wallet was also made to be a certain size and shape so that it would fit in your pocket. No one thinks about it until they try to put a wallet in a pocket that’s too small…in this situation, someone hasn’t followed the established design pattern…

These core points were influential during the initial design phase. This phase consisted of sketchbook brainstorms, defining necessary content elements and tasks, and visual concepts of layout and functionality.

**Brainstorms and Wire Sketches**

Defining the various tasks required of GDHit was essential before any visual brainstorming was approached. These tasks, once defined, helped clarify perceptions of layout and functionality. The main function of the timeline is to search content chronologically (span a set number of years), filter content (through the classification of various categories), read content (the most important single function of the timeline) and filter contextually rather than linearly (by filtering content through the Tags). The user should also be able to search content (advance more efficiently through the timeline). With these five core tasks defined, the next phase was to begin wireframing – or sketching layouts.

Fig. #1 – Initial brainstorms, sketches and wireframe concepts
Skipping the wireframe process can have drastic consequences. By jumping straight into Photoshop…you are making decisions on visual and aesthetic details instead of structure and functionality.\(^{17}\)

Figure 1 displays some early brainstorming sessions that attempted to define the scope and relevance of the project, including ideas that did not come to fruition and were rejected. During this phase of the design process numerous ideas were conceptualized, in an effort to dismiss the bad ideas as much as seek out the good ones. The process becomes two-fold, and is arguably the most important phase of the design process, as it explores a range of possibilities that are built upon. Here, a clearer understanding is gained of how components and user interaction elements begin to flow through the site, before spending large amounts of time on the visuals.

**Digital Iterations**

Too many websites start with a programming-first mentality. That’s a bad idea…the interface is your product. What people see is what you are selling.\(^{18}\)

With the wireframe phase beginning to define a potential grid, design mock-ups were created in Adobe Illustrator and Adobe Photoshop. Wireframing goes no further than a pencil or marker pen sketch, so the design mock-ups introduce color, typography, imagery, and a sense of visual hierarchy.

---


Figure 2 shows a 3-column grid to be viewed from left to right and top to bottom. This layout begins to define a flow and direction to the interface. The left column shows a visual timeline, divided vertically into decades. A cropped iconic graphic design image (available within the public domain, thus not violating copyright laws) acts as the signifier for each decade.

As the left column acts as a filter for time, the center column filters content to be viewed when a decade is selected. This is displayed as a list of titles, and when a title is selected, the right column (widest column) displays the article to the selected title. This transition of content from left to right is commonplace in our daily lives when reading printed texts, checking our monthly calendar, working in a Microsoft Excel spreadsheet, or reading a bus or train timetable. A further example of this directional flow of content is the Apple Finder Window (Figure 3), which became a source of inspiration for the basic functionality of the initial design iterations.
Fig. #3 – Apple OSX Finder Window – illustrates the transition from different states – left to right

The Apple Finder Window reveals content, while leaving a clear visual path, or “breadcrumbs,” back to the original starting point. The ability to clearly see a travelled path through an interface is a vital component for a successful user experience. Designed as a single interface, and not as multiple Hypertext Markup Language (HTML) pages as with a conventional website, the timeline makes it easy for the user to see the path travelled. This navigation feature differentiates the interactive timeline from a generic website, aligning the timeline with contemporary content-filtering web applications.

The initial color scheme of black, white, dark red and yellow was as much a functional decision as a visual one. As a content-driven application, the timeline required contrasting colors in order to define the grid and hierarchy, but the overall effect had to remain neutral so the user does not feel overwhelmed when reading and searching the content. Black, white and red were used to order space and hierarchy, and the yellow was used to display significant contrast in order to differentiate each of the three separate columns.
When choosing which typefaces to use for a web-based project, there are a number of limitations that are not a factor when designing for printed materials. With a print project, the designer may use any typeface he or she desires, as the typeface is sent to the printer with the rest of the document (layout, text, colors and images). However, when designing for the web, the designer is only able to use the typefaces he or she knows are available on all major computer operating systems, such as Microsoft Windows and the Apple Mac OS X. These fonts are referred to as “Web Safe Fonts.”¹⁹ The typefaces chosen for GDHit are typefaces from specific web foundries, made available through the Type Kit web server. Having the ability to use unique web typefaces adds a contextual dimension to the project that would not be available if using standard fonts, while simultaneously creating a richer graphic experience.

Translating Design Visuals into HTML, CSS, and Javascript

Just as paint, brushes, palettes and the canvas are tools for the painter, HTML, CSS, JavaScript, and an IDE are the tools of the web designer and web developer. HTML is a mark-up language that makes it possible to present and share information across the World Wide Web through hyperlinks – and is generally known as the “building blocks of webpages.”²⁰ CSS is a style sheet language that assigns presentation specifications to HTML, or defines “how to display HTML elements.”²¹ This includes the layout of a webpage, as well as its colors, imagery, and typography. “JavaScript is a scripting language, and was designed to add interactivity to HTML pages.”²² The more complex interface functions of GDHit have been designed using Javascript, and more specifically, JQuery – “a JavaScript library that simplifies JavaScript programming.”²³

---

¹⁹. In 2008, a number of online typography foundries began to design and market typefaces specifically for use on the web (as opposed to typefaces designed for print and then arbitrarily applied to the web), and partnered with third-party web-hosting services to make these typefaces available to designers everywhere.


The programming language Python links the database to the “front-end” (main interface) of the timeline.

Digital layouts and comps begin to set the visual tone and the aesthetics of an interface, but when the end product is intended for web use, there is no substitute for transferring the design into an Integrated Development Environment (IDE) and reproducing the design with HTML, Cascading Style Sheets (CSS), and Javascript. Illustrator and Photoshop “comps” were recreated in Aptana Studio, the IDE application used to design and build the GDHit interface. Aptana Studio is an alternative IDE to the industry-standard Adobe Dreamweaver, and was used for this project due to its advanced capabilities to integrate support for both client-side (front-end) and server-side (back-end) code development.

Fig. #4 – Screenshot of GDHit first online iteration
At this stage in the process, I was able to highlight the positive and negative components of the design, both visually and in terms of functionality. An immediate concern with this first online iteration (Figure 4) was the manner in which the design interacted (or failed to interact) with the varied dimensions of the monitors displaying the interface. While centrally aligned, the interface appears to merely hang from the header, rather than interact with the entire browser window. One of the most significant challenges in designing a web-based application is to create a versatile design, capable of communicating effectively across a range of different screen dimensions. Variable dimensions are not a factor when designing print material – the print designer works within concrete specifications – whereas the web designer must consider how the application or website will look at typical sizes, such as 1024p x 768p, 1280p x 800p, 1280p x 1024p, and 1440p x 900p (all dimensions are in pixels).

Early prototyping also proved the middle column (column filtering the decade content titles) to be inadequate (see Figure 4). Displaying the entire content as one extensive list – assuming the chosen decade has large amounts of contributed content – would be counterproductive, leaving the user with an overwhelming amount of scrollable content. There is also no obvious place to search content by tagged words.
WORKFLOW: GRAPHIC DESIGN + COMPUTER PROGRAMMING

In order for this project to fulfill its potential, collaboration was established with two computer programmers, Zack Dever and Cole Wiley. They designed and developed the framework for the timeline’s database, in terms of how content is defined and catalogued as it is entered into the timeline. Zack worked exclusively on the “server-side” (non-visual, programming end) of the project. Cole aided Zack in the architecture of the database, as well as playing a large role in the technical aspects of GDHiT’s more complex functionality. For the duration of the project, this has been an extremely productive working unit, and demonstrates the collaborative nature of graphic design. Graphic designers are constantly working with (and for) people in different industries and with various backgrounds. Collaborating on large-scale projects can produce effective results that would not have been possible had these teams and groups worked alone.

Defining a consistent workflow is the foundation of any success this project enjoys. We have managed this by conducting regular meetings, sharing ideas, and discussing and critiquing the most efficient and communicative method for the developments of the timeline. The collaboration with Zack focused upon what content was envisioned being contributed to the timeline, and how it was to be configured. Content that required database models included: designers and artists, geographic locations, art movements, design events, memorable exhibitions, and institutions and organizations.

Cole was instrumental in developing the complex functionality of the interactive timeline, especially when the design necessitated moving into advanced levels of JavaScript coding. Over the course of this academic year, a steep learning curve for this designer has been gaining in-depth knowledge of HTML and CSS, and a working knowledge of JavaScript. Being able to understand basic JavaScript and edit the more complex existing functions written by Cole, in order for the timeline to function the way envisioned was critical. Figure 5 illustrates a typical Aptana Studio workspace during this project. It shows a snapshot of the different code required to bring GDHiT to life. The code is a mix of HTML, CSS, JavaScript, and Python.
Fig. #5 – Screenshot of the Aptana Studio workspace
FINAL DESIGN: GDHIT

With major design flaws identified, I returned to the wireframing and began the process anew.

Fig. #6 – Process sketches for final design

Fig. #7 – Final design, displayed in a browser
Interactive

The new wireframe sketches were redesigned as a single interface to be viewed on the web, created again using HTML, CSS, and Javascript. The steps of viewing the timeline were now in place:

- Selecting a decade in the Decades pane – this loads content into the Categories pane
- Viewing the Categories to find an article title of interest
- Selecting the title in the Categories pane to display the full article in the Article pane
- The Tags displayed are from the selected decade(s)

The new design (Figure 7) shows a modified grid from the first design iteration (see Figure 4), and the interface is now designed for full screen viewing, rather than just being centrally positioned. Some of the columns from the previous layout remain, but the column displaying the decade images has now been repositioned horizontally, as this allows for a more natural viewing of a timeline, and is placed at the top of the interface, as it becomes the central visual element that all other elements respond to. Another column has been added on the right – this column pane is for Tags. The sand-yellow color has been replaced by a light cyan within the color scheme (seen on mouse rollovers), and the typefaces have been refined, while still using web fonts made accessible through the Type Kit server.

Five Filtering Categories

The Categories pane has replaced the filter column (sand-yellow color column) from the previous layout (see Figure 4). Instead of selecting a decade and instantly seeing a long list of article titles, these articles are filtered into five categories: Graphic Design Events, Art Movements, Institutions and Organizations, People, and Technology. The Graphic Design Events category will show events such as pioneering design works by influential designers and artists, important exhibitions and conventions, and the founding of various institutions, organizations, firms and foundries. Art Movements, Institutions and Organizations, People, and
Technology will filter pertinent information from each decade. For example, “Lucian Bernhard Designs the Priester Poster” filters into Graphic Design Events, “Art Nouveau” filters into Art Movements, and “AIGA” (American Institute of Graphic Arts) filters into Institutions and Organizations. It is obvious that articles within the categories will overlap multiple decades. This is intentional, as the user can see the influence and longevity of elements throughout the history of graphic design. Considering functionality, categories open and close much like a chest of drawers would, hiding and revealing content. This allows the user to conserve screen space when necessary, and also helps the user with filtering content throughout the timeline.

Fig. #8 – GDHit final interface with working content

Within the interface, the choice was made to display as few visual items simultaneously as possible, in order to keep the content as the primary focus (as well as taking into account potential restrictions of screen real estate), while also creating a rich interactive experience,
where visual elements move, open and close, hide and reveal content, and change color on a mouse rollover or mouse click. Well-designed functionality is effective in a two-fold manner, as it accounts for screen dimensions and creates a higher sense of interaction. Figure 8 shows the interface with a decade selected; categories displaying article titles, and the Articles pane displaying article content.

**Adding Content**

![Image of Adding Content interface]

*Fig. #9 – Add content fly out*

User contributions will define the timeline, and the “Adding Content” process is designed to be as simple as possible. A major concern while designing this feature was not to remove users from the context of their currently viewable article (relevant to their position in the timeline). An example would be when using the search bar while viewing a web page. The search results take users away from what they were looking at, changing the “state” of the website by displaying a new page. Users then either hit the “Back” button, or carry on with their
search. This feature was avoided within GDHit. Adding content to the timeline is initiated by selecting the “Add Content” icon on the left menu bar (see Figure 9). This reveals the “Add Content” dialogue box, which slides out from left to right. The dialogue box does not cover the entire interface, and also has a slight opacity on the black background, so users can see they haven’t moved to a new page, and thus haven’t lost their position in the timeline. Users then follow the simple on-screen instructions before clicking the “submit” button.

**Finishing Touches: the Home Page**

![Home page](image)

**Fig. #10 – Home page**

First impressions with websites or web applications are important – the designer has mere seconds to gain the user’s attention before they leave to find a different, better site (in their mind). Every visitor to the site is a critic, and if the site is dysfunctional, confusing, or aesthetically below par, the user leaves and gives other potential users negative reviews.
While the interactive timeline has been designed to be a free-flowing, aesthetically rich experience, it could be confusing to first-time users if they navigate to GDHit without any prior context of the timeline, its objective, or its functionality. To avoid this unseemly experience, a home page has been designed as a bridge between the first time user and the GDHit interface.

The choices of color scheme, images, typography, and texture intend to give the perception of historical content. Cropped portions of famous graphic design works denote a past era, using images that are symbolic of their time period within graphic design. Black and red are classic early modern Constructivist colors, and the color scheme of black, white, red and cyan is consistent across the timeline interface.

The home page displays links to “Find Out More,” “Enter the Timeline” and “Sign up for Email Updates.” “Sign up for Email Updates,” allows the user to follow the development of the timeline, similar to regular news feeds. “Enter the Timeline” takes the user directly to the

Fig. #11 – Viewing the timeline tutorials page

The home page displays links to “Find Out More,” “Enter the Timeline” and “Sign up for Email Updates.” “Sign up for Email Updates,” allows the user to follow the development of the timeline, similar to regular news feeds. “Enter the Timeline” takes the user directly to the
timeline interface, and “Find Out More” takes the user to a new set of pages that outline the scope of the project in the “About” section, and provide users with a number of video tutorials and instructions on how to navigate the timeline (see figure 11) and contribute content.
CONCLUSION: GDHIT WORKS

The intention is to continue with this project post-thesis, and for a web-based project there are infinite possibilities for progression and growth due to the nature of the medium.

Hopefully, the user base will grow…but your job isn’t over…User actions need to be collected, studied and integrated in the re-evaluation process, which highlights problems and potential new features to introduce in subsequent versions. And then you’re right back where you started: sketching and wireframing, where new ideas are born, developed, tested and implemented.24

Given the timeframe of thesis study, there are functions, features and elements that were omitted from GDHit but are planned for inclusion in the future. The use of imagery is one such feature, but an equally influential feature is a more concrete and visual link between the history of graphic design and the history of the world. Currently, the Categories filter pane focuses only on information directly linked to the graphic design industry; the content of the articles must communicate the link between the graphic design event and its impact on society and culture. Future iterations of the timeline would incorporate other categories or filtering outlets that visually displayed the ebb and flow of graphic design within society.

Another major feature omitted from GDHit in it’s current iteration is the ability of users to create a user account, and have the functionality of creating their own timeline based upon articles they have read and contributed themselves, and searches they have saved. The creation of a user account is an essential feature for moderating content submissions. Users would be able to view content without creating an account, but an account would be necessary to add content. This process would be as simple as submitting a user name and email address.

Moderation of Content

Initially, content contributed to the timeline will be moderated by the instructor of the course being taught. If the database were to grow to a sufficient number of articles, an automated system would be explored, where article submissions navigate a series of computational queries, and certain choice words are flagged, similar to one of the many extensive Wikipedia models of article validation. These models include

Systems built into its editing software that make it easy for a large number of editors to watch for vandalism, monitor recent changes, and check activity in articles in personalized watch-lists, in real time.25

However, it would be the intention that the community of contributors would actively update, edit, and report articles of such a low standard.

Future Growth

The potential and room for growth of this project exist. A feasible option for expansion remains to make this timeline public to the entire online community. One of the first steps toward such a move that I am considering is to post the project online at Kickstarter.com. Kickstarter is described on its website as

The largest funding platform for creative projects in the world. Every month, tens of thousands of amazing people pledge millions of dollars to projects from the worlds of music, film, art, technology, design, food, publishing and other creative fields.26

The first milestone for the timeline would be to have it actively used within a graphic design history course. In all likelihood this would be a course that I myself was teaching, and would begin to show the potential for having a user-oriented tool within a lecture-based course. Having students become part of an online community of like-minded people, sharing knowledge

and discussing events of graphic design history can surely only enrich the learning environment, while evolving the methods of a lecture-intensive course into the twenty-first century.
BIBLIOGRAPHY


### APPENDIX A: LEADING GRAPHIC DESIGN HISTORY WEBSITES ANALYSIS

<table>
<thead>
<tr>
<th>Site Name</th>
<th>Purpose</th>
<th>Aesthetics</th>
<th>Functionality</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDE.org (thesignencyclopedia.org)</td>
<td>User-generated database of all things design-related</td>
<td>Well-defined grid, Concept-driven Color Scheme, “Web Safe” fonts</td>
<td>Basic hyperlinks and rollovers</td>
</tr>
<tr>
<td>The Graphic Design Timeline (mkgraphic.com/basic.html)</td>
<td>Post-Industrial Revolution timeline of graphic design</td>
<td>Low-grade aesthetic, no defined grid, no typographic effort of note</td>
<td>Basic hyperlinks</td>
</tr>
<tr>
<td>Rochester Institute of Technology</td>
<td>RIT Graphic design timeline visual and archive</td>
<td>Well-defined grid, use of relevant images, bland color scheme, “Web Safe” fonts</td>
<td>Legible, scrollable timeline with pop-up designer bios on click</td>
</tr>
<tr>
<td>Graphic Design Archive (library.rit.edu/gda/)</td>
<td>Display of AIGA image archive</td>
<td>Rich graphics, defined grid, elegant color scheme, “Web Safe” fonts</td>
<td>Scrollable, various ways to view content, enlarged image on rollover, search by category</td>
</tr>
<tr>
<td>AIGA Archives (designarchives.aiga.org/#!/home)</td>
<td>Teaching blog</td>
<td>“Web Safe” fonts, plentiful images, lack of color scheme</td>
<td>Basic hyperlinks</td>
</tr>
<tr>
<td>History of Visual Communication (<a href="http://www.citrinitas.com!%5C">www.citrinitas.com!\</a>)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Aesthetics are considered as:**
Clearly defined grid, visually interesting color scheme, use of typography, imagery if relevant.

**Functionality is considered as:**
Beyond basic hyperlinks – interactive features such as rollovers, pop-ups, scrollable content.
APPENDIX B: WEBSITES USED FOR APPENDIX A

The Design Encyclopedia (TDE.org)

The Graphic Design Timeline

RIT Graphic Design Archive

AIGA Design Archives

History of Visual Communication
VITA

Phillip Winfield was born in Kingston upon Thames, Surrey, England, on February 10, 1984. A competitive sportsman, he arrived in the United States on August 19, 2003, by virtue of a track scholarship to McNeese State University in Lake Charles, Louisiana, where he competed for four years. He received his Bachelor of Arts in Graphic Design from McNeese State University in May 2006, and will receive his Master of Fine Arts from Louisiana State University in May 2011.