



Typography and Diversity
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Typography education in an interdisciplinary program through inclusive projects

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Abstract: Too often, typography is treated as an afterthought, misused or relegated to a default typeface in school projects, professional documentation or presentations. A lack of knowledge and awareness of typographic principles within a group can limit the variety of visual communication solutions created. Even for design students, the skills and knowledge required to create and appreciate effective typographic communications can be challenging. To then facilitate that understanding, exploration and appreciation to a larger audience can be difficult at best. However, when typography education is expanded beyond the design student and includes technical programmers and humanity students, this larger group can influence the frequency of effective typographic forms and visual dialogue within a community. This paper will share the program and curriculum design and showcase collaborative student work across disciplines that highlight the creative benefits of typographic education for all disciplines.

Key words: *typography, designer, programmer, humanity, diversity, inclusion, education, interdisciplinary.*

1. Introduction

In today's digital age we can debate the usage percentages between the written word and image based media and their respective importance and functionality. While this debate may not shed light on a simple answer it has offered some interesting insights into how we approach and view digital design. iA.net designers and blogger Chris Lüscher's article "Reactions to 95% Typography" is such a case that illustrates this debate but more importantly I believe highlights the importance that typography plays across our digital landscape and its underutilization. From user interfaces, informational data, storytelling

and branding, typography plays a central role in communication, interaction and aesthetic design. However, only until recently we have seen an emergence of applications and platforms where typographic design plays a significant role. Applications such as Adobe Spark, Microsoft Sway, Haiku Deck and Dropbox Paper have begun to address typographic design by limiting the user to pre-designed solutions much like many WordPress templates have done in recent years. This stage of typographic design usage parallels the advancement of imaging controls through basic pre-canned filters and formatting through apps like Instagram and others. While this approach may elevate the broader aesthetic understanding, which one could argue it has done for imaging, it does not add to the deeper understanding and education of user in regards to the core principles, rules, aesthetic and communication aspects of the media. To go beyond the template or pre-canned design, educational solutions must be created that include broader audiences when introducing the power, principles, elements and aesthetics of typography.

At Rochester Institute of Technology (RIT), we believe that new media design education lies at the nexus of theory, process, practice and exploration of creative visual design for user experiences. At this intersection of visual communication, design strategy, technology sciences, and user experience design a collaborative and interdisciplinary education and opportunity exists. While designers today must maintain their strong traditional visual and aesthetic sensibility across an ever-expanding technical screen based world, it is important that design education incorporates these tangential fields into the core design educational path to create a broader awareness and skillset for design and typographic usage. In the New Media Design, BFA program we focus our effort to teach design and typography to multiple disciplines in New Media Design, Digital Humanities, Computer Programming and Human Centered Computing and Design simultaneously. This collaborative approach to design education creates a shared experience and establishes a more robust base of knowledge around the power and usage of design and typography. From general creative explorations to applied usages within each discipline, typographic education is improving students' communication skills.

Regardless if one is in a technical or design profession the need to understand the importance of type as a key component to solving any communication problem - this is especially true today in our experienced based economy. With a class composed of 50% non-design majors that include hard of hearing students from National Technical Institute for the Deaf (NTID) program, each major enters with a different level of interest and understanding of design and typography. With such a diverse group, it is critical to begin

by illustrating how typography and design play a role across the different disciplines and students' interests. By connecting discipline specific and "real-world" examples back to core principles we can begin to help design and non-design discipline students identify and appreciate the application and benefit of typography. For many non-design discipline students, the appreciation and critical analysis aspect of the course has additional benefit as it introduces the concepts to critique to them.

Once a foundation has been established around identification and basic analysis of design and typographic theory through lectures, creative hands-on learning opportunities are incorporated. The goal is to transform the way the students see type from just an input on a keyboard to a powerful communication tool. This transformation starts with basic exercises in typographic translations that incorporate design and gestalt principles and progress to expressive typographic solution and finally introduce more complex typographic layouts and informational structures. Through this process students gain the necessary knowledge and skills to leverage design and typographic principles not only in their own fields but gain the understanding and significance of working with designers to fully leverage the power and beauty of typographic communication.

2. Design education model

Today's global clients, product teams and instant distribution systems require individuals to embrace and effectively leverage a diverse professional environment. While can be seen across all domains, the digital app and service market represents perhaps the most apparent example of how diverse individuals work together to create a product for incredibly diverse user groups. This direct need for collaboration between design and develop is at the foundation for New Media's collaborative approach to inter-disciplinary education but with the expansion of programs and ability for users to become content creators, the need for design and typographic education has grown exponentially.

As a lead designer at Eastman Kodak and Yahoo Inc. and a creative director at Effective UI, I have witnessed the need and capability to leverage typography across multiple platforms and products increase over the past decade. However, when a team is unable to appreciate and understand the importance and role typography plays within the user interface, informational and emotional aspects of a solution it becomes difficult to realize and implement the most effective solution. By incorporating non-designers from adjacent fields into foundational design and typographic curriculum more diverse and better

educated teams will emerge within the creative and technical fields alike. This broader understanding and consideration of typography is positioned to improve our general and professional use of typography.

I focus on 3 main components to help achieve these results. First, I approach and engage individuals through a more mentorship process than as a lecturer. As with any creative endeavor, a personal investment by the creator is required and for many of the non-design majors, this curriculum represents a major shift from their core courses that are much more explicit learning based. In addition, the wide creative skill set of the class requires additional mentoring to assist students on an individual basis to help identify and foster personal growth that is appropriate. This approach affords the student an opportunity to explore new avenues through inspiration and iteration. Secondly, I incorporate a series diversity topics within the project requirements. This links awareness to individual and external points of view which assists in reinforcing the larger goal of the course around the importance of expressive communication through design and typography. Lastly, I connect the represented industries to aspects of typographic usage through my own personal and professional challenges and experiences.

These 3 components contribute to meeting RIT's strategic plan of incorporating T-shaped education models across curriculums. For the designers within the course the core skill building contributes to the vertical stem while the diverse program representation increases the breadth of communication and inter-disciplinary collaboration soft skills. Likewise, non-designers benefit from vertical skill building but in most cases these new tools act as a secondary vertical stem within their home program outcomes. While students are taught, practice and are tested on the same materials, the outcome can and should be viewed differently based on the individuals' home program.

3. Typography exercises and projects

To assist in the practice and implementation of typographic design across a large and diverse group I promote my "3i" design philosophy - Investigation, Inspiration, and Iterations. This core strategy combined with hands-on exercises allow students to develop a repeatable creative process as they develop and incorporate more complex thinking and design principles. Students begin by investigating the domain space to identify and clarify the problem of the desired communication in a non-design format. Independently, students research creative explorations and analysis how design and typographic principles

were leveraged within them. From there students collect inspirational resources that can be leveraged during the creative and implementation stages. With a refined problem and solution statement, domain knowledge and inspirational resources, students explore multiple directions and iterations. Again, as many non-design majors do not have prior experience with an iterative work processes, this experience offers additional opportunities for students to explore and improve upon their original ideas. Beyond the typographic education New Media Design believes that it is critical to ensure that all programs include avenues to embrace the breadth and depth of cultural, ethnic and gender related issues and ideals. It is critical that a class environment fosters opportunities for students to learn about, challenge and accept different points of view, interests, skills, abilities. Typographic education fills this role by allowing students to explore, understand and accept differences through visual communication. Typography is not reserved to designers as programming is not to developer, and a mutual respect each other and the power of typography creates a stronger and more visually sophisticated population. To foster inclusion of ideas, diversity and processes the course creates opportunities within the classroom through readings, projects and discussions to explore and expand their insight and celebrate diverse points of view important to those around them. Using design as a universal language, students explore the use of typography to learn how to communicate important ideas or messages for themselves and others.

3.1 Typography to reinforce design theory and design thinking

Repetition and exploration are key to achieve proficiency in translating theory in practice. The design foundation course introduces weekly exercises with varying complexity to reinforce the design theories introduced throughout the course. These exercises help students explore the possibilities of graphic expression and visual communication using typography. Based on gestalt principles, design principles, and simple expressive word associations, students quickly explore and compare how typography can effectively be manipulated. While these exercises don't focus on larger diversity issues, they act as a conduit for students from multiple disciplines to work and learn together.



Figure.3 Design thinking exercise by Ethelia Lung - a guided design process of inspiration, exploration and iteration.

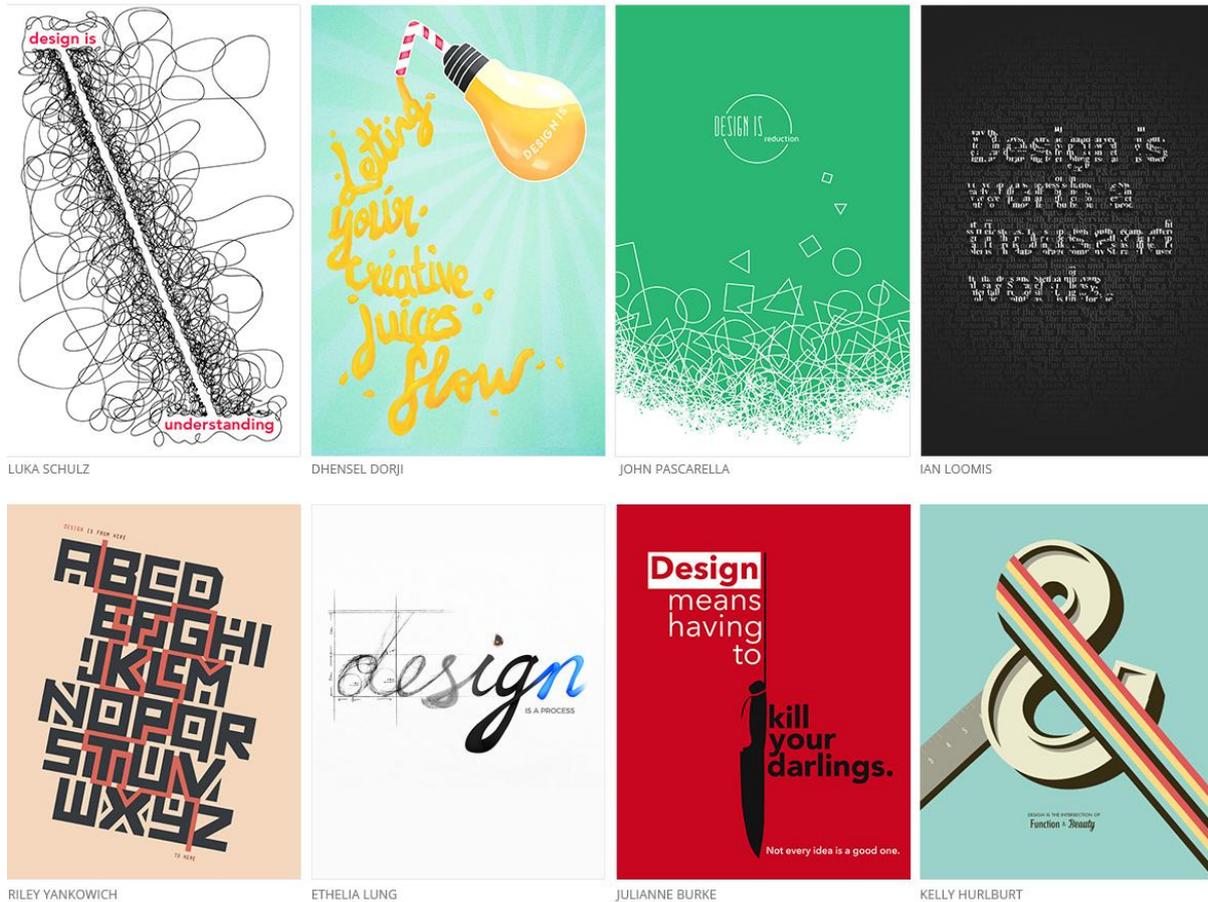


Figure.4 Design thinking exercise - communicate definition of design with typographic focus design solutions.

3.2 Typography as an expressive medium

As a part of the typographic exploration students are asked to imagine letters beyond their dull, practical functionality and visualize the meaning through translation and letterform. This exercise addresses the effective use of typographic and graphic elements to semantically and visually communicate its meaning. These initial exercises are focused on exploring the capability of typography in effective communication. During this phase of the course, students begin to formalize the “3i” process of investigation, inspiration and iteration. Students additionally share and critique research, inspirations and process work to review how the creative process was leveraged by their peers. At this point students are also able to more effectively identify and deconstruct design principles and elements within the work and communicate their role in the overall impact of the piece.

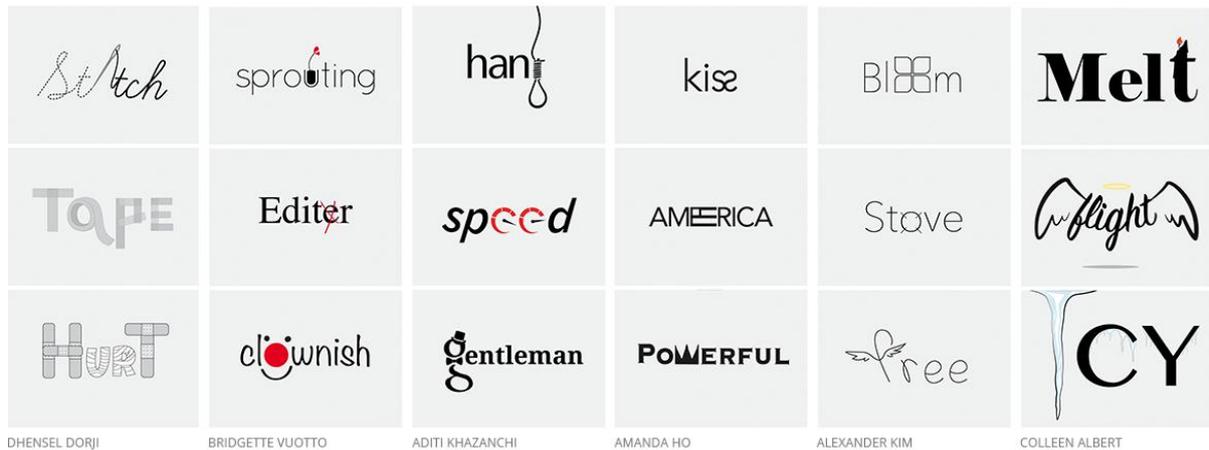


Figure.5 Typographic illustration exercise - explore and interpret typographic form to express meaning of a series of words.

The Typographic portrait exercise begins to ask students incorporate elements that reflect an aspect of who they are. This creative self-portrait uses only typographic characters as written words or graphic symbols but the students are free to experiment with unconventional modes of representation. This exercise requires them to think about their own identity, how their design reflects them as a creator. Lastly, they use their facial characteristics to explore creative forms and designs. Through the examination of form and typographic elements they design a persona to present to the larger class. They consider the relationship between the characteristics of the letterforms and their identity, personality, and persona to form the final design. Typographic design solutions are promoted to create graphical representation rather than pictorial representations and a focus on conveying emotions using expressive form helps students create telling images. This exercise is one of the first exercises that introduces the power and benefit of diversity within visual communication.



MADISON YOCUM



HALEY KING



AAHEL LYER



DHENSEL DORJI



LUKA SCHULZ



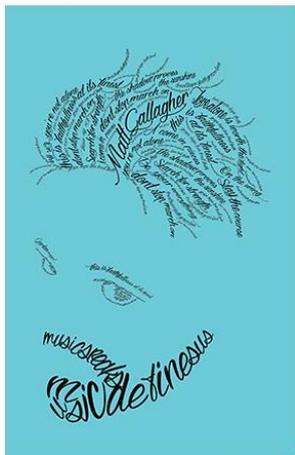
RILEY YANKOWICH



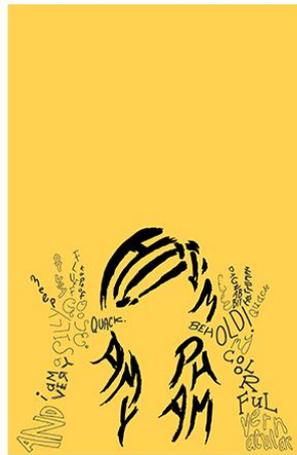
DEVIKA PARIHAR



BRIDGETTE VUOTTO



MATTHEW GALLAGHER



AMY PHAM



AMANDA HO



SHELBY MASON

Figure.6 Typographic self-portrait exercise - study fonts and the character of the letters and their relationship to represent personality and/or physical appearance.

3.3 Typography to raise awareness and persuade

To further the incorporation of diversity and exploration of typographic design, student explore current events related topics. To facilitate the student's engagement in these topics, lectures and conversations on global and social issues are introduced. These topics are explored through how they relate to or leveraged design within their campaigns and throughout history. Building a contextual framework on historical and contemporary design usage is a critical part of the investigation and inspirational phases of the creative process.

With this broader context and understanding of the role of design, students are select projects that engage topics about diversity, gender, environmental and social awareness. These exercises and approaches not only assists the students in identifying with fellow students and future team members but will make them a more responsible designer with a fuller appreciation of how design and typography are used within editorial contexts.



Figure.7 Typographic poster related social issues - Typographic poster engages the audience, provides information, and convinces the viewer to seriously consider student's point of view on social issues.

3.4 Typography to command your attention

With a simple but strong typographic and design foundation established through typographic solutions focusing on graphic form, basic communication and editorial

visualization the course returns communication design to explore typographical hierarchy and expressive speech through poster design. While the subject of these posters can be based on any domain, students select a designer or typographer to research and prepare an expressive work that reflects the style and tone of the subject for a theoretical presentation event.

This project creates another opportunity for the students to expand their knowledge of influential designers and typographers, view a broad spectrum of design and typographic styles and how to apply external influences and inspirations into their personal designs without creating carbon copies. This last aspect of the exercise speaks directly to the initial challenge of creating better typographic solutions beyond the pre-canned solutions that these non-design majors will face. While most students struggle to overcome and breakaway from the selected designers style or contributions, the implementation of the 3i system allows students to clearly track their creative progress. During the iteration stage students continually explore and evaluate their solution against the investigation and inspiration research of the selected designer. In addition, students work to use typography to command attention from the viewer. As this is an advertisement students are challenged to leverage creative and expressive typography to create a memorable visual experience.



Figure.8 Typographic poster for designer/typographer - students conduct research about a designer or typographer and present their research to class. Based on the research they then create a typographic poster for a lecture series featuring their designer/typographer. This process introduces students to research based content creation and visual communication principles.



Figure.9 Typographic poster for designer/typographer by Cathryne Szczepanik - a guided design process of inspiration, exploration and iteration.

3.5 Typographic hierarchy exercises

To complete the design and typographic foundation course, a simplified exercise in layout and hierarchy is presented to the students. One of the most important keys to creative and effective typography is having clear levels of hierarchy that support easy to access information and the ability to read or follow the content. Here the typographic hierarchy expresses the organization of content, arrangement of elements by limiting the use of design principles. With a selected topic, the class experiments in creating 4 variations of typographic design that focus on alignment, weight, size and type family as the primary

visual tools. This process helps reinforce the core design principles that designers and non-designers control when creating expressive communications. This final design enforces the power of typographic form and function and creates a strong based for designers to continue to advanced topics while establishing key fundamentals for non-design discipline students.



BENJAMIN WILCOX

ETHELIA LUNG

RILEY JOSLIN



LUKA SCHULZ

ADITI KHAZANCHI

AAHEL LYER

Figure.10 Typographic hierarchy exercises I - this exercise is to re-design a series of e-mail flyers focusing on typographic hierarchy with fundamental typography variables, gestalt principles, design principles and grid system. Students are to explore four sets of design solutions to guide and emphasize information using given typographic parameters. Typographic variables (use one type

family with different sizes and weights, last solution can use up to two type families) change for each required solution.



Figure.11 Typographic hierarchy exercises II - this exercise is to re-design a series of e-mail flyers focusing on typographic hierarchy with fundamental typography variables, gestalt principles, design principles and grid system. Students are to explore four sets of design solutions to guide and emphasize information within given design constraints. Experiment with typographic elements; spatial (indent, line spacing, placement) and graphical (size, style, value) typographic elements to

create visual hierarchy and interest. Examine the relative importance of each element in the message, audience and context to create an effective communication in the typographic space.

4. Conclusions

Typographic education presents a unique opportunity. Through a collaborative interdisciplinary approach in design and typographic education, it is possible to expand the creative and design skillset of non-design majors while leveraging typography to explore visual communication in support of diversity. The benefits of a shared and inclusive curriculum far out way the drawbacks of teaching to students with such varied backgrounds and skills. Building an appreciation of typography and a foundation level, across a wide spectrum of majors and within a mixed environment assists in improving the quality of visual communication moving forward. Regardless what the percentages may be, expressive and effective typography is critical to the success of any product, service and team today.

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