Abstract
Numerous questions arise from the topic of writing and research for graphic design. For example: Why do graphic designers often not learn to research and write for design until studying at the Masters or even the PhD level? Why do many faculty of graphic design not have knowledge of common research paper writing? If they were not taught this process and can not contribute to the future world of design research, who will? Furthermore, how will today’s students learn this valuable skill? Research and writing are not simply for the scientist or historian buried in books and publishing for a limited scope. Every publication, printed material and on-line resource regarding design should involve research and writing. Many of today’s professional publications on graphic design are little more than image-based “eye-candy” with no, explanation, information or description included. Through the examination of current design research in publications and journals the potential expansion of written research in graphic design is explored. Problems within pedagogical approaches and graphic design studies are approached. Moreover, the promise of graphic design students as great researchers and writers through combined creativity and logic is investigated. Research paper writing is a means of influence and inspiration for design innovation. Questioning, analysis, and a formulation of ideas into words and solutions benefit not only the growth of the individual designer but also the reputation of the graphic design discipline. The lack of writing and research within contemporary graphic design studies is detrimental to the current state of the profession. However, improvements are possible. The advancement of design writing and research can be made through: modifications to undergraduate graphic design programs, improvements in faculty development and an analysis of contemporary design publications.

Key Words: Design Education, Design Theory, Design Methodology, Design Creativity

1. Introduction
Professional designers, design faculty and students are often not knowledgeable on the importance of written research. Furthermore, writing itself can be a daunting venture for those who are visually inclined. However, writing for design is essential. Graphic design as an entirely practice-based discipline is developing to incorporate more theory as the graphic designer’s role in contemporary society changes. An excerpt from the First Things First 2000 Manifesto reads, “We propose a reversal of priorities in favor of more useful, lasting and democratic forms of communication - a mindshift away from product marketing and toward the exploration and production of a new kind of meaning” [1]. Written research is an insightful method for the generation of meaningful design. Modifications that advance the level of written design research within undergraduate graphic design studies can lead to significant changes in the design profession.
2. Method
A qualitative approach was taken to establish an analysis of information from various written recourses. This process was initiated by proposing a series of questions related to the problems and potentials within written research in graphic design. First, research was conducted based upon the question: Where do problems exist in design education, faculty, publications and students? Second, research was conducted based upon the question: what are the potentials, insights and actions being taken in design education, faculty, publications and students? Finally, the questions were asked: Why is written research in design important and can graphic designers be great writers? The answers to all these questions were linked within the results section. While, modifications that can be initiated in undergraduate studies are summarized in the discussions section. The findings then conclude the reasons why changes in undergraduate studies towards written research are necessary.

3. Results
The following section examines undergraduate and graduate studies, faculty development, publications and today’s students in relation to the topic of written research for design. The importance of design writing and research is addressed. Lastly, the potential for graphic designers to be great writers is studied.

3.1 Problems in Design Undergraduate Studies
Undergraduate studies are the core of graphic design. Unfortunately, undergraduate programs commonly have very little or no written research requirements. Courses are typically project oriented and students are not necessarily taught independent learning. “Many students now leave undergraduate school with impressive portfolios that demonstrate well-developed formal sensibilities, particularly in typography and computer skills. The downside of this success is a tendency for these graduates to regard education as a passive process, spoon-fed from teacher to student and complete in four years, rather than lifelong self-initiated learning. This attitude can lead to a plateau of competence — resulting in the predictably slick work we see around the world — and discourages further growth in challenging graduate study” [2].

In reviewing numerous course requirements and descriptions within undergraduate graphic design programs in the US the terms: writing and theory seldom exist. “Rarely does one encounter any course called ‘design theory’ ” [3]. Even though there are numerous artistic and technical skills that today’s undergraduate students are being taught there is a lack in teaching graphic design students to research, analyze, interpret and write. Unfortunately, this predicament carries into graduate programs.

3.2 Problems in Design Graduate Studies
Many Master’s programs in design are still strictly practice-based. An examination of several US Master’s design programs finds that, students typically do conduct research, explore the relevance of design to the world around themselves and pursue a creative visual endeavor. Unfortunately, writing in some programs plays a trivial role in students composing and communicating research and ideas. Weaknesses in Master’s programs often stem from undergraduate studies. “A problem yet to be corrected is the persistence of many small mediocre graduate programs attached to large (and equally mediocre) undergraduate university programs, in which graduate study is largely a remedial extension of insufficient undergraduate work” [4].
Beyond the Master’s degree, the PhD is even more problematic primarily due to a basic lack of availability. There are very few universities in the US that offer a PhD in Design, Graphic Design or Graphic Communications. Furthermore, there appears to be a misunderstanding by some as to what a PhD in Graphic Design should actually entail. One particularly disappointing search was uncovered on Education-Portal.com. This site claims to be a resource on education supported by experts. However, their site informs the reader that a PhD in Graphic Communications includes training that teaches graphic communications skills, technical applications and practice in the printing industry. Contrary to this, a standard definition for a Doctorate: is the highest level of university degree usually awarded for a lengthy piece of original research. Furthermore, a doctoral is commonly described as being written. Such definitions address two key terms, which are the basis of this paper: research and writing. So what went wrong with Education-Portal’s doctorate in design description? Presumably such program criteria have evolved out of a demand by design professionals seeking to advance their technical skills. However, this type of education should come from workshops, undergraduate and continuing education courses, rather than from a PhD.

3.3 Challenges Facing Design Faculty, Publications and Today’s Students

Since many design faculty graduate from Master’s programs with no criteria for writing and there are a limited number of PhD programs in design it seems inevitable that a weakness in undergraduate design writing would trickle down from a weakness in design faculty. Design programs cannot evolve unless faculty members do. Without self-initiated learning or some sort of faculty development, writing may never fully integrate into undergraduate design studies. Ellen Lupton further addresses this issue in her article Writing 101: Visual or Verbal? by questioning, “How are graphic designers learning to write? Since the late 1970s, a movement known as Writing Across the Curriculum (WAC) has argued that writing should be taught in every course on campus, not just in specialized composition courses. Because each discipline—from art to engineering—has its own standards and conventions, faculty in each field should be teaching its own practitioners how to write. Yet few design educators have the time or confidence to load this duty on to their studio courses” [5].

Even faculty that have the confidence and time to teach design writing may run into problems finding enough proper resources on design research. Graphic design sections in books stores and libraries are flooded with sets of mediocre compilations of designed stuff. Such publications contain hundreds or thousands of visual examples with little or no explanations. These best-of-books are mere eye-candy. They, lack any substantial content that provides insight into the designs themselves. The viewer of such books walks away with an overwhelming amount of visual information and no understanding of the intent, research or significance of the designed items. Unfortunately, design students gravitate toward such ensembles. Students are drawn to new trends and techniques rather than functionality and meaning.

Furthermore, best-of-books cater to today’s students’ lack of interest in reading. If students do read it is in short spurts as a part of their everyday multitasking. They absorb information from content deprived publications and screen-based blips of text. Today’s students are referred to as “…smart but impatient. They expect results immediately. Raised amid a barrage of information, they are able to juggle a conversation on Instant Messenger, a Web-surfing session, and an iTunes playlist while reading Twelfth Night for homework. Whether or not they
are absorbing the fine points of the play is a matter of debate” [6]. The impatient nature of this generation lends them to a lack of interest in the patience-demanding task of writing. Even if faculty were knowledgeable in design writing and design publications were always content-oriented, students indifference in writing poses a great challenge.

### 3.4 Prospective in Academic Programs

Though many of the dilemmas in design writing and research have so far been examined, it is important to note where insight, potential and positive action exists. There are reassuring aspects of academic programs, faculty development, design publications and today’s design students that can lead the way to change. In writing about necessary transformations in undergraduate education Steven Heller offers insight by explaining that, “Theory provides the basis with which to ask questions not only about the work, but also through work. And if nothing else, what design lacks in terms of interesting work these days in not necessarily more visual variety, but rather more provocative questions and polemical answers” [7]. He refers to such question-asking as problem-posing education and states that it, “…centralizes the student as an active agent in the formulation of projects that question what we, as a profession, already know as well as things that we might never had considered. In a problem-posing education, students must be able to critically examine their world and their role within it. This means that a critical disposition on the part of the student and teacher is necessary to fully capture the radicalism of the proposition” [8].

Beyond such teaching methods in undergraduate studies, NC State College of Design has a particularly inspiring description within their Master of Graphic Design program titled Writing in Design. Its description is as follows: “Faculty have backgrounds—and a strong interest—in writing on design, and encourage student development of critical writing skills. Seminars encourage and critique students’ critical writing on design as a necessary component of advanced study. Each semester’s topic engages students in the analysis of relevant issues and students often use these writing examples in submissions to conferences and publications. Recent seminars have focused on the culture of play, design and cognition, narrative, and the global design culture. Many students become active participants in design blogs and view writing as a significant enterprise in the practice of design and teaching” [9].

Furthermore, the NC State College of Design program balances between projects, papers and abstracts. Their program is not alone in the prospects of graduate education. Though, there are many master’s programs lacking in written research, “A number of promising programs are now offering graduate students opportunities to pursue in-depth research and experimentation in design theory, methodology, philosophy, history, criticism, technology, and new design languages. Graduate study should never imitate professional practice; rather, it should challenge students to look deeply into the discipline and into themselves to connect design to its culture, its history, its users, its society, and its technology” [10].

Introducing writing into undergraduate studies through methods of problem-posing and writing in design courses are simply two means of implementing change. Writing and design should be taught to go hand-in-hand, not as separate identities. Each student design project can be initiated with some form of written research. More
intensive projects could incorporate an actual research paper on design. However, writing projects for students don’t need to begin with multi-thousand-word papers rather, the process can be initiated through shorter and less formal writing tasks. Student blogs, notebook projects and short research essays can spark design creativity that comes from the writing process. The formalities of research writing on design can grow with faculty and students step-by-step within the classroom.

3.5 Potential for Positive Action in Faculty Development
Many design faculty may be resistant to change. Because of this, the question arises: Should all design faculty become experts on writing? Not necessarily, rather they should make a conscious effort to appreciate and embrace the positive and necessary impact writing has on design. Design faculty can bring in outside support by introducing design-writing experts, editors and researchers into the classroom. Through workshops, lectures, critiques and tutorials design faculty can gain insight with their students. Also, faculty can turn to the design, writing and research resources that do exist.

3.6 Insight from Design Publications
Fortunately, “…unlike social scientists who are often left on the sidelines to describe, graphic designers can actively redefine their practice from within” [11]. Some of the most integral redefinitions of design practice have been made through design organizations. Key examples include: the AIGA, (the professional association for design), ICOGRADA (International Council of Graphic Design Associations) and Cumulus (International Association of Universities and Colleges of Art, Design and Media). Though such organizations exist, the awareness of them and the use of their writing and research resources must be utilized. The AIGA allocates an entire section on their site to writing with three subcategories of: Voice: AIGA Journal of Design, AIGA Publications and Design Press and Winterhouse Awards for Design Writing & Criticism. Moreover, the award in the final category is annually presented to student writers on design while, both ICOGRADA and Cumulus commonly post call for papers and conferences.

In the world of design publishing there are authors whose names appear again and again. Steven Heller, Ellen Lupton and Phillip Meggs are simply a few of the well-known American writers and researchers on graphic design making significant contributions. Their writings cover the history and teaching of graphic design as well as a range of topic analysis on the design profession. As more design organizations, journals, well-written publications and writers on design evolve — design writing is encouraged.

3.7 Possibility in Today’s Design Students
Today’s students can log-on and link-into various on-line resources with ease. In teaching this technically savvy generation, focus should be placed upon their strengths rather than their weaknesses. Today’s generation has a desire to do good and is referred to as, “people (who) want to change the world…They want their time working for an employer to mean more than just helping ‘The Man’ pay his mortgage…They want to be part of an organization that is aligned with their personal values” [12]. Today’s generation is not merely interested in earning a paycheck; they want to contribute to society through their designs. Written research encourages
students to be more than composers of meaningless design. It can provide them with a knowledgeable voice on the local and global issues that they want to make a difference in.

3.8 The Importance of Design Written Research
Before changes can be made in design education, faculty, publications, and students, there must be a consensus on the importance of written design research. “Research is not...some pedagogic make-work or punishment. It is rather a necessary dimension in undergraduate and graduate programs” [13]. “Training students to produce effective research is a positive addition to their skill-set. How they are taught to research so it enhances their physical output as it expands their creative freedom is the next big academic challenge” [14]. Beyond benefiting students, written design research can aid the practice of graphic design. “This impasse between theory and practice in graphic design must be bridged, not for the sake of theory, but for the sake of practice. However, the challenge is to both theory and practice. For theory, it means engaging in the making of graphic design, not simply a means for critical reflection about the work, but a critical intervention in work. For practice, it means rethinking the very definitions and limitations of graphic design, not simply to add a little intellectual glamour to an everyday practice nor as a rally cry to colonize other areas of creative endeavor, but to finally understand graphic design as a form of social practice” [15]. Such actions would bring an end to design created simply for design’s sake and establish graphic design as a credible and reputable profession and discipline.

The creation of such research means that designers must be able to write. At the AIGA’s Social Studies’ conference designer Scott Stowell stated, “I can’t imagine being a designer who can’t write,...And it’s not just about business. The glorious, sloppy, over-populated blogosphere beckons everyone to participate, but you can only play if you have something to say and you know how to say it” [16].

3.9 Graphic Designers as Great Writers
Even if designers acknowledge the importance of writing, as visually oriented artists can they actual be good writers? Fortunately, the research and writing process is not so different than the research and design process. As explained in How We Write, the definition of writing and design are almost interchangeable, “Writing is ‘a conscious and creative communication with materials to achieve a human effect’ ” [17]. The sub-quoted portion of this statement is actually not about the writing process, it is an excerpt from a book on design, defining of the design process.

The challenges of writing are also similar to those of design. “Ideas and spoken words are ephemeral. As soon as they are expressed they begin to fade in the minds of listeners. To preserve them, words and ideas need to be recorded…. Once captured, however, they ossify. An idea written down becomes dissociated from the mind that produced it….Writing then, is a continual struggle to find ways of keeping one’s ideas and intentions, while also preserving them in a form that allows them to be stored, copied and communicated to a distant audience” [18]. Graphic designers are accustomed to such predicaments. As ideas are sketched they also become fixed at first until the design process enables them to communicate how the designer intended. Therefore, designers can embrace writing as a process they are in fact familiar with.
Like design, “We undertake research when we wish to explore an idea, probe an issue, solve a problem, or make an argument that compels us to turn to outside help. We then seek out, investigate, and use materials beyond our personal resources” [19]. Furthermore, “Learning how to write a research paper, then, can help prepare you for assignments in your professional career. It is difficult to think of a profession that would not require you to consult sources of information about a specific subject, to combine this information with your ideas, and to present your thoughts, findings, and conclusions effectively” [20].

4. Discussions
A lack of written research within the realm of graphic design is problematic. Fortunately, change is capable of being made through teaching methods such problem-posing education. Existing writing in design programs serve as inspiration for curriculum development. Writing and research can be integrated into programs through a variety of means from: course descriptions, course projects, workshops and lectures to seminars. Even faculty without a background in written research are able to advance their teaching at varying degrees in order to obtain more meaningful design solutions from their students. There, are resources, which serve as guides and encouragers for both design students and faculty. Students can be persuaded to write once they understanding how writing can empower their design projects. Design faculty, administrators and students must acknowledge the fact that written research in design is important. Lastly, students are capable of being taught how to be great writers through connections in the design and writing processes.

5. Conclusion
Though there are many challenges to overcome, initiatives have been made in the realm of design research and writing. Written research can propel the profession of graphic design forward — going beyond mere aesthetic and into a realm of significance. Design writing and research will further establish the discipline of graphic design as an intellectual process. Changes within undergraduate graphic design studies can prepare student designers to be more than visual artists, technicians or craftsmen. Written research can propel graphic design students to play a relevant and enriching role within the design profession.

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