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# You Belong Here: An 'Interpellative' Approach to Usability

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YOU BELONG HERE: AN “INTERPELLATIVE” APPROACH TO USABILITY

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A Dissertation  
Presented to  
the Graduate School of  
Clemson University

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In Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Philosophy  
Rhetorics, Communication, and Information Design

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by  
Alicia Nicole Hatter  
May 2011

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Accepted by:  
Dr. Tharon W. Howard, Committee Chair  
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## ABSTRACT

Given the participatory, immersive Web 2.0 culture that characterizes digital experiences today, what is *traditionally* understood as “usability” is insufficient to drive the engagement modern, web-savvy audiences both crave and have come to expect from best-in-class interfaces. Accordingly, this work presents a “constructivist” vision of usability that helps designers “speak” to audiences who demand excellence, and who will leave when confronted with mediocrity. The constructivist practice of usability occurs through what I call “interpellative design.”

Interpellative design is both a complement to, and a critique of, “accommodationist” approaches to usability (Howard, 2010a) which tend to be associated with technical problem solving (Jordan, 2001), ease of use (Shedroff, 2001), and “expedient” solutions (Katz, 1992) to mechanistic problems. As part of the under-theorized “constructivist” approach to usability (Howard, 2010a), interpellative design allows usability to remain a “problem-solving discipline” (Jordan, 2001); however, its focus on beauty, argument, and the figural dialogue between designers and users extends the purview of usability into non-algorithmic pursuits.

To describe a constructivist approach to usability, I outline a theoretical taxonomy which identifies factors at play in interpellative user interfaces. An “interpellative interface” is one which calls out to or “hails” (Althusser, 1971a) users and indicates that a given interface is a viable “place” in which they can exert influence, accomplish tasks, or solve problems. The hail is facilitated through the construction of a *habitus* and targeted use of social capital (Bourdieu, 1984). Briefly, a *habitus* is the space into which users are interpellated, and acts and artifacts of social capital are expressions of how users belong in that space.

In examining how these factors manifest in digital interfaces, I argue that a constructivist approach to usability, which is enacted through interpellative design, enables usability professionals to identify flaws in interfaces that were not apparent before the mechanisms of *habitus* and social capital were explicated and brought to life through exemplification. The lens of interpellative design allows usability professionals to address constructivist concerns pertaining to emotion, visual communication, and other types of “distinctions” (Bourdieu, 1984) that could not be “seen” before.



## DEDICATION

This dissertation is dedicated to my family: my parents, David and Denise Hatter, my godmother, Cheryl Muré, and my grandfather, Sam Muré for their unwavering faith in and commitment to my education, both inside the classroom and outside of it. An effort of this magnitude is impossible without a strong support system, and you all have been mine since I can remember what it is to remember.

I also dedicate whatever is most awesome in these pages to my brothers, Michael and Kevin Hatter. Thank you for keeping me grounded and for continually showing me the meaning of heart and soul. War Damn Eagle, boys.

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Although I often wished it to, this dissertation did not write itself. The person whose visionary mind helped to shape what appears in these pages is my mentor and committee chair, Dr. Tharon Howard. From the moment I presented my first project in his RCID 805 seminar in the fall of 2007, to the moment I thanked the audience present at my dissertation defense in the spring of 2011, Tharon was an instrumental force in my growth as a scholar and usability practitioner. The many meetings we had in his eighth floor office overlooking the mountains were what I hoped a Ph.D. education would be: a mutually beneficial collaboration and platform for me to evolve into a professional under the guidance of a “guru” in our field. If and when I return to teaching, I hope to mentor students through the often choppy waters of research the way Tharon helped navigate me. And I would hope that when we reach harbor, my students would think of me as a colleague and friend, as I do Tharon.

I would also like to thank Jan Holmevik and Joel Greenstein for their participation on my committee. Jan exposed me to the bastions of experience that are a large part of this work: *World of Warcraft* and Harley-Davidson. Joel was one of the most meticulous readers I have had the privilege of working with. Even when the content extended beyond his comfort zone, he offered apt suggestions, and this work is better because his ideas and frame of reference contributed to its construction.

Thanks also go to my RCID and other Clemson colleagues. Our diversions (including hiking Georgia and the Carolinas, lunching at Schletter/Harcombe, dining at El Arriero, and spending miscellaneous evenings jamming to Guitar Hero after Nick’s) kept me sane.

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## CHAPTER ONE

### INTRODUCING “INTERPELLATIVE DESIGN”: TOWARD A SOCIAL (CONSTRUCTIVIST)

#### APPROACH TO USABILITY

Imagine for a moment that we are web designers for Harley-Davidson. Our company has a reputation for providing such a distinct experience that many customers actually have our company name branded on their bodies, proudly on display. We know Harley owners are a family, “bound by the passion to ride.” They are adventurers, road enthusiasts, always aching to “saddle up” on the smooth curve of their Hog in search of the perfect ride (“Harley-Davidson USA”, 2011). In short, we know Harley is more than a company, or even a brand; it is a culture and a lifestyle, a way of being-in-the-world or *habitus* (Bourdieu, 1984).

This basic analysis leads us to the realization that we are dealing with a *social* puzzle which is difficult to solve using conventional web design techniques. As questions about the specifics of the Harley site design are posed, the complexities of the task quickly multiply. How do we design experiences that create a sense of community? How will we create in digital space the sense of belonging that Harley riders and enthusiasts relish? How can new customers be enticed by the web experience we design to “grab life by the bars”?

As this example illustrates, it is becoming increasingly apparent that utility alone is no longer enough when it comes to design. While Brenda Laurel (1993) has famously argued that “the *representation* is all there is” (p. 116, emphasis mine), the web design and usability community is in the midst of a figure/ground or gestalt shift in which the *experience* is all there is. Bearing witness to this shift are statements made by experts across a variety of fields. For instance, industrial designer Karim Rashid has noted, “We consume experiences, not things” (qtd. in Pink, 2006, p. 92). User-experience designer Bill Buxton

(2007) makes a strikingly similar assertion when he says, “Despite the technocratic and materialistic bias of our culture, it is ultimately experiences that we are designing, not things” (p. 127). Even as early as the turn of the twenty-first century, behavioral economists Joseph Pine and James Gilmore (1999) observed that in an economic environment in which it is increasingly difficult to stand out amid all the choices, companies that market experiences as their product are more likely to succeed than companies which rely solely on the sale of goods and/or services. Moreover, in *A Whole New Mind*, cultural commentator Daniel Pink explains, “In an age of abundance, appealing only to rational, logical, and functional needs is woefully insignificant...Mastery of design, empathy, play, and other seemingly ‘soft’ aptitudes is now the main way for individuals and firms to stand out in a crowded marketplace” (Pink, 2006, p. 34). In practice, being able to successfully design experiences means adopting a holistic, left- *and* right-brain standpoint in relation to design projects such as the Harley-Davidson one posed above.

Accordingly, in this chapter I explore the idea of a more holistic approach to usability. I begin with a consideration of the origins of the growing gulf between usability and the separate pursuit known as user-experience design. Concluding from this reflection that the reasons for the separation are either expedient or outright detrimental to usability, I introduce a theorization of the split based on recent work by Tharon Howard (2010a) and Howard and Michael Greer (2010). Teasing out the “accommodationist/constructivist” theory (Howard, 2010a) allows me to (re)position usability as a practice which has methods that *are* able to handle the current demands for insight into the areas of immersive web design. The chapter concludes with a review of current work done in the area of persuasive and emotional design, two areas of study which touch on issues similar to those raised by the Harley-Davidson design scenario this chapter began with. Based on this survey, I draw

two key conclusions: first, the field lacks an approach to persuasive and emotional design that is not biologically or cognitively based; and second, current approaches to persuasive and emotional web design tend to alienate usability as a legitimate participant in the emerging work and discourse. This alienation can be traced back to, and in part explained by, the growing rift between usability and user-experience design.

My position is that the rift between the two need not exist, and my overall project is an attempt to heal the wound usability has suffered as it has been pushed away from the exciting conversations surrounding experiential web design. In service of carving out a space for a holistic approach to usability, I argue that the field must *also* consider the role society plays in our behavior patterns and the ways in which we form decision-making frameworks that ultimately influence these behaviors. To begin to build this case, I offer the idea of “interpellation” (Althusser, 1971a) as a means of understanding how users are “hailed” into socially constructed decision-making frameworks. Ultimately, I sketch the practice of “interpellative design” as a way of practicing the type of usability that is capable of productively informing ongoing persuasive and emotional web design work.

### **A Widening Schism: Moving from Usability to User-Experience Design**

As the 1990s drew to a close, and the web design community had confidence in its grasp of usability, the search was on for a successor to user-centered design that would take the field into the new millennium, and allow it to be a major player in the design of online communities and other experiential applications. Following Pink’s (2006) call for the incorporation of right-brain aptitudes, the challenge was now on to design for *homo ludens* (“man the player”), rather than simply *homo sapiens* (“man the knower”). Effectively, this challenge resulted in an effort to understand human motivation and emotion, and apply those learnings to the design of computer interfaces.

As The Year 2000's dawn broke, the field accordingly saw such works as Nathan Shedroff's (2001) *Experience Design*, Patrick Jordan's (2001) *Designing Pleasurable Products*, and BJ Fogg's (2002) *Persuasive Technology*. These initial efforts attempted to move the field beyond "mere" usability and into the purportedly separate and unequal realm of user-experience design. After all, many people were beginning to believe usability was the pursuit of the past. They thought it had mainly served its purpose of exposing the fundamental flaws associated with system-centered design, and while they were pleased with the fact that the philosophy of usability had been integral to the rise of user-centered approaches to design, they were ultimately content to have usability settle into place as an ensconced checkmark (usually toward the end) in a larger, more sweeping, product development process that was now being referred to as "experience design."

The initial works that took up experience design and the related pursuit of persuasion engineering had ambivalent attitudes at best when it came to discussing usability's place in the new milieu. At worst, the positions taken against usability were plainly hostile. In an example of the former, Shedroff (2001) writes, "Interface design is concerned with the effectiveness and usability of a software interface but this should also extend to the usefulness and purpose of the product too" (p. 109). Shedroff's use of "this" is a vague pronoun reference, to be sure. Does "this" refer to usability (the nearest mentioned noun), or to "interface design" (the subject of the sentence)? Such uncertainty might be overlooked if it was not exacerbated by the remarks that followed. Although he concedes that "usability applies to all experiences *on some level*," he goes on to argue that "usability is sometimes used to squash innovation or to enforce the status quo" (Shedroff, 2001, p. 110, emphasis mine). These comments lead one to believe Shedroff dislikes usability. However, a few paragraphs later he apparently retracts this position when he says, "Usability (or a

concern for 'ease of use') is often the starting point of innovative design" (Shedroff, 2001, p. 110). Shedroff's (2001) reasoning is that considering usability allows designers to view the interface from the audiences' point of view, which he believes can "open up the possibilities to create more satisfying experiences" (p. 110). In spite of the fact that he seems to eventually settle on a positive view of usability, the view is nonetheless limited (and limiting) by the stated definition of usability as simply "ease of use." This suggests that design ideas which go beyond usability-as-ease-of-use are actually no longer usability ideas (or ideas borne from a usability paradigm), but are rather "experience design" brainstorm. For Shedroff, then, it seems clear that usability only goes so far.

Shedroff's contemporary, Fogg, likewise has a marginal stance in relation to usability. Just as Shedroff made the case for "experience design" as a new discipline by downplaying the role of usability in interface design, Fogg bolsters his research on "captology" by excluding usability from the domain of affect and "endogenous" persuasive intent. By way of explanation, Fogg (2002) says that captology is "an acronym based on the phrase *computers as persuasive technologies*" (p. xxv). He continues, "Captology focuses on the design, research and analysis of interactive computing products created for the purposes of changing people's attitudes or behaviors" (Fogg, 2002, p. 5). Fogg (2002) claims that captology focuses on technologies which proceed "endogenously," or from the direction of *intentional* persuasive effect. This distinguishes them from "exogenous" persuasive technologies, or those which may not have been designed with persuasion in mind, but rather "*acquire* persuasive intent from users or another source" (p. 17, *emphases mine*). Fogg (2002) hopes that "like usability, captology may become part of a standard curriculum for people learning to design interactive computing systems" (p. 244). Here again is the intimation that usability is outside the scope of a new discipline being pioneered. In this

case, that pursuit is captology. Again, though, why is captology needed? In short, it is because usability is viewed as simply an expedient, “ease-of-use” pursuit. If people believed usability methodologies and research questions could handle the design of technologies that are built with intentional persuasive effect, then captology would not be needed. Usability would be enough. However, such is not the prevailing point of view.

Although Shedroff and Fogg do relegate usability to a peripheral role in the context of designing for experience and persuasion, they do acknowledge usability’s value for the insights they believe it is able to speak to. Jordan, though, takes a much more explicitly divisive tone and stance. Jordan (2001) brands usability as a “problem-solving” versus a “holistic” discipline when he writes:

If the contribution of human factors is simply to enhance usability, then it will come to be seen as a problem-solving discipline, rather than as a discipline that is positively increasing the market value to which it contributes...[U]sability-based approaches are limited. By looking at the relationship between people and products in a more holistic manner, the discipline can contribute far more. Such holistic approaches are known as “pleasure-based” approaches. (Jordan, 2001, p. 4)

In the strongest language yet, Jordan cuts usability out of work pertaining to “pleasure-based” design practices. He believes that “enhance[ing] usability” is synonymous with (and therefore “limited” to) just the sort of status-quo maintenance Shedroff (2001), too, thought it could be at times. For Jordan (2001), the practice of usability is about fixing *technical* problems that arise; it is not about identifying and solving problems as they pertain to “the relationship between people and products.” If usability could address this, then there would be no need for a “pleasure-based” approach to human factors; usability would be able to

account for it. Again, though, it is clear that usability is being made to assume a subservient role so the way can be paved for something new.

For practical purposes, the moves Shedroff, Jordan, and Fogg made in the early years of the 2000s might be seen as expedient: to carve out a space for experience design, captology, and pleasure-based approaches, it was necessary to show how those endeavors were distinct from their user-centered predecessors, which were solidly rooted in the practice of usability. Viewed this way, one might see the distinction between usability and user-experience design as false, one invented purely for the purposes of the personal promotion of those whose thought that their ideas might stand out more if usability was pushed into the shadows. Thanks to this carving out of “a room of one’s own” within the crowded marketplace of ideas, usability was pigeonholed in many people’s minds. Unfortunately, this meant that the tireless work done to advocate for usability by pioneers such as Randolph Bias and Deborah Mayhew (2005), Joe Dumas and Ginny Redish (1999), and JoAnn Hackos and Redish (1998) was set back.

### **Theorizing the Split: “Accommodationist” vs. “Constructivist” Approaches to Usability**

So far, I have shown that expedient arguments in favor of experience design, captology, and pleasure-based approaches to interface design call for the separation of usability from these pursuits. These arguments “work” by relegating usability solely to the practice of “problem-solving” (Jordan, 2001) and designing simply for “ease-of-use” (Shedroff, 2001), thereby clearing the way for supposedly richer and more enhanced approaches that can deal with persuasion and emotion.

However, simply severing ties between usability and user-experience design is an unhelpful approach: positioning one at the other’s expense stymies the continued growth and development of the unprivileged party, and it is not the case that usability is defunct, or

that it should be sentenced to that fate. So, how might usability be resurrected in the face of the buzz generated around these new approaches? How might usability gain back some of the hard-fought ground it has lost? One way usability can be brought back into the fold is to theorize a broader set of “problems” it can authoritatively speak to. To this end, usability can remain a “problem-solving” discipline; but the problems it would be able to address would no longer be solely algorithmic.

At the 2010 *CHI* conference<sup>1</sup>, usability scholar and practitioner Dr. Tharon Howard took on this challenge by articulating what he termed “accommodationist” approaches to usability, and situating these in relation to “constructionist” ones. According to Howard (2010a), the accommodationist paradigm describes contexts in which “the success of a new product is attributed to how well the practitioners understand the users’ goals and task environment<sup>2</sup> and then design a product able to accommodate those goals and use environments” (p. 2). This approach maps to Jordan’s (2001) characterization of usability as a “problem-solving” discipline inasmuch as Howard (2010a) notes that when working from this perspective, researchers “go on a witch hunt for ‘usability errors’ in a product thinking that they’re helping practitioners accommodate users’ needs by identifying problems that need to be fixed” (p. 2-3). In short, the goal of those working from this viewpoint is to focus on minimally adapting technology to meet users’ needs. In Howard’s (2010a) view, this

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<sup>1</sup> *CHI* is the premier international conference for researchers and practitioners in the field of human-computer interaction. It is roughly the equivalent of the *CCCC* for scholars and teachers of composition, and of the *STC Summit* for teachers and practitioners in the field of technical communication. *CHI* might be thought of as the “theory-driven” foil to the Usability Professionals’ Association (UPA) conferences’ emphasis on practice.

<sup>2</sup> A “task environment” describes the general setting in which an interface is used. The environment is often expressed in terms of physical ergonomic constraints such as heights, distances, and viewing angles relative to a workstation, as well as mental constraints such as cognitive load (the amount of information it is possible to hold in mind for short periods of time), prior learning and experience, and decision-making process flows.



approach too often leads to marginally usable recommendations for change and short-term fixes. To draw a composition teaching analogy, the accommodationist usability is akin to “wordsmithing” a student’s paper at the grammatical and syntactical level (resulting in an overwhelming amount of red ink on the page), while ignoring higher-level conceptual problems such as those related to thesis statement viability, organization, and appropriateness of evidence in supporting claims.

In terms of ethics, an accommodationist idea of usability connotes a problematic technological “expediency” (Katz, 1992) that appears to strip human agency out of the equation. In his seminal article on ethics and technical communication, Steven Katz (1992) explains that expediency is at work when a “*too technical, too logical*” (p. 257) approach is taken, with no regard to what we might understand as the human element—those living, breathing people who effect, and who are affected by, technologies and technical communications arising therefrom. Even though usability as a design consideration and stage in the product development process arose from the *user-centered* design movement, the accommodationist paradigm makes it all too easy to associate usability testing with the type of mechanistic logic that leads to expedient solutions—solutions that often fail to take human agency adequately into account.

In terms of interface design, accommodationist fixes can be linked with the well-documented problem of “feature creep,” which is the process of adding functionalities to an existing user interface (UI) without altering the architecture or display to properly handle the new accessories. Over time, the features “creep” up on the interface to the point of obtrusion, and serious usability issues (not to mention malcontent customer attitudes toward the product) can accumulate as a result. Pre-ribbon versions of Microsoft (MS) *Office’s Word* program provide a good example of how feature creep leads to user

frustration and disempowerment. Figures 1.1 and 1.2 are graphics taken from MS *Office* designer Jensen Harris' (2008) talk, "The Story of the Ribbon."

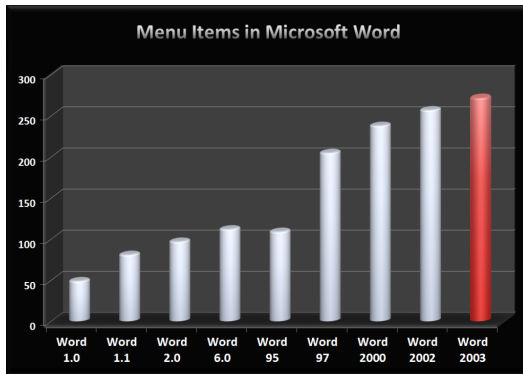


Figure 1.1: Increase in Microsoft Word menu items over time (Harris, 2008)

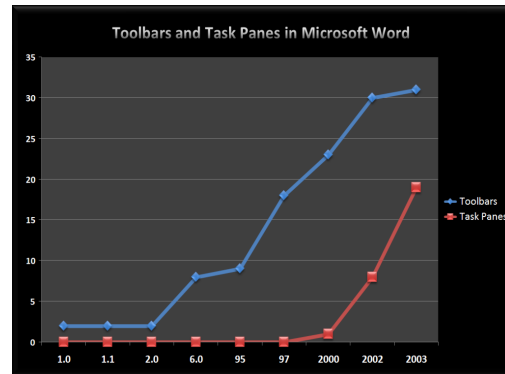


Figure 1.2: Increase in Microsoft Word toolbars and task panes over time (Harris, 2008)

By the summer of 2003, Harris notes that the immense “feature set of *Office* had grown and stretched the existing UI mechanisms to the limit. It was harder to find functionality than it was a decade ago” (Harris, 2008, slide 29). He captures the spirit of user helplessness when faced with an unfamiliar task with the representative quote, “I don’t even know where to start looking” (Harris, 2008, slide 29). As the phenomenon of feature creep illustrates, the problem with accommodationist methods is that they tend to represent absolutist, one-size-fits all tactics that can be applied, uniformly, in any situation. This fact, combined with the “ethic of expediency” (Katz, 1992) that is also associated with the accommodationist paradigm, is likely why attempts to remove usability from the emerging discourse surrounding persuasive and emotional design were successful: an accommodationist approach to usability *is* unable to handle pursuits that are fraught with contingency.

Conversely, the “constructivist” approach to usability acts as a foil to the accommodationist paradigm inasmuch as the former combats the “ethic of expediency” (Katz, 1992) by introducing a constructivist, humanistic avenue for the practice of usability. The constructivist paradigm posits that the fundamental goal of usability is to construct experiential contexts that allow users to interact productively to solve problems and accomplish their tasks (Howard, 2010a; Howard & Greer, 2010). The sharp distinctions that the two paradigms draw are now becoming apparent. The accommodationist paradigm focuses on fixing localized errors and other band-aid solutions; the constructivist approach takes up the holistic concern of constructing user roles from the ground up, and then of deploying interpretive frameworks that convince users to adopt those roles in order to successfully complete their tasks. In practice, the difference between these ways of practicing usability is fundamental: it is the difference between involving usability professionals from a project’s outset all the way through to elevation, versus bringing usability professionals in at the tail end of the project and asking them to simply validate a design before it goes live.

Howard (2010a) asserts that it is the “recognition of this complex negotiation between accommodation of users on the one hand and construction of user-experiences on the other” that explains “the movement away from theories of user-centered design in the 1990s toward user-experience design” (Howard, 2010a, p. 3). This is because it seems to be the case that many people believe usability as it is commonly perceived is not robust enough to handle the theoretical *construction* of task environments. These people (i.e. Shedroff, 2001; Fogg, 2002; Jordan, 2001) view usability’s purpose as being more suited to *evaluating* already-made constructions on the basis of established metrics and heuristics in

an effort to simply ensure the interface accommodates users' basic task (as opposed to social, communal, and/or emotional) needs.

#### Evidence for the "Constructivist" Approach: Usability Broadly Conceived and Practiced

Drawing such sharp distinctions between the two approaches to usability Howard (2010) described almost makes it seem as though I am going against my purpose of painting usability with a broad brush. For, it may seem easy to align usability with the accommodationist approach (as many do) and user-experience design with the constructivist approach (which many have tried to do). However, it does not have to be the case that a line is drawn in the sand that perpetuates the separation. It does not have to be the case that an either/or environment is created in which usability is narrowly defined. In fact, even as we struggle to hold usability and user experience design in mind as separate entities, the work of the real world conflates them again and again.

For example, it was largely through conducting usability tests for a textbook publishing company that led Howard (2010a) to see the accommodationist and constructivist paradigms at work. The usability report he produced based on the results of an A/B test led to a fruitful discussion wherein the client recorded the following revelation:

The failure of adapting content to what we thought users needed compared with the successful use of storytelling techniques used to help students solve complex problems made us realize that *we had to construct experiences* that encouraged our users to play productive roles in our instructional texts *rather than merely adapt content*. We needed to find ways to move students closer to the content rather than vice versa. (Howard & Greer, 2010, p. 83, emphases mine)

Ultimately, the publisher revised their process for product development based on the realization that their old model only allowed them to work in the accommodationist space; it was not allowing them to see a larger picture that would let them “construct experiences...rather than merely adapt content.” Again, it was the results of *usability testing* recorded in the recommendation report that led to this discovery. This points to the fact that usability methods are certainly able to allow practitioners to make constructivist recommendations and speak to concerns that supersede ease of use.

In my own work as a usability practitioner in the financial services industry, I have noticed that it is increasingly common for the usability engineers to fulfill a broader role than simply facilitating lab and/or remote tests and delivering recommendation reports. Indeed, my last contract saw me running two conceptual user research studies<sup>3</sup> in which I was tasked with, essentially, defining the interpretive framework in which financial advisors conduct investment product research.

To the previously mentioned point that the problem was not in moving the content closer to the users (Howard & Greer, 2010), I, too, found that the firm’s current investment product details pages in fact contained all of the data points and contextual elements financial advisors claimed they required to make informed decisions about investment products. Consequently, the issue that emerged was precisely how to move users closer to the content, because, again, it was clear the content itself required little tweaking. The task

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<sup>3</sup> Although some would disagree (see, for example, Rolf Molich’s (n.d.) various “comparative usability evaluation” or CUE papers), my belief is that methodologies behind “user research” do not come with ready-made procedures as would exist in the case of a task- or scenario-based usability lab test. This is because user research is often exploratory, and the specific methods one uses to access the data needed can vary depending on the project and the data type itself. In the case discussed above, I conducted a qualitative needs-assessment to determine what users’ expectations for the product would be. Then, to prioritize the elements users identified, I had users complete a “forced ranking” survey in which they eliminated all but the most crucial or “must-have” elements. Such mixed methods approaches appear to be common in exploratory user research.

before the design team was thus how to arrange the information such that each of the two financial advisor personas (“Client-facing” and “Research/Analyst”) could accomplish their tasks in as efficient a manner as possible.

This work was fundamentally constructivist: I made specific recommendations regarding how to construct the task environment for the advisors based on the research I gathered. Had I stayed on through the project’s completion, I likely would not have participated further in the conceptual design strategy, as the firm’s job roles are highly segmented. I would only have been called back into the picture once a design was prototyped and required lab testing. However, there is no essential reason why usability professionals should not be involved in the crucial early stages in which constructivist research is done. The fact that my methodological expertise was solicited in helping to sketch the redesign framework, along with the fact that my findings were favorably received, corroborates the notion that usability can live and work in both the accommodationist and constructivist realms. There is no need to say that in the beginning stages I was performing research related to “experience design,” while at the end of the process I would be conducting “usability” evaluations. In my view, it is usability from start to finish.

### **Bridging the Chasm: Making a Transdisciplinary Contribution Using Intellectual Capital Transfer**

The debate about where (or if) usability ends and user-experience design begins has led to increasingly sophisticated work in the area of persuasive and affective design. It is increasingly the case that authors leverage intellectual capital transfer to provide their field with insights. Intellectual capital transfer allows researchers to act as boundary crossers

who bring in material from a wide variety of discourses in an effort to add acumen to existing disciplinary dialogues.

As it relates to persuasive and affective web design, most of the existing scholarship comes from biological or cognitive psychology perspectives. Susan Weinschenk's (2009) popular *Neuro Web Design* marks the former, and Don Norman's (2004) influential *Emotional Design* is an example of the latter. In addition, those in the design community have studied the work of Robert Cialdini, Mihaly Csikszentmihaly Csikszentmihaly, Chip and Dan Heath, Clay Shirky, Dan Ariely, and Jonah Lehrer in an effort to educate themselves on aspects of persuasion (Cialdini's (2007/1984) six psychological "tactics of compliance"), the emotional triggers that catalyze a powerful "flow" state (Csikszentmihaly, 2008/1990), the elements of "sticky" messages that are memorable and actionable (Heath & Heath, 2007), the ways in which social networks foster decentered organization and participation (Shirky, 2009), and the scientific underpinnings of decision-making processes (Ariely, 2010; Lehrer, 2010). Although none of these authors explicitly apply their theories to web design situations, their work is nonetheless mainstays for those interested in persuasive and emotional design.

Far less prevalent are works which draw from qualitative or humanistic disciplines in an effort to peel away and explain the layers of the human psyche as it gazes at and moves within the complex communication ecologies Web 2.0 technologies have spawned. Tharon Howard's (2010b) *Design to Thrive* and Brenda Laurel's (1993) seemingly timeless *Computers as Theater* are laudable because they specifically apply theoretical constructs from classical rhetoric, network theory, and theatre to aid in the understanding of how people approach (web) designs and, in Howard's case, the design and management of online communities. Laurel's (1993) work stands out in particular because it was one of the first

attempts made to leverage knowledge pertaining to theatrical set design and dramatic theory and apply it to the design of computer interfaces. It is, in effect, a powerful and lasting model of intellectual capital transfer.

Although not cited nearly as frequently, Bruce Tognazzini, a Sun Microsystems engineer and partner of Jakob Nielsen and Don Norman at the Nielsen-Norman Group (NN/g), presented a paper at the 1993 *InterCHI* conference in Amsterdam that was entitled “Principles, Techniques, and Ethics of Stage Magic and Their Application to Human Interface Design.” The connections Tognazzini made about the relationship between interface transparency (its “illusion” of reality) and usability predate similar conclusion made by Jay David Bolter and Diane Gromala’s (2005) by nearly a decade. Likewise, Tognazzini’s (1993) comments about the importance of “showmanship” as a method of seducing users, of “leading them to accept believe in, and feel in control of the illusory world we have built for them” (p. 357) is the unacknowledged forerunner of Shedroff and Juile Khaslavsky’s oft-cited 1999 work, “Understanding the Seductive Experience.” Yet, while Tognazzini did make some extraordinary interdisciplinary connections in the paper, Laurel’s (1993) book endures perhaps because of the sheer extent and depth she went to provide real-world exemplification of how dramatic theory could actually be used in computer interfaces. I will talk in much more depth about Laurel’s work in Chapter 3.

### **Theoretical Taxonomy as Method: Naming the Factors that Make an Object or Process “Go”**

Of the works mentioned above, the most useful are the ones which utilize theoretical taxonomies to reverse engineer their object and explain the processes and factors that underlie how it functions. For example, Cialdini describes six psychological principles that “cause one person to say yes to another person” (Cialdini, 2007/1984, p.



xvi). These six principles represent a taxonomy of “compliance tactics” that explain human behavior in persuasive situations. The compliance tactic categories are as follows:

- Consistency and Commitment
- Reciprocation
- Social Proof
- Authority
- Liking
- Scarcity

As the web design community becomes increasingly interested in designing for persuasion, efforts have been made to apply Cialdini’s taxonomy to computer interfaces. This is evidenced by the fact that his work is referenced by Weinschenk (2009), and is heavily relied upon by Human Factors International (HFI) for their 3-day training course on designing for “persuasion, emotion, and trust” (PET) (“Designing for Persuasion,” 2010). Despite its popularity, however, it is rather difficult to make the leap from Cialdini’s real-world and experimental examples to the digital realm. In fact, it is so difficult to keep the relatively intangible elements of persuasion in mind that HFI charges participants to enroll in the PET course. In addition, consultant Stephen Anderson has made a small business out of running workshops that teach attendees brainstorming strategies that are specifically focused on using persuasive principles in designs that also address business objectives. In a 2010 podcast, Anderson describes how his “mental notes” cards act as stimuli for thinking in terms of persuasion when facing a business objective. He says,

The way you would use these cards is you would shuffle them...and you would pull a card from the top, and it might be Social Proof...The exercise would be, "OK, how can we use Social Proof to increase registration [the

business objective] on our site?" Then you would spend 10-15 minutes brainstorming...[to] come up with some clever and creative ways to demonstrate or show Social Proof. One site that comes to mind is an anti-Outlook email campaign...The entire wallpaper behind their message was avatars from Twitter...That was a very clever way to demonstrate Social Proof, that there are lots of people participating in this campaign.

("SpoolCast," 2010)

Thus, the feeling seems to be that the community could benefit from a rigorous application of Cialdini's principles to web design; however, the theoretical rigor underlying current attempts to provide this appears to be lacking.

Like Cialdini (2007/1984), organization behavior researchers Heath and Heath (2007) also produce a theoretical taxonomy to explain what makes ideas "sticky." They dub their taxonomy SUCCES, an acronym based on the first letters of each sticky principle.<sup>4</sup> In addition to being an analytic assessment tool for explaining why historically "sticky" ideas have that quality about them, the SUCCES list also works as an inventional aid: when crafting messages in any media for any context, authors can turn to the list to ensure that they are, for example, using the right kind of story for their purposes, and that they are not falling victim to the two biggest sticky idea villains: "The Curse of Knowledge" and "burying the lead" (Heath & Heath, 2007). Heath and Heath neatly sum up and demonstrate the interrelatedness of their taxonomy when they explain that for an idea to stick—for it to be useful and lasting—it must make the audience: pay attention ("unexpected"), understand ("concrete"), remember ("simple"), agree or believe ("credible"), care ("emotional"), and,

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<sup>4</sup> SUCCES stands for Simplicity, Unexpectedness, Concreteness, Credibility, Emotions, and Stories. These are, again, factors that Heath and Heath (2007) claim "sticky" ideas have in common.

finally, act (“story”) (Heath & Heath, 2007, p. 246). Despite the popularity of the Heath brothers’ book, there seems to be uncertainty in terms of how the SUCCES framework might be leveraged to help design “sticky” websites. Indeed, there have not been efforts like HFI’s or entrepreneurial ones like Anderson’s that have taken up this challenge.

Howard’s (2010b) *Design to Thrive*, on the other hand, is a readily applicable taxonomy of factors that affect the longevity of, and depth of connections within, an online community. Howard (2010b) specifies a framework called RIBS—“remuneration,” “influence,” “belonging,” and “significance”—to label the essential components of “communities that last.” Like Heath and Heath (2007), he provides real-world examples as cases-in-point for each of the community-building factors, and provides readers with strategies for ensuring the elements are present in their own networks.

Finally, Jesse James Garrett’s (2002) *Elements of User Experience* is likely one of the most widely recognized taxonomies in the usability community. In an effort to further instantiate usability concerns into the entire interface development process, Garrett (2002) outlined five “planes” of user experience that correspond to phases in the conceptualization and construction of UIs. Testament to its influence, many firms with dedicated usability units model their process around Garrett’s planes.

All of these examples show that there is affinity within the web design community for research that utilizes theoretical taxonomies to (reverse) engineer objects and processes. Furthermore, the examples highlight the need for a taxonomy that is persuasive and emotionally based *and* applies itself to web design puzzles. The factors that constitute a taxonomy can be understood as “mechanisms” which contribute to making the object or process “go”—to making it function within its relevant use context. A useful taxonomy works just like Cialdini’s, the Heath brothers’, Howard’s, and Garrett’s: it not only provides

explanatory power for demonstrating how something works, but its factors can also act as inventional heuristics or brainstorming aids that allow designers to invent new objects and processes that bear the same characteristics. My efforts in this dissertation will follow the same method, and (hopefully) arrive at the same end.

### **“Interpellation” and “Interpellative Design”: A Theory and Method for Enacting a Constructivist Approach to Usability**

One of the reasons it is perhaps difficult to consistently discover ways to apply the insights gleaned from organizational behavior and psychology to web design is that there is a lack of conceptual framework for understanding how people are “hailed” or “interpellated” (Althusser, 1971a) into decision-making frameworks to begin with. Many of the disciplines enumerated above provide strong foundations for understanding human motivation from a biological perspective (we’re “wired” in certain ways, Ariely (2010) says; Cialdini (2007/1984) argues that his persuasive principles are “click-whirr”, or reflexive, responses to stimuli). Yet, if we are to fully embrace Pink’s (2006) call for comprehensive approaches to design, and if we wish to wholeheartedly bring the work of usability into the constructivist realm (Howard, 2010a), then we must begin to consider the ideological and social catalysts for decision-making. We must, in other words, look *also* to the role society plays in our behavior patterns. To accomplish this, we must abstract the process into its component parts to understand not only how “hailing” works, but also to determine how the process can be ethically and productively utilized to create online spaces in which users will desire to stay and play.

The purpose of this dissertation is thus to introduce philosopher Louis Althusser’s (1971a) concept of “interpellation” to the field of usability and web design, with the intent of adding its lens to the ongoing conversation in the field surrounding emotional design. As

a theoretical construct, interpellation carries considerable explanatory power for describing the ways in which people are variously called to participate in the interpretive frameworks designers inscribe onto interfaces. Understanding interpellation and the socially-situated cues that trigger it create a powerful toolset designers and others in the field can look to when attempting to control the ways in which users interact with websites.

Ultimately, the understanding of interpellation and how it functions in design contexts is in service of a holistic conception of, and approach to, usability. This is because usability is at the heart of an “interpellative” web experience; it does not distinguish between the experiential and the functional; it seeks its *telos*, or end, through both simultaneously. An interpellative approach to design is therefore one that takes into account the multidimensionality of humans, and the collaborative work that goes into producing situated, audience-centered, and meaningful web artifacts.

### **“Interpellative Design” ≠ Persuasive Design**

Before moving to a sustained examination of interpellation and the mechanisms that underlie it, I want to emphasize that interpellative design as it has been and will be described in these pages, is *not* a synonym for persuasive design, persuasion architecture, emotional design, or any design methodology which has persuasion as its *primary* goal. It is my contention that interpellation is interpellative design’s primary goal. As noted above, there are a number of people in the field who are pursuing persuasive design (and its many nominative offshoots). Therefore, the purpose of this section is to explain how interpellative design is distinct from those approaches.

Interpellative design takes a decidedly constructivist approach, as opposed to an accommodationist one, to interface architecture and assessment. For an example of an accommodationist approach to persuasive design, consider Fogg. Fogg’s (2002) work on

persuasive technology is a great example of how our field has struggled when it comes to the social aspects of design that a deep understanding of interpellation seeks to address and augment. Fogg's (2002) persuasive technology model is based on the computer taking on the social role of an "embodied agent" that attempts to literally and/or figuratively "chat people up" (p. 115) in order to get them to return to a website or continue to use a piece of software.

For example, Fogg (2002) claims that the search engine Ask Jeeves took on the social role of "butler" to differentiate itself from other search engines by offering a more pleasing search experience. This is because people associate butlers with qualities of helpfulness and exclusivity (not everyone has a butler, after all). Fogg (2002) hypothesized that these qualities would be transferred to describe the search engine itself, that people would really feel a sense of being personally helped and catered to when they used the site, and this would ultimately cause people to return to the site because they had "developed an ongoing social relationship with the [butler] character" (p. 113). Testament to the failure of this approach is that Ask Jeeves is now simply Ask.com, sans butler. More importantly, though, is the fact that it is essentially not a player in the competitive dance to gain search engine market share. According to The Nielsen Company (2010), of approximately 10.2 billion searches done in August of 2010, a mere 2.1 percent of them originated from Ask.com. Only AOL search had a lower market share at 2.0 percent.<sup>5</sup>

The failure can be traced to the fact that accommodationist approach to persuasion and usability was at work. Before closing out the brief section in his book devoted to "Persuading Audiences by Adopting Social Roles," Fogg (2002) points out that he believes

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<sup>5</sup> To view the complete table of the Top U.S. Search Sites as of August 2010, see the Nielsen blog, *Nielsen Wire*, at [http://blog.nielsen.com/nielsenwire/online\\_mobile/bing-overtakes-yahoo-as-the-2-search-engine/](http://blog.nielsen.com/nielsenwire/online_mobile/bing-overtakes-yahoo-as-the-2-search-engine/).

social cues should only be present in “leisure, entertainment, and educational” products (p. 115). Including social cues in other genres of products would only be to tamper with the “efficiency” of the products. He explains,

When I buy gas for my car, I choose a station with gas pumps that take credit cards directly. I don't want to deal with a cashier; I'm not looking for a social experience. I believe the analogy applies to interactive technologies, such as word processing programs and spreadsheets, that people use to perform a task more efficiently. For such tasks, it's best to minimize cues for social presence, as social interactions can slow things down. This is probably why *Amazon.com* and other e-commerce sites use social dynamics but do not have an embodied agent that chats people up. (Fogg, 2002, p. 115)

This attitude is perhaps fitting for Fogg's own approach to persuasive technologies, which relies on anthropomorphic techniques to endow *computers* with persuasive agency, but from my perspective, what seems to count as “social” is here alarmingly limited. In an interpellative design framework, *any* interface can be designed for interpellation so long as a human being is the end user.

Moreover, Fogg has created a situation in which “social dynamics” and “efficiency” are mutually exclusive, thereby perpetuating an accommodationist viewpoint. Fogg's instance in separating out interfaces that create a social experience from those that focus on efficiency is, again, the mindset that has led to the unnecessary separation of user-experience design from usability because it contributes to a false binary—a limiting either/or situation—which dictates that interfaces *either* accommodate users' efficiency needs in the most expedient manner possible, *or* that they take the time to construct a rich, engaging (social) experience that is memorable, pleasurable, and usable to boot. The

problem, of course, is that the binary creates conditions that are ripe for the phenomena of feature creep I discussed earlier: that frustrating, annoying, and helplessness-engendering situation in which users are confronted with so many choices, so poorly organized, that they are literally powerless to get their work done. The irony is hardly humorous: in an effort to promote efficiency, the accommodationist measures actually work to reduce it. In Jensen Harris' words, Microsoft *Office's* 2003 user interface, with its nearly 300 menu items, 30 toolbars, and 15 task panes (see Figures 1.1 and 1.2), "was failing our users. We added new features, but hardly anyone found or used them" (Harris, 2008, slides 7-8). Clearly, a drastic redesign was in order.

Now consider Harris and his development team's response to the design challenge of resurrecting *Office* from death-by-feature-creep. It began with the constructivist premise that "people have an *emotional* relationship with their computer. On average, users spend more 1-on-1 time with *Office* than with their spouse" (Harris, 2008, slide 39). With so much personal attention being devoted to the program, it was therefore important to know how people *felt* when they used *Office*. After viewing nearly 10,000 hours of people using *Office*, it was clear that users did *not* feel a "sense of mastery" (Harris, 2008, slides 40, 42). The proposed solution, what ended up being the ribbon, was still necessarily efficient at its core, but it *also* incorporated the human dimension, as evidenced from the guiding emotional premises. Indeed, the stated redesign goals emphasized *both* efficiency ("Make the software easier to use; Help people save time") *and* aesthetics ("Help people create beautiful, powerful documents") (Harris, 2008, slide 54). The ribbon was to be a "visual, tactile, responsive...results-oriented design" that worked through the use of "galleries to get the user close to the result they want to achieve as quickly as possible" (Harris, 2008, slide 35).



I submit that *Office 2007* was, from its earliest conceptual stage, designed to interpellate people away from the creatures of habit they had become, utilizing the same, known features over and over again, and into the new and empowered role of creative master. Insight into the (re)design story of the ribbon provides evidence for the interpellative possibilities underlying any type of interface that is conceived from a constructivist perspective. This is because being social is not limited to interacting with other people, or even “embodied agents.” As I explain in Chapter 2, being social is a condition of being human, of being born into a language and culture (Althusser, 1971a). We are always already social, and so the interfaces we engage must be as well.

For a more constructivist approach to interpellation (a foil to Ask Jeeves), consider the e-commerce website Woot.com. Like Groupon, LivingSocial, and 1DealADay, Woot offers visitors a single item for sale each day at a competitive price. Users can access the site, and click the prominent “I Want One” button to purchase the item. Yet, unlike its competitors, Woot balances the efficiency of simply buying the product with an interpellative social experience. Woot’s design team takes the opportunity afforded by a typical “product description” to literally tell a story that makes the product come alive and allows users to envision what it would be like to own the item. The stories are always different, but they generally utilize a dry, humorous tone reminiscent of *The Onion* to variously anthropomorphize the product or place it in outlandish contexts that hyperbolically demonstrate the product’s feature set and use value. Although the site is usable if the stories are bypassed, not engaging with the narrative does take some of the fun away from visiting the site. So, even though the stories can sometimes be long, they represent an integral contribution to the *habitus* Woot has built around the one-item-a-day premise. Indeed, the extent to which users “write themselves into” (Iser, 1978; Laurel, 1993) the narrative and

envision *their* use of the product likely correlates with their desire to spend money on buying the product. As will be shown in Chapters 3 and 4, stories are a powerful tool for establishing interpellative conditions, and for laying a foundation for whether users will identify with an interface.

### **Outline of Chapters**

The following chapters provide a theoretical taxonomy for applying the theory of interpellation to website design. My immediate aim is to explicate the mechanisms or constructs that underlie interpellation, and to exemplify those mechanisms through a proliferation of examples that serve as proofs of concept. My ultimate aim is to make a case for the explanatory power of a theory of interpellative design as it relates to usability and to the description and enhancement of user experiences in digital environments.

In terms of the immediate goal, Chapter 2 traces interpellation from its Marxist roots to its more present-day manifestation. Along the way, I outline a process model for how the interpellative event transpires, and I grapple with the ethics of deploying interpellation as a behavior-influencing technique.

Chapters 3 and 4 describe the two interpellative mechanisms of *habitus* and social capital in turn. These are factors which designers must become aware of and actively leverage if they are designing with specific interpellative intent. Chapter 3 describes *habitus* as an orienting mechanism, a way of being-in-the world that signals a person's relation to oneself, others, and a broader culture. In terms of interpellation, *habitus* is the "place" into which one is hailed; applied to interpellative design, creating *habitus* is synonymous with building a dramatic space. After describing the mechanism at a high level, Chapter 3 becomes more granular by enumerating four specific ingredients for seeding an interface with elements of *habitus*: engagement, catharsis, agency, and procedural rhetoric. These

ingredients are discussed in turn, along with the interpellative design process model from Chapter 2, in the context of a philanthropic serious game called *SPENT*, the massively popular online game *World of Warcraft*, and MS *PowerPoint* to demonstrate aspects of an “interpellative” user experience.

Chapter 4 details social capital, the other mechanism at work in interpellative designs. If *habitus* is the social space into which people are interpellated, then acts and artifacts of social capital are physical expressions of how one fits into or belongs in that space. In this chapter, I sketch an “acts + artifacts = status” model, and explain how two specific types of social capital—“bonding” and “bridging” (Shirky, 2009) capital—contribute to creating interpellative user experiences. I also advocate for the creation of rich personas that include references to social capital and *habitus* as a way of providing inspiration for the visual communication aspects of a site. Utilizing personas as a window into audiences’ *habitus* and social capital is a novel use for an otherwise common design tool.

Chapter 5 takes up the question: what explanatory power does the theory of interpellative design itself carry in terms of describing users’ web experience? To that end, I explain an informal observational study I facilitated with a group of users and two interface approaches to Clemson University’s Master of Arts in Professional Communication program. These sites provide similar content about the MAPC program; the difference lies in their presentation of *habitus* and their use of social capital. I conclude with a call to embrace the idea of constructivist usability as informing the holistic, interpellative user experience on a site, and to equate the building of a *habitus* endowed with social capital in which users can play out the social role they have been hailed into as an activity *inseparable* from usability.

## CHAPTER TWO

### TRANSVERSAL THEORIES OF INTERPELLATION AND THE ETHICS OF “HAILING” USERS

The purpose of this chapter is to elucidate the term that forms the bedrock of this dissertation: *interpellation*. I begin by singling out the type of interpellation I am interested in, and making it distinct from “interpolation” and other variants of the word. Because interpellation as it is described by philosopher Louis Althusser is my focus, I take time to trace the evolution of Althusser’s thinking as it pertains to structuralism, the philosophy of science, and ideology, all of which inform his theory of interpellation.

I then explain interpellation as an event in detail, and outline a process model which names requisites that must be present in order for interpellation to occur. This process model acts as the first bridge between interpellation as a theory, and interpellation as it can be applied to interface design. The process model serves as the chassis upon which a more encompassing set of evaluative questions can be built—questions which also take into account the two mechanisms of *habitus* and social capital that undergird interpellative design. I initiate an outline of such questions, starting with delimiting their scope, and then considering a specific case in which two “interpellative” questions were asked during a document design study (Schriver, 1996). I explain this study in detail because it is the only known instance in which the word “interpellation” appears in literature related to usability. The study also allows me to introduce *habitus* and social capital as they might be applied to interface design and assessment. I return to the interpellative design questions in Chapter 5, after a sustained consideration of the interpellative mechanisms, as such attention is required before questions can be developed.

Finally, because of interpellation’s power to shape behavior, and also because of the philosophical connotations associated with Althusser’s definition of interpellation, I pause

for ethical reflection. In delineating and responding to some of the major problematics associated with interpellation, I move beyond Althusser and present my own interpretation. Accordingly, I cast interpellation as an event which is fluid, discretionary, and empowering. Further, I present a way of conceptualizing the responsible deployment of interpellative designs.

### Introduction to Interpellation

There are a few contexts in which the word “interpellation” (spelled variously) is used. One such context is mathematics. Those working in this and related quantitative fields may hear interpellation as “interpolation” and understand it to mean the method of approximating otherwise unknown values in a given data set. In this field of practice,

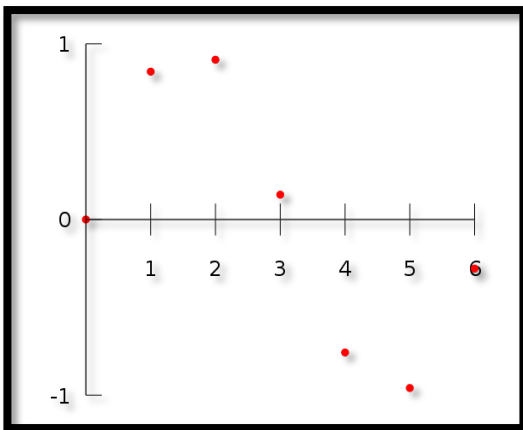


Figure 2.1: Mathematical interpolation data example (Wikimedia Commons, 2007)

interpolation looks like connecting dots on a grid using lines or curves to accurately move from one point to another (see Figure 2.1).

“Interpellation” also has resonance in the British parliamentary system as a way of checking government power by allowing members of parliament to submit queries for

review. My interest, though, in “interpellation” comes from its use by philosopher Louis

Althusser in the context of structural Marxism. To get a sense of Althusser’s intellectual heritage, and the genesis of his ideas on ideology and interpellation, it is necessary to first understand the theoretical paradigms within which he worked.

## Structuralism and Louis Althusser's Philosophical Roots

Althusser's thinking was shaped by theories of *structuralism*. Broadly, structuralism specifies that "whatever meaning and movement history displays is imparted or endowed *not* by historical actors, but by the totality of *rule systems* within which they are located and enmeshed" (Benton, 1984, p. 13, emphases mine). This theoretical stance is in opposition to existential positions which posit a "'subject-centered' history, and the lived experience of the historical actor as the source of cognition" (Benton, 1984, p. 10).

Auguste Comte and Emile Durkheim were influential in the movement away from these existential positions articulated by philosophers such as Maurice Merleau-Ponty and Jean-Paul Sartre. Comte and Durkheim were on the vanguard of making the case for "knowledge and subjectivity as socially constituted, rather than constitutive" (Benton, 1984, p. 11). Historian Ted Benton (1984) explains that this movement was "a shift from the subject as bestower of meaning to the subject as *prisoner* of meaning" (p. 11).

Evidence for this new way of viewing the relationship between meaning and subjectivity can be found in Ferdinand de Saussure's structural linguistics. Importantly, Saussure notes that messages cannot be communicated unless they follow *socially-situated* grammatical and cultural norms. In other words, language has no natural essence or meaning unto itself. For example, "The word 'trees' signifies the idea of a tree by virtue of convention only, [the word] doesn't have to resemble [a physical tree] in shape, sound, color, and so on" (Benton, 1984, p. 11). Benton (1984) explains that subjects do not have the power to bestow meaning simply by using language because "the meaning of an utterance...cannot be the direct expression of the inner states of the subject. On the contrary, the subject may use language to convey a meaning only to the extent that she or she 'submits', or becomes 'subject' in a second sense of the term, to an externally

established....sign-system” (p. 12). Language, then, is contextual, and we are “prisoners” to the extent that we rely upon knowledge of the context in order to communicate using language.

Complimenting and extending Saussure’s structural linguistics is Levi-Strauss’ structural anthropology, which takes sign-systems “beyond language to other social practices such as kinship, economic relations, food, and myth, all of which can...be treated as activities in which ‘messages’ are constructed through the constituting rules of a ‘code’” (Benton, 1984, p. 12). Again, knowledge of the “code” is crucial to communicative acts. Since the “codes” are now shown to apply to material practices which extended beyond language, humans’ “imprisonment” in these “rule systems” becomes more pronounced.

At this point in the development of structuralist theory, Benton (1984) notes that “the sovereignty of the ‘constitutive’ subject is traced right to its source...the human psyche itself” (p. 13). In stark contrast to Descartes’ cartesianism which specifies the mind or consciousness as self-consciously aware of itself, French psychoanalytic theorist Jacques Lacan argued that “the conscious life of the individual is not self-sufficient, and does not carry the means of its own intelligibility” (Benton, 1984, p. 14). Rather, Lacan argued, individuals come to know themselves only by progressing through phases in the symbolic order—by subjecting themselves to the structuring “authority of the culture” into which they are born (Benton, 1984, p. 14). This brief history shows that a key component of structuralism is its rejection of human agency in the progression of events. Instead, structuralists ascribe agency to structures themselves, such as language and culture (sign-systems).

In keeping with structuralism’s emphasis on delineating objective structures which work to organize human understanding of language and culture, Althusser’s aim was to

make a case for the “scientific status” of Marxism, thereby making structuralist Marxism distinct from its humanist and Stalinist interpretations (Benton, 1984, p. 19).

However, Althusser’s structuralist roots would not allow him to accomplish this objective by working from a “classical” empiricist or rationalist scientific perspective. This is because, in the scheme of these classical configurations, the techniques of induction and experimental reproducibility yield a corpus of scientific knowledge that is intelligible, progressive, and perpetually growing (Bacon 1620/2000; Sprat, 1667/2003). Against structural dogma, empiricism allows for accounts of reality which are “objective,” and therefore not subject to the contingencies of “sign-systems.” Conversely, a conventionalist philosophy of science—the one to which Althusser subscribed—“allows room for the sciences to be taken seriously as historical phenomena, subject to transformation and locked into relationships with other social practices” (Benton, 1984, p. 24). As such, conventionalism “places a new emphasis on the *constructed* character of scientific theory” (Benton, 1984, pp. 23-24). Simply put, the doctrines of conventionalism are the rejection of empiricism and realism, and the “conception of scientific theory as an open-ended, developing construct of scientific practice” (Benton, 1984, p. 26).

Taken together, the common thread of Althusser’s appropriations from structuralism and the philosophy of science is the socially constructed character of individuals (“subjects”) and their enmeshment within cultural, rule-bound systems governing how individuals in relation to one another in the world. These beliefs manifest most apparently in Althusser’s theorization of ideology, and, in turn, in his articulation of interpellation.



### Louis Althusser's Four Central Claims on Ideology

Althusser (1971a) uses the word “interpellation” to describe the “hailing” of individuals into subject positions within an ideology. To better understand what this means, let me begin by describing the concept of ideology as Althusser interpreted it. Althusser (1971a) begins his treatment of ideology with Karl Marx's basic definition of the term as “the system of the ideas and representations which dominate the mind of a man or a social group” (p. 107). However, he notes that while Marx's magnum opus, *Capital*, “does contain many hints towards a theory of ideologies...it does not contain that theory itself, which depends for the most part on a theory of ideology in general” (Althusser, 1971a, p. 107). Althusser (1971a) thus takes up the implicit call and addresses the knowledge gap by venturing “a very schematic outline of such a theory” of ideology (p. 107).

Althusser's (1971b) resultant claims are largely based on his reading of Lacan. Althusser was particularly interested in Lacan's efforts toward the rigorous theorization of the Freudian unconscious, and of the unique laws governing “the long forced march which makes mammiferous larvae into human children, *masculine or feminine subjects*” (Althusser, 1971b, p. 140). Following structuralist theory, Althusser aligns himself with a constitutive, as opposed to biological, theory of human development because he believes that the “transition from (ultimately purely) biological existence to human existence (the human child) is achieved within the Law of Order, the law I shall call the Law of Culture...the order of *language*” (Althusser, 1971b, p. 141). Recognizing that the Law of Culture “has been lying in wait for each infant born since before his birth...assigning him his place and role,” and that the “codes of human communication and non-communication,” the “satisfactions” that we seemingly own independently do in actuality “bear the indelible and constitutive mark of the Law...that, like all law, cannot be ‘ignored’ by anyone” (Althusser,

1971b, p. 144), Althusser posits that humans *misrecognize* themselves in the form of an independent, centered ego.

Althusser's assertion of misrecognition is in line with Lacan's labeling of the fundamental characteristic of human identity as "decentered." The event which leads to this characterization occurs when a child view himself in a mirror, and sees himself for the first time as a person separate from his primary caregiver (usually his mother). There are two implications that arise from this. The first is that for Lacan, "The I is an Other from the ground up" (Sharpe, 2005, para. 10). In other words, "The genesis of individuals' sense of individuation can in no way be held to issue from the 'organic' or 'natural' development of any inner wealth supposed to be innate within them" (Sharpe, 2005, para. 10). Here is a specific place from which Althusser's constructivist, as opposed to essentialist, understanding of human development traces back—a specific reference to agency being stripped from innate forces and instead ascribed to forces outside of ("Other" than) an individual.

The second implication (closely related to the first) is that "desire is desire of the Other" (Sharpe, 2005, par. 11). This means that for Lacan, desire is always the product of interpersonal relations, and it presents itself as such due to an inability of people to know themselves and their own, independent desires. On the contrary, Lacan believed it is only possible to know what we desire as it comes to us through the filter of culture, or, in Althusser's terms, the ideology out of which we were made a subject, and to which we are forever subject. The psychological principle of Social Proof, which states that the perception of value (of an object, for example) is directly proportional to the number of people who believe in that value (Cialdini, 2007/1984), might be viewed as a consequence of Lacan's assertion that "desire is desire for the Other." To make a practical connection, Cialdini

(2007/1984) notes that this principle is at work when vendors “don’t have to convince us directly that the product is good, they need only say that many others think so, which seems proof enough” (p. 117). This is further evidence that forces other than individual choice appear to be operable at the level of human self-image and decision-making, both of which are bound up in perceptions extended by others, and the interpersonal relations arising therefrom.

For Althusser, the interpersonal relations at the heart of desire are most viscerally felt at the level of interpellation, in which individuals are acted upon by others, and by the social norms which constitute the “ideological state apparatuses” wherein Althusser stipulates interpellation occurs. It is thus Althusser’s (1971a) belief that all humans proceed from ideology; we are always already (being) shaped by it, insomuch as it is the current that flows alongside language, law, and culture—the host of forces which work to influence who we are and what we believe.

It is because of the pervasiveness of ideology in the human experience that Althusser seeks to more precisely theorize it. Accordingly, Althusser (1971a) lays out four central and interrelated claims about ideology that are afforded by virtue of its relationship to language and culture.

*Claim One: Ideology is Eternal*

Ideology’s “eternal” nature means that it is always operating. Althusser writes, “If eternal means...omnipresent, trans-historical and therefore immutable in form throughout the extent of history, I shall adopt Freud’s expression word for word, and write *ideology is eternal*, exactly like the unconscious” (Althusser, 1971a, p. 109). It is not merely coincidental that Althusser uses Freud and the unconscious as scaffolding for this principle.

Given that the relationship of human (psychic) development parallels humans' immersion in culture, it follows that if one is immutable, the other must be as well.

*Claim Two: Ideology Has a Material Existence*

Althusser (1971a) defines ideology as “an imaginary relation to real relations” (p. 113). The “imaginary relation” part of the definition means that while ideology engenders what a person *believes* to be his ideas, s/he does not in fact own them. This is because the ideas are part of the ideology that existed before his birth, into which he was born. Ideology is thus a *structure* that systematizes our relationship to others and the world around us.

Learning to live productively within an ideology results in the carrying out of behaviors and attitudes that constitute that ideology's “material existence.” For example, if an individual identifies as being religious, in order to demonstrate that s/he belongs to a religious community s/he will engage in what are thought of as “religious” behaviors such as going to church, kneeling, praying, confessing sins, doing penance, etc. Simply put, the performance—“materialization”—of an ideology's values make up a person's actions. These actions are part of a larger body of guiding practices and governing rituals that make up the *habitus*, or “life-style” as sociologist Pierre Bourdieu (1984) denotes it, of an ideology.

In addition to behaviors unto themselves, the materiality of ideology also manifests in instrumentation, which in turn affects (behavioral) outcomes. In Chapter 2 of *Science in Action*, Bruno Latour (1987) provides several compelling examples of the generative relationship between instrumentation and knowledge-making in scientific laboratories. Critically, he claims that that the scientific facts we digest from reading peer-reviewed journal papers are predicated on the integrity of the instrumentation used to obtain the data. Instruments, he says, can be hardware or software. The form of devices that are typically classified as instruments are mainly of that type: Bunsen burners, telescopes,

particle accelerators, EKGs, SPSS, MATLAB, etc. But instruments can also be people, such as a group of statisticians who create polls and frame survey questions (Latour, 1987). Based on the definition of an instrument, Latour (1987) concludes, “The instrument, whatever its nature, is what leads you from the paper to what supports the paper, from the many resources mobilized in the text to the many more resources mobilized to create the visual displays of the texts” (p. 69). Based on his conventionalist philosophy of science, Althusser would agree that the implications of the materiality of instruments showcase the socially constructed nature of what we take to be fact. Thus, the materiality of ideology affects both how we act and what we believe.

*Claim Three: There is No Practice that Exists Outside Ideology*

This claim is perhaps difficult for many to believe, given the human desire to have control over oneself and one’s circumstances. Nevertheless, because Althusser believes that we are literally born into ideology (the “Law of Culture”), and that ideology’s material nature determines our actions and credos, it is impossible to be ideologically neutral or autonomous. He notes that what “seems to take place outside ideology (to be precise, in the street), in reality takes place in ideology. What really takes place in ideology seems therefore to take place outside of it” (Althusser, 1971a, p. 118). Acknowledging that the claim is counterintuitive, he explains that “one of the effects of ideology is the practical *denegation* of the ideological character of ideology by ideology: ideology never says, ‘I am ideological.’” (Althusser, 1971a, p. 118). Thus, even though ideology appears invisible to many, in effect it underlies all we are and everything we do.

This claim about ideology can be traced directly back to Althusser’s borrowings from structuralism, as well as historical epistemology, or the conventionalist philosophy of science. In this scientific discourse, Thomas Kuhn and Bruno Latour are noted champions of

the belief that there is no transcendental place that exists outside of ideology, though for them the word for ideology is “paradigm.” Because this is such a contentious assertion, and because it is so closely related to Althusser’s vital claim that we are always already interpellated, it is important to understand arguments supporting ideology’s pervasiveness.

In a debate over the nature and significance of the use of metaphors in scientific communication, Kuhn challenged philosopher of science Richard Boyd’s claim that “the use of metaphor is one of the many devices available to the scientific community to accomplish the task of *accommodation of language to the causal structure of the world*...This is the task of arranging our language so that our linguistic categories ‘cut the world at its joints’” (Boyd, 1979, p. 358). In other words, Boyd (1979) believes that as science progresses, its language comes closer and closer to defining and describing the “real” (objective) nature of the world—the “joints” that make it a cohesive and rationally functioning whole.

Kuhn objects to these claims on several grounds. First, he believes there is “no neutral language” that can be used to describe scientific data and the theories arising therefrom (Kuhn, 1979, p. 416). He also does not believe that nature has “one and only one set of joints to which the evolving terminology of science comes closer and closer with time” (Kuhn, 1979, p. 417). In fact, the essence of Kuhn’s objection to Boyd is that *metaphors never get outside a paradigm*. In contrast to Boyd’s assertion that scientific language becomes more ontologically precise as new knowledge is made, Kuhn maintains that, by virtue of language’s instantiation in paradigms, which are suffused with the Law of Culture (Althusser, 1971b) and grounded in the incommensurability that lies within *people* (Harris, 2005), language can never provide epistemic access about “what *really* exists in nature, about the world’s *real* joints” (Kuhn, 1979, p. 418, emphases mine). Thus, because the joints

of the world are unknowable, we can only know the joints of *paradigms* which always surround us.

Related to Kuhn's claim that there are no "real joints" to the world are Latour's (1987) parallel assertions that knowledge is socially constructed, facts are never stable, and humans are "inscribed" with the values constitutive of the paradigms within which we live and move. Indeed, Latour (1987) takes social construction of knowledge to its logical conclusion when he argues that even science labs, which are conventionally thought of as being outside of (scrubbed of) messy natural influences, are not outside of the machinery of knowledge construction. Evidence for this claim can again be seen considering what Latour (1987) has to say about the nature of instrumentation that is operable in science labs, and how much influence they exert on the knowledge that stems from experiments conducted within labs. Latour thus posits a postmodern view of science which hinges on the idea that what actually gets tested and replicated in the lab are statements—what has been written and published in journals. If knowledge is text, and if text is inscribed with the subjectivity of language, then we are obliged to re-consider the validity of scientific objectivity itself.

Yet, although his claims are contentious, Latour's (1987) project is not to diminish the value of science in society, nor is it to challenge the necessity of scientific experimentation as a means of creating new knowledge. Rather, his point is that in the end, everything is always in a state of proliferated flux (Latour, 1987). Yet, flux should not be seen as detrimental to science. Kuhn (1996/1962) argues that if things were *not* in a state of flux, new scientific discoveries would never be made. In *The Structure of Scientific Revolutions*, Kuhn writes, "The emergence of new theories is generally preceded by a period of pronounced professional insecurity. As one might expect, that insecurity is generated by the persistent failure of the puzzles of normal science to come out as they should. Failure of

existing rules is a preclude to a search for new ones” (Kuhn, 1996/1962, pp. 67-68). Thus, “anomaly” and “crisis”—two characteristics of flux—provide the fertile ground in which new theories are grown.

What everything comes down to for these theorists in the history of science is the irreducibility of paradigms. We live within them, and, crucially, Kuhn (1996/1962) tells us that “the decision to reject one paradigm is always simultaneously the decision to accept another, and the judgment leading to that decision involves the comparison of both paradigms with nature *and* with each other” (p. 77). Thus, we are paradigm jumpers. The natural flux of knowledge leaves us free to reject one in favor of another, but always with the proviso that we are subject to one paradigm/ideology or another.

#### *Claim Four: Ideology Interpellates Individuals Into Subject Positions*

Althusser (1971a) says, “There is no ideology except by the subject and for subjects” (p. 115). For Althusser, then, the purpose of ideology is to “recruit” or “transform” individuals into subjects who are subjected to the beliefs and practices, or materialities, of an ideology. Althusser (1971a) is careful to mention the fact that “the existence of ideology and the hailing or interpellation of individuals as subjects are one in the same thing” (p. 118). In other words, interpellation into social roles is an *inevitable* result of living within a society. As members of a society who perpetually move within an ideology, then, it is the case that we are always already interpellated (Althusser, 1971a).

#### Louis Althusser on Interpellation

It is Althusser’s fourth claim about ideology that leads into a sustained consideration of interpellation itself. Althusser (1971a) explains that the transformation of an individual into a subject happens through a “hailing” or “interpellative” moment. The hailing works through what Althusser (1971a) calls the “ideological State apparatuses”



(ISAs). These are the “private” arms of the larger, public “State apparatus,” and include entities such as the Church, the School, the Family, and the Media (Althusser, 1971a, p. 97).

In terms of his definition of the State<sup>6</sup> and his willingness to keep the distinction between the “State apparatus” and “state power” clear<sup>7</sup>, Althusser towed the traditional Marxist line. However, his delineation of the ISAs’ uses and their function in society was a major contribution to Marxist theory. This was because the material means of production as well as the reproduction of labor-power had already been fairly well established.<sup>8</sup> The knowledge gap was in the individual’s relationship to the collective. By virtue of the mechanism of interpellation which works through them, the ISAs explain how the “relations of production” are secured. Marxist theorist Frederick Jameson lauds this contribution, saying that it “offers us one of the most stimulating ‘solutions’ to the dilemma of the incommensurability of individual and collective yet proposed in recent philosophy” (Jameson, 2001, p. xiv). Thus, the articulation of interpellation as a formative element of

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<sup>6</sup> “A repressive apparatus” consisting of “the police, the courts, the prisons... the army...and above this ensemble, the head of State, the government and the administration,” which always acts “in the interests of the ruling classes” (Althusser, 1971a, p. 92).

<sup>7</sup> That is, state power is aligned with the class struggle, and it is the case that the State apparatus “may survive political events which affect the possession of State power” (Althusser, 1971a, p. 94). This is why a proletariat revolution is ultimately still a necessity: so that the bourgeois State apparatus might be replaced with a proletariat one. However, this can only occur after the proletariat has first seized control of State power (Althusser, 1971a). A truly successful proletariat revolution is one in which the proletariat assumes control of both state power and the State apparatus.

<sup>8</sup> Althusser’s discussion of the reproduction of labor-power is a concrete illustration of the source from which he believes all power-relations can be traced: ideology. He notes that labor-power is reproduced outside of the firm via the education system when he writes, “The school (but also other State institutions like the Church, or other apparatuses like the Army) teaches ‘know-how’, but in forms which ensure subjugation to the ruling ideology or the mastery of its ‘practice.’ All the agents of production, exploitation and repression...must in one way or another be ‘steeped’ in this ideology in order to perform their tasks ‘contentiously.’” Thus, “It is in the forms and under the forms of ideological subjugation that provision is made for the reproduction of the skills of labor power” (Althusser, 1971a, p. 89).

social integration and interaction represents an augmentation to existing ideas in the Marxist canon.

### **A Process Model of Interpellation: Building a Bridge to “Interpellative Design”**

But how does interpellation transpire, exactly? If the goal is to explain an interpellative approach to web design and usability, a precise understanding of how the interpellative event unfolds is needed.

Althusser’s (1971a) iconic representation of interpellation is the hailing of an individual into the community of criminal suspects. In that illustration, a police officer chases another person down a busy street. During the pursuit, the officer cries out, “Hey! You there!” The individual, recognizing himself as the one who has been addressed by the hail, turns around to greet the cry. In that “one hundred and eighty degree turn,” Althusser says, the individual is interpellated into the subject position, or social role, of suspect. “Why? Because he recognized himself in the hailing and knew that he—and no one else—was being addressed” (Althusser, 1971a, p.118). Thus, *recognition* of oneself in the hailing and *identification* with the hail are fundamental properties of interpellation. If one does not recognize, turn (literally or metaphorically), and acknowledge the role and, by extension, the place in the world or *habitus* defined for them by the role’s place within its ideology, then interpellation into the desired social role has not occurred.

However, it cannot be said that interpellation *itself* has not happened; this is a critical point: In the case of the man fleeing from the police, interpellation is not at issue—the man *will be* interpellated by virtue of the fact that an interpellative moment, a hailing, has presented itself. If the man turns to meet the cry, then he is a suspect. If he continues to flee, then he is a fugitive. Both are social roles. What is determined by the response to a hailing, then, is not that interpellation has *occurred*, for it has always already occurred, but

is rather the *nature* of the interpellation—the *particular* social role one is initiated into based on one's response to the call. Once the call has been answered in a particular manner, the individual-turned-subject is expected to perform all the duties, rituals, and practices that go along with the role and the corresponding ideology s/he has been hailed into. It is in this way that ideology becomes material.

The behavioral outcomes of interpellation directly relate to the perpetuation of a social role's norms. We might think of interpellation as the activation of a "schema," or behavioral script, in which one follows socially-situated cues in order to determine how to act (Piaget, 1954). I will say more about this in Chapter 3.

Returning to Althusserian terms, interpellation allows the ideological state apparatuses to be self-perpetuating. Indeed, one of the challenges of having adopted a schema is that it becomes a habitual orienting mechanism, one that is difficult to change, and easy (often advantageous) to simply move within. To clearly show how interpellation allows the ISAs to be self-perpetuating in whatever form they may take, Althusser gives the example of the Church. He explains that the Christian religion hails its members in the following way. It says:

I address myself to you, a human individual called Peter (every individual is called by his name, in the passive sense, it is never he who provides his own name), in order to tell you that God exists and that you are answerable to Him. It adds: God addresses himself to you through my voice (Scripture having collected the Word of God, Tradition having transmitted it...). It says: this is who you are: you are Peter! This is your origin, you were created by God for all eternity...This is your place in the world! This is what you must

do! By these means, if you observe the 'law of love' you will be saved, you, Peter. (Althusser, 1971a, p. 120)

From this representative sequence of events, Althusser (1971a) extracts a "procedure"—what we might think of as a process model—for interpellation: First, the individual's **attention** is caught; s/he is called by name, "thus recognizing that they are always-already interpellated as subjects with a personal identity" (Althusser, 1971a, p.120). Next, the individual **recognizes** him or herself in and from the hailing: "'Yes; it really is me!'" (Althusser, 1971a, p. 121). Then, the individual **identifies** with the place the hailing into ideology designates for them as theirs in the world. Identification then leads to a **desire** to learn how to productively live within the ideology to which they belong. Following this, the individual is provided with **security** in the form of an "absolute guarantee that everything really is so, and that on condition that [s/he] recognize what [s/he is] and behave accordingly, everything will be alright: Amen – 'So be it'" (Althusser, 1971a, p. 123). Ultimately, the individual **behaves** or "works" **predictably** within the ideology "all by themselves" (i.e. under the impression that they are "free" to "freely" accept all that working within an ideology entails), and are thus "inserted into the practices governed by the rituals of the ISAs" (Althusser, 1971a, p. 123).

The model perpetuates itself when already-initiated subjects hail others by the same means, *ad infinitum*. Indeed, the "proof" that interpellation has occurred is obedience to the materialities which constitute the ideology. For the proof of the proof, Althusser (1971a) keeps with the religion theme and mentions Moses. He says, "And Moses, interpellated-called by his Name, having recognized that it 'really' was he who was called by God, recognizes that he is a subject, a subject of God, a subject subjected to God, a subject through the Subject and subjected to the Subject. *The proof: he obeys Him, and makes his people obey*

*God's Commandments*" (Althusser, 1971a, p. 121, emphasis mine). This cycle of interpellation makes it such that the "relations of production" are secured and, thereby, perpetuated. In a general sense, then, the outcome or *telos* of interpellation is *habitus*: it is the way we act in the world. It is our subject position(ing) through the social roles we always and variously inhabit.

Emerging from this process model are what can be thought of as common requisites which must obtain for interpellation into a particular social role to occur:

- *Attention* to the hailing
- *Recognition* of the subjectivity or social role one is being hailed into
- *Identification* with the social role and the behavioral rules (schema) associated with it
- *Desire* to perform the behaviors necessary to exist in the *habitus* or life-style created by the role
- *Security* that if one follows the rules defined by the role, certain outcomes will result from certain actions
- *Predictable behaviors* which are in keeping with the script or schematic of the *habitus*

The process model and common requisites represent the first tool in the interpellative design box. Because it describes how interpellative experiences transpire, the requisites can be used as a series of checkpoints in the design and evaluation of constructivist interfaces.

For example, a design team might name a role or roles they wish users to fulfill while interacting with the interface. As a means of determining whether users recognize the role(s) they are to play and, most importantly, whether they identify with the role(s) to the

point of desiring to fulfill them by performing the associated behaviors, users might be asked a series of questions which correspond with stages in the process model. Accordingly, the questions would need to generate responses from actual users regarding the following research questions:

- Are users sufficiently *attentive* to, or engaged by, the interface?
- Can users *recognize* what (tasks, actions, beliefs) the interface seems to want them to carry out? What design cues allow them to make that determination?
- Do users *identify* with these design cues? Do the cues “speak” to them?
- How willing are users to *perform the behaviors* (carry out tasks or actions, assume beliefs) the interface seems to want them to engage in?
- If users do wish to perform the intended behaviors, how *secure* are they in the outcomes of their actions? Do they move about the interface with confidence? Does the interface itself respond predictably?

In terms of interface design, these are new and important questions. If Jakob Nielsen’s (2005) ten usability guidelines<sup>9</sup> can be thought of a heuristic appropriate for “accommodationist” evaluations, then these questions might be seen as the beginnings of a heuristic that can be applied to “constructivist” projects. In fact, I put this model to such use in Chapters 3 and 4 to demonstrate how an interpellative interface assessment sounds. Moreover, in Chapter 5, I explain an exploratory observational study I facilitated in which

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<sup>9</sup> Nielsen’s guidelines have long formed the bedrock of heuristic evaluations conducted by usability professionals. According to Nielsen and Mack (1994), a heuristic evaluation is a “discount” usability method wherein one or more trained experts examine an interface for compliance with accepted usability principles, or heuristics. No end users are involved in this approach (the usability professionals stand in as proxy users), and what is generated is a report containing a list of observed usability issues, the usability principle or heuristic violated, and recommended fix(es) for the problems.

more polished versions of the questions outlined above were posed to actual users. That discussion comes last because it is crucial to first develop a comprehensive understanding of the two mechanisms underlying interpellation before questions can be formed that correlate with the mechanism and that are understandable to users.

A set of interpellative design questions—what I view as the bones of a heuristic suited for constructivist interface evaluations—is timely given the networked culture we live in. Cultural anthropologist Michael Wesch framed the importance of the task currently facing design teams nicely in his 2010 *UX Week* presentation. Wesch (2010) pointed out that interaction designers are responsible for the increasingly humanistic project of creating the media through which people relate to and with one another. The challenge is thus a fundamentally constructivist one of “designing the possibilities for human connection” (Wesch, 2010). Indeed, the Harley-Davidson design puzzle that opened Chapter 1 is an example of precisely such a task—creating conditions for belonging and community in digital space. When the interpellative process model is combined with questions pertaining to interpellation’s two driving forces, *habitus* and social capital, that can be asked of actual users, design teams will have a more cohesive set of resources that can better position them to design “the possibilities of human connection.”

#### The Skeleton of Interpellative Design Questions

My contention is that the activity of interpellation is operable in design contexts. Because of this, it is theoretically possible to use the process model as well as the two mechanisms underlying interpellation to describe “interpellative” user experiences in a way that is markedly different from describing what are traditionally known as “usable” interface experiences. An examination of the only known case in which “interpellation” has been used to describe a user experience in a design context is an instructive in beginning to

consider the types of inquiries that allow users to comment on an interface's interpellative power (or weakness).

The document design field was briefly introduced to the term "interpellation" when Karen Schriver (1996) used it to describe findings from a usability study of anti-drug brochures. One of the brochures is shown in Figure 2.2.

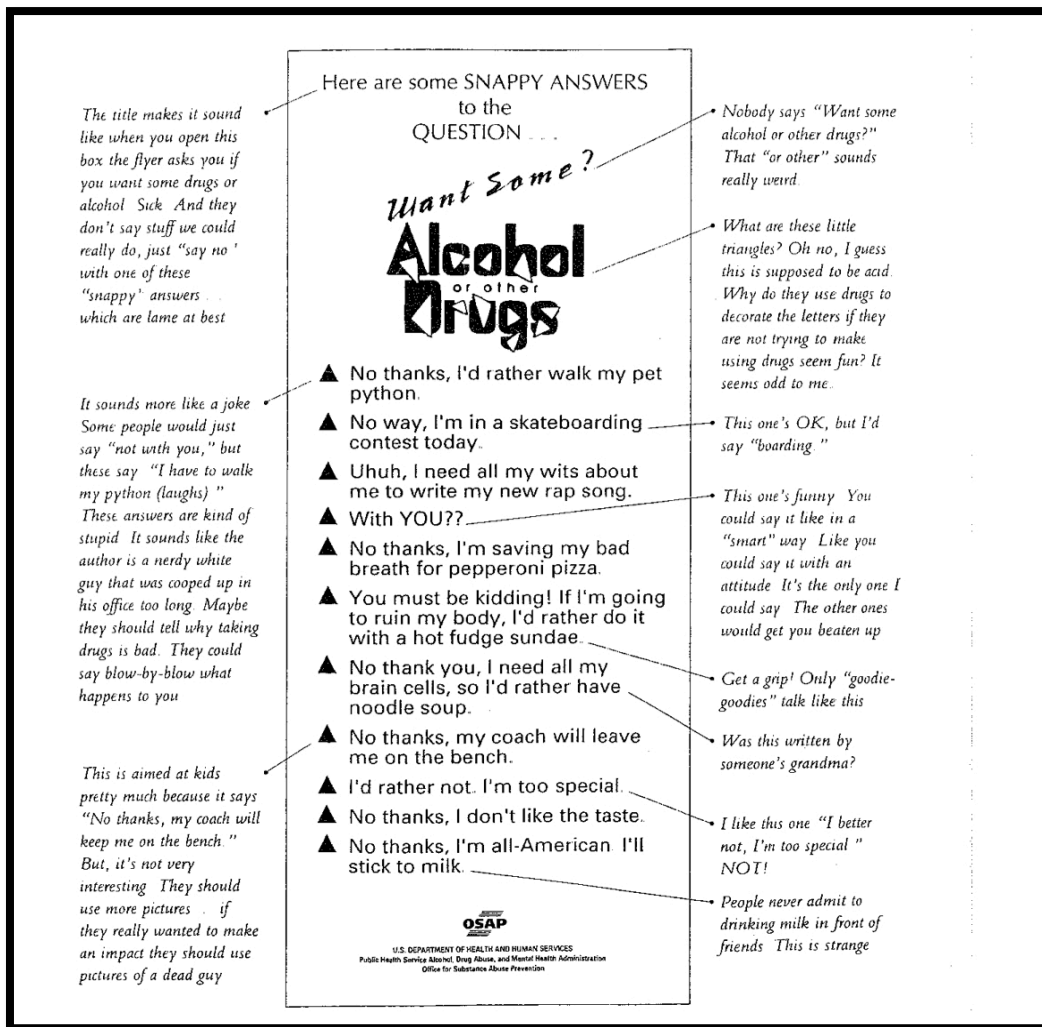


Figure 2.2: Brochure from Schriver's (1996, p. 174) usability study, with users' responses annotated at left and right.



During the course of an otherwise straightforward assessment protocol involving teenagers (the brochures' audience), Schriver (1996) and her research team went beyond asking whether the teens could simply understand the textual and visual content the brochures conveyed; the team also probed the teens about the impression of the author the teens formed after interacting with the brochures, and what design elements specifically within the brochures made them form this picture. The exact questions asked were:

- “Did you imagine an author when you read this?”
- If you did imagine an author, what is the author like?
- Can you point to places in the brochure that make you feel this way?” (Schriver, 1996, p. 171)

Schriver (1996) and her team also asked teens the corollary to all of these questions—to describe how they thought the author envisaged *them*, and what specific aspects of the brochures led them to their conclusions.

These questions were novel in the context of what was essentially a usability evaluation; it is not typically assumed that what users think about designers is relevant to the success of the design. However, Schriver (1996) explains that this line of inquiry was introduced because it was her belief that “a key to composing persuasive documents may lie in anticipating readers’ perceptions of who may be speaking, of the persona projected through the text” (p. 180). This makes good sense, given that the way we feel about someone tends to influence how (or whether) we let that person influence us (indeed, Cialdini (2007/1984) traces this phenomenon back to the psychological principle of “Liking”).

In addition to the insight that users’ perception of the designer would influence their overall assessment of the interface’s usability, another striking aspect of Schriver’s

(1996) study is that her team actually mapped “the [designer’s] persona projected through the text” to *specific* elements of the design such as diction, text-to-image ratio, and quality of graphics (i.e. cartoon drawings vs. photorealistic ones). This suggests that it is possible to correlate particular design techniques (visuals and diction, e.g.) with their interpellative effect—a tremendously important step in the process of assessing an interface for whether it successfully interpellates users. For example, in Schriver’s (1996) study, teens pointed to the outdated feel of the visuals, the “kiddish” and inauthentic language (“I’d say ‘boarding.’ Not ‘skateboarding.’”), and the diagrams which reminded them of science textbooks rather than real people in real situations. This led them to pan the brochures, articulate negative impressions of the designers, and feel insulted by the way the brochures attempted to cater to them. Schriver (1996) noted in her discussion of the study’s findings that the designers of the brochures failed to interpellate their audience because the visual and textual “cues” that were supposed to hail teens into the role of cool, yet informed, non-drug users did not resonate.

This account of interpellation accentuates an element of figural dialogue between hailer (designer) and hailed (audience) through the use of design techniques, and showcases the consequences of perfunctory consideration of audience. Indeed, when Schriver (1996) talked to some of the brochures’ designers and asked them what method of audience analysis they used, many said they preferred the “intuitive” method of constructing a mental image of the audience (or even a single member thereof), imagining that “person’s” reaction to certain elements of the brochure, and designing accordingly. It appeared in the end that no real, boots-on-the-ground user research was conducted (Schriver, 1996). Consequently, the designers had a poor understanding of their audience’s *habitus*, and the chances for success from that point were limited. Furthermore, I would

argue that there was a critical misuse of social capital (i.e. the design techniques used did not positively reflect teens' taste), which in turn resulted in the audience refusing to identify with the role designated for them in relation to the brochures. Although Schriver's (1996) questions move my project forward, it is clear the mechanisms underlying interpellation still need to be fleshed out to generate more questions, and to offer a more thorough explanation of the user experience overall.

### **Ethical Reflection: Advancing a Fluid, Discretionary, and Empowering Interpretation of Interpellation**

If interpellative design has the explanatory power I believe it does, then the theory should be immediately useful to the usability and design community. Yet, precisely because of its power to shape behavior, it is important to disclose some of the ethical issues related to interpellation, and to set forth a theory of responsibility for how I would like to see interpellative designs competently deployed.

Although it is apparent from the process model I explained earlier that security is the last stage of the interpellative event, interpellation's overtones of dominance and subjugation (which likely arise as a result of the term's instantiation in Marxist discourse) as well as the feelings of powerlessness that can be attributed to the claim that we are always inside of (an) ideology make it a term laden with uncomfortable baggage.

Although many of the words Althusser uses to discuss interpellation may sound ominous, and although Althusser's theory of interpellation arises out of a dogmatic structuralism that cedes human agency to societal structures within which humans must work, I do not believe interpellation to be inherently negative. In fact, I contend that to be continually interpellated is to be and to become human. This is because interpellation is the inevitable result of being socially oriented, and I agree with Lacan's claim that we become

socially oriented by progressing through phases in the symbolic order—by willingly subjecting ourselves to “the authority of the culture” (Benton, 1984, p. 14) into which we are born. It precisely is this act of willing subjugation that makes us human: “a speaking animal (what [Lacan] calls a *parle-etre*); one whose desire comes to be ‘inmixed’ with the imperatives of, and stipulated within, the natural language of its society” (Sharpe, 2005, para. 18). Thus, I believe that to resist interpellation is to resist human-being. Moreover, there is no other term that I know of that so precisely encompasses the process underlying the transformation of individuals into *members of a community*. This fact is one of the main reasons I persist in using “interpellation” as a major term in this dissertation.

Still, the ethical issues that are tied to interpellation deserve consideration. In responding to the issues, I argue for what is essentially a bi-directional approach to interpellation, one that views the event as fluid (as opposed to all-encompassing), discretionary (as opposed to required), and empowering (as opposed to disenfranchising).

There seems to be a tendency to view interpellation as an all-or-nothing proposition. This is the notion that once interpellated, individuals are locked into a social role that will stay with them for a long time, if not forever, and that individuals are not able to choose or control their fate. Indeed, recall Althusser’s (1971a) criminal “suspect,” and consider the difficulty faced by convicts who wish to amend their ways and become productive members of society. The success rate is low. So low, in fact, that new philosophies of jurisprudence are being developed to handle the problem of “prisoner reentry.”<sup>10</sup> This issue is perhaps exacerbated by the emphasis Western culture places on

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<sup>10</sup> See, for example: Petersilia, J. (2003). *When prisoners come home: Parole and prisoner reentry*. New York: Oxford UP. and Travis, J. (2005). *But they all come back: Facing the challenges of prisoner reentry*. Baltimore, MD: Urban Institute Press

maintaining a constant character. Politics abhors a “flip flopper,” for example, and people take comfort in the feeling that they “know” others.

Yet, as the great American essayist Ralph Waldo Emerson reminds us, “A foolish consistency is the hobgoblin of little minds” (Emerson, 2004/1841, p. 879). Emerson’s point is that maintaining the same viewpoints and existing in a static social role, even amidst the flux and change that are the inevitable results of the passage of time, is foolish. Flexibility of character, on the other hand, is a sign of growth and adaptation. As Kuhn’s (1996/1962) history of scientific progress demonstrates, error and anomaly are often responsible for breakthroughs and discoveries. The new paradigms that are constructed in response to scientific progress necessitate a kind of mental gear shifting among those who are affected by the emerging knowledge; they must be interpellated anew, into a new system of relations—a community—that has been built to handle the work of shaping, contesting, and disseminating the fresh learnings.

In addition, Jameson’s (2001) summary of interpellation demonstrates that people *can* exercise discretion within the context of interpellative moments, even to the extent of creating and adopting as-yet undefined roles for themselves. Jameson explains that interpellation is:

the way in which the social order speaks to us as individuals and as it were calls us by name. It can best be understood as [a] system of roles and social positions...We can simply adopt one of these, or we can refuse them all in revolt; or finally we can attempt to invent new ones, for which our society has not yet provided. (Jameson, 2001, p. xiv)

Jameson’s (2001) words call to mind *standpoint theory* (Harding, 2004). This theory essentially posits a fluid sense of subjectivity within individuals. To make this point

concrete, consider personas. While most interface designers are familiar with Alan Cooper's (2004/1999) definition of personas as "*hypothetical archetypes of actual users*" (p. 123) which are employed for the purposes of ensuring a user-centered design, personas are colloquially understood as the different "hats" donned, or personalities adopted by, individuals in relation to different social situations. This means that people not only adopt a standpoint or social role in relation to their ideology, but also in relation to isolated *situations* within the context of that ideology, and as these situations change, so too does the social role adopted.

Dynamic subjectivity is the mechanism which allows for the kind of role-choice that Jameson (2001) describes above; without it, it would not be possible for individuals to change their social role, let alone "invent new ones" which have not yet been imagined. Interpellation, then, is a situated event that carries with it the possibility of identity creation as well as change. More than that, notice how Jameson (2001) introduces the possibility of rejecting interpellation entirely—"we can refuse [the social role] in revolt," he says (p. xiv). Because our identities are fluid, and since we can choose to adopt particular standpoints which we deem most appropriate and advantageous in any given moment, it is the case the interpellation into a given social role *is* a preferential decision.

Thus, contrary to how a pure structuralist interpretation of interpellation would have it, in my view individuals *can* and *must* retain discretionary choice in an interpellative moment. For evidence of how this is possible, consider the literature in psychology. Several leading authorities in this area agree that awareness of the circumstances is key to determining one's own fate (Cialdini, 2007/1984; Ariely, 2009; Lehrer, 2010). In fact, each chapter of Cialdini's *Influence* (2007/1984) ends with a section called "How to Say No" in

which the author affirms the need to move from being passive consumers to active determiners of our fate.

Cialdini (2007/1984) describes a specific scenario that shows how someone can leverage the principle of Social Proof in a precarious situation. The principle of Social Proof states that, especially in uncertain circumstances, we look to others who are similar to us to determine how to properly act. Cialdini (2007/1984) ascribes the “bystander effect” to this principle. In psychology it is well documented that if there is a crowd of people present during an unfolding emergency, it is likely that no one will make a move to help because they mistakenly assume someone else will step in to assist. This “pluralistic ignorance” unfortunately leads to those in distress going unaided (2007/1984). To combat this, Cialdini suggests what amounts to a technique that realigns control of the interpellative moment: it removes control from the hailer and gives to the end user. To see this realignment in action, consider a situation in which you might need help. Cialdini (2007/1984) advises:

Stare, speak, and point directly at [one] person and no one else: “You, sir, in the blue jacket, I need help. Call an ambulance”...With that one statement, you will have put the man in the blue jacket in the role of “rescuer.” He should now understand that emergency aid is needed; he should understand that he, not someone else, is responsible for providing the aid; and, finally, he should understand exactly how to provide it. (p. 138)

This scenario shows how awareness allows a person to actively take control of the interpellative act. The man in the blue jacket has figured out a way to overcome “pluralistic ignorance” and has thus taken his fate into his own hands. This situation illustrates a revised demonstration of control, and so reveals how interpellation can be empowering—in this case, it solves the problem of pluralistic ignorance and results in someone in need of

help being saved. Moreover, it possible to imagine the man in the blue jacket *refusing* the role of rescuer he has been hailed into (as Jameson (2001) allows). This refusal might be because the man does not have a cell phone, or simply does not wish to be burdened with the responsibility of being the “rescuer.” In this case, it is easy to imagine him choosing to simply walk away (though hopefully not before hailing another person into the role of rescuer).

If standpoint theory allows for the introduction of fluidity and flexibility to be added to the interpellative event, and if awareness introduces individual discretion in terms of opting into or out of the social role, how are the complications associated with the *digital* context in which I am discussing interpellation to be approached? In this context, individuals seem to be caught within the literal machine of the computer, which houses the code that would execute an interpellative design. This is the problem of technological determinism.

At its core, technological determinism has to do with the locus of agency (Johnson, 1998). The key questions related to technological determinism are: does agency reside in humans, within our social and cultural sphere? In other words, do human agents *determine* the direction, use, and meanings of technologies? Or is the opposite the case? That is, do technologies themselves (systems, instruments, tools, etc.) determine the course of human events and interpretations thereof? In fact, most scholars posit a complex, continual negotiation of agency between humans and technologies that informs how technologies are developed, used, interpreted, and how these processes and outcomes, in turn, shape the cultural milieu (Johnson, 1998). The principle of fluid subjectivity as well as the knowledge and awareness that leads to maintaining a sense of choice over one’s situation work well to balance out the control designers would leverage by means of an interpellative design.



However, while fluid subjectivity and discretion are tools at *users'* disposal, it is important that designers, too, are equipped with an *ethos* or ethic to abide by when considering how their interpellative design will be effectuated.

### A Responsible Relationship to Interpellation: Empowering Users Through “Libertarian Paternalism”

An ethic for designers should answer the question: How is the power associated with interpellation and the practice of interpellative design to be held such that it is not abused? The method of designing for interpellation that I am sketching utilizes an existing (political) theory of responsibility that has been auspiciously applied to design situations by behavioral economists Richard Thaler and Cass Sunstein (2009) in their book, *Nudge*. The theory is called “libertarian paternalism”, and I adopt it because I see it as embodying a sort of Golden Mean between the issues of choice, control, and agency that plague interpellation as it has been commonly understood. Moreover, Thaler and Sunstein’s (2009) project is similar to mine, in that they seek to equip designers with a way of conceptualizing the construction of “user-friendly environments” (p. 11). They call designers “choice architects,” and endow them with “the responsibility for organizing the context in which people make decisions” (Thaler & Sunstein, 2009, p. 3). They explain by way of example, “If you are a doctor and must describe the alternative treatments available to a patient, you are a choice architect. If you design the form that new employees fill out to enroll in the company healthcare plan, you are a choice architect. If you a parent, describing possible educational options to your son or daughter, you are a choice architect” (Thaler & Sunstein, 2009, p. 3). To me, choice architects are interpellative designers without realizing it. In order to build the decision-making context, they create a *habitus* in which people feel comfortable, and pepper that space with social capital that people recognize and identify with, which leaves

people open to acting in the manner the designer wishes (much more will be said about *habitus* and social capital in the next two chapters).

Libertarian paternalism is a bi-stable or oxymoronical term; it occupies two seemingly contradictory states simultaneously. On the one hand, the libertarian impulse maintains people's ability—and right—to freely choose among possible alternatives. On the other hand, the paternalistic impulse strives to steer people toward a *particular* alternative (Thaler & Sunstein, 2009). The middle ground lies in the specific approach taken to achieve a choice architecture that is neither totally libertarian (which would mean that all choices are equal, and that there is nothing at stake in choosing any one over any other), nor totally paternalistic (which would rob the person of any real ability to choose by enacting a dictatorship in which the consequences of choosing wrongly would be significant). To navigate the bi-stability of the terms—to walk the fine middle ground between libertarianism and paternalism—Thaler and Sunstein (2009) adopt an approach called the “nudge.” They explain that a nudge is “any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options...To count as a nudge, the intervention must be easy and cheap to avoid. Nudges are not mandates” (p. 6). Nor are nudges a form of coercion, brainwashing, or subliminal messaging. They are simply a hail from designer to user suggesting a social role that would allow the user to productively interact with an interface—a hail that might very well be refused by the user for any reason at all.

For me, the ethic of interpellative design hinges on the premise, as Althusser (1971a) claims, that we are always already interpellated. In other words, as Thaler and Sunstein (2009) point out, it is impossible *not* to influence people's choices. They write, “In many situations, some organization or agent *must* make a choice that will affect the

behavior of some other people. There is, in those situations, no way of avoiding nudging in some direction” (Thaler & Sunstein, 2009, p. 10). Although they are sympathetic to those who believe that the nudge might be used for purposes other than good, Thaler and Sunstein (2009) counter that those in power “have to provide starting points of one or another kind. This is not avoidable...In this respect, the antinudge position is unhelpful—a literal nonstarter” (pp. 10-11). The question is therefore *not* how do we avoid interpellation or nudging people to behave this way or that; for, the interpellative nudge is philosophically and pragmatically a foregone conclusion—it is a condition of being a socially oriented human being, as I explained above. This means that the question *is*: how do we ensure that we interpellate or nudge in the most responsible manner possible?

Figure 2.3 is a visualization of a situation in which it is impossible not to nudge: it is against the law to litter in most industrialized countries. In many cases, domesticated animal droppings are considered litter, so people are obligated to pick up after their animals. When it comes to policy, the question is not to nudge or not to nudge. The fact that the law exists and is widely known is itself a nudge: a rule has been defined, and it is the duty of citizens to comply with the law.

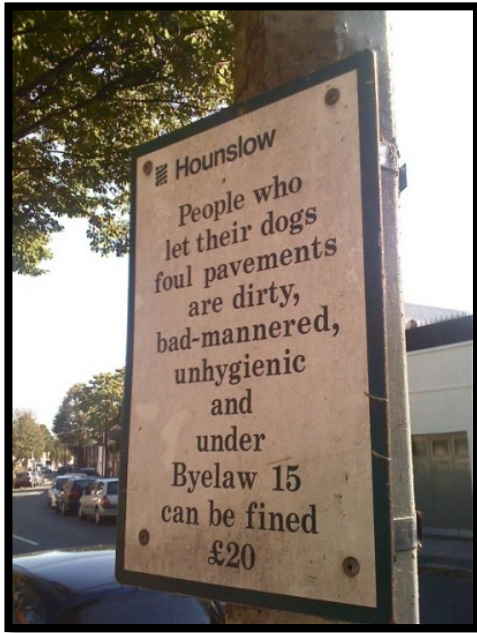


Figure 2.3: Example of a sign nudging people to clean up after their pet (Pink, 2010)



Figure 2.4: Example of a sign nudging people to be safe at the zoo (Pink, 2008)

The interesting aspect of Figure 2.3 lies in the way in which the nudge is carried out. It establishes a decision-making framework by explicitly naming the decidedly unappealing social role that will be inhabited by inattentive pet owners. Cultural commentator Daniel Pink calls these types of signs “emotionally intelligent”<sup>11</sup> I call them overtly interpellative.

Figure 2.4 is another example of an emotionally intelligent sign which interpellates people into the role of animal-lover (who would want to make the animals sick, after all?).

What makes most emotional signs excellent cases in point for interpellation as I am describing it and for the principle of libertarian paternalism is that in all cases, the signs are

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<sup>11</sup> Pink has an excellent presentation on emotional signage on *YouTube*, which can be accessed here: <http://www.youtube.com/watch?v=9NZOt6BkhUg>. He also has a category on his blog dedicated to the subject, which is filled with pictures readers send him. The blog category can be accessed here: <http://www.danpink.com/archives/category/emotionally-intelligent-signage>.

designed to nudge people into performing what would generally be regarded as “good” behaviors, while at the same time leaving the stakes for non-compliance relatively low.

Thus, we are always already being nudged, just as Althusser (1971a) has argued that we are always already interpellated. These are both effects stemming from the same cause: being social beings who exist in communities where rules and norms drive behavior. Under conditions of libertarian paternalism, and within a system in which designers see themselves as “nudgers” (as opposed to coercers or, worse, brainwashers), users retain a sense of empowerment thanks to the freedom of choice. From an end user’s perspective, choice manifests in a sense of awareness regarding the options available, and of the feeling that if they choose to opt-out of the framework created for them, there will not be detrimental repercussions.

Thus, in regard to the ethical issues connected to interpellation, it is not the case that interpellation always occurs in negative contexts. Nor is it the case that people are always hailed into unfavorable subject positions, or that they are powerless to control the roles they variously adopt. When interpellation is interpreted as the vital, catalytic force which calls people into communities, it is possible to see it occurring in positive and affirming situations.

### **Chapter Summary**

In this chapter, I have carved out a space for “interpellative design” by explicating and tracing the concept of interpellation from its Marxist roots, to its first and only explicit use in a user-experience context, to the ethical issues surrounding it. Proceeding from the viewpoint that to *not* attempt to take measured control of the interpellative event is, in effect, to *relinquish* control of one’s fate in a situation, I have sketched a process model that designers can use as a roadmap for engineering interpellative interfaces. This process

model has been the bridge from interpellation in theory to interpellation in (controlled) action. In response to those who acknowledge the power of interpellation, but believe it should not be harnessed, I have offered a philosophy for how I believe interpellative design should be deployed, and have shown examples of what that framework can look like (Figures 2.3 and 2.4).

At this point, it is time to turn to what I argue are two specific mechanisms that drive the successful interpellation of users into the social role(s) designers set forth. The names of these mechanisms, which I have heretofore been using in passing, are *habitus* and social capital. It is my contention that designers must be aware of these and be able to leverage them if they hope to control the social role(s) into which users are interpellated. The next two chapters thus feature a sustained examination of each of these mechanisms in turn, beginning with *habitus*.

## CHAPTER THREE

### *HABITUS* AS A DIGITAL STAGING GROUNG FOR INTERPELLATIVE DESIGNS

This chapter explicates the mechanism of *habitus* in detail, and describes attempts by interface designers to use the principles of *habitus* to interpellate users into desired social roles. Although social capital—the other mechanism I have identified as being crucial to controlling the interpellative event—is inextricably bound with *habitus*, I describe the mechanisms in successive chapters to ensure equal space and weight is given to each, since interpellation into a desired social role cannot be reliably achieved without a full understanding of both mechanisms.

By way of introduction, a *habitus* is an orienting mechanism, a way of being-in-the world that signals a person's relation to oneself, others, and a broader culture (Bourdieu, 1984). The goal of deploying *habitus* in digital environments is to create a space that a target audience will identify with and desire to be absorbed within. To create conditions for interpellation, designers can begin by conceiving of an immersive space, within which are placed both functional and aesthetic cues pointing toward interaction possibilities and the (social) effects thereof. Such a space can be thought of as a *habitus*, and for my purposes, it can be understood as the scene for staging the interpellative event.

#### ***Habitus* as Interpretive Framework**

While the origin of *habitus* can be traced at least back to Aristotle, and it shows up in the more contemporary writings of Edmund Husserl, Erwin Panofsky, and Marcel Mauss, my use of the term comes from reading it through the work of French sociologist Pierre Bourdieu. Much of Bourdieu's philosophy dovetails nicely with Althusser's, inasmuch as both believe in a classification system which is inherently social. Indeed, one can never get outside the social, just as one cannot espouse a position that is not ideological (recall

Althusser's (1971a) ironic point that the most ideological position is one which attempts to disguise or deny its ideology).

### Habitus Through The Lens of Pierre Bourdieu's Aesthetics

Grasping Bourdieu's notion of *habitus* begins with an understanding of his conceptual position. For, *habitus* is not a term that is anywhere succinctly defined; rather, it emerges piecemeal and by degrees as Bourdieu judiciously describes and analyzes the empirical evidence packed into his nearly 600-page tome, *Distinction*. Bourdieu's (1984) ultimate aim in the work is to "treat culture...as an object of science" such that he might provide "a scientific answer to the old questions of [Immanuel] Kant's critique of judgment, by seeking in the structure of the social classes the basis of the systems of classifications which structure perception of the social world and designate the objects of aesthetic enjoyment" (pp. xiii-xiv). Principally, Bourdieu (1984) is reacting against the Kantian approach to aesthetics which regards "detachment and disinterestedness...as the only way of recognizing a work of art for what it is, i.e., autonomous" (p. 4).

There are several problems with this, from Bourdieu's perspective. First, works of art are not autonomous because they cannot occupy a space outside of the milieu in which they were created. Works of art are and have always been produced by people who are enmeshed in the world, and who work within and out of specific, learned techniques and historical traditions which yield traces of the artist's distinct style (i.e. impressionism, surrealism, folk, etc.).

Second, those who apprehend pieces of art are likewise unable to perceive the works from an autonomous, "disinterested" position, for the same set of reasons: they, too, are influenced by the context of their upbringing, and the amount of educational capital they bring to the act of (artistic) interpretation. In this vein, Bourdieu makes an insightful point



when he notes that “the capacity to see (*voir*) is a function of the knowledge (*savoir*), or concepts, that is, the words, that are available to name visible things, and which are, as it were, programmed for perception” (Bourdieu, 1984, p. 2). To be an art critic, for instance, one must acquire the vocabulary necessary to “properly” describe not only what is pictured, but also what it represents, and this is an analytic capacity that must be learned. It is not innate.

The final problem Bourdieu has with the Kantian approach to aesthetics is that it refuses to acknowledge “the popular aesthetic” as a legitimate “practice of looking” (Sturken & Cartwright, 2009). To Bourdieu, however, both ways of viewing a work of art are valid in their own right. Though polemically different, each viewpoint possesses its own integrity, which arises from the *habitus* in which the viewing practices are learned and perpetuated. In articulating the characteristics of the popular aesthetic as a foil to the pure aesthetic, Bourdieu distinguishes the *ethos*, or character, of each. He writes,

Popular taste applies the schemes of the *ethos*, which pertain in the ordinary circumstances of life, to legitimate works of art, and so performs a systematic reduction of the things of art to the things of life...Intellectuals could be said to believe in the representation—literature, theatre, painting—more than in the things represented, whereas the people chiefly expect representations and the conventions which govern them to allow them to believe “naively” in the things represented. The pure aesthetic is rooted in an ethic, or rather, an *ethos* of elective distance from the necessities of the natural and social world, which may take the form of moral agnosticism...the pure gaze...tends to induce an active distance from necessity. (Bourdieu, 1984, p. 5)

While these remarks may at first read as value judgments—a condemnation of intellectuals and a condescending nod to everyone else—it should be noted that Bourdieu’s (1984) statements are grounded in extensive empirical research, in the form of questionnaires distributed to 1,217 people over the course of three years. What he explains is thus intended to be read as an analysis of evidence based on actual input (statements and survey rankings, e.g.) from each of the social groups he discusses.

The fruit of Bourdieu’s labor is the conclusion that cultural consumption legitimates social difference. Taste, as the both the manifestation and embodiment of this consumption, works to classify individuals into social classes. Bourdieu (1984) writes, “Social subjects, classified by their classifications, distinguish themselves by the distinctions they make between the beautiful and the ugly, the distinguished and the vulgar” (p. 6). Bourdieu’s work is ultimately in service of expanding the scope of aesthetics by admitting a previously excluded social group (the masses) and of interrogating the genesis of aesthetic consumption preferences in terms of art, food, music, and literature, just to name a few.

### Habitus and Interpellation

We can turn now to *habitus* because it is precisely the “place” from which aesthetic consumption preferences are born. As “a structuring structure, which organizes practices and the perception of practices” (Bourdieu, 1984, p. 170) ***habitus* functions as an interpretive framework or as a context for informed decision-making.** It is “a system of distinctive signs” (Bourdieu, 1984, p. 170), within which are performed “orienting practices”: “gestures or the apparently most insignificant techniques of the body—ways of walking or blowing one’s nose, ways of eating or talking” (Bourdieu, 1984, p. 466)—that indicate one’s relational position in a social group or community. Bourdieu (1984) tells us that “different conditions of existence produce different *habitus*” (p. 170), meaning each

social group has its own unique and valid *habitus*, which works to inform what they are able to “see” and understand, as well as what their consumption preferences are. One’s *habitus*, in other words, provides them with guidelines for making decisions about, for example, the style of furniture to buy for their home, the brand name of clothing to wear, the type of music they will display in their collection, and whether the collection will take the form of physical CDs, records, or mp3s in an iTunes or other digital library.

To connect these ideas with interpellation, *habitus* can be viewed as the place into which one is interpellated following a hail. Recalling the process model for interpellation that was discussed in Chapter 2, an interpellative event’s endpoint, or *telos*, is assimilation into a community by adopting a social role and confidently performing the behaviors associated with it. This maps nicely with what is arguably Bourdieu’s (1984) clearest description of *habitus*: “A total relation to the world and to others, a life-style” (p. 54).

The decisions one makes regarding how to “stage” their *habitus* offer clues as to one’s specific social standing and place in the world. These clues are actually artifacts of social capital, and they are exhibitions of one’s unique taste. **Social capital, which I define as a collection of acts and artifacts that is constitutive of one’s social standpoint in a world, is a significant component of *habitus* because it is how taste manifests. Social capital is the visual, verbal, and non-verbal cues that demonstrate the *habitus* we occupy.** Although Chapter 4 is dedicated to describing social capital in detail, I mention it here to complete the *habitus* “equation” (so to speak): taste + social capital → *habitus*.

The organizing principle of *habitus* is taste. Bourdieu explains that taste is “the basis of all that one has—people and things—and all that one is for others, whereby one classifies oneself and is classified by others” (Bourdieu, 1984, p. 56). Taste preferences allow us to form cohesive images of ourselves. As the “manifested preferences” (Bourdieu, 1984, p. 56)

that accrete to form the core of our ability to make all kinds of decisions, the totality of our tastes creates an *ethos* that structures our senses of self. Bourdieu (1984) describes this aspect of taste by way of example: “the way [an old cabinetmaker] manages his budget, his time or his body, his use of language and choice of clothing are fully present in his ethic of scrupulous, impeccable craftsmanship and in the aesthetic of work for work’s sake which leads him to measure the beauty of his products by the care and patience that have gone into them” (pp. 173-174).

Another example of taste preferences contributing to an *ethos* within a specific *habitus* can be found in the community of Harley-Davidson riders. These road enthusiasts perpetuate the biker mystique Peter Fonda and Dennis Hopper exuded in *Easy Rider*. From the patches (which are really “badges of honor” (Norman, 2004)) that adorn their leather vests, to the rituals of the road—including the routine of starting one’s bike and the hand signals riders flash to one another as they pass along opposite sides of a highway—to the company’s eagle logo, which symbolizes the values of freedom, American craftsmanship, and individuality, we can see how *habitus* is “fully present” in one’s taste distinctions in this community, which in turn yields an *ethos* that informs how those lifestyle decisions are made.

If our tastes tell us a lot about who we are, then the corollary is also true: taste preferences allow us to gauge our relative “fit” with others. Taste in food, clothing, music, art, and extracurricular activities (the list goes on) acts as a beacon signaling whether we are in a compatible *habitus* when it comes to interacting with others. If the outcome of interpellation according to the process model is *habitus*, and if the aim is to have a measure of control over interpellative moments, then it is necessary to consider how to create *habitus* in a digital environment.

## ***Habitus* and Interpellative Design: Creating “Dramatic” Digital Spaces**

Applied interpellative design, creating *habitus* can be thought of as a building a dramatic space. Indeed, when Althusser (1971a) talks of interpellation, he calls the event a “*mise-en-scene*” (p. 120), which is often translated as “putting on stage.”

In the field of user-experience design, one noteworthy expert who theorizes how to craft dramatic spaces in digital environments is Brenda Laurel. As early as the beginning of the 1990s, Laurel was keenly aware that functionality alone would not suffice when it came to the design of successful applications. She explains:

Even in task-oriented applications, there is more to the experience than getting something done in the real world, and this is the heart of the dramatic theory of human-computer interaction. Our focus is not primarily on how to accomplish real-world objectives but rather how to accomplish them in a way that is both pleasing and amenable to artistic formulation—that is, in a way in which the designer may shape our experience so that it is enjoyable, invigorating, and whole. (Laurel, 1993, p. 120)

To endow designers with the power to “shape our experience” in the pleasurable way desired, Laurel (1993) argues that designers must learn how to create “imaginary worlds that have a special relationship to reality—worlds in which we can extend, amplify, and enrich our own capacities to think, feel, and act” (p. 33). I maintain that the product of such an act of creation in an interpellative design situation is *habitus*.

## Ingredients for Building a Dramatic *Habitus*

Using Aristotle's (2001) *Poetics*<sup>12</sup> as a theoretical basis, Laurel (1993) claims that leveraging engagement, catharsis, and agency can yield highly interactive, emotive designs. Importantly, utilizing these ingredients necessitates an approach to interaction design that marries the functional with the aesthetic. Jesse James Garrett's (2002) widely known "planes" of user-experience builds upon Laurel's approach. As shown in Figure 3.1, Garrett's scheme stipulates five planes or elements of a user-centered design; as noted in Chapter 1, it is a process that has been adopted and adapted by many companies today.

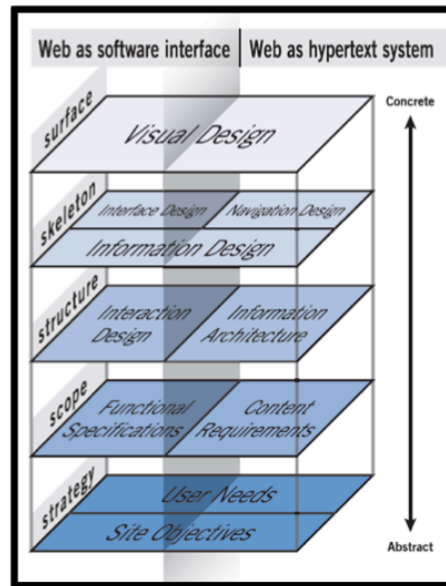


Figure 3.1: Garrett's (2002, p. 33) "planes" of user experience

<sup>12</sup> Briefly, *Poetics* is Aristotle's (2001) treatise on tragedy as a dramatic genre and the art of epic poetry. Aristotle's definition of poetry as a representational, mimetic art was highly influential on Laurel's denotation of computer interfaces as fundamentally representational. In fact, one of the mantras she emphasizes in *Computers as Theatre* is that "the representation is all there is" (Laurel, 1993, p. 116), thus accentuating the centrality of the task of successfully creating "representations of objects and environments that provide a context for action" (p. 9). Moreover, the characteristics of tragedy that Aristotle (2001) enumerates serve as the basis of Laurel's dramatic theory of HCI, which essentially parallels Aristotle's scheme, and includes all of the key elements he identifies (i.e. plot unity, character development, the arousal of emotions drawn from a willing suspension of disbelief, and the resolution of these emotions through catharsis).

The diagram illustrates the iterative evolution of moving from the relatively abstract process of aligning user needs with a website's objectives, to the concrete steps of coding functionalities, naming links and overlaying graphics to create a pleasing visual design.

In mentioning Garrett's process alongside Laurel's "dramatic" ingredients, I hope to showcase the holistic approach to usability that interpellative design makes possible. For, the design of interpellative interfaces is absolutely about attending to each of the five planes; yet, it is *also* about ensuring that Laurel's dramatic components of engagement, catharsis, and agency make their way into discussions that occur during the framing of each layer. Thus, my theory of interpellative design acts as a bridge connecting Laurel's (1993) "dramatic" framework with Garrett's (2002) more process-based approach. Just as we understand the bones of Garrett's method, we need to familiarize ourselves with Laurel's key terms.

### *Engagement*

In the scheme of Laurel's dramatic framework, engagement is defined as that which happens when we are able to give ourselves over to a representational action, comfortably and unambiguously. It involves a kind of complicity. We agree to think and feel in terms of both the content and conventions of a mimetic context. In return, we gain a plethora of new possibilities for action and a kind of emotional guarantee. One reason why people are amenable to constraints is the desire to gain these benefits. (Laurel, 1993, p. 115)

Laurel (1993) likens engagement to the theatrical notion of the "willing suspension of disbelief."

To ensure that audiences enter into this state, it is essential for designers to allow users to "experience a mimetic world directly, without mediation or distraction" (Laurel,

1993, p. 116). This amounts to creating an interface that is usable, one where people can carry out tasks without being aware of the complex underlying processes that make those actions possible, where errors are reduced to zero, and actions are reversible.

The vehicle for ensuring that engagement is an effect of interacting with an interface is transparency. In *Windows and Mirrors*, Jay David Bolter and Diane Gromala note that the “myth of transparency” is a guiding principle of user interface design. As the authors explain it, the myth of transparency goes like this: “Before there were computers...People saw things as they really were...Objects were present to people; the rays of light reflected by objects entered their eyes undistorted by any intervening medium (other than the air itself). Today, a good computer interface gets the user as close to that original experience as possible” (Bolter and Gromala, 2005, p. 49). Accordingly, many designers operate from the standpoint that it is not only possible, but is also highly desirable for a technology to “disappear completely and put the viewer in touch with reality” (Bolter and Gromala, 2005, p. 52). Transparency is the result of the interface being an accurate representation of users’ mental model for the action(s) the interface supports. In other words, when an interface is transparent, the mental space between conceiving of an action and executing it successfully is seamless.

In much more philosophical terms, human-computer interaction (HCI) scholars Terry Winograd and Fernando Flores (1987) point out the fascinating link between Martin Heidegger’s phenomenological concepts of “readiness-to-hand,” “unreadiness-to-hand,” “present-at-hand,” and interface transparency by analogy. Heidegger explains that during the successful act of hammering, the hammer itself is ready-to-hand; it is not present to the hammerer as an object apart from the desired effect it has on the nail. The hammer reveals itself as an object—it becomes present-at-hand—only when the hammerer slips, when the



act of hammering breaks down and error is introduced. At this point, the hammer is no longer ready-to-hand, but is, as an object which caused an error, unready-to-hand.

Winograd and Flores (1987) write, "If we turn to computer systems...as I sit here typing a draft on a word processor, I am in the same situation as the hammerer...None of this equipment is present for me except when there is a breaking down. If a letter fails to appear on the screen, the keyboard may emerge with properties such as 'stuck keys'" (pp. 36-37). Of course, although transparency is an achievable goal in interface design, it ultimately remains a "myth" because graphic user interfaces (GUIs) are merely facades which mask underlying code. In sum, HCI scholars agree that there is not a "magical," *deus ex machina* formula for seeding an interface for engagement: it simply begins with the design of a space which is singularly usable and transparent to the user such that s/he is able to look beyond how the system operates and concentrate on using it for what it was designed to do.

One example of how engagement can be interrupted due to usability issues can be found on the professional social networking site *LinkedIn*. Not long ago, I logged in to my profile on the site to make some updates. The site asked me if I wanted it to comb through my *Gmail* contacts to see if any of those people were also on *LinkedIn*. I dutifully entered my *Gmail* password. The next screen showed a partial list of my *Gmail* contacts; all of the contacts were selected, and there was a button below the list that read "Send invitations."

A couple of things become important at this point. First, *Gmail* is not my primary mail client. Consequently, my "contacts" list is a mess; while I specifically entered a few contacts when I first created the account, I have not touched the list in years. I therefore have no idea how many people are part of my contact list. I was also not aware that all sorts of random people that I have sent messages to in the past could show up on the list.

Second, on *LinkedIn*, my contact list showed up as a scrolling layer within the larger page I was on. Critically, I did not notice the scroll bar within the layer. After unchecking a few people, I thought I was done examining the list for potential *LinkedIn* friends, and went ahead and clicked the “Send invitations” button.

As it turned out, there were 55 contacts below the scroll bar that I failed to notice, one of which was an entire listserv community with over 1,000 members. My *LinkedIn* invite went, unsolicited, to every single one of those people. The fallout from this was distressing to someone who is trying to build a reputation in the field. I quickly penned a *mea culpa* email to the listserv members, and while I received a number of good-natured responses, the whole experience was akin in its horrifying, embarrassing effect to clicking the “reply all” button on an email otherwise intended to be directed to a single person.

Networking with others is essentially the sole purpose for which *LinkedIn* was designed; therefore, of all possible functionalities, reaching out to others and adding them to one’s network should be one of the most transparent and seamless tasks to execute. The act of building one’s network should be the focus of engagement on the site. However, my experience and, anecdotally, the experience of others I have talked to has been that the site is more difficult to use than it should be. This is one instance in which engagement was interrupted due to interface opacity.

### *Agency*

Another ingredient that is necessary to create an interpellative *habitus* is agency. Laurel (1993) defines agency in a digital setting simply; it is a person’s “power to take action” (p. 117). Conditions for agency are established by building a “first-person experience” (Laurel, 1993, p. 116). This first-person experience is exigent because Laurel laments that “operating a computer program is all too often a second-person experience: A

person makes imperative statements (or pleas) to the system, and the *system* takes action, completely usurping the role of agency” (p. 116). Thus, if designers want users to become involved—that is, active agents—in the representational context that constitutes our interface, then Laurel suggests that an “integration of sensory modalities” (p. 117) is key to achieving that outcome. In this way, Laurel says designers can “present *experience* as opposed to *information* (p. 119). Thinking back to the state of the field described in Chapter 1, this is a hugely relevant call to action, given the focal movement away from “mere” functionality to a more stringent consideration of aesthetics and emotion, both of which are tied to holistic interpellative experiences and the construction of *habitus*.

Two types of interfaces can serve as exemplars for seeing to it that the experience of agency is a paramount component of interpellative interface design. The first is natural user interfaces (NUIs). Examples of this genre of user interface include Microsoft’s Surface, Dragon Naturally Speaking speech recognition software, and Xbox’s Kinect gaming console. These NUIs are so-called because they translate “natural” human actions—such as gestures and speech—into on-screen actions (Wigdor & Wixon, 2011). The goal of these interfaces (especially Dragon Naturally Speaking and Kinect) is to collapse the space between human and machine to nothing, such that the user quickly becomes an expert in manipulating the system’s controls; after all, s/he is only performing acts which come “naturally” in the real world to operate the system.

In the case of Kinect, there is actually no controller involved in interacting with the console. Users activate the system through familiar gestures and speech alone. Microsoft’s Surface platform is similar to touch-based interfaces such as Apple’s iPad, but Surface supports the added functionality of being able to recognize physical objects that are placed on top of it and reacting accordingly. A video on Surface’s website illustrates the platform

being used by a doctor to consult with a patient. The patient's ID card is placed on the table, and key personal details appear on-screen. The doctor scrolls through these and finds sonogram images, which he proceeds to enlarge and explain to his patient, eventually allowing her to "touch" the images and ask questions based on what she observes (Microsoft, 2011).

By design, NUIs are highly mimetic and strive to maintain representational integrity. As such, they serve as one case-in-point for Laurel's (1993) assertion that "direct, multisensory representations have the capacity to engage people intellectually as well as emotionally, to enhance the contextual aspects of information, and to encourage integrated, holistic responses" (p. 119).

Another category of user interfaces that leverage agency to drive engagement is digital learning games. Laurel and Marc Prensky (2001), author of *Digital Game-Based Learning*, agree that "learning through direct experience has, in many contexts, been demonstrated to be more effective and enjoyable than learning through 'information communicated as facts'" (Laurel, 1993, p. 119). Digital learning games, or edugames, are one type of "serious video game," but serious games span classifications. Indeed, they can deal with topics ranging from war and social justice (*September 12*)<sup>13</sup>, to cultural commentary

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<sup>13</sup> This game was designed to impart to players that the United States' strategy of going to war in the Middle East as a response to the terror attacks on September 11, 2001 is counterproductive. In the game, each time the player launches a missile and kills a terrorist, two civilians switch allegiance and become terrorists. There is therefore no possible way of "winning" the game (read: war) in this way. However, if the player idles long enough, the opposite occurs: two terrorists become peaceful citizens. The game can be played online here: <http://www.freeonlinegames.com/game/september-12.html>

(*McVideo Game*),<sup>14</sup> to advertising and environmentalism (Chevron's *Energyville*),<sup>15</sup> to scientific research (*Foldit*).<sup>16</sup>

While these games have been around for several years, another serious game has recently garnered attention by bringing the immersive effects of online gaming to a new domain: charitable giving. The game is called *SPENT*, and it challenges players to feel how difficult it is for someone living below the poverty level in the United States to make ends meet each month. The game was developed by McKinney advertising agency in partnership with North Carolina non-profit Urban Ministries of Durham (Sniderman, 2011).

The *SPENT* experience begins dramatically, with *Flash*-generated text zooming in and blurring out. "Over 14 million Americans are unemployed," it starts. "Now imagine you're one of them. Your savings are gone. You've lost your house. And you're down to your last \$1,000. Can you make it through the month?" (McKinney, 2011). Making it through the month means first and foremost getting a job. Players are given a limited amount of

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<sup>14</sup> A group opposed to McDonalds created this game to demonstrate the effects running the company has on the environment, working conditions in the restaurants, and relations with the countries in which raw materials for the food are cultivated. To progress in the game (read: to make money), players must partake in actions such as overworking employees, corrupting government officials to skirt laws and regulations, deforesting land, and bulldozing native villages. The game can be played online here: <http://www.mcvideogame.com/>

<sup>15</sup> The objective of this game is to make decisions about the types of energy used to power a modern industrial city. Players add to their "energy management score" based on the measurable economic, environmental, and security impact their energy choices have on the city. To be successful, players must pause to be educated in-game as to the different types of energy (biomass, coal, hydro, natural gas, nuclear, etc.), and the pros and cons of deploying each. The game can be played online here: <http://www.willyoujoinus.com/energyville/>

<sup>16</sup> In this game, which is in-part funded by a NSF grant, players contribute to the ongoing work of scientific discovery by working on puzzles which ask them to "fold" proteins. As reported in *Wired* magazine, "Players use the cursor to grab, bend, pull, and wiggle the chain of amino acids anywhere along its length, folding the protein into its optimum shape...The closer your model's properties adhere to those rules [of physics], the more points you get...Whoever cracks the hidden secrets of protein folding will push us that much closer to new antibiotics, cancer treatments, and biofuels" (Bohannon, 2009). The game can be accessed here: <http://fold.it>

choices—restaurant server, warehouse worker, or temp—and are presented with a small amount of information on each (hourly wage, special requirements, working hours). The most attractive of these jobs, the temp position, seems to be always already out of reach. Players must pass a typing test to land the position, but regardless of proficiency, the failing result is the same. The remaining jobs each come with a series of pitfalls: while working at a restaurant is relatively safe compared to the warehouse job, the pay is far more variable due to the reliance on tips.

Even with a job and the resolve to eke out a paycheck-to-paycheck existence, the game is relentless in its presentation of roadblocks and of the ways in which it forces players into dilemmas, or having to choose between two undesirable alternatives. For example, when I played I received a message about student loans (see Figure 3.2). It said, “Your college degree isn’t helping you right now, but you still have to pay your student loans. You just got a bill for \$250. What do you want to do?” (McKinney, 2011) The only options are to pay the money in full, or to ignore the invoice.

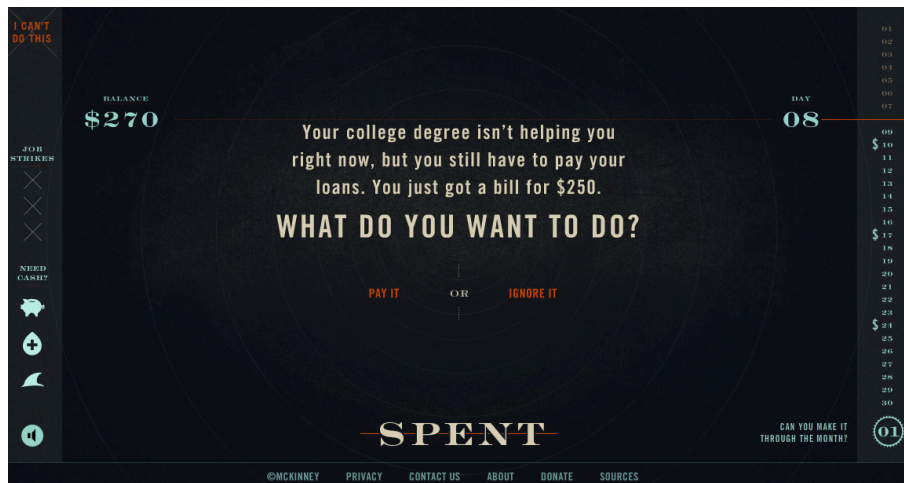


Figure 3.2: *SPENT* informs players they owe nearly more money than they currently possess (McKinney, 2011)

After each choice, the game displays a “Result” bubble that educates the player on the consequences of their decision, as well as extends a general factoid about the situation at large. When I decided to opt in to the health insurance, for example, I received the result bubble shown in Figure 3.3. It reads, “Well, now you’ve got health insurance, but you’ve also reduced your weekly paycheck by almost \$70. Even when health insurance is offered, many low-income workers often opt out because they can’t afford the high premiums” (McKinney, 2011). These factoids increase the likelihood of the player feeling empathy for those who actually find themselves in such a situation.

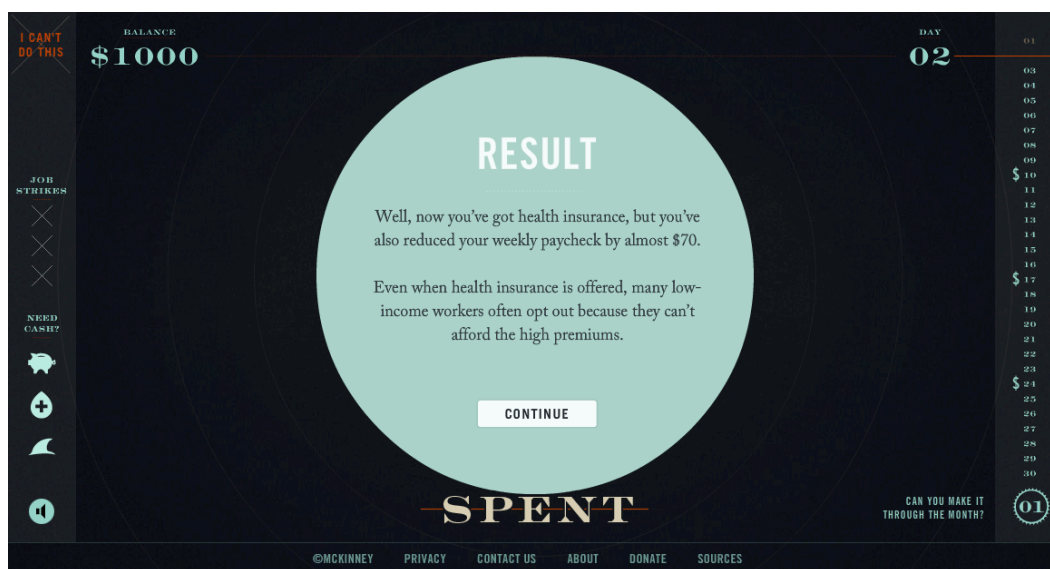
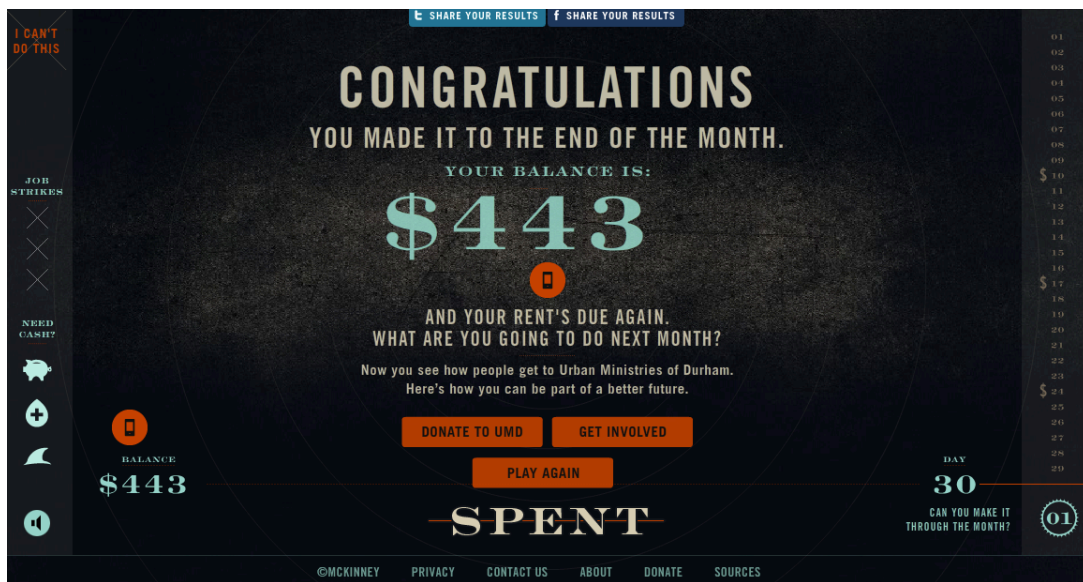


Figure 3.3: A "result bubble" in *SPENT* educates players on the effects of opting-in to health insurance (McKinney, 2011)

The game made its most lasting impact on me when I “won.” After selling the majority of my possessions due to my apartment’s limited square footage, committing a hit and run because I could not afford to pay the other driver’s damages, euthanizing my pet,

having my cell phone disconnected, applying for food stamps and being told the benefits start “next month,” making only minimum credit card payments (resulting in a balance that will last 17 years), and repeatedly having to choose between my kids’ future (one is “gifted”, but can I afford to put them in a program that costs \$50 to help them excel?) and daily necessities (my sink leaks, and it is \$150 to hire a plumber), I was informed that I made it to the end of the month. However, there was a reality check. As shown in Figure 3.4, I have a balance of \$443 in the bank, but rent is due. Rent for the place I selected at the start of the game was \$805.



**Figure 3.4: The result of "winning" *SPENT* is the realization that another difficult month looms (McKinney, 2011)**

By pairing an intuitive, usable interface with a complex negotiation of agency (players are free to make choices; however, the choices are always between two tough alternatives), *SPENT* interpellates players into a place of learned helplessness and, at times, moral agnosticism (I saw someone drop a \$10 bill. Do I return it to them? Someone sent my



kid \$20 for her birthday. Do I give her the card?). Yet, because it is a dramatic game which leverages the willing suspension of disbelief, it is also able to step back from itself at times and educate the player on the real world stakes.

In the comments under *Mashable's* article on the game, one of the game's designers, Nick Jones, calls out a series of emotions he and the design team hoped to enact in the minds of the users who play the game. He says, "I'm hopeful that the people who see [SPENT] will feel something. Empathy, anger, frustration...anything. Making it taught us a lot and made me view the short distance from my office chair to the shelter gates in a whole new light" (Sniderman, 2011, para. 24). Jones would be pleased to hear that my reaction mapped to his intentions.

The match between what the designers intended users to feel and the emotions actually felt during and after the game make *SPENT* a successful interpellative interface on that point. The authenticity of the scenarios relative to the phenomenology of homelessness is crucial to creating a believable experience in this case. The design team appears to have done their homework: many comments under the article unveiling the game support this fact (Sniderman, 2011). As a case in point, GERALYN MOTT, a commentator on the *Mashable* article, validates the *ethos* of *SPENT's habitus*. S/he writes, "I've been homeless and I played this game for about 5 minute [sic]...made me waaaay to [sic] anxious to 'be there' again. But I applaud you for creating something to help people imagine what it is like. Just still hits too close for me" (Sniderman, 2011, para. 16). I maintain that the interpellative effect is achieved because the designers created an authentic *habitus* in relation to the lifestyle the game was intended to portray.

As another step in examining *SPENT* in relation to interpellative design, the interpellative process model that was delineated in Chapter 2 will be used as a heuristic for

analyzing the game’s particulars. First, *SPENT* has two **attention-getting** tactics. Potential players are immediately hailed when they land on the game’s homepage. As shown in Figure 3.5, the hail exploits potential players’ feeling of agency—of having control over their circumstances.

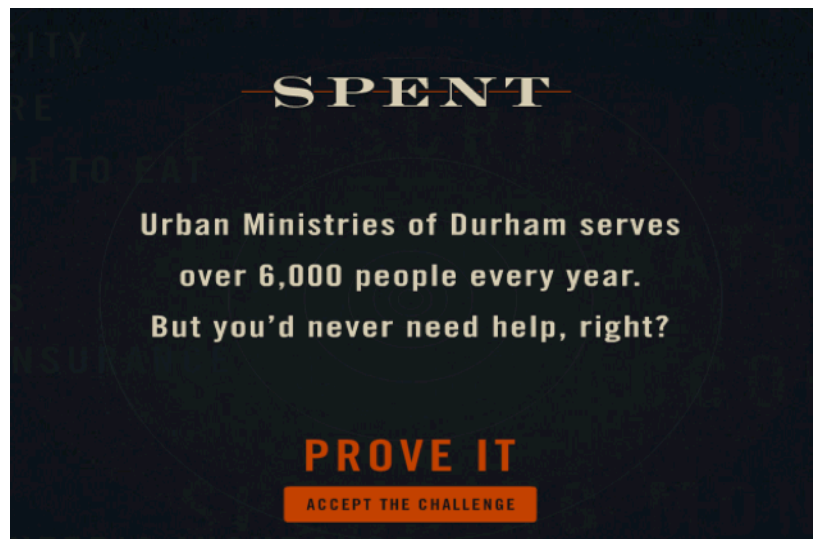


Figure 3.5: *SPENT* interpellates players through the initial challenge (McKinney, 2011)

Indeed, endowed with such agency, the player does believe they *won't* need help. As if sensing in users' this self-satisfied feeling of control, the game then calls on the player to "prove it." *SPENT* keeps players attention in the transition it uses from the initial hail to the game interface itself. As mentioned above, after the player clicks "accept the challenge", a series of *Flash*-based text establishes the game's *habitus* by setting the stage. It matter-of-factly informs the player that they are now one of the 14 million unemployed Americans who struggle just to live each month. In this way, the game overlays attention with allowing the player to clearly **recognize** the social role they are to adopt while playing.

The degree to which users **identify** with this role varies based on players' frame of reference. Based on the comments under the *Mashable* article, anyone who has ever been strapped for cash experienced a strong connection with the game's *habitus*, which in turn made them feel the emotions the designers desired. One woman's comment here is representative. She said, "I've been faced with many of these choices before, and I will tell you that the game is as real as it gets...It's not bad luck. It's LIFE. It's the decisions you face when money is scarce. I thought it was a beautiful game." (Sniderman, 2011, para. 34).

The **desire** to exist in the game's *habitus* operates on several levels. First, players enter into the social role defined for them based on their willing acceptance of the challenge presented to them on *SPENT's* homepage. The extent to which they identify with the scenarios presented to them in-game dictates whether they will keep playing. At every turn, a button labeled "I can't do this" beckons at the top left corner of the screen.<sup>17</sup> This button is likely used by the extremes of users. It is either clicked by people who exist entirely *outside* of the game's *habitus*, who have zero personal experience related to the game scenarios, or people like Geralyn Mott, who live so perfectly *within* the game's *habitus* that it is literally too much to bear to keep playing. Indeed, as Sniderman (2011) acknowledges, the design challenge was to traverse "a fine line with tone. Non-profits constantly have to balance bumming out their audience with important facts and stats, and motivating that same audience to then donate or become engaged. *SPENT* seamlessly blends that information into the game" (para. 5). Thus, the designers seem to have successfully hailed the middle-of-the-road users who would be most likely to play the game to its conclusion. But the game's

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<sup>17</sup> The button is also an example of the "libertarian" aspect of the interface (Cass & Sunstein, 2009). Although it is clearly advocating for a certain type of behavioral outcome (i.e. a donation), the interface nonetheless offers a distinct exit, and keeps the consequences of opting-out minimal.

designers have a larger agenda than simply getting people to experience how difficult it is to meet one's financial, familial, and vocational obligations when money is tight. They ultimately desire users to act on the feeling of empathy brought about by playing the game and donate either their time or money to Urban Ministries of Durham.

Like desire, the **security** aspect of interpellative design also manifests complexly in *SPENT*. In its simplest form, security is a usability feature: it describes that measure of confidence users exude as they click through a stream of links on their way to a desired location or task outcome. More specifically, it is the product of being able to predict outcomes based on if/then logic. For example, if I click the link labeled "I can't do this," then I might be taken away from the game, possibly to Urban Ministries of Durham's website<sup>18</sup>.

On an extremely easy-to-use interface like *SPENT*'s, with a limited amount of links and a linear progression through time (measured in days of a month), the interpellative element of security is able to take on relevance related to the social role the player inhabits while moving through the game. Actually, the game works as well as it does because it *withholds* security. At no time do players ever feel like they can let their guard down. Yet, this lack of security is purposeful because it is mimetic: the player cannot experience the feeling of security because it is not part of the homeless phenomenology, or lived experience. Consequently, to include security as part of the social role the player adopts would be to endanger the authenticity of the game's *habitus*.

Finally, *SPENT*'s efficacy at getting users to **perform predictable behaviors** has, in part, already been determined. As evidenced in the comments posted about the game, users

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<sup>18</sup> This is, in fact, close to what actually happens. Once pressed, users are presented with a message that reads, "This is just too hard, isn't it? No wonder so many people find themselves overwhelmed and seeking to escape. Now you see how people get to Urban Ministries of Durham. Here's how you can be part of a better future." Below the message are three links, one to "Donate to UMD," another to "Get involved," and the last to "Play again."

do appear to feel the emotions the designers hoped they would feel. While this unto itself is a great success metric, the larger question of whether these emotions will translate into monetary donations for Urban Ministries of Durham remains to be answered. As of the writing of this chapter, *SPENT* has been live for only a few weeks; time will tell.

### *Catharsis*

*SPENT* comes to a stunning end because of catharsis. Laurel looks to Aristotle (2001) for a definition of catharsis. She writes that it is “the pleasurable release of emotion” following dramatic action (Laurel, 1993, p. 121). As a caveat, she notes that the particular emotion felt does not necessarily have to be one related to happiness; it is the release of *any* emotion that is pleasurable unto itself (Laurel, 1993). Laurel (1993) further claims that “one of the primary values” of representational contexts is their special capacity to create conditions for “emotional arousal and release” (p. 121).

In keeping with the complex aspects of the other interpellative aspects of *SPENT* as described above, the cathartic moment, too, is multifarious. The initial feeling of relief that results from having triumphed over the month is almost immediately replaced with a feeling of horror: “Your rent is due again” (McKinney, 2011). Your stomach bottoms out at about the same time the relief floods back—it is just a game. Yet, this emotion too is complicated: *For you* it is just a game. This awareness engenders feelings of (perhaps) guilt and (more likely) empathy. As Nick Jones mentioned, the design team hoped that these feelings would occur and that donations to UMD would be the result (Sniderman, 2011).

To come to fruition, potentially cathartic moments rely on the other two ingredients of dramatic action. Laurel (1993) explains that catharsis “depends upon our uninterrupted experience of *engagement* with the representation. More than that, it is the pleasure that results from the *completion of a form* (p. 122, emphases mine). It is thus imperative that

interpellative designs maintain interface transparency (a key vehicle driving engagement) *and* equip users with the agency needed to connect the constellation of dots that, when interpreted together, give the experience meaning.

Although it is a task-based interface in terms of its functional capabilities, *SPENT* achieves its emotional effects because it tells a story. As Steven Denning (2004), John Seeley Brown et al. (2004) and the Heath brothers (2007) attest, stories are a great tool for creating conditions for interpellation. This is because people look for hooks that they can latch onto in order to find their *habitus* or place in the world.

A good story opens visualization gaps whereby listeners can write themselves in to the unfolding narrative in a way which makes them want to participate in the action (Denning, 2004; Heath & Heath, 2007). In effect, this means that narrative communication is a two-way transaction between the text and the reader. Regarding this, literary theorist Wolfgang Iser (1978) writes,

This 'transfer' of text to reader is often regarded as being brought about solely by the text. Any successful transfer, however—though initiated by the text—depends on the extent to which this text can activate the individual reader's faculties of perceiving and processing. Although the text may well incorporate the social norms and values of its possible readers, its function is not merely to present such data, but, in fact, to use them in order to secure its uptake. In other words, it offers guidance as to what is to be produced, and therefore cannot itself be the product. (p. 107)

In this passage from *The Act of Reading*, Iser (1978) makes several claims that are relevant to interpellative design. The first is that texts make use of "social norms and values" which must be recognized by the reader "in order to secure its uptake." In other

words, readers must be able to recognize and identify with the *habitus* the text establishes through its use of (among other things) references to social capital. This also relates back to the structuralist belief in the recognition of social and linguistic cues as being key to successful communicative acts.

The second claim Iser (1978) makes is that the text itself is not the product. The product is actually the meaning made in the audience's mind from the given textual structures. "The process of assembling the meaning of the text is not a private one," Iser goes on, "for although it does mobilize the subjective disposition of the reader, it does not lead to day-dreaming but to the fulfillment of conditions that have already been structured in the text" (Iser, 1978, pp. 49-50). The degree to which these codes are perceived and assimilated into the picture formed in the reader's mind depends on the salience of those codes for a particular reader—whether or not they resonate with the reader's *habitus*.

In this vein, Walter Ong's (1975) work on "audience invoked" is helpful inasmuch as it challenges designer/authors to settle the question: in what credible role can I ask my readers to cast themselves? This question has direct bearing on interpellative design inasmuch as the credibility of a role depends on how well it aligns with the audience's existing *habitus*.

Although *SPENT* does not contain an explicit narrative, the player progressively constructs one—this activity is the "completion of the form" Laurel (1993) mentions—as events in the game evolve over the course of time. Because the narrative created in the mind of the player is necessarily larger than the game itself, the end of the game is not the ultimate end point: rather, a donation or other type of involvement with the problem of homelessness is. While there is no way to guarantee that philanthropic actions will be the end result in every case (the libertarian aspect of the interpellative "nudge" will not allow

such a mandate to stand), *SPENT* does its best to increase the likelihood of actualizing these goals through its use of engagement, agency, and catharsis.<sup>19</sup>

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<sup>19</sup> At this point, those in the usability community may be wondering about my conflation of (literary) audience with (interface) user. Some people may even be uncomfortable, contending that the terms should not be treated as synonymous with one another for reasons such as “the user is a real person, while audiences are imagined,” or “users actively engage in tasks, while audiences are inherently passive receivers.” Despite these objections, equating users with audience is not a move without precedent. Robert Johnson (1998) uses the same tactic to advance his “rhetorical theory for computers and other mundane artifacts.”

To explain the movement from systems-centered approaches to technical communication to user-centered ones, the “mundane artifact” under study is technical instructions. Johnson (1998) notes that “the fundamental end of usable documentation [is] the use of technology by users” (p. 118). Thus, in the case of instructions, audience and user are one: the same person who uses the instructions will (presumably) go on to use the technology documented in and by the instructions. If the technology and its documentation are to be truly user-centered, then attention must be paid to the situated nature of the user/audience—their needs, tasks, and context(s) of use. In other words, the documentation’s audience does not simply receive the information imparted therein; they use it to complete tasks, effectively making them users of a (textual) interface.

Johnson’s (1998) contention, which I agree with, is that the separation of user from audience is rooted in a fundamentally systems-centered approach to technology, one in which “the user is relegated to the position of a one-way receiver who has little knowledge of the technology itself or how the technological system might be refigured through an active negotiation of designers, producers, and users” (p. 119). As I have shown, interaction with textual interfaces such as stories is fundamentally a two-way proposition: an author/designer embeds structural cues, and the audience/user actively engages these cues in order to write themselves into the narrative and to situate themselves in relation to it by means of a subject position.

With due respect to Johnson’s (1998) instructions example, it should not be thought that user and audience are synonymous only under circumstances in which the text is a technical document. To further theorize the congruence between audience and user, consider Louise Rosenblatt’s (1994) concept of “transactional” reading. She explains, “‘Efferent’ reading refers to what the reader ‘carries away’ from the reading event (information, facts, solutions, required actions)” (Rosenblatt, 1994, p. 32). The tasks that arise from reading a technical document may be thought of as the results of efferent reading, and these tasks can be linked to the reader-as-user.

But there is another component of reading, one that can happen with the same reader, interacting with the same text: “‘Aesthetic’ reading refers to the feelings, attitudes, and ideas aroused in the reader during the actual reading” (Rosenblatt, 1994 p. 33). Here, the critical attitude one takes in relation to the technical document (e.g. “these directions are hard to understand”) can be thought of as being the result of aesthetic reading, and this type of reading might be associated with the reader-as-audience, one who does not necessarily carry out an action(able task), but one who nevertheless has participated in a two-way negotiation with the text in order to extricate meaning.

Rosenblatt contends, “The final result that transactional literary theory intends...is not so much to understand the completeness of a book as to understand the completeness of the reader” (Rosenblatt, 1994 p. 76). Indeed, this holistic view of reader, audience, and user means that when authors fail to consider their readers, they fall into the same trap as designers who ignore users. User-centered design methods, as the conclusion of Schriver’s (1996) drug brochure study discussed in Chapter 2 showed, can be used by writers just as they are used by systems designers to ensure that an interface’s purpose and message are not lost on the audience.



### *Procedural Rhetoric*

Laurel's (1993) ingredients for the creation of dramatic computer systems end with catharsis. However, I believe at least one other key element is operational in the design of *habitus* as the staging ground for interpellative designs. In her early treatise on the construction of digital narratives, former IBM software developer and MIT professor Janet Murray (1997) identifies *procedurality* as one of the "essential properties of digital environments" (p. 71). This quality of operation based on rule-generated behavior (i.e. computer code) is closely tied to another essential property Murray identifies: she notes that digital environments are participatory. Murray (1997) writes, "Procedural environments are appealing to us not just because they exhibit rule-generated behavior but because we can induce the behavior. They are responsive to our input...When we say that computers are *interactive*[,] we mean they create an environment that is both procedural and participatory" (p. 74).

Here is a clear link between procedurality and agency. Although the two terms appear to be oxymorons—users might wonder how they can have any real control in an environment that is hard coded to respond only in certain ways—it is the case today that most people voluntarily use web interfaces only to the extent that those interfaces meet their needs and allow them to complete their tasks. This is the first commandment (so to speak) of usability: if users do not like or cannot use a site, they will leave (Nielsen, 1999). In most cases, they have that prerogative. It is therefore advisable to build a site that leverages engagement, agency, and catharsis to encourage users to stay a while. Moreover, when people do use a site, they inevitably discover ways to appropriate it other than those that were specifically intended. Such occurrences are commonly known as "hacks," and not all hacks work by changing the original code: some work squarely within it, as is the case

with Google search tricks and the little-known *YouTube* downloading shortcut which works by adding the word “kick” just before “youtube” in the desired video’s URL. Thus, even within a procedural framework, it is certainly possible to retain agency.

Picking up on and extending the purposes of procedurality in digital environments is Murray’s colleague at the Georgia Institute of Technology, Ian Bogost. Bogost (2007) coined the term “procedural rhetoric” to describe “the art of persuasion through rule-based representations and interactions” (p. ix). He further explains that arguments which utilize procedural rhetoric “are made not through the construction of words or images, but through the authorship of rules of behavior...In computation, those rules are authored in code, through the practice of programming” (Bogost, 2007, p. 29). Bogost focuses on a selection of computer games to describe how procedural rhetoric works. Becoming conscious of a game’s procedural rhetoric is a form of “critical play” (Flanagan, 2009) that enables a player to apprehend a game’s argument through sustained involvement with its interface. This involvement paves the way for consideration of the mimesis (or subversion) between representations in the game and their real life referents, and what that particular method of representation might mean rhetorically.

A question that deals with procedural rhetoric might sound something like this: What do the designers want me to understand about myself, the world, the subject of this game, etc. based on how the processes are transpiring and what I am allowed (and not allowed) to do? Bogost (2007) argues that persuasive video games are such because their procedural rhetoric takes the form of “a system of nested enthymemes, individual procedural claims that the player literally completes through interaction” (p. 43). Like Laurel, Bogost looks to Aristotle (2001) to define a key term. Bogost describes an enthymeme as “the technique in which a proposition in a syllogism is omitted; the listener

(in the case of oratory) is expected to fill in the missing proposition and complete the claim” (Bogost, 2007, p. 43).

Let us return to *SPENT* to make these observations more concrete. The procedural rhetoric driving *SPENT* mainly lies in the dilemmas it creates through its scenario-based interface. More often than not, players can only choose one of two tough options. In cases when there appear to be more options, such as at the grocery store and in the selection of a place to live, the omnipresent contingency factor of the player’s bank account balance effectively limits even these choices. The enthymeme that sticks with the player is the one that s/he completes upon “winning” the game at month’s end and being told that rent is now due. The syllogism might go like this:

Major premise: Every bill that is due costs money.

Minor premise: Rent is a bill that is due.

Conclusion: Rent will cost money.

Playing the game allows the major premise of the syllogism to become abundantly clear; nearly every action is a choice of which bill to pay. The culmination of the game supplies the minor premise, leaving the player to experience the cathartic emotions associated with filling in the conclusion which logically follows. The interactive “completion of the form,” (Laurel, 1993) and the associated emotions it engenders should result in players being further or re-interpellated into the social role the game initially defined for them.

*SPENT*’s procedural rhetoric also functions on a temporal level, insomuch as players are not allowed to rest. The rule-driven code dictates that immediately after a “solution” to one scenario is reached, players will be presented with another, and another, and another, until they either run out of money or the month ends. This representation of impoverished living is mimetic in relation to the *habitus* it is designed to exhibit.

Thus, there is a direct relationship between procedural rhetoric and *habitus*. For another model of this, we can return to Murray (1997) and the example she cites: *Zork*, the first interactive fiction computer game which dates from the late 1970s. Murray elucidates,

The lesson of *Zork* is that...the *Dungeons and Dragons* [D&D] adventure format provided an appropriate repertoire of actions that players could be expected to know before they entered the program. *The fantasy environment provided the interactor with a familiar role and made it possible for the programmers to anticipate the interactor's behaviors*. By using these literary and gaming conventions to constrain the players' behaviors to a dramatically appropriate but limited set of commands, the designers could focus their inventive powers on making the virtual world as responsive as possible to every possible combination of these commands. (Murray, 1997, p. 79, emphasis mine)

*Zork* secured its place in the hearts of its audience because it successfully recreated the *habitus* evoked by playing the physical D&D board game in digital space. *Zork's* creators were in the enviable position of occupying the same *habitus* as their target audience, which made the work of behavior anticipation and role creation a relatively simple matter of introspection. Engagement was achieved by these means: the role players were interpellated into was "familiar," and the behaviors associated with this role were conventional within the context of the established D&D *habitus*. In addition, the fact that the game was a story made the inclusion of cathartic moments a consequence of the natural ebb and flow of the narrative structure.

Video games are obvious conduits for procedurality, bound as they are not only to the computer code that allows them to run, but also to the specific logic of what it means to

“play.” Johan Huizinga, a cultural historian, has been influential in the field of serious game studies due to his efforts in legitimizing play as a cultural phenomenon. As part of this undertaking, Huizinga (1971) details six main characteristics of play, two of which directly relate to procedurality. First, he posits that play is spatially secluded and temporally limited. He writes, “Play begins, and then at a certain moment it is ‘over’. It plays itself to an end” (Huizinga, 1971, p. 9). Second, he argues that play does not simply create order; it is order. “All play has its rules,” he notes. “They determine what ‘holds’ in the temporary world circumscribed by play...Indeed, as soon as the rules are transgressed the whole play-world collapses. The game is over” (Huizinga, 1971, p. 10). The act of play thus has a specific structure, which is actually similar to that of drama as explained by Aristotle (2001): it has a beginning, middle, and end. Play, like computer code, is also procedural due to the fact that players must follow rules.<sup>20</sup> In terms of interpellation, all play is interpellative. Its

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<sup>20</sup> Deviation from rules can result in the end of the intended game and/or the creation of a new game. Invention as a result of rule-violation can be seen in the case of “mods” and other “interventions,” which are often parodies of, or otherwise critical commentaries on, the original game. One example of this is the *Velvet-Strike* mod for *Counter-Strike*, the latter itself being a mod of *Half-Life* (Clarke & Mitchell, 2007). As explained in *Video Games and Art*, “*Velvet-Strike* was conceived during the beginning of Bush’s War on Terrorism as an anti-war protest...*Velvet-Strike*—the team, make anti-way images available for download on their website, encouraging players to spray these on the walls of their networked *Counter-Strike* games. These images, submitted by the public...provid[e] players an opportunity to indulge their desire for violent game play whilst reaffirming their desire for world peace” (Clarke & Mitchell, 2007, pp. 41-42).

There is, in fact, a movement within the field of serious gaming to radically reconceive of game design such that these revisionist activities are more often brought to the fore. Mary Flanagan (2009) has been one evangelist of this endeavor. In *Critical Play*, she remarks, “Criticality in play can be fostered in order to question an aspect of a game’s ‘content,’ or an aspect of a play scenario’s function that might otherwise be considered a given or necessity. Those using critical play as an approach might create a platform of rules by which to examine a specific issue...Critical play is characterized by a careful examination of social, cultural, political, or even personal themes that function as alternates to popular play spaces” (Flanagan, 2009, p. 6). One example of the type of play Flanagan endorses is the board game *Anti-Monopoly*, in which players take on either the role of “competitor” or “monopolist.” The meta-object of the game is to showcase to players the fact that a free market economy is preferable to an economy governed by powerful monopolies (Flanagan, 2009).

procedurality hails players into roles established by the game's rules. When these rules are broken, so is the game's *habitus*, and, consequently, its specific interpellative power.

### ***Habitus in World of Warcraft***

One of the premier examples of a game that utilizes procedural rhetoric, along with all of the other ingredients for building a rich *habitus* that have been described in this chapter, is *World of Warcraft (WoW)*. *WoW* is a massively multiplayer online game (MMO).<sup>21</sup>

Initially released in 2004 by Blizzard Entertainment, it has since seen three expansions. The most recent expansion, *Cataclysm*, exploded on the market in December of 2010, setting a one-month sales record of 4.7 million copies (Blizzard, 2011). Astonishingly, 3.3 million of those copies were sold in the first hour *Cataclysm* was available (Blizzard, 2010). While these figures may be staggering, they are hardly surprising; *WoW* boasts a worldwide subscriber base of 12 million users (Mastrapa & Rignall, 2011). It is to MMOs what Google is to search engines: a best in class experience. The popularity of the game is somewhat humorously evidenced by the addition of "World of Warcraft" to the *Urban Dictionary* in 2006.<sup>22</sup> With such a massive, multicultural appeal, it is worth taking a look at

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<sup>21</sup> For those unfamiliar with the particulars, Mastrapa & Rignall (2011) offer a handy summary of the game: "*World of Warcraft* is an online fantasy game whose player base is split into two warring factions. Players build and customize their character from the game's roster of 12 races and 10 roles. Character development is typical RPG [role-playing game] fare—run around the huge gaming world completing quests to gain experience, which helps the character become bigger and more powerful. On the way they learn new spells, get better weapons and armor, and over time become increasingly more sophisticated to play. Reach a high enough level and the character can enter dungeons and even more complex raid dungeons—where epic loot and other fabulous rewards await" (p. 44).

<sup>22</sup> There is official dispute over the percentage of users who are clinically "addicted" to the game. *Ars Technica*, an online news and analysis site, reported in 2006 that a Dr. Maressa Orzack, founder of the Computer Addiction Service, was circulating a study that claimed up to 40% of *WoW* users were addicted. However, Dr. Orzack's methodology was called into question when it was revealed that the figure came from fellow researcher Nick Ye, who runs a *WoW* forum called The Daedalus Project. Dr. Orzack was unable to provide more rigorous information pertaining to her methodology, and even backpedaled, noting that "'even if the percentage is 5 to 10 percent which is standard for most addictive behaviors, it is a huge number of people who are out of control'" (Reimer, 2006).

the “world” or *habitus* of *WoW*, and to consider from an interpellative design perspective how game is able to consistently create a high level of engagement.

Like its ancestor *Zork*, *WoW* is framed around an adventure role-playing game format. The familiarity of this configuration affords players who recognize and identify with that *habitus* a clean lead-in to its narrative structure, the social roles available for them to inhabit while playing, and the actions they can undertake as part of the performance of the behaviors associated with the role(s). Taken together, these elements work to define the mythology of the game that unfolds as players assimilate ever deeper into its *habitus*.

In his book on building lasting online communities, Howard highlights the connection between belonging, mythology, and community. He states, “Belonging is created in a community through shared mythologies, shared stories of origin, shared symbols, and the cultural codes embedded in those symbols” (Howard, 2010b, p. 130). One concrete way *WoW* signals to players the mythological nature of its *habitus* is through intertextuality. Tanya Krzywinska, a contributor to the *WoW* reader, *Digital Culture, Play, and Identity*, argues:

[T]he presence of multiple and deliberately planted intertexts encourages a certain type of depth of engagement with the game...A fan’s enthusiasm for a given text or franchise is marked by a broad knowledge of a text’s generic resonances and narrative intricacies. [Roz] Kaveney claims that such texts can be regarded as a “geek aesthetic.” (Krzywinska, 2008, p. 124)

Here, *WoW’s* *habitus* or lifestyle is given a name. To possess “geek aesthetic” is to be privy to the particular brand of pop culture references that are peppered throughout the game. Recognition of these references acts as a conduit for the two-way nature of narrative that Iser (1978) theorized, and thus creates a symbolic “participatory” (Murray, 1997) activity

that can be emotionally rewarding for the player. A few examples of some of the pop culture allusions in the game include “the Champion of the Horde, who is called Rexxar (the name of Thulsa Doom’s henchman in the 1982 movie *Conan the Barbarian*). There are also some references to widely known fairy tales (the Wolf and Red Riding Hood in the Opera House event in Kharazhan) and to other games (the barrels dropped by the large apes in Un’goro Crater, for example, refer to Nintendo’s *Donkey Kong*” (Krzywinska, 2008, p. 128).

More specifically, a player’s recognition of these and other homages to the geek aesthetic serve at least two purposes. First, as Krzywinska (2008) points out, they “may function to demonstrate to players that the game authors share similar knowledge sets and tastes” (p. 124). The symbiotic interplay between taste and *habitus* is conceptually highlighted here. Thinking back to Schriver’s (1996) study on the usability of anti-drug brochures from Chapter 2, and remembering how terribly many of the documents failed to positively capture the attention of their teenage audience members, we can see how important it is for users to feel a taste-connection with the designers of an interface. Whether this connection is real or not (in other words, whether or not *WoW*’s designers actually occupy the same geek aesthetic *habitus* as the game’s players), it is nevertheless critical to create the illusion of that connection by deeply analyzing the audience one is designing for and determining how best to reach them based on that research.

The second, related, purpose that recognition of geek aesthetic artifacts serves is to further interpellate players into the gameworld and their role within it. Krzywinska (2008) comments that “the mythological and magical/supernatural...provide a symbolic language, constituting a sense for the player of being in a world” (Krzywinska, 2008, p. 138). This sense of “being in a world,” which is precisely *habitus*, is fostered by the player’s



engagement with the geek aesthetic, and this engagement is integral to catalyzing feelings of belonging to the game's community.

The pop culture references are not the only manifestation of geek aesthetic that has such bearing on *WoW's habitus*. The player's character is, too. In fact, the activity of choosing an avatar is a critical interpellative moment in terms of *habitus*, mythology, and the sense belonging. A personal story here will be illustrative. In my brief foray into the game, I was part of the Alliance. The visual and textual rhetorics displayed for each character were factorial in my character choice. Figure 3.6 shows the character selection screen for a male Tauren (race) Shaman (role).



Figure 3.6: *World of Warcraft's* avatar selection screen (Blizzard Entertainment, 2011)

As I clicked through the character types, the background setting changed dramatically. The Undead reminded me of a B-grade horror flick, with its dark, foggy background and waifish being with glowing yellow eyes. The Troll occupied an apocalyptic setting, full of black smoke from burning orange and red fire. Neither of these resonated with my taste, so I did not choose them. To the right of the characters are textual stories, explaining the rise and fall of the race and their powers. There are also descriptions of each character's occupation (warrior, hunter, rogue, shaman, etc.). As I clicked through the occupations, the character's garments updated accordingly such that, for example, mages and other spiritual/magically endowed characters always wore long robes or garments, while warriors were more spartanly adorned to show off their physique. Based on the presence of on-screen as well as supplementary information about races and roles that can be accessed in *WoW* forums all over the Internet,<sup>23</sup> it was clear to me that Blizzard's design team accounted for the different player types Richard Bartle (2005) delineated: achievers, explorers, socializers, and killers.

Not only does *WoW* allow users to choose who they would like to be and what they would prefer to do, but it also affords a way to select with whom they would like to associate—other RPG-ers, or player-versus-players (PVP-ers). For instance, two “socializer” player types might join the game within a role-playing, non-PVP realm as a Tauren and an Orc, given these two race's peaceful ways and history of working together. In keeping with their pacifist *habitus*, they each might then select to be a shaman, since the description for that job reads, “Their combination of wisdom and resilience makes them ideal as tribal advisors or leaders.” By weighing all of the information at hand, new players consider the strengths, weaknesses, and mythology of their potential avatar, and ultimately make a

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<sup>23</sup> WoWWiki is probably the best known and most respected of these user-maintained spaces. It can be accessed here: <http://www.wowwiki.com/Portal:Main>.

judgment about the company they wish to keep—the community to which they hope to belong. Their decision is interpellative, for upon choosing an avatar “the player character is assigned a particular, predetermined, morally and emotionally loaded history and identity. As with the real world, the player character is born into this symbolic/mythological order, the game’s lore, and its concomitant subject positions, even as players bring their own histories, interests, and goals with them” (Krzywinska, 2008, pp. 137-38). This reads eerily similar to Althusser’s (1971a) description of the interpellative moment.

If the geek aesthetic constitutes the emotional side of *WoW’s habitus* (it allows players to feel a sense of belonging), then the hero quest story structure forms a basis for the behavioral side of *WoW’s habitus*. As is well known, the quest structure features an agent (the hero) who embarks on a (typically long) journey through (often exotic) lands in order to achieve a (seemingly impossible) goal. Along the way, the hero/agent is faced with trials that require them to overcome obstacles as a measure of their stalwartness. Like the *Dungeons and Dragons* framework *Zork* leveraged, the quest story provides *WoW* players with a ready-made meta-role of hero, as well as a known method of progressing through the game via this narrative structure. Players familiar with the RPG format will know, for example, that they need to find “quest givers” to give them tasks to complete that will result in increasing their avatar’s various metrics and ultimately level them up. The consistent “syntax” of quests—“quest-giver, background story, objectives, rewards” (Rettberg, 2008, p. 168)—not only lends a sense of purpose to players, but also educates them on the game’s lore and, if they were not already aware, yields them access to stories from the geek aesthetic. These qualities have the effect of immersing players in the gameworld.

It can be said, then, that the quest story structure is procedural. The demonstration of procedurality begins immediately after players decide on a character, a role, and a name,

and find themselves thrust into the gamespace. The graphical user interface (GUI) demonstrates that the designers did little to limit the rules or interactions within the game so as not to alienate any of the various player types mentioned by Bartle (2005). Thus, the game is not too player focused (it does not offer “communication commands and precious little else” (Bartle, 2005, p. 764)); it is not too world focused (it is not “so big and awkward to traverse that no-one [sic] ever meets anyone in it” (Bartle, 2005, p. 764)); and it is not too socialization focused (it does not force players down a “narrow or predetermined development path” where players are entertained by the action rather than participants in it (Bartle, 2005, p. 765)). Figure 3.7 is a screenshot of *WoW*'s interface, as it appeared when I began playing.



Figure 3.7: Procedural options available in *World of Warcraft* (Blizzard Entertainment, 2008)

Figure 3.7 illustrates the some of the actions allowed by *WoW*'s rules. My avatar, Keygan, can choose to roam alone or to join a group by clicking the "Look for Group" button on the left side of the screen. Keygan can also do some exploring if the nearly black map in the top right corner of the screen bothers her. Additionally, given her dearth of armor, weaponry, and items to sell (evidenced by the grayed-out areas of the Character window as well as her empty backpack), she can take on some quests or kill some weak beasts in the forest if she desires to augment her inventory and gain experience points. Actually, *all* of these actions are required to make meaningful progress in the game, but the *order* of these decisions is not strictly mandated. Using these and other GUI-level affordances, *WoW*'s designers make use of procedurality to build rhetorical arguments into the game's code that interpellate players into subject positions that transcend those set forth in the mythology surrounding their avatar and the game's geek aesthetic references.

Whether or not players are persuaded to perform the behaviors that are implicit to the procedural rhetoric is largely a determining factor in a player's success; for, the procedural arguments in *WoW* are clues which point to the most effective ways to play the game. For example, "The player's quest log can only show a limited number of quests at any one time. This rule demands that players make choices about their actions forced by the game's programmed infrastructure; it is an arbitrary rule but operates, along with many other features, to foreground choice and management as an articulation of player agency" (Krzywinska, 2008, p. 130).

In addition, "The nature of *World of Warcraft*'s quest system forces players to be itinerant, travelling widely in the world to undertake the tasks required to progress" (Krzywinska, 2008, p. 133).

Added to this is Rettber's (2008) observation that "you complete quests to get more experience points than you would through simple grinding (killing monsters mechanically without role-playing or quest motivation)" (p. 177). In practice, this means that collaboration is a necessity. This fact is especially true in the case of "Raid Groups" which are required to initiate "instances" of fighting monsters, such as Onyxia the dragon (Rettberg, 2008). Although it is possible for a player to remain in a fixed location, grinding away at the local critters, that method does not expose the player to an optimal game experience. Playing this way would be like only outputting bullet points and text in MS *PowerPoint*; the program is, in fact, far more flexible than that.

Thus, the procedural rhetoric that is written into the rule-based code that supports *WoW* is designed to interpellate players into roles of organizer, collaborator, and explorer (among many, many others). *WoW* forces a "from the bootstraps" mentality of working from nothing to something laboriously and thoughtfully. To succeed, players must work together, and must demonstrate superior communication skills—not to mention fine motor skills required to manipulate the computer controls while playing. They must strategize and plan; they must navigate foreign worlds and maintain their wits; they must forge a network of relationships which will be of help to them as they quest. What is truly amazing is *none* of these procedures are unaccounted for in the game's code. All of these factors work to make *WoW* an exemplary *habitus* and a hugely interpellative interface.

### ***Habitus in Ubiquitous User Interfaces: The Case of Microsoft PowerPoint***

Games are cases in point for *habitus*; and great games like *World of Warcraft* leverage the various ingredients of *habitus* in compelling ways to "stage" experiences that "nudge" or interpellate players into roles such as collaborator and geek aesthete. The examples I have explicated thus far show that it is relatively simple to observe how games

leverage the key ingredients for *habitus* to create conditions for interpellation. In fact, much of what Bogost (2007) calls the “persuasive power of video games” lies in their ability to interpellate users into roles such as “pacifist” (in the case of *September 12*) and “cash strapped” (in the case of *SPENT*). However, what is even more interesting and what really has not been considered, is the *habitus* of ubiquitous interfaces such as office applications. MS *PowerPoint* can be used as one case in point.

The *habitus PowerPoint* creates is largely through its presentation of controls. Without intervention, the procedural rhetoric directs users to select a white slide template and to fill a limited set of prescribed boxes with a black default font. Used this way, *PowerPoint* interpellates users into the role of efficient, structured, communicator. Yet, the consequence of this proceduralism has historically been what is commonly known as “death by *PowerPoint*.” I contend (and others such as Joanna Garner et al. (2009) agree) that the use and abuse of the defaults makes it all-too-easy to create a very organized, yet very print-centric presentation.

However, the change in *habitus PowerPoint* is experiencing through its interface updates has, in my view, led to changes in the way people are interpellated when using the program. Death by *PowerPoint* the way audiences are *used* to seeing it seems to be giving way to a different kind of presentation, one that is much more visually oriented.

The shift in *habitus* began with the “ribbon” redesign effort I discussed in Chapter 1. Some of the details are worth mentioning again in the context of an application to *habitus*. Recall that Jensen Harris, the lead Microsoft designer on the project, noted that the “feature creep” present in *Office 2003*’s interface was causing user paralysis. Recall, too, that the ribbon redesign project began with the constructivist premise that “people have an *emotional* relationship with their computer” (Harris, 2008). Given this somewhat unique

finding, the ribbon had to employ a unique and elegant solution. The way it accomplished this was to emphasize *both* efficiency (by finding ways to cut down on feature creep and make the software easier to use) *and* aesthetics (by allowing users the freedom and ability to create stunning documents).

*PowerPoint's* new *habitus*, actualized through the gallery model facilitated by the ribbon design, extended the possibilities of procedural rhetoric: no longer are controls hidden under text-only menus. Rather, the rhetoric is made visible through ribbon icons and, no-click preview options that, by virtue of their very efficiency, allow users to play with effects, ideally resulting in more creative presentations. This is the behavior that results when users are hailed as *visual* communicators, as opposed to simply textual ones. These changes help free *PowerPoint* from what Cynthia & Richard Selfe (1994) call a “hierarchical representation of knowledge” and open the way for “other ways of knowing, such as association, intuition, or bricolage” (p. 491). Thus, the *habitus* of the application has changed; it interpellates people differently, thereby impacting the very way users build and communicate with slides.

This example shows that *habitus* is present and operating in powerful ways in “spaces” that tend to be thought of as “not designed.” Along these lines, Selfe and Selfe (1994) were some of the first technical communication scholars to point out that ubiquitous user interfaces such as the *Office* suite and even the “desktop” configuration of computers’ operating systems “are at least partially constructed along ideological axes that represent dominant tendencies in our culture” (p. 481). Specifically, the authors explain that a Windows or Macintosh desktop

construct[s] virtual reality, by association, in terms of corporate culture and the values of professionalism...The objects represented within this world are



those familiar primarily to the white-collar inhabitants of that corporate culture: manila folders, files, documents...watches, and desk calendars...The interface does not, for example, represent the world in terms of a kitchen countertop, a mechanic's workbench, or a fast-food restaurant. (Selfe & Selfe, 1994, pp. 486-487).

This observation highlights something that will be discussed more in the next chapter: to create a *habitus* is to create a situation of congregation by segregation (Burke, 1969/1945). That is, spaces that become distinct by virtue of their dramatic flair (or use of culturally-specific metaphors to drive interaction, as in the case quoted above) tend to simply accommodate those users for whom the language or style is native.

Yet, interfaces that cater to the status quo merely perpetuate an accommodationist relationship with the technologies that host such use. In other words, the desktop metaphor does not challenge those inhabiting the Western corporate *habitus* to consider the "other ways of knowing" (Selfe & Selfe, 1994) that might lead to the adoption of novel social roles which push users' imaginations and comfort zones. *PowerPoint* could very well have remained a primarily text-driven program; the feature creep problem might just as readily have been solved by eliminating functionalities that were seldom used, and keeping the most common tools surfaced. However, Harris and his team were not content to simply maintain an accommodationist relationship with their users; they wished to construct a new role for users as aesthetic creators of beautiful documents. Although (perhaps because) the ribbon was such a drastic redesign, it has—and still to a degree retains—a polarizing effect: users either love or hate the ribbon, they either congregate around it or have segregated from it. No major redesign is free from such risk. Nonetheless, the ribbon persists—even into the latest 2011 version for of *Office* for Macintosh. One would think,

surely if the ribbon could be improved, Steve Jobs and his crack design team would hatch a plan to do it. However, the ribbon only seems to be becoming more robust, and Harris' team's (2008) vision of creating a program that is both easy to use and capable of helping people create aesthetic documents closer to actualization.

### **Chapter Summary**

This chapter has related the concept of *habitus* as interpreted through the work of sociologist Pierre Bourdieu (1984). Applied to interpellative design, *habitus* describes the creation of spaces in which users feel a sense of belonging and community. The key ingredients required to seed *habitus* in “dramatic” (Laurel, 1993) digital environments are engagement, agency, catharsis, and procedural rhetoric. Designing for *habitus* necessarily happens alongside traditional user-centered design processes such as that described by Garrett's (2002) “elements of user-experience.” This is because designing for interpellation—which begins with defining the *habitus* in which the interpellative event will be staged—is not mutually exclusive to designing for usability; designing for *habitus* represents a constructivist approach to designing for usability.

Indeed, one of the requisites for enabling users to experience a sustained feeling of engagement within an interface's *habitus* is “transparency” (Bolter & Gromala, 2005), or the perception that the distance between the person and the machine is reduced to almost nothing, thereby facilitating the completion of tasks and other interface activities. Usability is the primary means of establishing a transparent interface. It is also a way of warranting a certain amount of agency for the user, inasmuch as ease of use is positively correlated with users' feelings of confidence and control when operating a system. When users are fully engaged with and in command of an interface, they are free to become enveloped in the story it tells. They are at liberty to experience cathartic moments and to be persuaded by

the procedural rhetoric that is present at the code-level. These elements work to interpellate users ever deeper into the interface's *habitus*. By virtue of the end point of the interpellative process model, occupying a *habitus* results in the performance of predictable behaviors.

## CHAPTER FOUR

### SOCIAL CAPITAL AS (DIGITAL) EXPRESSIONS OF BELONGING

Closely related to *habitus* is social capital, the other mechanism that drives interpellation. As such, social capital represents the final piece of the conceptual interpellative design framework I endeavor to sketch in this dissertation. This chapter thus interrogates the role social capital plays in the interpellative event at large, as well as in interpellative design on the web.

After presenting salient features and types of social capital, I appraise a key method that coalesces the two interpellative mechanisms into an actionable design tool: personas. Personas are the pulse of interpellative design because they facilitate decisions regarding *habitus* and the way an interpellative staging ground may be endowed with artifacts of social capital. In this context, the mechanism of social capital can be thought of as a way of defining parameters for the visual communication or information design aspects of a site. For, depending on users' *habitus*, some markers of social capital will be more conducive to interpellation than others.

Indeed, if designers hope to interpellate users into a desired social role, then they must define a relevant *habitus*. They must then ensure that the acts and artifacts of social capital that are present in the space are not only nominally identifiable for the audience, but that they are also feasible from an aesthetic, look and feel perspective. In terms of the interpellative design process model, designers need to deploy social capital that will spark users' attention, that users will recognize, identify with, and desire to engage. Because personas offer a means of performing litmus tests on potential design options that catalyze these types of user judgments, I argue that their creation is an indispensable part of the interpellative user-centered design process.

## **Social Capital: Acts, Artifacts, and Status**

Social capital is intimately connected to *habitus*. Accordingly, Pierre Bourdieu (1984) will again provide the initial strides into an understanding of the concept. Social capital refers to the way taste preferences manifest in the world (Bourdieu, 1984). **If *habitus* is the social space into which people are interpellated, then acts and artifacts of social capital are physical expressions of how one fits into or belongs in that space.**

Acquiring social capital is a gradual process of norming to a community or *habitus*. This process is represented by means of the tastes one comes to possess, as well as the language one uses to talk about those tastes. The progression can be shown through the equation I presented in the previous chapter that illustrates the relationship between taste, social capital and *habitus*: taste + social capital → *habitus*. Social capital can thus be understood to refer to the visual, verbal, and non-verbal cues that demonstrate to others and to ourselves the *habitus* we occupy; it is a collection of acts and artifacts that is constitutive of one's social standpoint in a world. As a person inhabits a particular community or *habitus* over time, these acts and artifacts accrue and help define a person's relative status in the community.

### Acts Demonstrating Social Capital

Bourdieu (1984) explains that judgments of taste stand out as *acts* that point to one's social capital in a given context. If our judgment coincides with what would be considered "acceptable" in that *habitus* or community, then we will have maintained or increased our social standing therein. On the other hand, if our judgment falls outside of what is acceptable in the community, then our social capital in the community will suffer, and our sense of belonging will be negatively impacted. Of course, rules regarding

permissible taste judgments vary according to the specific *habitus*. This means social capital is as fluid as the different social roles we inhabit throughout the course of a day or lifetime.

The way social capital and taste work together to produce responses that are appropriate in a given *habitus* can be illustrated through Bourdieu's (1984) example regarding different ways of apprehending a piece of artwork. Like Latour (1987), Bourdieu (1984) believes that all we see is inscribed—Bourdieu's word is “encoded”—with codes that must be *decoded* in order to be “seen” or understood in the “proper” way. This re-invokes Bourdieu's (1984) observation that what one is able to see (“*voir*”) is a function of the knowledge one possesses (“*savoir*”).

Researchers can discover the *habitus* people belong to when it comes to fine art by visiting a museum and listening to the responses visitors have to the various works on display. What emerges is that what different people are capable of “seeing” in the art is affected by their background knowledge, their previous experience, and their values.

Specifically, Bourdieu (1984) notes that a person with a liberal arts education will likely have much to say about a given piece of fine art because their learning gives them access to historical, philosophical, and other disciplinary discourses from which to draw in their perception of the piece. They can talk, for instance, about how the artwork fits into the tradition of whatever historical period it represents (e.g. “This is a marginal example of surrealism. It has none of Salvador Dali's emphasis on the often horrifying quality of dreams, but there appear to be other Freudian elements”); they can talk about the formal qualities of design it exhibits (e.g. “This piece makes smart use of the Rule of Thirds to create a sense of motion”); they can make connections to other artistic works that span genres (e.g. “This Bernini statue reminds me of Ovid's *Metamorphosis*”).

As I mentioned in the previous chapter, the ability to recognize intertextual pop culture references in *World of Warcraft* is an important way players establish their “geek aesthetic” *habitus* (Krzywinska, 2008). So too, in a museum: People engage in acts that demonstrate their social capital by responding to the work at hand. These responses amount to taste judgments that signal whether or not the person belongs in the *habitus*. The erudite way of responding to art in the context of a high museum constitutes an act of social capital that signals belonging in the “pure aesthetic” *habitus* (Bourdieu, 1984).

Yet, this scholarly way of responding to art is not the only “legitimate” approach to cultural consumption. This is where we begin to see that social capital is fluid and context-specific. Indeed, Bourdieu’s (1984) main objective in *Distinction* is to counter Kant’s assertion that the so-called “pure aesthetic” stands alone as the true and only measure of taste. Bourdieu (1984) therefore posits the “popular aesthetic” as equally legitimate, though necessarily “distinct” from, the pure aesthetic.

In the museum, popular aesthetic responses to a piece of art like Piet Mondrian’s minimal *Composition with Yellow, Blue, and Red* (shown in Figure 4.1) might include: “My four-year old kid could do that.” “I don’t get what makes this art.” “What *is* it?” These can be contrasted to a pure aesthetic response of: “Look at the harmony and rhythm the subtle black brushstrokes convey. The revelation of depth within the white squares is stunning!”

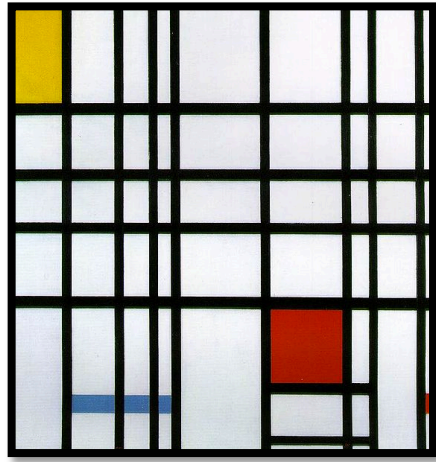


Figure 4.1: People in a different *habitus* will respond differently to artwork such as Piet Mondrian's *Composition in Red, Blue, and Yellow* (Tate Gallery)

In the museum, social capital is awarded to those occupying the pure aesthetic *habitus*. However, because Bourdieu (1984) has disbarred the pure aesthetic from its place as the *only* aesthetic, it is not the case that social capital is *only ever* awarded to those occupying the pure aesthetic space. It is therefore not accurate to say that some people always have social capital while others do not. As usability professionals and interaction designers are taught, the mantra “it depends” is applicable here: what constitutes social capital *depends* on the context—it depends on the *habitus*, or specific community, and the standards that community upholds as acceptable for behaviors and taste preferences.

In Web 2.0 environments, there is tremendous opportunity for people to perform acts demonstrating their social capital—for them to make distinct judgments that signal their place in the world. In an era of user-generated content, consumer forums, product reviews, responses to listserv queries, dissemination of links, pictures, and videos to others, and the fruits of “crowdsourcing” (Howe, 2009) all constitute acts whereby people demonstrate their social capital by making (taste) judgments that point to their



involvement in a given discourse or *habitus*. Yet, in these digital spaces, it is not simply the act itself that is demonstrative so much as it is the people who occupy the *habitus*' response to it—the social feedback the person receives which indicates whether the act is “acceptable” or not. This feedback comprises one type of social capital artifact.

### Artifacts of Social Capital

Artifacts of social capital come in at least two forms. As just mentioned, they can be the physical manifestation of feedback in a digital environment. This feedback can be user-induced, or it can be hard coded into a site so that the system doles it out on a procedural basis. These forms of acknowledgement are highly purposeful: they “nudge” (Thaler & Sunstein, 2009) or interpellate users into the *habitus* defined by the interface's purpose. The acts and artifacts of social capital that designers work into the site are therefore critical forces which help users recognize the social role they are to fulfill while on the interface, and make them desire to play that role thanks to the operant reinforcement (Thorndike, 2000/1911) offered through accumulating artifacts of social capital.

### *User-Induced Feedback as Artifact of Social Capital*

User-induced feedback can be based on users' reactions to another user's act of social capital, or it can be a person's own indication of taste preference. Examples of other people's reactions generating social capital for the person responsible for the original act abound on the web today. The most obvious is the now-iconic *Facebook* “like” feature, in which a user posts something to the site (a status update, link, note, picture, etc.) and others can click the thumbs-up “like” button to indicate their acceptance of the post.

“Viral” videos such as those on *YouTube* can also contribute to the creator's social capital. Many videos that go viral are one-hit-wonders, so to speak, and have only a temporary effect on the creator's social capital. However, one instance that comes to mind

that has had a lasting, career-changing effect is that of Michael Wesch, an anthropology professor at Kansas State University, who has gained renown for two landmark videos he created and uploaded to *YouTube*: “Web 2.0...The Machine is Us/ing Us” and “A Vision of Students Today.” Together, these works have garnered over 15,000,000 views—the former with 11,000,000+ and the latter with 4,000,000+. As a result of the viral spread of his work, as well as its staying power—the videos were both uploaded in 2007—Wesch has become something rare in academic circles: he is a commodity. He has been invited to present his research on the effects of media on culture to the Library of Congress, Adaptive Path’s 2010 *UX Week*, and he has given interviews to major news outlets such as *The New York Times*, *USA Today*, and *Wired* magazine.

Another example of feedback from others increasing a person’s social capital can be found on the product review section of a page on *Amazon.com*. Posting a review is an act of social capital, but the number of people who “found this review helpful” (see Figure 4.2) serves as an artifact of social capital for the reviewer because it is feedback from the community regarding the quality of what was said.

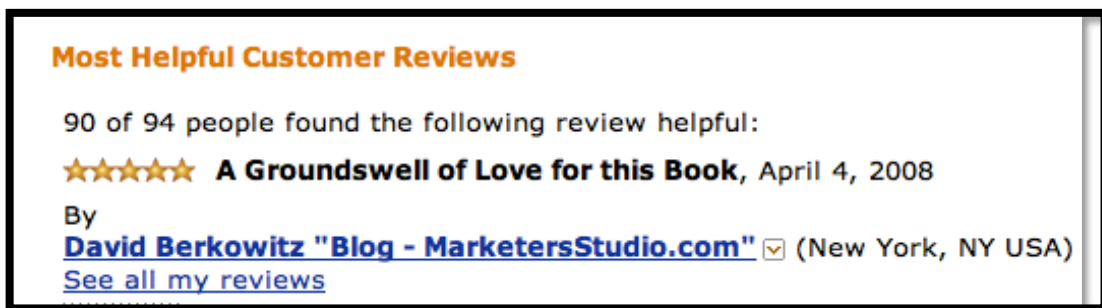


Figure 3: *Amazon.com* product review statistic: “90 of 94 people found the following review helpful”

People who write reviews that others find helpful, or, beyond that, that others go out of their way to positively comment on, are much more likely to take the time and effort required to write additional quality reviews. The social capital artifacts generated by their initial post will have interpellated them into the role of critical consumer, and will likely encourage them to offer their opinions again in the future.

I came across an example of this progression while looking at the reviews for a CD by the band My Bloody Valentine. The first review, which 116 of 118 people found helpful, was by a user named D.W. Wisely (2007). He writes,

I'm an unlikely admirer of this record. 51 years old. Taking Lipitor. Bifocals. But, I've spent the last two years or so listening to this CD at least once a week. It's also an unlikely CD to admire. Perfectly reasonable people with refined tastes can be bewildered, even frightened by it. It breaks most of the rules that are supposed to apply to rock music. Brian Eno famously referred to the "vagueness" of the music and that's dead right. But, all I can say is that it magically finds some system in my brain that I have in common with lizards and plays it like a cheap guitar. It's wonderful. (Wisely, 2007)

Ten other users commented on this review, which is a fairly large number considering most people's response to a review is simply to click the Yes or No button in answer to whether they found what was said helpful in their evaluation of the product. All ten comments were positive and encouraging. Two will be representative of the pack. Christopher Matthews remarked, "That's the most beautiful thing I've ever read," and Andrew Vice added, "You're awesome. Coolest 51-year-old around." Clicking on D.W. Wisely's name will take you to his *Amazon.com* profile, where it is displayed that he has since written over sixty reviews.

Yet another example of social capital artifacts comes from the design site *Boxes and Arrows*. There, contributors acquire “reputation points” as a result of submitting acceptable stories and posting comments on others’ stories. Figure 4.3 shows a few of *Boxes and Arrows*’ authors, and the reputation points they have amassed based on their involvement with the site and the design field at large, as shown in their biographies.

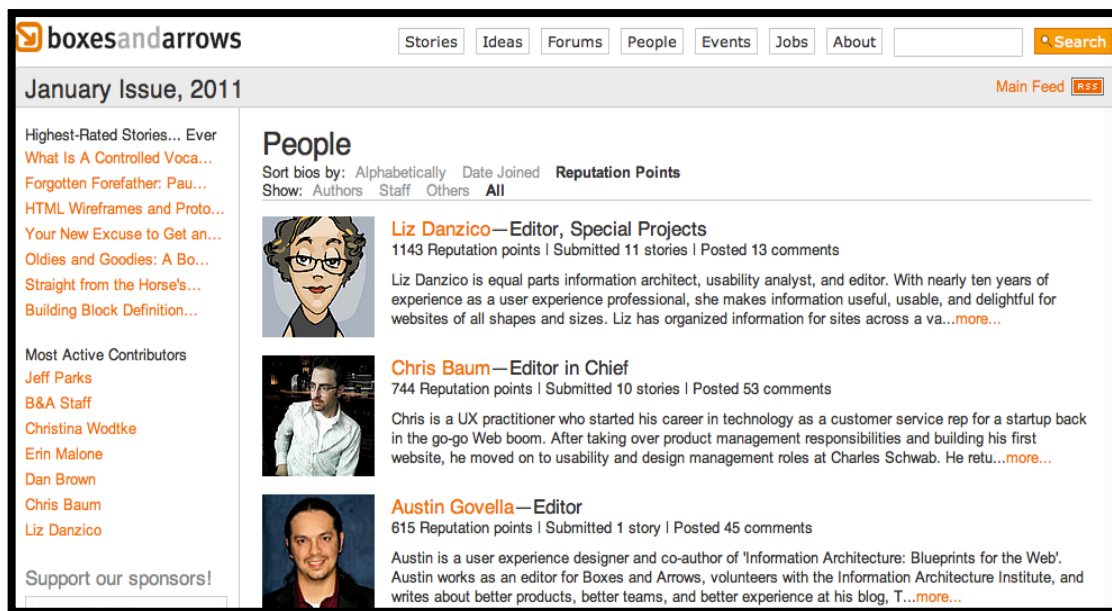


Figure 4: *Boxes and Arrows* reputation points, or artifacts of social capital, shown under each contributor's name (Howard, 2010b, p. 66)

Other sites use forms of this model as a way of ascribing social capital artifacts to users. The technology news and commentary site *Slashdot* is one example. There, users who comment on stories are given scores of -1 to 5 for their remarks. These scores, among other indicators of sustained and purposeful involvement on the site, become part of the “achievements” listed on each user’s profile page. Observers can quickly get a gauge as to

how deeply a user belongs to the hacker *habitus* (hackers are the primary audience for *Slashdot*) based on an overview of these artifacts of social capital.

As these examples show, user-induced feedback is one way people exert their influence in the context of a given community or interface. Howard (2010b) notes, “When members feel the pull of influence on them in a community and once they feel they have ‘buy in’ from a community, they’ll often stay in that community and continue contributing” (p. 82). Influence is an interpellative factor because the specific types of influential moves users are allowed interpellate them in particular ways in relation to their actions on the site. At the same time that the site shapes its users, though, users get to shape the site. For, as Howard (2010b) also points out, disallowing influence can be disastrous for an interface. He says simply, “When we can’t influence and change the environment, we leave and we find new environments that we can influence and change” (Howard, 2010b, p. 82). Thus, incorporating functions whereby users can demonstrate their influence via artifacts of social capital is a good way of building engagement into a site.

#### *The Two-Way Nature of Social Capital Artifacts*

Scoring an article on a site like *Slashdot* does not only impact the original poster. The act of scoring is itself a judgment of taste, and is therefore also influential on the scorer’s social capital as well. The two-way nature of these artifacts of social capital contributes to the interpellation of each user. A positive score will reinforce the posting behaviors for the original user. At the same time, the act of giving a positive score means the scorer is versed enough in the particulars of the community to understand its standard of excellence—s/he is interpellated into the role set forth by the community, and, by bestowing an artifact of social capital onto someone else, is perpetuating the “relations of production” (Althusser, 1971a) that pertain to the social role by reinforcing acceptable

behavior. These actions presumably ensure that similar behavior will (predictably) occur again. Furthermore, these artifacts of social capital also show new members of the site what passes as competent behavior, thereby interpellating them as well.

The two-way anatomy of social capital artifacts can also be seen in *Facebook's* "like" button. The popularity this feature has led to its appearance elsewhere where ranking or sharing information is important, such as on leading sites like *The Huffington Post*, *Mashable*, and *Gawker*. These sites generate social capital for themselves as top blogs (as determined by *Technorati*) based on how many users "like" the articles. At the same time, by clicking the "like" button on a company or news site, users make taste judgments that show up on their *Facebook* profiles and thus become artifacts of social capital which signify an array of preferences. Figure 4.4 shows the various things I have "liked" on *Facebook* over the years, and Figure 4.5 shows pages another *Facebook* user (a friend of mine) likes. Even a cursory look through our "likes" shows that we have expressed different taste preferences that provide insights into the different *habitus* we each occupy.



Figure 4.4: Example of user's "likes" on *Facebook*, which appear as artifacts of social capital on their profile page



Figure 5: A different set of "likes" on Facebook demonstrating a different *habitus*

Studying this section of users' profile could give designers insight into people's political, vocational, and extracurricular *habitus*. In fact, profile pages on online community sites in general are prime places for displaying artifacts of social capital inasmuch as users have freedom to share categorical information about themselves, from the books, movies, and TV shows they like, to the music they prefer, to quotes that speak to them or mimic their sentiments. These are examples artifacts of social capital that, depending on their relevance to a project, can be mined during the user research phase of site development. The data collected could then be used to construct rich and detailed user personas.

#### *Procedurally-Induced Artifacts of Social Capital*

Another type of social capital artifact that appears in digital environments is procedurally-induced. These artifacts of social capital can be seen in the case of *World of Warcraft*, for instance, where players' leveling-up and increased inventory options would be considered artifacts of social capital that appear as a result of players progressing through the game and following its rules. Attire is a highly apparent measure of social capital in the game, as different garments become available at higher levels. Figures 4.6 and 4.7 are comparative screenshots of my avatar, Keygan, the Night Elf Druid. Figure 4.6 shows her at

level one, fresh as a “noobie,” with default clothing and Figure 4.7 shows how she had evolved by the time she reached level five.



Figure 6: My *World of Warcraft* avatar's artifacts of social capital at Level 1



Figure 7: My avatar's more impressive artifacts of social capital at Level 5

This example holds true for social games like *Farmville* as well, where increased levels bring increased social capital or prestige within the context of the game, and is shown through the way farms (much like *WoW* avatars) are adorned.

An additional example of procedurally-induced artifacts of social capital are the “badges” users are awarded on *Foursquare*. *Foursquare* is a social media application that incorporates gaming elements (badges, points, and titles, e.g.) in an effort to make a basic geo-tracking experience more immersive and entertaining. Figure 4.8 is a screenshot of the badges I have earned.



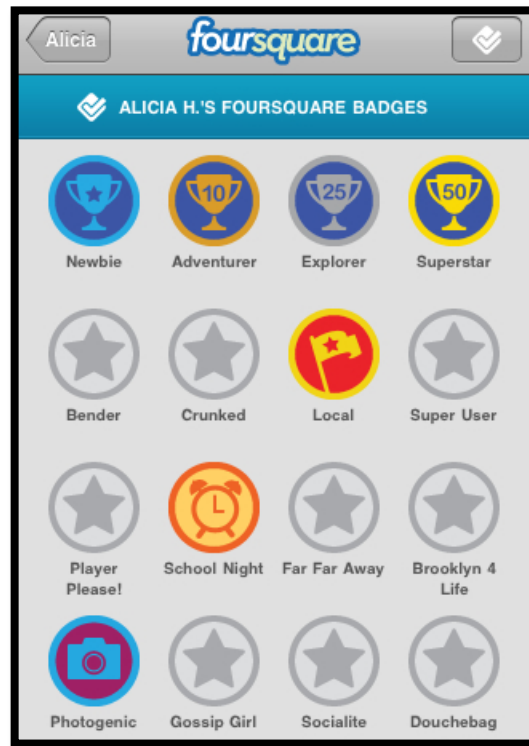


Figure 8: Users of *Foursquare* can accumulate “badges” as artifacts of social capital

As mentioned above in the instance of scoring and achievements on *Slashdot*, the types of rewards offered on *Foursquare* are purposeful as well; they are indicative of the social role *Foursquare* wants users to be interpellated into. Most of the badges have to do with frequency or novelty. This indicates that the designers want users to be highly active, extroverted, and creative explorers of their cities.

*Offline Artifacts of Social Capital: “Daimons” & “Reflective Design”*

The other major category of social capital artifacts are offline, and appear in the form of people’s taste preferences in, for example, home décor, food, clothing, and memorabilia. These things constitute social capital artifacts within a *habitus* because of their revelatory power: they “speak” to others and to oneself about personal identity and place in the world.

Industrial designer Del Coates (2002) explains that objects have a particular “*daimon*”, or “spiritual essence” which makes itself known “by virtue of *emphatic expression*,” a term which incorporates “every perceivable aspect of form—including shapes, colors, and textures” (pp. 56, 60). Through their emphatic expressions, objects convey their *daimons*, or particular personalities, which give them emotional resonance and meaning in the eyes of those who own or look upon them. Coates (2002) calls this dialog between product and person “product semantics,” and explains that the meaning of an object “amounts quite simply to the constellation of thoughts, feelings, urges, and other mental figments of which it literally ‘re-minds’ the viewer” (p. 62). Product designers imbue an object with its *daimon* through the choices they make regarding form. Successful designs invoke the desired feelings on the part of the viewer. The example Coates (2002) cites is Volkswagen’s updated Beetle. This car has a *daimon* that “expresses a ‘cheerful,’ ‘perky’ demeanor,” (p. 60) through the circular shape of its headlights and the friendly, almost smiling, curve of its hood. These formal qualities “speak” to the viewer, and, if the viewer identifies with these emotions when it comes to a car, then it is likely s/he will emotionally bond with the design and purchase it.

Cognitive psychologist Don Norman (2004) calls the emotional bond people form with products an aspect of “reflective design.” This level of design is the most cerebral of the three Norman lays out in his book *Emotional Design*.<sup>24</sup> Norman (2004) construes that when one makes a decision to buy a product that aims “to establish one’s self-image and one’s place in the world,” one is making a choice that relates to a product’s reflective design (p. 87). A product’s reflective design is therefore principally “about self-image and the message

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<sup>24</sup> The other aspects of design Norman (2004) describes are visceral design (the initial impression we form about a product based on its physical appearance) and behavioral design (the pleasure or displeasure we feel when using the product).

a product sends to others” (Norman, 2004, p. 84). Reflective design would not be possible if products were not built to speak to us, as Coates (2002) pointed out. Importantly, Norman claims that on some level every product we display is a reflection of who we are and what we value. He says, “In fact, even people who claim a complete lack of interest in how they are perceived—dressing in whatever is easiest or most comfortable, refraining from purchasing new items until the ones they are using completely stop working—make statements about themselves and the things they care about” (Norman, 2004, p. 84). This observation harkens back to Althusser’s (1971a) claim that we can never get outside ideology, and that those who claim to be ideologically neutral are, ironically, as steeped in ideology as anyone.

Thus, the objects we surround ourselves with serve as artifacts of social capital, markers indicating to ourselves and to others our place in the world. Because every product has a *daimon* that speaks to its owner and to others, a product can variously serve as a “badge of honor” and/or “provide stories to tell other people” (Norman, 2004, p. 89). As discussed in the previous chapter, the ability to string together a compelling narrative is an important moment when it comes to defining a *habitus*. The “constellation” of associations and emotions these artifacts convey make social capital artifacts enthymemes, inviting the viewer to intuit the social role occupied by the person within their *habitus*.

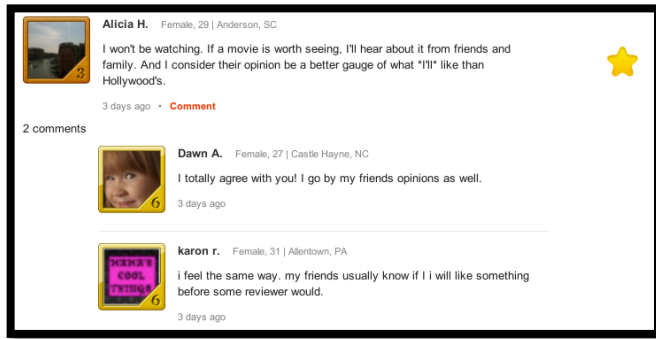
#### Acts + Artifacts = Status

In digital environments, acts which attempt to demonstrate one’s social capital lead to artifacts of social capital, and these in turn contribute to one’s relative status within the specific space or *habitus*. For a case in point of how this process unfolds, consider the marketing and research site *Crowdtap*, which is now live in beta. The site is described as a way for brands to “tap targeted crowds of insightful and influential consumers” in order to

“get real-time insights” and “drive peer-to-peer marketing.” The site’s mission is to “shift marketing to a fully collaborative and participatory process between brands and consumers” (Crowdtap, 2011). Based on these goals, *Crowdtap* needs to interpellate users into the roles of brand evangelist and opinionated, discriminating consumer if it hopes to get the results it promises to the brands who pay the company for the crowdsourced insights.

Focusing on its use of social capital alone, *Crowdtap* appears to be on the right track to achieve its objectives. The site works on a level and point system to entice users to carry out tasks, but it ups the ante quite a bit by correlating points with actual money users can earn for their efforts. The site also utilizes a “news feed” feature to keep everyone in on the site aware of how others are progressing. The frequency of updates to the feed is all the “Social Proof” (Cialdini, 2007/1984) users need to see that the site is vastly inhabited, and that there does seem to be a good amount of interest in spending time here.

In terms of social capital acts, users can participate in “discussions.” Each month, *Crowdtap* loads a series of preset questions that pertain to a given theme. For instance, February 2010’s theme was “Awards Season,” so all of the discussion questions were in regard to the Oscar or Grammy award shows. After achieving Level 1, users can be “tapped in” to access the discussion boards, and they can choose to answer questions and/or comment on or “like” others’ responses. If a discussion moderator deems your post (act of social capital) particularly insightful, it will receive a star (artifact of social capital), and both your “quality score” and number of points (status) on the site will increase (see Figures 4.9 and 4.10). This process showcases the acts + artifacts = status model quite cleanly. It has already been shown how this scoring-of-contributions model works on *Amazon*, *Slashdot*, and *Boxes and Arrows* to affect one’s social capital and status within the *habitus*.



**Figure 9: A starred comment on *Crowdtap* acts as an artifact of social capital (Crowdtap, 2011)**



**Figure 4.10: *Crowdtap*'s "quality score" meter indicates how users' artifacts of social capital affect their status (Crowdtap, 2011)**

*Crowdtap* also makes use of a badge system that is similar to *Foursquare*. Users accumulate badges as a result of procedurally engaging with the site—filling out surveys (“Pollster” badge), inviting others to join *Crowdtap* (“Promoter” badge), and responding to three discussion questions (“Ideator” badge), just to name a few. Earning a badge earns members a bit of money, which translates into points, which work to level users progressively up. The “stats” and “leaderboard” sections of the site clearly showcase how status is intimately connected to these artifacts of social capital, all of which accumulate based on acts of social capital that the site makes possible through its rules and procedurally-based code.

The subtle but powerful relationship between social capital and interpellation is also evident on *Crowdtap*. This fact makes it clear that every detail counts when it comes to interpellative design. For instance, *Crowdtap* does not simply make use of badges; it leverages the opportunity afforded in the *naming* of the badges to spell out the social role the site’s designers want its users to fulfill—“ideator,” “promoter,” “money bags,” etc. *Foursquare* does this, too, with badge names like “explorer,” “local,” and “super-mayor”, all

of which reward users for fulfilling the application’s objective, which is to mobilize people to get acquainted with lots of attractions in their city (checking in to 25 different places gets to the “explorer” honor), and to provide one’s favorite places with repeat business (this activity earns users the “local” and “super-mayor” badges).

Another example of the detail that is bound up *Crowdtap’s* use of social capital is the look and feel of its level system. Here, the levels are not simply numeric; they are also indicated by materials whose *daimon* suggests stratum of quality (see Figure 4.11). Because of this, the levels become a sort of caste system within the site’s *habitus*. If one does not want to be associated with the connotations brought to mind by Level 1’s cardboard (bland, flimsy, forgettable), or Level 2’s plastic (cheap, mass-produced, easy-to-obtain), then one will carry out actions necessary to earn points toward the next level and the increased social capital of being associated with the ever-better artifact that goes with it.



Figure 101: *Crowdtap’s daimon-oriented level system acts as artifacts of social capital (Crowdtap, 2011)*

Sites like *Crowdtap* that cleanly leverage the acts + artifacts = status model for social capital generate their potency by deploying the “remuneration” aspect of successful communities. Howard (2010b) explains, “People need to believe that they will obtain some positive return on the investment of their time and energy in order to be attracted to participate in an online community” (p. 47). More than this, though, social capital is a “belonging” (Howard, 2010b) mechanism which not only encourages participation, but encourages a *specific, predictable* type of participation based on the social role users occupy within the community.

### **“Bonding” and “Bridging” Social Capital**

In his book, *Here Comes Everybody*, interactive telecommunications scholar Clay Shirky (2009) claims that the term *social capital* is powerful because “it connotes an increase in power, analogous to financial capital” (p. 222). Shirky defines social capital mainly in terms of acts. He says that the term can be understood as “a set of norms that facilitate cooperation within or among groups” (Shirky, 2009, p. 193). To describe the relative strength of groups, Shirky uses the labels “bonding” and “bridging” social capital. These types of social capital add richness to our understanding of the term at large, and contribute a great deal to the interpellation of individuals within a given *habitus*.

#### “Bonding” Social Capital

Shirky (2009) explains that “bonding” social capital is “an increase in the depth of connections and trust within a relatively homogenous group” (p. 222). The critical idea here is *depth* of connection among people, as opposed to *number* of connections between people. The deep connections spurred by bonding capital derive their power from Bourdieu’s (1984) *voir/savoir* principle. That is, bonding social capital exists between people who are

able to “see” similar things in similar ways because they exist in a similar discourse community, ideology, paradigm, or *habitus*.

This line of thinking is similar to rhetorician Kenneth Burke’s (1969/1945) argument that a sense of belonging relies on “identification” between people, and that identification comes as a result of the people existing in the same symbol system as one another, in which case the exchange of meaning and values is seamless. The identification catalyzed by bonding capital therefore often leads to profound connections and lifelong friendships.

Yet, Burke also reveals that there is another side to bonding capital. The underbelly of identification is exclusion: the same strength that bonds those who identify with one another together works equally in reverse to keep those who are not part of that identification outside the community or *habitus*. Burke calls this phenomena “congregation by segregation.” Not only can this impulse lead to social scapegoating and victimization, but in less malevolent circumstances it also produces myopathy.

According to a study done by University of Chicago sociologist Ronald Burt (2004), the types of discussions that people with high degrees of bonding capital have are not particularly creative or insightful. In Burt’s (2004) words, “Opinion and behavior are more homogeneous within than between groups, so people connected across groups are more familiar with alternative ways of thinking and behaving” (p. 349). This is because when you are talking to someone who sees everything in roughly the same way you do, you are not likely to have many breakthroughs in your understanding. Burt’s study concludes with the finding that “compensation, positive performance evaluations, promotions, and good ideas are disproportionately in the hands of people whose networks span structural holes” (Burt, 2004, p. 349).



### “Bridging” Social Capital

Like Burke’s (1969/1945) “congregation by segregation” outcome, Burt’s (2004) study cautions readers to recognize limitations and pitfalls of bonding social capital when they are presented. We must therefore consider the additional standpoint to bonding capital, the type of capital that produces the “structural holes” Burt (2004) claims are essential to explore in order to spawn creative ideas and productive thinking. This type of social capital is what Shirky (2009) calls “bridging capital.” Bridging capital happens when we “reach across the aisle” and entertain and embrace ideas from disciplines outside our own, from people who exist in a somewhat different *habitus* than our own. When a person identifies with an idea that comes from an interaction spawned from bridging capital, he or she is demonstrating fluid subjectivity. For, in order to understand the idea to begin with (since it will necessarily be from a discourse outside a person’s own), the person has to shift roles (subjectivities) into one conducive to “seeing” what the other person is trying to convey.

For example, if a creative writer is interested in writing a novel about Charles Darwin, she will have to go speak to a scientist about the particulars of evolution. Those who have taken a creative writing class know that “creative” is not a synonym for “incorrect,” so in the rendering of the facts particular to Darwin’s theories, the creative writer will have to, for a while, assume the role of technical communicator. Now, it could happen that in the conversation she has with the evolutionary biologist, the writer may come to “see” her project in a new way. She might, for example, decide that one of her plot lines is implausible. In the same way, talking to the writer about some of the interesting details of Darwin’s personal life (for surely the writer would have investigated these to make the book both factually correct and interesting) might better illuminate some facet of

Darwin's theoretical thinking. These insights are the fruits of bonding capital, of people moving through the "structural holes" of their *habitus* and connecting with another person over a point (however small) of common ground.

Although this is a hypothetical example which highlights the interdisciplinary transfer of knowledge, many actual examples of the power and value of bridging capital exist in the world. In fact, Latour (1987) points out that it is not possible to "do science" without employing bridging capital as an asset. He notes that while the popular view is that scientists are the only ones who do science, independently, and in the company of their colleagues in the lab, it is actually the case that science cannot happen without outside support. In order to garner such support, scientists have to use bridging capital to sell the relevance and implications of projects they hope to work on to members outside their immediate cohort. It is only through the making of such interdisciplinary (i.e. academia to industry, or academia to government) connections that money pours in, which allows the scientist to build and staff a lab in which to conduct his work. Latour (1987) therefore claims that it is not *only* scientists who do science, but it is in fact *also* the people that they connect with through bridging capital that truly make science possible.

An additional example of the power and importance of bridging capital is provided by Eric Raymond in *The Cathedral and the Bazaar*. There, Raymond (2001) explains that the Linux operating system ended up being so successful because it made clear that the greater amount of people who had access to a problem, the quicker the problem could be fixed. Although the people working on Linux were all part of the broad "hacker" community, they were by no means a homogenous group, which would have led to a reliance solely on bonding social capital for results. Rather, the participants all brought different programming knowledge and facets of experience to their work on the Linux project.

Indeed, if they had been entirely homogenous, they would have disproven Burt's (2004) findings in that Linux bugs would have persisted and would not have been either quickly or creatively fixed.

The Linux example is also used by James Surowiecki in his book, *The Wisdom of Crowds*. Surowiecki (2004) uses it, and the open-source movement in general, as a case in point for the effectiveness of decentralization. In terms of the relationship between decentralization and bridging social capital, Surowiecki (2004) notes:

What decentralization offers Linux is diversity...There seems to be a huge supply of programmers willing to contribute their efforts to make the system better. That guarantees that the field of possible solutions will be immense. There's enough variety among programmers...that no matter what the bug is, someone is going to come up with a fix for it. And there's enough diversity that someone will recognize bugs when they appear. (p. 73)

While this analysis is testament to the power of bridging capital, in reality, Linux's open source model utilizes *both* bonding and bridging capital: bonding in the "inner circle" of the project where founder Linus Torvalds and his trusted colleagues make decisions about what submissions are worthy of implementation, and bridging capital where all of the project's needs such as bug fixes and incremental enhancements are opened up to the general hive (Raymond, 2001).

*Wikipedia* is another example of an open-source system that makes excellent use of bridging capital. Many of the site's "featured articles" (articles *Wikipedia* administrators deem accurate and robust enough to be frozen or "locked" until new developments arise) are such because they have a breadth and level of detail that would not have been possible if only one person had written them, or even if a group of people in possession of only

bonding capital had composed them. In fact, *Wikipedia's* bedrock "Neutral point of view" (NPOV) policy almost *requires* bridging capital to be invoked because a homogenous group of people will share the same biases. If a heterogeneous group composes an article, on the other hand, the idea is that biases will counterbalance, and, through conversation and arguments hashed out on the "discussion" page of each article, a compromise will be reached regarding the article's content and tone.

A good example of the need for bridging social capital in the composition of a *Wikipedia* article can be found in the case of the entry for Jesus Christ. *Slate* magazine author Chris Wilson (2011) believes that article can be used "as a guide to the online encyclopedia's 10-year history." Wilson (2011) explains that *Wikipedia's* founder Jimmy Wales actually created the entry, beginning it with the words, "Jesus Christ is a central figure in Christianity" (para. 1). That beginning stood for four months, until a user named "Hiram" changed "*a* central figure" to "*the* central figure" (Wilson, 2011, para. 1, emphases mine). As more time passed, Wilson (2011) explains that Jesus "was briefly promoted to the 'most central figure in Christianity,' but was restored to mere centrality in the next edit. The 'Jews for Jesus' made a brief appearance on his page in August of 2002 but were removed with a polite explanation as to why" (para. 3). He continues, in 2002, "an anonymous user replaced the entire page with the repeated phrase 'bla bla is all I hear.' Jesus existed in such a state for five minutes before another user rescued him. In the new year, he got a photo. It was removed three days later" (Wilson, 2011, para. 4).

As these "edit wars" (*Wikipedia's* term for the general back-and-forth that occurs as contributors work toward NPOV) illustrate, the variety of voices and viewpoints that the article is compelled to recognize in an effort to reduce bias lead to a richness and depth of discourse that would not be present if the article simply parroted a single group's beliefs.

Indeed, a quick look at Jesus's "discussion" page reveals that the content there is more extensive than the information contained in the article proper.

Even though a more "traditional" encyclopedia such as *Britannica* has an editing model which requires authors to be known experts in the subjects about which they compose articles, and provides measures for other experts to peer review the articles, given the social robustness of *Wikipedia's* article composition process, it is surprising to realize that the article on highly contentious subjects such as Jesus Christ found in *Britannica* and other such reference publications are written by a relatively tiny and homogenous group of people.

#### Bonding Capital, Bridging Capital, & Interpellation

Bonding and bridging social capital are important when it comes to interpellation because both should ideally be present in order to hail users into the social role dictated by the purpose of a website.

Bonding capital manifests on websites through the creation of a rich communication ecology that represents a brand and the experience behind it. For example, on the Harley-Davidson website, bonding capital can be seen in the *Flash* slide show that greets users on the homepage. As shown in Figure 4.12, some of the pictures that have been featured are of a World War II beauty saluting gamely on a bike, a profile shot of a mahogany Hog with muted flames arcing up its sides with the caption "More nimble, more quick, more badass than Jack," and, a ground-level shot of a row of gleaming Harleys parked outside a small town general store with the caption, "34 metal masterpieces." The way these pictures are formally composed and the captions that speak in part for them demonstrate bonding capital in that they play to Harley enthusiasts' knowledge of the band's history (hence the

relevance of the WWII poster girl in the first picture), their language (“badass”), and their hardcore aesthetic (“metal masterpieces”).

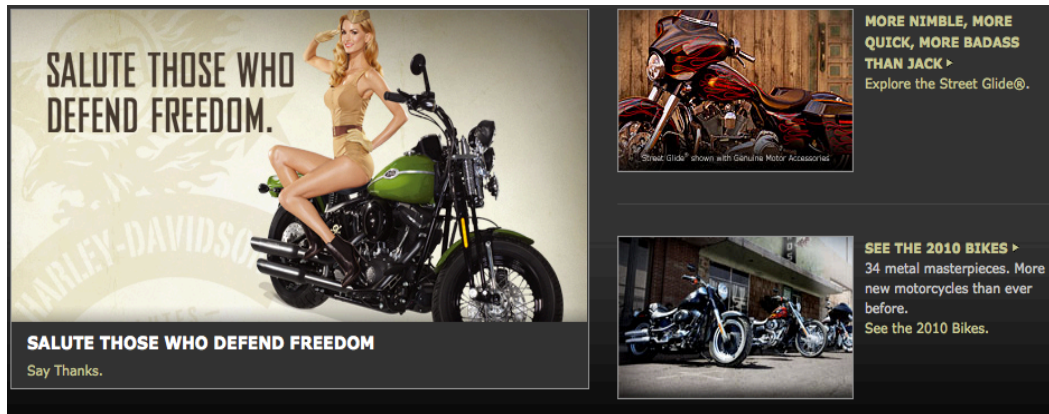


Figure 11: Harley-Davidson's website makes use of bonding social capital (Harley-Davidson, 2010)

To appreciate these references, and the social role they invoke, one must recognize the pictures and text as codes that constitute the Harley community. That moment of recognition and identification with the brand presupposes the presence of bonding capital; otherwise, the message would be lost on the viewer, and bonding would not have occurred. Sites like Harley-Davidson leverage bonding social capital to make existing customers feel a sense of *habitus*.

The Harley-Davidson website also makes use of bridging social capital. The purpose of incorporating bridging capital is largely to bring satellite clusters of visitors closer to the heart of the community. An example of bridging capital on the site is the Women Riders portal.<sup>25</sup> This section of the site attempts to hail or interpellate women into the Harley experience through the sharing of stories that might “inspire others to grasp the handlebars

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<sup>25</sup> The Women Riders part of the site is accessible here:  
[http://www.harley-davidson.com/en\\_US/Content/Pages/women-riders/landing.html](http://www.harley-davidson.com/en_US/Content/Pages/women-riders/landing.html).

and find adventure on two wheels.” In addition, the site offers a portal for what are called “Harlistas,” or Latino Harley riders.<sup>26</sup> Appropriately, this area of the Harley site makes use of a very different visual design, one that is more congruent with this audience’s particular *habitus*. A comparison of the formal design choices on each of these areas of the site I have mentioned—the Women Riders portal (Figure 4.13), and the Harlista’s silo (Figure 4.14)—reveals key design differences in the way of font, color, and *daimon* or character.

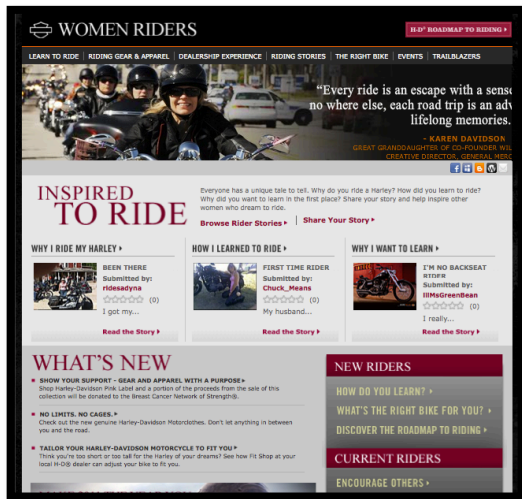


Figure 12: The Women Riders’ portal on Harley-Davidson’s web site (Harley-Davidson, 2010)



Figure 13: The “Harlista” portal on Harley-Davidson’s website (Harley-Davidson, 2010)

Although engagement is gained on both of the satellite pages through acts of social capital which convey riders’ stories, the presentation of this functionality is achieved differently because the artifacts of social capital are different for women riders than for Harlistas. Realizing that distinction is a key moment for designers, and it can be arrived at through conducting user research and creating personas.

<sup>26</sup> The Harlista portal can be accessed here: [http://www.harley-davidson.com/en\\_US/Content/Pages/harlistas/harlista.html](http://www.harley-davidson.com/en_US/Content/Pages/harlistas/harlista.html).

## Personas and the Design of Behavior

A deep understanding of someone's *habitus*, which includes their social capital, allows an outside observer to make accurate predictions about their behavior. Essentially, this is the goal of the time investment involved in creating rich personas. The original use of personas in design situations is attributed to Alan Cooper. Cooper (2004/1999) is credited with initially defining personas as "*hypothetical archetypes of actual users,*" and of coining the related, if paradoxical, maxim of "designing for a single person" (p. 123). Cooper (2004/1999) demonstrates the usefulness of his axiom by providing an illustration of the results of designing for too many people at once. Figure 4.15 is the "goofy, impossible car" design that tries to please three divergent user groups: "the soccer mom, the carpenter, and the junior executive" (Cooper, 2004/1999, pp. 123-24).

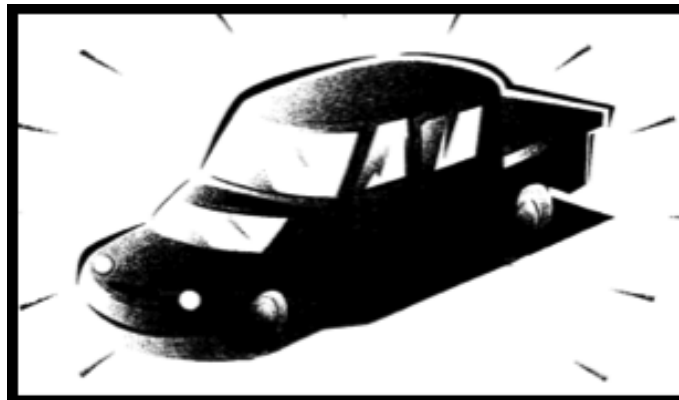


Figure 14: Cooper's (2004/1999, p. 124) "goofy, impossible" design resulting from trying to please too many users

As the final design shows, each group has different needs, preferences, and, in short, exists in a separate *habitus* when it comes to the type of car that they require. Cooper (2004/1999) acknowledges that the approach of designing for one defies logic, but he maintains that it is "the most effective way to satisfy a broad population" (p. 125). Although



he does not invoke the term, Cooper's reasoning is essentially that getting a design to work excellently for a small group of people makes them "net promoters" (Reichheld, 2006) of the product. Net promoters' zest leads them to recommend, or promote, the product to others. The credibility of word-of-mouth marketing, which relies in part on the psychological principle of Social Proof (Cialdini, 2007/1984), works to ensure that the product will garner use from others who occupy a *habitus* similar to the user/promoter.

Cooper's (2004/1999) assertion that using personas to design products that make users "ecstatic" (p. 125) is supported by investigations done by the independent research firm Forrester. In a report titled, "The ROI of Personas," Forrester researchers Vidya Drego and Moria Dorsey (2010) were tasked with investigating whether the costs (expressed in terms of resourcing personnel) of creating design personas were justified by the effects yielded in website redesign. The team concluded that "while there are benefits to a redesign without personas, a redesign with personas can provide a return of up to four times more" (Drego & Dorsey, 2010, p. 2). Specifically, Drego and Dorsey (2010) found that use of personas to guide decisions pertaining to a website redesign resulted in a 10% increase in repeat visitors, a 7% increase in new visitors, a 50% increase in successful conversions, and a 25% increase in the size of orders. All of these figures dramatically outpace the results of sites designed without the use of personas.

Given all that has been said in this chapter, the definition of *engagement* presented in Chapter 3 might now be supplemented with the idea that it is also the practice of applying the right social capital to a communication situation. Engagement is an important feature of interpellation: as an integral aspect of the dramatic *habitus*, engagement techniques capture users' attention and work to hail them into the social role defined by the site. Usability professionals create personas to *show* (as opposed to tell) designers who they

are working for. A well-constructed, representative persona can provide access to a target audience's tastes. With this in mind, designers can incorporate recognizable social capital in order to create a *habitus* that end-users will identify with and desire to be part of.

#### "Don't Mess With Texas": A Persona Success Story

In their book, *Made to Stick*, Heath and Heath (2007) tell the story of the "Don't Mess With Texas" anti-litter campaign. The authors use the tale to demonstrate the power of "credibility"—one of the six qualities they enumerate to explain what makes messages "sticky" (memorable and actionable). I will build on what they point out by adding a key link to personas and social capital.

In the 1980s, Texas was spending roughly \$25 million dollars a year cleaning up litter, and the kitschy slogans "Please Don't Litter" and "Give a Hoot—Don't Pollute" were doing nothing to slow the pace of trash pile-up. Consultant Dan Syrek was brought in to give the effort a much-needed facelift. The first step of Syrek's process was to find the culprit. After extensive research, Syrek learned that most habitual litterers in the state were young, 18–35 year old, pickup-truck driving males who loved sports, country music, and the state of Texas. Next, he obtained a picture of a member of his target audience, named him "Bubba," and designed the anti-litter campaign around what he knew of Bubba's identity (Heath & Heath, 2007). What Syrek was doing was designing a public service campaign that would interpellate all the people like Bubba across the state into the subject position of defender of Texas' natural beauty.

To make this role congruent with Bubba's *habitus*, Syrek knew that he could not use a typical authority figure such as a policeman, businessman, or politician. Heath and Heath (2007) attribute this decision to the fact that messages must be deemed "credible" by their target audience in order to "stick" with them. Rhetoricians would label this a classic

appeal to *ethos*, or the reputation of the speaker in the eyes of the audience. In the scheme of Bourdieu's (1984) *voir/savoir* principle, Bubba would not "see" and understand a message from this group of people because his *habitus* dictated distaste for "the man."

Therefore, in order to engage Bubba, alternative authority figures needed to be used, figures who resonated in Bubba's *habitus*, and who carried Bubba's brand of social capital. Accordingly, local sports stars and Texas-born country musicians were used in the commercials because they were associated with qualities Bubba lauded and values he believed in. One of the first commercials released as part of the "Don't Mess with Texas" campaign featured two people Bubba could identify with as true blue Texans, like himself: Dallas Cowboys football players Ed "Too-Tall" Jones and Randy White. The brilliance of the spot was that it associated a new desired behavior with a set of existing social capital that constituted Bubba's identity. By virtue of the social capital possessed by the men delivering the message, the commercial associated keeping Texas clean with machismo, thereby making the previously "sissy" task of cleaning up after oneself suddenly "manly." Indeed, Syrek was so specific in the rendering of Bubba's persona that they could *predict*, before a spot was released, how Bubba would react. This predictive power enabled Syrek to hail or interpellate Bubba into the role of cleanliness defender, and thereby to change Bubba's littering habits.

Testament to the power of Bubba's interpellation was the effectiveness of this campaign. Within a year, litter declined 29%, saving the state millions (Heath & Heath, 2007). This campaign's iconic success highlights the crucial importance of using robust personas replete with relevant social capital to guide decisions during the process of designing for interpellation.

### Contextual Inquiry, Social Capital, & Persona Development

While ethnographically-based user-centered research methods like Contextual Inquiry (Beyer & Holtzblatt, 1998) are commonly employed to observe users' work environments from ergonomic and task-flow perspectives, I believe *also* mining users' *habitus* for relevant social capital artifacts can be a productive enterprise for unearthing the rich stories that might be told about who designers are designing for—the various social roles occupied by users and their taste preferences within the context of those roles.

In fact, this step could be incorporated into the process of creating personas that I maintain is critical to interpellative design. Persona experts John Pruitt and Tamara Aldin (2006) touch on this aspect of personas when they allow a category for “personal artifacts (car, gadgets, [etc.])” to be included in a persona's profile (p. 232). Design teams can gain access to these artifacts in various ways. Teams who are logistically unable to make site visits to their users' work environments have utilized several in-home research methods to gather information related to users' social capital (Aldin & Pruitt, 2006). Such methods are somewhat related to diary studies, and can include sending a packet of materials to users with instructions.

For example, for a project I worked on, we were interested in how people think about what it means to save money for retirement. We wanted to know the emotions associated with this activity such that we might speak to them in the “planning and education” silo of the website we were working on. Rather than trying to accomplish this *solely* through interviews (which historically have yielded rather superficial insights), we sent users a parcel of colored construction paper, markers, and tape, and asked them to create a collage of what saving for retirement means to them. Upon receiving the completed projects, we called the users and had them talk us through their collage, explaining the

combination of images and words, and giving them a chance to attach concrete stories, goals, and expectations to the otherwise abstract act of “planning for retirement.” Not only did these collages help us hone in on users’ goals, but they also provided us with the authentic language to really speak to people about what concerns them. Although there were of course many instances of individual nuances present in the collages, it was also striking how trends emerged, even on a pictorial level. When correlated with the interviews—to ensure our interpretations of the collages were indeed what users’ were trying to communicate—we were able to move beyond the generalizations users are often pressed to provide during on-the-spot interviews, and into the more rich, narrative, and concrete world of the social capital they associate with a particular task.

Indeed, many stories can be told using the artifacts of social capital as *topoi* or conceptual starting places. Along these lines, another approach to investigating users’ social capital is a sort of annotated *habitus*, shown in Figure 4.16.



Figure 15: Using social capital artifacts to tell stories about users

In this instance, the user is the one who is responsible for initially annotating the artifacts. This is important because it allows their particular language to shine through. It also is indicative of a sort of prioritization of the *habitus*. In other words, a rhetoric of selection is at work when the user decides what artifacts to annotate. In the picture above, several characteristics of the user can be inferred just from reading the annotations. For instance, the person appears to take pride in their thriftiness. This is evidenced by the mention of the discount store Target, the hand-me-down quality of the couch, and the fact that the person presumably shares expenses with a roommate. Moreover, the person seems to have an appreciation for art and style, since they have called out the Van Gough picture and the fact that the roommate's chair does not match with the rest of the room's décor. There is also an interesting juxtaposition with the modern quality of the furnishings and the fact that the Van Gough picture is "61,000" years old. Given the prevalence of the contemporary style, it is likely that the picture holds sentimental value, or that it is perhaps associated with a fond memory, which would explain why it is being displayed for others to possibly inquire about.

These observations are the tip of the iceberg, and represent a high-level view of a user's *habitus*. Indeed, if inquiring minds wanted to know more about the user's interest in art, they could ask about the picture that appears next to the Van Gough, or inquire about what art hangs in other rooms of the house. If entertainment was the focus, much might be learned from the user's taste in DVDs or video games, which are placed under the TV for easy access and "badge-of-honor" (Norman, 2004) display. Regardless of the particular area of interest, the story artifacts of social capital tell about their owner *depends* on the frame of reference designers bring to the contextual inquiry. Although designers cannot possibly hope to account for everything, by pinpointing a specific *habitus*, locating artifacts that are

relevant to it, and examining them in detail, they can begin to tell a story about that aspect of a user's life.

After delving into a potential user's space and gaining insight into their *habitus* and social capital, the key questions are: how does this knowledge inform persona design, and, from there, interface design? Let me begin to speak to these questions by stating that all of the learnings from the *habitus* and social capital-oriented contextual inquiry should be used *in conjunction with* all other user data that is obtained through traditional means. This includes psychographic data, statistics, and interviews.

After such data collection, it is reasonable to wonder why the *habitus*/social capital inquiry is necessary if these other means of user research exist and tend to be considered sufficient. The answer is that personas' real and lasting value lies in the extent to which they represent a "whole-person" (Pruitt & Aldin, 2006, p. 23). Personas fail because they are often "poorly communicated," meaning that they have a flimsy, fake, and haphazard feel to them (Pruitt & Aldin, 2006, p. 39). Because a persona's ability to tell the story of a user group through its profile is the measure of its success, and because, as Bourdieu (1984) has so thoroughly shown, it is our *habitus* or life-style and the social capital acts, artifacts, and status that give it meaning and imbue it with character, it is essential that a persona's profile be infused with these elements as well. To ensure they "make the cut" into the persona's story, user researchers might simply adapt one of Pruitt and Aldin's (2006) existing focus questions. The questions currently read: "What personality characteristics seem common across these users? Is there an obvious culture of language (terms, ways of speaking) present?" (p. 131). Here, the personality characteristics are limited to "language (terms, ways of speaking)." However, this might easily be extended to include personality traits that

are tacit, yet displayed through the “emphatic expression” (Coates, 2002) of users’ *habitus* and social capital artifacts.

In terms of how these aggregate user personality traits find their way into the design of an interface, Pruitt and Aldin (2006) explain:

Personas can be used to help define the visual look and feel of the site us using “style” or “mood” boards [which] consist of cut-and-paste images that “feel like” your persona...style boards can include images of objects and places (such things as clothing, cars, watches, furniture, home décor, art, and even food products—anything that captures a look or style appropriate for the personas). Your team will then utilize the style boards as the basis for creating exploratory visual treatments across key areas of the product. (p. 393)

Figures 4.18 and 4.19 are the example Pruitt and Aldin (2006) use to show how a design team deploys a style board as inspiration for the visual communication and information design aspects of a website geared toward teenage males. It is apparent that the design team picked up on the bright colors, underscored by a darker blue. They also appear to be making an attempt to “speak” to the teens through the large, colloquial text, “fast stuff,” and short chunks of other text.





Figure 16: Style board displaying a persona's social capital (Pruitt & Aldin, 2006, p. 394)



Figure 17: Website design prototype built using the style board as inspiration (Pruitt & Aldin, 2006, p. 394)

Although the style board method of leveraging *habitus* and social capital artifacts included in the creation of a persona can illustrate a way forward for the visual communication aspects of an interface, especially if the site is for an emerging entity that is still working to define its brand image (and thus would not have any pre-defined standards or template to adhere to), there is not general agreement within the usability community that including such “personal details” in persona profiles is beneficial in the long run. On UTEST, a professional listserv I belong to, a recent thread was actually called “persona issues that invite debate and discussion.” As threads go, it was a popular one, and one of the most discussed issues was in fact whether personal details such as the ones that pertain to social capital are ultimately additive in building out a persona that design teams can use without being distracted by what might be thought of as unnecessary details. Although some people felt that personal details are always extraneous, others were of my belief that

such details can be helpful, so long as they directly pertain to the project objectives. While the field is largely in agreement over the benefits of personas in general, because this is a topic that invites debate, more research is needed to determine whether personas that leverage personal details are more effective in terms of ROI than ones that do not.

### **Chapter Summary**

When it comes to designing for interpellation, social capital is a potent concept. Social capital manifests in terms of acts and artifacts, which combine to contribute to a person's status within a *habitus*. Social capital is also present in the offline accouterments one has on display. These artifacts can be used as *topoi* or conceptual starting points for constructing a story or narrative about one or more aspects of the person's *habitus*.

In terms of user research, contextual inquiry presents itself as a prime method for gaining access to our users' *habitus* and the social capital artifacts that give it meaning and value. The fruits of such research can lead to the creation of user personas, and as Aldin and Pruitt (2006) note, "It is storytelling that makes personas work, by distilling information and analysis into a character and a narrative that ignite the imagination and bring the personas to life" (p. 521).

Designing in terms of social capital can allow designers to create *habitus* for personas who live by virtue of their specificity. Designers can leverage the power of association by linking the existing social capital of personas with qualities of their brand or ideology that they hope to pass on, as the "Don't Mess with Texas" campaign shows.

## CHAPTER 5

### IT MAY BE USABLE, BUT IT'S NOT *USABLE*: THE EXPLANATORY POWER OF INTERPELLATIVE DESIGN

The purpose of this chapter is to evince the explanatory power that the interpellative design framework has over how users respond to websites. To that end, I describe an observational study I facilitated with six users and two interface approaches to Clemson University's Master of Arts in Professional Communication (MAPC) program. The sites were selected because both provide similar information on what the program offers, how to gain admittance, and how to successfully progress through the curriculum. However, they differ in their presentation of *habitus* and use of social capital.

The observational study represents a “constructivist” (Howard, 2010a) approach to usability. As such, the inquiries that drive it are different from what are thought of as “typical” usability-related questions, the latter of which are largely informed by the “accommodationist” (Howard, 2010a) paradigm. A significant contribution to the field, then, is the articulation of a set of questions which allow users to articulate impressions of an interface that pertain to the constructivist factors related to interpellation. It has been necessary to continue to think through and develop the theory of interpellative design over the course of the previous three chapters because it is essential that the complete interpellative design framework inform the questions asked of users in the observational study.

The goal of presenting findings from the observational study is to use the mechanisms of interpellative design to explain why users had the reactions they did while spending time on each site. In other words, the purpose of reporting on the findings is to showcase the power that the theory of interpellative design has when it comes to describing

users' web experiences, and to uncover ways in which these experiences might be improved—for improvement is always the goal of usability. In showcasing interpellative design's explanatory power, I make an argument in favor of a more robust conception of what usability is equipped to handle, and hope that by associating usability with the constructivist paradigm some of the rupture the field is experiencing between what counts as usability might be healed.

### **Revisiting the Accommodationist and Constructivist Approaches to Usability**

Many people, both within and outside the field, view usability as a fairly straightforward practice. Although managers and executives tend to privilege cut-and-dry statistics, usability is an area of study and a set of research questions which brings together both quantitative and qualitative data (often in the form of satisfaction surveys and think-aloud protocols) in an effort to identify, prioritize, and make recommendations around interface ease-of-use or efficiency problems. Yet, with the evolution of the Internet landscape and the emergence of participatory Web 2.0 culture, a new pursuit *separate from* usability has been defined. Advocates of this emerging avenue—user experience design—believe it is better able to address the more holistic, emotional, persuasive, and aesthetic concerns that are fundamental to the success of interfaces that wish to stand out in this milieu.

However, this separation of aspects of “experience” from “usability” is problematic, for at what point can we reasonably say usability ends and experience begins? Fundamentally, we must question how *usable* an interface really is if it does not adequately convey an experience. To create conditions for such interrogation, usability had to first be theoretically extended to include all major aspects of the human experience. By creating a space for both “accommodationist” as well as “constructivist” approaches to address design

puzzles as Howard (2010a) has done, practitioners can begin to make powerful usability claims that pertain to experience, emotion, aesthetics. The theory of interpellative design acts as a vehicle for investigating and substantiating these claims.

### The Accommodationist Usability Paradigm

Traditional approaches to usability—the often-localized fix-it methods that were labeled “accommodationist” in Chapter 1—are limited when it comes to generating data on components related to interpellation. This is not a criticism of the paradigm, for it serves an exigent purpose when it comes to validating interfaces for common (and essential) usability metrics such as success rates, task completion times, and basic Likert scale ratings of user satisfaction. What is unfortunate, however, is that the accommodationist approach is what popular culture mainly and exclusively associates with usability. This fact has led to the separating out of usability from what is called user-experience design (Howard, 2010a).

Jared Spool, the voice behind the respected consulting firm User Interface Engineering, has been influential in perpetuating the separation by assigning “usability” to the sphere of web functionality (measured in terms of goals, tasks, and the other aforementioned success metrics), and “user-experience” to the realm of what might be characterized as self-actuation or emotional fulfillment, a higher-order state in which the success metrics are phenomenological: “Did the user have as delightful an experience as possible?” (Spool, 2007, para. 4). The separation might have been a benign one related to the relatively simple issue of nomenclature, if it did not have the unfortunate result of people believing that usability is unequipped to deal with the types of social, persuasive, and emotional issues that are bound up in the total user experience.

On a more fundamental level, these separate and unequal domains of usability and user-experience design as they are too-readily sketched *lack* the explanatory power for

acceptably describing and analyzing the particulars of a user-experience in any given context. Spool (2007) has noted that in the hypothetical case of a user ordering a camera online only to show up at a brick and mortar store to pick it up and be told it is on backorder, the failure was *not* due to usability. He argues that the user successfully ordered the camera, which meant that the transaction process online was seamless, therefore making it a usability success. Rather, he posits that the failure came during the separate user-experience portion of the scenario, when the user showed up at the store, was treated rudely, and left without the camera (Spool, 2007). As respondents to this scenario rightly pointed out, Spool's analysis was insufficient, and in fact illogical, when it came to isolating the point at which the situation really broke down—which was, indeed, at the online point of sale where the user should have been notified that the camera was out of stock. This is an example of something characterized as a “user-experience” flaw actually being a serious *usability* problem. Yet, because of the popular perception that usability is solely an accommodationist pursuit which is limited to validating online designs and outputting recommendations related to page-level fixes, and is therefore not at liberty to speak to concerns apart from these, Spool (2007) and others have been at pains to characterize the issue as relating to the user's “experience.” But I hold otherwise: it is usability from start to finish, regardless of whether the experience begins online and ends in the real world, or vice versa, or if the experience is contained either exclusively online or exclusively in the real world. Usability is what makes a user experience wonderful or painful.

Even when applications are highly successful, analyses of the reasons why also tend to marginalize usability and laud user-experience. It is as though usability is not (worthy) enough to explain the success of interfaces that become so popular as to be labeled “addictive.” For an example of this, consider the “cognitive teardown” written by Charles

Mauro, a human-factors consultant. Mauro (2011) wanted to explain factors contributing to the wild success of *Angry Birds*, a mobile gaming application that has been downloaded over 42 million times as of December 2010 (Parr, 2010). Although the analysis attributed the ascendancy of the game to “slowing down that which could be fast, erasing that which is easily renewable, and making visual that which is mysterious and memorable”, Mauro (2011) couched all of these factors in terms of “a truly compelling user experience” (para. 22). Yet, we might imagine that if these factors were not present, or were present to different degrees, *Angry Birds* might have become fundamentally *unusable*, thereby making it just another game amid the thousands available for download in app stores. However, working from within the accommodationist paradigm does not allow for such a conclusion to be drawn because the scope of usability from that perspective is so limited.

#### The Constructivist Usability Paradigm

In an effort to firmly realign usability with its humanistic roots as just the type of discipline that is at home with treating every aspect of people and their relationship to technology, Howard (2010a) articulated another side of usability. That side is the “constructivist,” holistic, and whole-person(a) oriented approach. Interaction designer Jon Kolko shares Howard’s vision for this paradigm when he writes,

We see design for usability and design for aesthetics of interaction as inextricably linked. Much of the Interaction Design community reasons from usability towards aesthetics...This has led to a design process in which usability problems are tackled first and questions about aesthetics are asked later. Yet, we are also interested in reasoning in the other direction: working from aesthetics and using it to improve usability. (Kolko, 2010, p. 83)

Kolko's sentiments are in line with what a constructivist approach to usability is poised to undertake, and that undertaking is precisely to align usable experiences with aesthetic ones.

Another quote is worth sharing here. Kolko (2010) says:

[Interaction designers] speak both words and form at once. They structure a compelling argument and invite the audience to share their work. The work evolves over time, and the work is completed by the presence and synthesis of the audience...The creation lies dormant until the "user" honestly understands the beauty of what has been designed. If the user never understands this, then the creation is never actually "usable." (p. 11)

Kolko's words are apt in terms of interpellative design because he seems to intuitively understand key components underlying the mechanisms that hail users into a *habitus*. For instance, he invokes the idea of (visual) enthymemic design and the notion of users "completing the form" (Iser, 1978; Laurel, 1993) a design's narrative establishes when he says that "the work is completed by the presence and synthesis of the audience" (Kolko, 2010, p. 11). Moreover, he corroborates the centrality of the "identification" stage in the interpellative process model I outlined in Chapter 2 when he argues that "the creation lies dormant until the 'user' honestly understands the beauty of what has been designed" (Kolko, 2010, p. 11). Most importantly, he recognizes where all of this leads when he asserts that "the creation is never actually 'usable'" unless and until these interpellative (Kolko calls them "poetic," in what might be seen as homage to Laurel's use of Aristotle's *Poetics*) elements are present and coalesce.

Interpellative design is a constructivist approach to the practice of creating usable interfaces. In other words, interpellative design is concerned with the design of dramatic digital spaces in which users' social role is constructed through the communication of



*habitus* and social capital. In allowing themselves to be hailed into the role(s) established by the interface's specific design, users engage with the site in predictable ways which are congruent with the behaviors associated with that role. Interpellation can and does occur on all different types of interfaces, because as Althusser (1971a) reminds us, interpellation has always already occurred so long as we are human and are interacting with other humans and/or their creations in a social context. Moreover, as long as we believe that human identity is fluid (as opposed to biologically fixed or *entirely* genetically determined), then it is possible to leverage the mechanisms that drive interpellation and employ them to the ends of guiding the interpellative event, or using them to "nudge" (Thaler & Sunstein, 2009) users into a particular subjectivity, which will in turn lead them to carry out at least some of the behaviors designers wish them to. If we are thus in the business of constructing such potentially powerful and enjoyable decision-making frameworks for our users, then we have found our own *habitus*, or place in the world, with interpellative design.

Yet, the theory of interpellative design is useful only insofar as it provides practitioners with real ways of not only describing user experiences, but also of determining ways to enhance these experiences, as improvement is ideally always the goal of usability. Indeed, what good is taking the trouble to create personas, build a *habitus* from the bottom up and endow the space with relevant social capital as a means of enacting interpellation into a desired social role if such a framework does not offer a rich means of describing and guiding user experiences on an interface? The question on the table is therefore why should those of us practicing in the field bother with interpellative design? In other words, what explanatory power does the theory itself carry in terms of explaining users' particular experience on an interface?

## **Observational Study: MAPC Websites Reviewed Through the Lens of Interpellative Design**

The premise of the observational study of the two MAPC websites I facilitated is that it is possible to bring in actual users, have them respond to the sites based on a set of specific questions that were developed out of principles related to interpellative design, observe the reactions they have, and relate those reactions to interpellative design as a way of showcasing interpellative design's power when it comes to describing users' web experience. Before I go too far into the investigation itself, let me explicate the two sites so that it is clear what was under study.

### Description of Websites Investigated and Rationale for Selection

The user engagement investigation compared two websites which are both affiliated with Clemson University's Master of Arts in Professional Communication (MAPC) program. One site was designed using what might be thought of as "standard" web design techniques in the form of the University's CSS template. This site is the main face of the MAPC program<sup>27</sup>; it is where users would land if they clicked the first hit yielded from a Google search of "Clemson MAPC." From now on, I will refer to this site as MAPC 1 to emphasize the fact that it is the primary online access point to the program. Figure 5.1 shows the site's homepage, and Figure 5.2 shows the portal to the "Prospective Students" silo. From Figure 5.2, it can be seen that MAPC 1 provides information on admission, cost, career options, curriculum, current student profiles, classroom and research facilities, and area residences.

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<sup>27</sup> The "main" MAPC site (referred to as MAPC 1 in the text above) can be accessed here: <http://www.clemson.edu/caah/english/graduate/mapc/>



Figure 5.1: Homepage of Clemson's MAPC program (Clemson University, 2011)

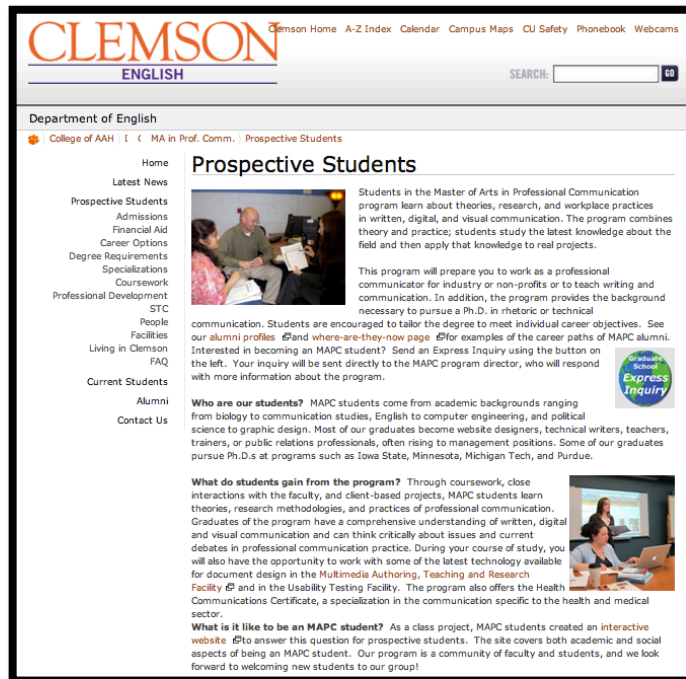


Figure 5.2: Prospective Students silo of the MAPC website (Clemson University, 2011)

All of the pages for MAPC 1 are laid out following the general model of text + picture(s) to create a space that is internally consistent with the University's many other graduate program websites. To get a sense of the consistency, see Figure 5.3, which is the homepage for Clemson's Masters of Arts in History program. Much as businesses do, it is important for the University to establish and maintain a cohesive brand image; the MAPC 1 site works within those parameters.

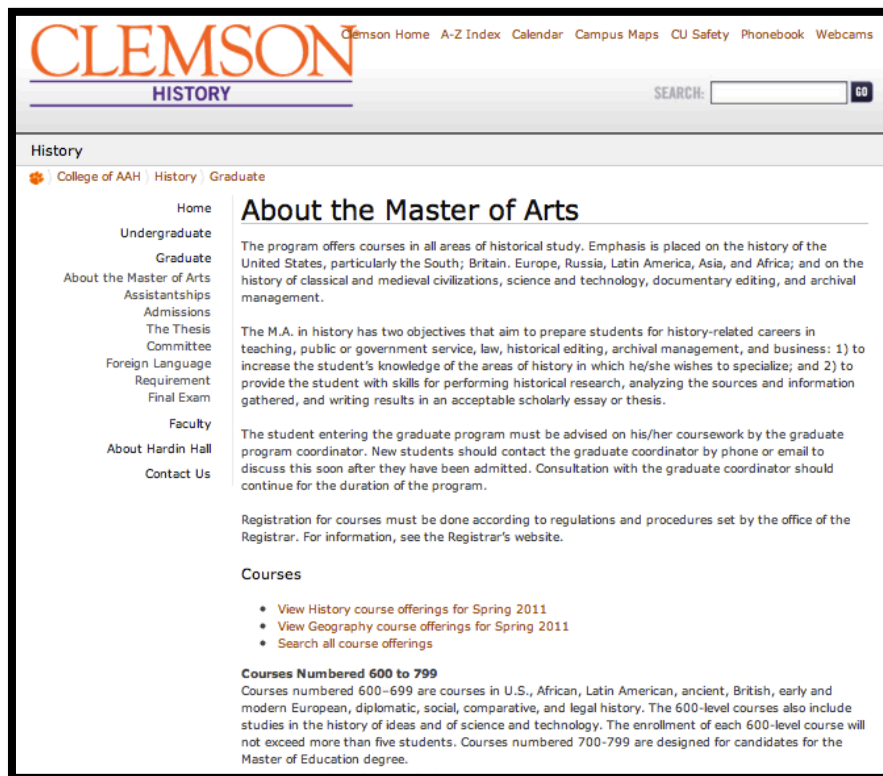


Figure 5.3: Clemson's MA in History homepage shows the Graduate School's consistent brand image

The other website was designed by several MAPC students as part of a usability class under the direction of Tharon Howard. I will refer to it as MAPC 2, since it was intended to be a supplement to MAPC 1. While MAPC 1 was designed to be usable as far as

accommodationist approaches to usability go, MAPC 2 was explicitly designed with the principles of the constructivist paradigm top-of-mind. In fact, Howard introduced his students to the idea of interpellative design, and instructed them to conceive of their site as a space in which users would be interpellated into a given social role (Howard, personal communication, 2009). MAPC 2 is accessible from the “Prospective Students” portal of MAPC 1, and while it provides some of the same information regarding curriculum, it also offers additional information surrounding the in-class experience, the specific types of assignments given, and the town of Clemson.

Figure 5.4 shows MAPC 2’s homepage, which users land on after watching a brief but optional introductory welcome video featuring two of the site’s designers. Figures 5.5 – 5.8 show the inside of each of the “apartment’s” rooms.



Figure 5.4: Homepage of the "interpellative design" version of the MAPC website (Clemson University, 2008)

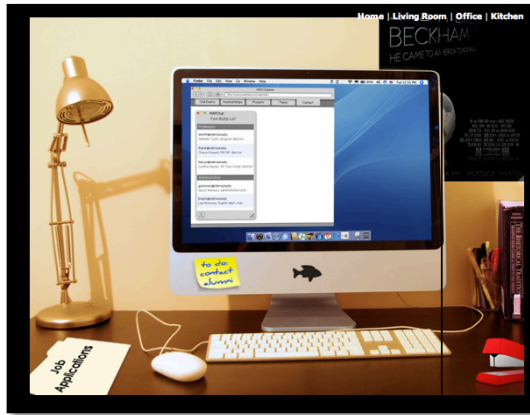


Figure 5.5: "Office" of the interpellative MAPC apartment (Clemson University, 2008)

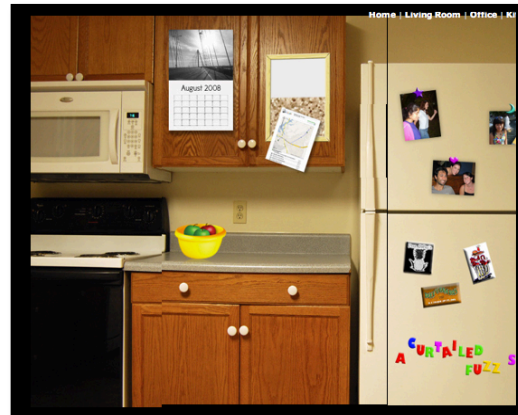


Figure 5.6: "Kitchen" of the interpellative MAPC apartment (Clemson University, 2008)



Figure 5.7: "Living Room" of the interpellative MAPC apartment (Clemson University, 2008)

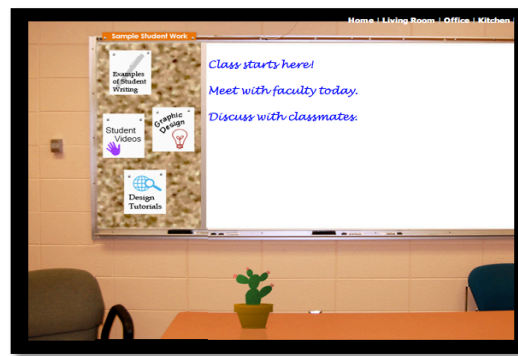


Figure 5.8: "Classroom" of the interpellative MAPC apartment (Clemson University, 2008)

According to the interviews I conducted with the design team, the immediate inspiration for this spatial layout was the site [Agencynet.com](http://Agencynet.com), the face of a digital marketing firm which specializes in online advertising strategies (Sean Callot, personal communication, 2010). The team was inspired by Agencynet's web presence because its navigational scheme appeared to be related to the so-called *method of loci*, or memory

palace, a mnemonic technique which catalyzes serial recall (Yates, 2001/1966).<sup>28</sup> In like manner, the architecture for the MAPC 2 site utilizes the idea of synecdoche, with each room of the apartment acting as a part or facet of the whole MAPC program experience. The principle of association guided the placement of items within each room, and it is responsible for allowing users to intuit where they might locate specific bits of information. For example, since living rooms are often associated with relaxation and down time, the designers used that room to showcase aspects of Clemson that pertain to leisure, such as the Atlantic Coast Conference (ACC) football culture and outdoor recreation possibilities. Sean Callot, one of the site's designers, explained during an interview that the room was supposed to show "what you do in town. This is what you do when you're not in class. We wanted to show we're more than just book people" (Callot, 2010, personal communication). In practical terms, users navigate the site by moving their mouse over different areas of the screen until items that are clickable become highlighted and glow.

The MAPC 1 and MAPC 2 websites were selected for evaluation because they each provide core content about the MAPC program, how to become a student in it, and how to progress through the program's curriculum. What results is thus an apples-to-apples comparison. This allows the focus of analysis to rest squarely on any differences in the social role users are interpellated into, and to consider the design techniques that may have led to these ends. Also, since the sites were locally designed and are part of a graduate

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<sup>28</sup> Generally speaking, the technique works by having a person imagine a house with defined rooms. If the person wants to remember a series of related objects, then they would "store" the objects in an appropriate "room." For example, if I had to remember food items from my grocery list, then I might look at the list and imagine the foodstuffs as being already in my fridge at home. I would place the gallon of milk on the second shelf (its normal place), the OJ next to it, the bread beneath it, and so on. This creates a distinct "locus" (Latin for "place") for each object, and eventually results in a "visual map" of my grocery list. Later, when I got to the store and realize I forgot my list, I could mentally access the fridge filled with the items I "placed" there earlier, and, thanks to the acuity of the visual map, I should be able to efficiently recall what I need to purchase at the store.

program that works very closely with my own, I had access to each site's designer(s), with whom I conducted interviews.

### Observational Study Set-up

Two approaches were used to collect information pertaining to interpellation, the design of the sites, and users' reactions to the designs. First, face-to-face or video-conference interviews were conducted with the site designers (depending on their location) to determine the purposes of each site, the site's potentially interpellative effects, and the techniques that were used to try to achieve the effects. These interviews lasted roughly sixty minutes each and utilized the same general set of questions the users answered.

Second, to accomplish the ends of allowing the sites' users to give voice to the social role they played while interacting with each site, and to provide feedback on whether the role was something they identified with and wished to carry out, a think-aloud protocol was used. This approach was chosen because think-aloud protocols are one of the most widely used methods usability professionals use to assess websites. The method works by having a facilitator pose different tasks, scenarios, and/or questions (depending on the study's objectives) to participants who then are encouraged to talk aloud as they interact with the artifact and address what they have been asked to find or do. In addition to giving a verbal account of participants' thought processes, the protocol prevents the reliance on potentially inaccurate and/or incomplete retrospective accounts of what participants were thinking during the session. Although think-aloud protocols are not a perfect record of a person's actual thoughts, they nevertheless provide valuable insights into otherwise tacit mental processes (Lauer & Asher, 1988). Indeed, Jeff Rubin and Dana Chisnell (2008) characterize the think-aloud method as being "especially effective for conducting early exploratory research (such as evaluating the participant's mental model of a product), because it



exposes the participant's preconceptions and expectations about how the product works" (p. 204).

Essentially, this investigation was developed to ascertain users' emotional mental model as it pertains to researching a potential graduate program. I wanted to discover how users expect to feel during that process, and, in terms of interpellation, how they orient themselves socially in relation to each of the site designs. In other words, I wanted to know what specifically led users to believe that the MAPC was or was not a good "fit" for them, and, crucially, I needed to know whether the mechanisms and process driving interpellation could explain why this was or was not the case. For these reasons, then, a think-aloud protocol was appropriate for being able to provide the kind of user feedback that could provide insight into the explanatory power of interpellative design.

#### *Information Gathering*

The two MAPC websites were investigated according to a within-subjects approach. This suited the study's purposes because "a within-subjects study does not require as large a sample size, and you don't have to worry about differences across groups. Because each participant is being compared to himself, the differences you observe in the data cannot be attributed to differences between participants" (Tullis & Albert, 2008, p. 18). Thus, the focus of information collected during the investigation rests appropriately on the sites themselves, and how users are variously interpellated by them. Additionally, since the sites are similar in terms of the content they provide, I used the technique of counterbalancing to control for the pull of first impressions and learning possibly acquired during the session (Tullis & Albert, 2008). Counterbalancing was enacted by varying the order in which participants were exposed to each site. For example, Participant 1 (P1) saw the MAPC 1 site first, Participant 2 (P2) saw the MAPC 2 site first, and so on.

All of the sessions began with a general scenario to get participants into the right frame of mind for approaching the sites. Usability testing pioneers Joe Dumas and Ginny Redish (1999) explain, “You use scenarios to tell participants what you want them to do during the test. Scenarios describe the tasks in a way that takes some of the artificiality out of the test” (p. 172).

Before I revealed the specific scenario users would keep in mind during as they viewed the sites, though, I explained the think-aloud procedure. I told each user I was interested in their honest feedback and perceptions regarding the sites, but in order to capture those valuable insights, I needed them to give voice to their otherwise internal monologue as they went through the sites. Although it might be awkward for them at times, I assured them none of what they said would be “judged”—the investigation was in no way an evaluation of *them*. It was, rather, much more of an investigation of the *sites*, and how well each one met their needs and expectations. To make the think-aloud method concrete, I accessed *Amazon.com*, gave myself a dummy task (“Let’s say you asked me to tell you what I thought of the process of listening to a music CD before purchasing it”), and briefly thought-aloud, making sure to voice what I liked and disliked about the site and its controls.

Once participants were clear on what they were being asked to do, I gave them their scenario. They were told the following:

You are working at the job you currently hold. However, you would like to further your career by obtaining a(nother) practical master’s degree. You’ve heard Clemson University’s Master’s of Arts in Professional Communication (MAPC) program offers people the ability to acquire a variety of technical and theoretical skills that can lead to vocational flexibility. You’re interested

in learning more about what MAPC has to offer, and whether it's the right place for someone in your circumstances and stage in life.

After hearing the scenario, participants were shown whichever site their order in the queue specified (i.e. P1 viewed the MAPC 1 site first; P2 saw the MAPC 2 site initially, etc.), and I observed silently for 1-2 minutes while they got their bearings. Thereafter, participants responding to the questions I developed to ascertain their impressions of the site from an interpellative perspective drove the sessions. After approximately 60 minutes, we switched to the other site, and repeated the process: participants got acclimated, then responded to the same set of questions, moving about the site as necessary to explore what interested them. Thus, by the end of the investigation I had spent approximately two hours with each of the six participants, all of whom responded in detail to each of the MAPC websites.

#### *Questions Posed to Users Regarding Interpellative Design*

Interpellative design is a new way of approaching both web design and the user research that necessarily feeds into user-centered interfaces. Because of its novelty, no one has developed questions that have been posed to users which explicitly addresses interpellation. After conducting extensive research that informed the theory of interpellative design that has been presented in the previous three chapters, I developed a set of questions which I believed, when answered, would demonstrate the explanatory power of interpellative design as a theory that could productively illuminate how users experience a website. These questions were adapted from three sources: behavioral economists Joseph Pine and James Gilmore, information designer Karen Schriver, and organizational behavior researchers Chip and Dan Heath.

Based on interpellation's emphasis on experience and experiential interfaces, I adapted the first few questions from Pine and Gilmore's (1999) "experiential framework" to

ask participants during the think-aloud sessions. Pine and Gilmore (1999) conceive of four experiential realms: Entertainment, Education, Esthetic, and Escapist. The authors claim that their framework can be used as a set of prompts that help generate ideas around how one might enhance the particular experience one wants to stage. This resonates well with the idea of *habitus* as I have described it as a dramatic staging ground for the interpellative event. In terms of each of Pine and Gilmore's (1999) realms, the guiding questions to consider are:

- *Entertainment*: What can be done to lure your guests in?
- *Escapist*: What do you want your guests to do? What activities should they be immersed in?
- *Education*: What do you want your guests 'to learn' from the experience? How will you teach them this?
- *Esthetic*: What can you do to get your guests to stay for a while?

While the questions above are good for design teams to consider when thinking about the sites, they are not suitable in their current form for participants' ears. I therefore kept the spirit of the questions, while at the same time adding to the mix and making the inquiries more user- and interpellation-focused. The last question below merges Pine and Gilmore's (1999) query with Heath and Heath's (2007) idea of "stickiness," or that which is most memorable and actionable. These, then, are the first set of questions I asked participants as they perused each site:

- As far as you can tell, what is the purpose of the site? Are there elements that lure you in? If so, what are they? If not, what's preventing you from being drawn in?
- What do you expect to be able to do on the site?

- What are you learning as a result of being on this site? What do you think about the way that information is conveyed? Did you learn or do anything that was unexpected?
- If you were to return to this site some time from now, what would you be looking to know or do? What, if anything, would draw you back to the site?

These questions map nicely to the interpellative design process model, which is useful for establishing the parameters of the site's *habitus*. Ideally, the *habitus* should be appropriate in terms of the target audience's taste distinctions and expectations. Using the process model as a benchmark, luring users into the site correlates with grabbing their **attention**; activities users might engage in on the site can be built based on whether users will **recognize** them as relevant to the site's purpose; learning or other products of engagement will occur if users **identify** with the material they encounter during the recognition phase; users will **desire** to "stay for a while" and return again later if the *habitus* allows them a sufficient amount of agency to move about the interface in a transparent, usable way; if the previous conditions are met, users will feel a sense of **security** that they are indeed in a "place" that meets their immediate usability needs as well as their higher-order social (interpellative) ones. Taken together, these questions seek to get users to define and describe the site's *habitus*. As such, they are intended to provide insight regarding the first mechanism of interpellative design and how, by means of the interpellative process model's markers, *habitus* factors into the overall user-experience on the site.

This leaves questions to be asked regarding social capital, the other mechanism driving interpellative design. Two questions from Schriver's (1996) anti-drug brochure study fit this need. As noted in Chapter 2, Schriver (1996) asked her participants to describe

the impressions they formed of the brochures' designers. She also asked the brochures' designers to explain how they conceptualized their audience as they composed the brochures. I added to these inquiries to encourage participants to identify specific elements or aspects of the site that worked to inform their impression. When finalized, the questions were asked as follows:

- What impression do you think the designer of this site has of you? What makes you think that? Do those impressions accurately describe you? In your opinion, are those attributes appropriate for this type of site and the reasons you would use the site?
- What impression do you have of the designer of the site? What specific elements on the site led you to that opinion?

The questions informed by Schriver's (1996) study are critical because they offer an accessible window into the social role (subject position) users are hailed into by the design of the site. Whether the site hails participants into a role they identify with is what distinguishes the site from being a "plain space" to a "distinctive place" for the users (Pine & Gilmore, 1999). Interpellative design absolutely seeks to create such "distinctive" places by creating a recognizable *habitus* and endowing it with appropriate elements of social capital. Indeed, it is arguably the social capital present on the site that determines whether or not users will identify with the *habitus* and desire to perform the behaviors associated with the social role it hails them into. This fact makes users' isolation of specific design techniques that either did or did not resonate with them an important step in describing the particular aspects of the user experience that "worked" in terms of interpellative design versus those that contributed to the experience breaking down—a situation in which users elect to opt-out of the social role they feel hailed into.

In sum, I wanted users' answers to these questions to correlate with the elements of social capital the sites utilized. If, for example, users said that they believed the designers thought their audience was intelligent, creative, or adventurous, these would be the social roles the site had hailed them into. The specific design techniques the site utilized to make users form that impression might be classified as elements of social capital.

#### *Interpellative Design "Success Criteria"*

How do usability engineers know if an interpellative design is working? There are at least two success criteria to be aware of when thinking about users' answers to the above questions. First, there must be a match between the social roles the designers set forth in an interface for the users and the roles the users **recognize** for themselves therein. Second, users must **identify** with the role to the point of **desiring** to perform the behaviors associated with it. This would result in a more or less predictable interaction flow on the site, meaning the site would be used the way it was designed to be. Thus, setting forth a role users recognize *and* wish to play is the final success criteria for an interpellative design.

Within the context of these criteria, though, it is important to remember that interpellation as I have explained it is a two-way proposition; it is a "nudge" (Thaler & Sunstein, 2009) to behave in certain ways that users are at liberty to reject. A usability issue exists in situations in which users *recognize* yet decide to *reject* a hail, and so decide either to not use the site at all, or to use it in the way(s) other than how it was designed. Given this, it is crucial to capture feedback around the role rejection, and to make a concerted effort to isolate areas of resistance pertaining to social capital and *habitus* that might be amended in future design iterations.

Thanks to interviews with four of the MAPC 2 site designers as well as Dr. Taylor, who was at the time responsible for the content on the MAPC 1 site, I knew what social role

each site was attempting to hail users into; so I could see whether there was a match between designer intent and user reaction. The objective of both MAPC sites is to hail visitors into the role of a student in the program; that role acts as a conduit for making a decision regarding whether the school is the “right fit.” Given these goals, the challenge faced by each site’s designers is how to balance the hail such that users get data on the school they are looking for (such as admission information, course descriptions, and cost), while at the same time staging a rich *habitus* that says to each of the diverse audiences who visit the site, “you belong here.”

### *Participants*

In terms of audience, the users I talked to were “non-traditional students” returning to school after a hiatus from academia. My interview with Dr. Taylor as well as the “Making-of” video on the MAPC 2 site confirmed that this group makes up a fair portion of the actual MAPC student population; they are therefore a legitimate audience for each of the MAPC sites.

I recruited six participants who fit this demographic. These participants were recruited based on their professional and educational backgrounds. In other words, participants were screened based on whether they would be reasonably considered for admission to the program, and whether they would reasonably consider the program as a viable option given their needs and interests moving forward. When prospective students land on the MAPC homepage, they are greeted with the claim that “the MAPC program allows you to tailor the program to fit your individual career goals.” This makes it seem as though one might conceivably pursue any number of avenues; however, the “where are they now?” area of the alumni site shows that most graduates pursue careers in PR,



communications, marketing, teaching, web design, and editing. Most students enter the program with backgrounds in these and related fields as well.

Table 1 summarizes relevant demographic information for the six non-traditional student users who participated in this investigation.

**Table 5.1: Observational study participants’ demographic information**

<b>Participant #</b>	<b>Age</b>	<b>Occupation</b>	<b>Degree(s) &amp; Specialization</b>
<b>1</b>	27	Teacher	BA – Communication & Spanish M.Ed. – Secondary Education
<b>2</b>	50	Marketer	BA – Psychology & Education M.Ed. – Special Education
<b>3</b>	41	Program Coordinator	BS – Hotel & Restaurant Management
<b>4</b>	28	Developmental Instructor, Autism	BA – Psychology
<b>5</b>	26	Teacher	BS – K-8 Education M.Ed. – Gifted Education
<b>6</b>	29	Librarian	BA – English

Observational Study Findings: Describing an “Interpellative” User Experience

The goal underlying my presentation of findings here is to demonstrate that an exploratory observational study focused on interpellative elements of a site’s design can lead to powerful explanations regarding specific, and otherwise “mysterious,” elements of a user experience, such as those related to visual communication (as it manifests through social capital) and the social role users adopt with the site’s *habitus*. Since this is not an empirical study, my intent is to explore users’ claims, and relate what I observed to the mechanisms of interpellative design in an attempt to describe the users’ experience through that lens.

### *MAPC 2 Interpellative User Experience*

The MAPC program, because of its far-reaching appeal, has several distinct audiences. The non-traditional students I spoke with were one, but the program also caters to students who enter immediately after completing their undergraduate study, as well as to international students. Moreover, professors who wish to teach in the program or otherwise become involved in it also visit the “prospective students” area of the MAPC site. Even without a deep understanding of *habitus* and social capital, it is clear each of these audiences have distinct taste preferences that are a function of their station in life as well as their cultural experiences. These distinctions make the difficulty faced by designers of sites like MAPC and others with multiple audiences apparent. Indeed, the difference in *habitus* and social capital possessed by the non-traditional students I spoke with made all the difference when it came to their experience on the two MAPC sites.

In terms of *habitus* and schema construction, my interviews with four of the MAPC 2 designers divulged a common vision, which was encapsulated by Mike Hovan: “We wanted people to feel almost like were test driving the program in class and out of class. We wanted them to be able to ‘meet’ some of the students, build a narrative, have fun, and explore” (Hovan, 2010, personal communication). Sean Callot added, “We wanted our site to feel more homey and comfortable [than the MAPC 1 site]. We wanted it to be less academic, less sterile” (Callot, 2010, personal communication).

To these ends, the designers attempted to make the experience on the site as “authentic” as possible. As explained earlier, the team settled on an apartment to visually represent the program in its many aspects. Sarah Hunt-Barron, another MAPC 2 designer, revealed that real photographs were used to create the backdrops for each of the apartment’s rooms. She explained that the Office, for example, was an image of “Christina’s

[a student in the class] desk, books, lamp with shadow behind it, and picture [of David Beckham]" (Hunt-Barron, 2010, personal communication). It is important to note that the students in the class provided photos because the overwhelming majority of the class actually fit the straight-out-of-undergraduate student profile. Much of the other raw material that made its way into the site and combined to produce its distinct look and feel was gathered through this means, thereby resulting in a collection of artifacts that skewed young(er) in terms of their *daimon* or essence (Coates, 2002).

Despite MAPC 2's overwhelming success in regards to *showing* what the program is like, users did not identify with the social roles they felt hailed into by the MAPC 2 site. The most prevalent role users were hailed into—expressed by 6 of 6 participants—was that of a "child," "young kid," "someone much younger than I am." This role was followed by that of a "slacker," "undergraduate," "someone with lots of free time" (4 of 6 participants). The roles of "creative," "adventurer," "explorer," and "fun-loving" came next (3 of 6 participants), followed by "techy" and "video gamer" (2 of 6 participants). Lastly was the role of "intelligent grad student" (1 of 6 participants).

With this information in mind, let me walk through the non-traditional student user experience on the MAPC 2 site to determine what occurred. When users first land on the site, a welcome video greets them. Overwhelmingly, users **attended** not so much to the video's message, but rather to the people it featured. Users assessed the man and woman who spoke for similarities to themselves. This was not a surprising finding in light of Cialdini's research on persuasion tactics. Cialdini's (2007/1984) work reveals that we are more likely to comply with the requests of someone whom we like, and that one of the factors that contributes to the principle of "Liking" is degree of similarity. In other words, we are more likely to identify with people who we perceive to be similar to ourselves. This,

indeed, is what makes “bonding capital” (Shirky, 2009) such a powerful aspect of community building and maintenance. The MAPC 2 site’s first impression, then, was one of difference: the people featured in the video were different from the participants themselves. As P4 put it, “He’s good looking, but she looks like she’s 17.”

Upon “entering” the apartment after watching the video, it was difficult for users to **recognize** where they were or what they were supposed to do, as the interface was different in every possible way from the MAPC 1 site and the “conventional” genre of sites to which it belongs. Although the designers intended for the MAPC 2 site to be an “exploratory choose-your-own-adventure” (Callot, 2010, personal communication), a “non-sequential experience” (Hovan, 2010, personal communication), users were flummoxed. As P1 said, “I don’t know what I’m supposed to do or click.” After taking a few minutes to see how the navigation worked and the sorts of things each room contained, users did catch on to the fact that the apartment image map was acting as a metaphor for life in the program. This indicated that the issue was *not* in users recognizing what was being attempted: they got it. P1 acknowledged, “It’s clever and I see what they were trying to do, but if you’re all business it takes a long time to find things.”

The fact that navigating the MAPC 2 space depended on noticing what became clickable by hovering one’s mouse over it was an atypical experience for this user group, and, given their keen awareness of (lack of) time, they were not inclined to hover and click over everything just to see where the links led. Relatedly, users’ expressed frustration regarding the lack of “predictive power” (Howard, 2007, personal communication) the links displayed. In other words, it was often impossible for participants to predict, before clicking a link, where they would be taken or what they would be shown (“This potted plant is telling me I can click it. I have no idea what will happen. Is forestry somehow related to this

program? I don't know."'). While participants were sometimes pleasantly surprised (as in the case of clicking the books in the "Office" and being taken to an *Amazon.com* MAPC reading list), the lack of predictive power mostly proved problematic not only in terms of initially finding what they sought (i.e. basic information on the program), but for remembering later where they happened upon something that was of interest ("Was that reading list in the 'Office' or 'Classroom'? I can't recall."').

Moreover, time again became a noticeable issue when users realized that much of the content on the site was contained in (sometimes lengthy) videos. Nonetheless, the videos and student work samples in the apartment's "Classroom" were users' favorite aspects of the site. The visceral quality of the videos combined with the authenticity of the student work provided just the sort of glimpse into the program that they sought. P3 remarked, "At the end of the day, the decision to go somewhere is an emotional one." However, while they enjoyed the idea behind the videos and student work, users' agreed the clips were too long, and the student work lacked the context of specific assignment requirements and professor feedback. Thus, the problems appear to lie in users' **identification** with the *habitus* presented and, relatedly, their **desire** to "live" there.

In addition to the mismatch between the site's navigation conventions and the *habitus* users expected, the artifacts of social capital that were so much a part of the site's identity—and which contributed in large measure to providing the MAPC program with a personality—were also misdirected for this audience. While they did indeed "speak" to participants through their *daimon* or essence (Coates, 2002), the message they conveyed was generally anachronistic, a throw back to a time earlier in the participants' lives that they had now moved beyond.

Some of the artifacts of social capital that participants recognized but did not identify with were, broadly speaking, the apartment's layout and décor. Specifically, participants honed in on the following:

- The small 1 BR floor plan, where the "Office" doubles as a bedroom – "This makes me feel like I'm broke with no family" (P6)
- The "youngness" of the people featured in the Welcome video as well as in the pictures on the refrigerator in the "Kitchen" – "These are cute, but everyone looks really young" (P3)
- The outdated refrigerator in the "Kitchen" – "I just got rid of a fridge that looked like that" (P2)
- ESPN *Game Day* channel in the "Living Room" – "For a 41 year old, I've already had my football thing, so I'd be like bye-bye [to the 'Living Room']" (P3)
- A link to [addictinggames.com](http://addictinggames.com) from the Wii in the "Living Room" – "Are these games people in the program made? If not I don't have time or interest to stay here and play. At this point, I'd be done [exploring the 'Living Room']" (P2)
- The fact that Tiger Town Tavern (a college bar) is the first item featured on the Google map in the "Kitchen" – "I'm beginning to question whether these people ever work" (P4)
- The .wav clip that plays upon clicking the red stapler in the "Office" (Milton from the movie *Office Space*) – "Didn't Milton hate his job so much that he burned the place down? What are they trying to say?" (P4)
- Brightly colored (pink, yellow, orange, and green) OnMouseOver effects to highlight each room - "It's neat what they've done to make this special. But at the same time this doesn't strike me as a professional web design." (P5)

These distinctions, while subtle, are nonetheless incredibly important. Indeed, as Bourdieu (1984) reminds us, “taste classifies, and it classifies the classifier” into a particular *habitus* or life-style that determines what counts as acceptable and appropriate. If we wish users to comply with the “nudge” (Thaler & Sunstein, 2009) we establish, then we must ensure that we frame the *habitus* in an audience-appropriate way.

These findings showcase users’ unwillingness to play the social roles set forth for them by the design team. In terms of the ethics of interpellative design, in opting out of the hail, users deployed their “libertarian” (Thaler & Sunstein, 2009) right to refuse to be so interpellated. Although they recognized that they were being “nudged” in a particular direction, because the nudge relied so heavily on a *habitus* endowed with artifacts of social capital that the users mainly did not identify with, designers should be cautious of design strategies which do more than “nudge” users in particular directions.

On the other hand, users did not refuse the hail *site-wide*. In fact, they enjoyed the “Classroom” and most of the “Office” because those spaces not only provided them with the information about the program they sought, but also did so in an engaging, visceral way (through the use of video, mainly) that gave users a sense of the program’s *daimon* or personal essence. In terms of *habitus*, as long as the site depicted information relating to campus and academic life, users were comfortable; however once the *habitus* ventured off-campus, the social capital used to convey the MAPC experience was no longer a match for this user group’s expectations.

#### *MAPC 1 Interpellative User Experience*

Designing effectively for interpellation and *habitus* means considering the audience’s use context, and determining the constraints within which a site must work to meet their needs and expectations. In the case of observing users interacting with these

sites, *habitus* is the schema or script activated upon beginning the process of researching prospective graduate programs. This “mental model” (Young, 2008) then tells users what information is important to locate and how they would prefer to have it displayed, given their circumstances.

It was clear across this user demographic that they are busy people. As P1 explained, “I’m into how fast I can get things done and check them off my list.” When they begin research, these users set out wanting to know about high-level data points related to each school they might consider attending. It was also clear that their research process happens in the interstices of time—for instance, when they have a break at work, as they wind down in the evenings, or in between their weekend chores.

It was also the case that these users would research multiple schools at once to get a broad feeling for what might be available to them, but that all of the time spent researching would not necessarily be online. Four of the six users noted that they would print information from prospective schools’ websites, and store it in physical folders that could be picked up and read when they had some free time. Thus, the delivery method of the information as text proved to be important, not only because it lends itself to printed pages, but also because, as P1 and P5 commented, it is easily “skimmable.”

The key information users sought was, as P3 put it, “Is this [program] something I can handle, since I’m returning to school after so long?” Specific data points related to this inquiry that participants looked for were: program overview statement, admission requirements (minimum GPA, GRE score, e.g.), cost, and course descriptions. The second question users sought an answer to was how practical the degree is—what could it do for their career and their network?



To meet these needs, the MAPC 1's *habitus* worked within the conventions of the University's CSS template to deliver pointed text-based content. In terms of the interpellative process model, users were initially **attracted** by the fact that they **recognized** the website's layout as being "standard...exactly what I expect from a grad program" (P4). In addition, users **identified** with the intuitive, "cut-and-dry" (P6), "no-frills" (P4) link names, as their "predictive power" (Howard, 2007, personal communication) allowed users to anticipate where they would likely be taken upon clicking them. The links' predictive power thus became an affordance at the *habitus* level inasmuch as they facilitated rapid access to pages that could themselves be quickly skimmed in order to glean the information users sought.

Because of this recognition of and identification with the navigation apparatus, there was agreement across users in their **desire** to spend time exploring the "Prospective Students" silo. By having that link text double as an explicit naming of users' most obvious social role in relation to the site, the link clearly interpellated users into the prospective student *habitus*, which prepared them to search for the specific information they would need to know to make a decision regarding whether the program was indeed the right fit for them.

Thus, the MAPC 1 *habitus* presented itself as an easy-to-use, if "wordy" (P3), space whose procedural rhetoric—overwhelmingly in the form of links—laid out the topics of information believed to be most relevant: admissions, financial aid, career options, degree requirements, professional development, people, facilities, and living accommodations. In terms of the social role this model of *habitus* hailed users into, users labeled it variously as "traditional" and "conservative", as well as "intelligent" and "detail-oriented." They cited the intuitive navigation scheme, prevalence of text, high caliber of writing, and presence of

“mission critical” data points as enumerated above as the specific design techniques that prompted them. Most importantly, all of these roles were acceptable to this user group—they were comfortable assuming them. As far as *habitus*, then, the MAPC 1 site fares rather well—not only in terms of accommodationist usability standards (it is clearly easy to use), but also in terms of establishing a *habitus* that is recognizable and that resonates with the target audience.

But, was the MAPC *habitus* as presented on MAPC 1’s site a space within which users *ultimately* wished to live? The *habitus* was a good schematic match for this group; however, there is more to a holistic interpellative experience.

Although nearly all of the participants commented that the site’s standard left-hand navigation and text-driven information delivery led it to be “user-friendly” thereby “serving its informational purpose” (P3), they also voiced the tension they felt when it came to leaving the site without a “personal” feeling from the program. As P4 noted, “They’re not really saying, ‘Come join us! This is what we’re like!’ They’re not giving me any personal aspects of the program.” When asked to comment on the pictures that appeared throughout the site as a way of responding to the questions regarding what users thought of the site’s designers and what the designers thought of them, most users brushed the images off as “stock” (P6), “too-posed” (P5), and lacking people of an older age closer to their own (P3 & P4). In addition to the staid quality of the pictures, P1 said, “I want to see projects. [The site] keeps saying ‘practice,’ ‘application.’ *Show* me these things.” Similarly, P6 explained, “What I like about the idea of MAPC is that it seems like a degree where you can actually hand someone something and say, ‘This is what I do.’ So I want to see the tactile part of the program.” And P2 noted, “It’s not generating any ‘buzz’ for the program. Buzz meaning, ‘I could see myself in that class,’ or ‘I want to meet that professor.’”

These users are lamenting about the apparent lack of social capital the site employs *to showcase what the program is really like on the inside*. I emphasize the latter part of that sentence because it might well be argued that social capital is evident (from a meta-perspective) in the neat alignment of the site's *habitus* with the users' stated needs and expectations. However, while that use of social capital is necessary, it is evident from users' comments above that it is not sufficient if the goal is to create a holistic experience. This fact alone demonstrates the necessity of a constructivist approach to usability; the accommodationist method alone is not enough.

Interestingly, my interview with Dr. Summer Taylor, the now-former director of the MAPC program and coordinator of the MAPC 1 site as it stood during the investigation, revealed that, not only was the site designed explicitly to “show the dynamic nature of program and show what it's like to be here—it's more than degree requirements and coursework,” but also that the pictures were one device to enact that purpose. In Dr. Taylor's words, “It was important that that images not be stock photos. I wanted actual images of MAPC students, faculty and alumni, people talking to each other, smiling, and working with each other in the context of the MATRF [or other MAPC facilities] in order to give people a sense of [the program's] personality” (Taylor, 2010, personal communication).

When Dr. Taylor's comments are viewed alongside users' feedback, what emerges is a disturbing disjoint between the designer's expectations regarding social capital and users' lived experience of it. As P5 commented, “I'm a teacher, so I know when photographers come around they pose us. That makes me not trust [the pictures] as accurate representations.” Added to this was P3's confusion, “Are these supposed to be students? I don't know. What are they doing? I can't tell.” And P6's observation, “There are a lot of

women [in the program]. Young women, if what these pictures show is any indication. I see a few men, but are there any older people?"

The interpellative process model can help describe this breakdown in more detail. First, users did not initially pay **attention** to the photos; in other words, the photos did not act as hooks or lures signaling to users that they were showing the "personality" of the program. This **lack of attention was likely due to issues resulting from (mis)recognition and identification**: contrary to the designer's intent, the pictures' "stock" and "posed" quality led users to recognize them as *lacking* personality. In addition, their (intended or not) exclusion of subjects who fit the non-traditional student profile *disallowed* users who did fit that profile from identifying with them. At this point, the domino chain had collapsed to the point where there was little possibility of users **desiring** to engage with the images further, and in fact their previously positive impression of the program through its functional *habitus* was damaged. The telltale articulation of this second-guessing came from P4: "I'm beginning to wonder if this will work for me. I'm past going somewhere just to meet people and make friends, but I don't want to feel like I'm the only one."

In my view, the failure of the image strategy on the MAPC 1 site is fundamentally a *usability problem*. Consider this: if we embrace the idea of usability as necessarily encompassing the total, holistic experience on a site, if, in other words, we think of it from the standpoint of constructing a *habitus* into which users can play out the social role they have been hailed into through identification with the social capital present, and if we equate the building of such a space as an activity *inseparable* from usability, then we will see that problems related to *habitus* and deployment of social capital are indeed usability problems. The fact that users left the MAPC 1 site without a sense of "personality" from the program,

coupled with the fact that they did not see a unique voice given to the program, and added to the fact that they were unable to experientially write themselves into what it might be like to live the life of an MAPC student are all serious usability issues. Yet, they are issues that have been identified and can ultimately be addressed thanks to the lens the provided by the theory of interpellative design. Dr. Taylor noted that from a practical perspective, “candid shots are difficult to find time to do” (Taylor, personal communication, 2010). I would argue that in the face of such challenges or objections, an interpellative design analysis allows issues to be prioritized. From an accommodationist perspective, it is true that images that adorn a site may be given short shrift; however, if an interpellative design analysis reveals that the images can, in fact, be integral to a site’s stated purpose, and if users are not responding to them as such, then it becomes apparent not only that a previously unnoticed—and serious—issue has been identified, but also that the interpellative design theory is equipped with strategies that might be utilized to correct the problem (see, for example, the persona section of Chapter 4).

The theory of interpellative design has now been shown to play a key role in allowing a usability professional (me, the facilitator of the observational study) to isolate an otherwise easily overlooked, yet serious, usability breach in a site. This, then, is one significant takeaway that the interpellative design framework offers: a fresh approach to exploratory evaluation.

#### Summary of User Engagement Investigation Takeaways

I began this work by posing a question regarding the design of experiential websites like Harley-Davidson’s. I wondered how it was possible for designers create in digital space a sense of belonging and community that is so integral to Harley riders and enthusiasts. Recent trends in the literature produced on persuasive and emotional design suggest a

growing sentiment in the field that these pursuits are either separate (yet equal to), or transcendent from (thus unequal to) what is understood to be the practice of usability. However, this separation—or worse, creation of a false binary—suggests a limiting of usability’s scope to what Howard (2010a) has called “accommodationist” approaches, or those which focus on “low-hanging fruit” when there may in fact be issues that require deeper attention.

It is logical to assume (all else being equal) that the accommodationist approach is what is behind the lack of innovation on the MAPC 1 site: since no significant “usability” problems are present on the site, the designers might have been sufficient with the saying (as it goes in the South), “If it ain’t broke, don’t fix it.” Yet, the lesson this investigation of the two MAPC websites has taught is that there is much to be learned from an exploratory study driven by the theory of interpellative design. The questions as developed were useful for providing access to users’ willingness to engage each site, and, illuminatingly, the points at which that engagement alternately spiked and bottomed out. An accommodationist approach to the sites might have settled for the findings that the MAPC 2 site was less navigable than the MAPC 1 site, and made surface-level changes accordingly. It might furthermore have left the MAPC 1 site entirely unchanged, deeming it a model of ease-of-use, if not slightly lacking in efficiency due to the sheer amount of information it conveys. From a constructionist perspective—that is, from the viewpoint of interpellative design—however, the state of the field today as explained in Chapter 1 tells us that such measures are no longer sufficient for creating the types of sites that hook users who are now-accustomed to interactive Web 2.0 culture.

## **What We Can See Now That We Could Not See Before: Summative Notes on The Contribution of “Interpellative Design” to the Field**

In Chapter 1, I noted that current approaches to persuasive and emotional web design tend to alienate usability as a legitimate participant in the entire design process. This alienation can be traced back to, and in part explained by, the growing rift between usability and user-experience design. In terms of the genesis of the rift, I pointed out that expedient arguments in favor of experience design (Shedroff, 2001), captology (Fogg, 2002), and pleasure-based approaches (Jordan, 2001) to interface design that were made in the early years of the 2000s called for separating usability out. Such arguments “worked” by relegating usability solely to the practice of technical “problem-solving” (Jordan, 2001) and designing simply for “ease-of-use” (Shedroff, 2001), thereby clearing the way for the supposedly richer and more enhanced persuasive and emotional approaches encompassed under the umbrella of the new area of study: user-experience design.

Against this line of thinking, my position is that the rift need not exist, and my overall project has been to attempt to heal the wound usability has suffered as it has slowly been pushed away from the exciting conversations surrounding persuasive and emotional web design. I see a holistic approach to usability as being a bridge across the chasm.

The first question that needed to be dealt with was how to resurrect usability in the face of the buzz generated around these new approaches. In answer, I noted that one way usability could attain a holistic state was to theorize a more expansive set of “problems” usability could authoritatively address. In other words, usability needed to be theoretically extended to include many more aspects of the human experience. This would allow it to authoritatively “speak” to the broader set of puzzles that arise when designing for Web 2.0

audiences. In effect, usability would thus remain a “problem-solving” discipline; but the problems it would be able to address would no longer be solely algorithmic.

Howard’s (2010a) situating of “accommodationist” approaches in relation to “constructivist” ones was the first step in widening usability’s scope. According to Howard (2010a), the accommodationist paradigm describes contexts in which “the success of a new product is attributed to how well the practitioners understand the users’ goals and task environments and then design a product able to accommodate those goals and use environments” (p. 2). This approach maps to Jordan’s (2001) characterization of usability as a technical “problem-solving” discipline. In Howard’s (2010a) view, this approach leads to short-term fixes when it is often the case that underlying issues are deeper and require more sustained attention. In terms of ethics, an accommodationist idea of usability connotes a problematic technological “expediency” (Katz, 1992) that appears to strip human agency out of the equation. The accommodationist viewpoint is generally what comes to mind when the term “usability” is invoked, and this fact is likely why attempts to remove usability from the emerging discourse surrounding persuasive and emotional design are successful: an accommodationist approach to usability *is* out of its depth and sphere of expertise when it comes to handling these things.

Conversely, the “constructivist” paradigm posits that the fundamental goal of usability is to construct experiential contexts that allow users to interact productively to solve problems and accomplish their tasks (Howard, 2010a; Howard & Greer, 2010). I positioned interpellative design as a constructivist approach to the practice of creating usable interfaces. In other words, interpellative design is concerned with the design of dramatic digital spaces in which users’ social role is constructed through the communication of *habitus* and social capital, the two mechanisms which designers can



leverage to guide the interpellative event. The theory of interpellative design thus allows us to not only “see” otherwise unapparent, yet vitally important, underlying factors—*habitus* and social capital—that contribute to one’s sense of belonging and community, but also to interrogate the effectiveness of these mechanisms by analyzing them through the framework offered by the interpellative process model.

To begin to build a sustained case for interpellative design, in Chapter 2 I offered the idea of “interpellation” as a means of understanding how users are “hailed” into socially constructed decision-making frameworks. I began with the understanding of interpellation as it is discussed by philosopher Louis Althusser (1971a), who explains that the transformation of an individual into a subject happens through a “hailing” or “interpellative” moment.

To move from interpellation as an abstract theory to interpellative design as a more concrete practice, I delineated a “process model” that emerged from a narrative of how interpellative events transpire. This model named stages, or requisites, that must obtain for interpellation into a given social role to occur. The components of the process model are, again, as follows:

- *Attention* to the hailing
- *Recognition* of the subjectivity or social role one is being hailed into
- *Identification* with the social role and the behavioral rules (schema) associated with it
- *Desire* to perform the behaviors necessary to exist in the *habitus* or life-style created by the role
- *Security* that if one follows the rules defined by the role, certain outcomes will result

- *Predictable behaviors* which are in keeping with the script or schematic of the *habitus*

I positioned the process model as the first tool in the interpellative design box. Because it describes how interpellative user experiences transpire, I envisioned the requisites being used as checkpoints in the design and evaluation of constructivist interfaces. Indeed, I put the model to such use in Chapters 3 and 4 to describe how user experiences unfold in the context of interpellation.

However, I needed to go even further than the process model to build out a more comprehensive foundation upon which the practice of interpellative design might rest. For the theory to have efficacy for usability professionals, a set of questions needed to be developed that could be put to users to determine whether they recognized the role(s) they were to play in the context of an interface and, most importantly, whether they identified with the role(s) to the point of desiring to fulfill them by performing the associated behaviors. In terms of interface design, these would be new and important questions. If Jakob Nielsen's (2005) ten usability guidelines represent a heuristic appropriate for accommodationist evaluations, then I wanted these questions to be seen as the beginnings of a heuristic that could be applied to constructivist projects.

Before questions could be formed that correlated with the mechanisms and that would be understandable to users, though, it was crucial to first develop a comprehensive understanding of the two mechanisms underlying interpellation. Yet, before even this could happen, if interpellative design proved to have the explanatory power I believed it would, which would make it immediately useful to the usability and design community, it was also important that I disclose some of the major ethical issues related to interpellation, and to set forth a theory of responsibility for interpellative designs might be competently

deployed. It was thus necessary for me to move beyond Althusser's (1971a) structuralist articulation of interpellation and to cast my own interpretation.

In responding to the ethical issues, I argued for a bi-directional approach to interpellation, one that views the event as fluid (as opposed to all-encompassing), discretionary (as opposed to required), and empowering (as opposed to disenfranchising). Further, I adopted a theory of responsibility called "libertarian paternalism" (Thaler & Sunstein, 2009), which I cast as the *ethos* or ethic behind how I hope designers might deploy the powerful interpellative design framework. I argued that under conditions of libertarian paternalism, and within a system in which designers see themselves as "nudgers" (Thaler & Sunstein, 2009), users retain a sense of empowerment thanks to the freedom of choice.

Now equipped with an understanding of interpellation as a concept, as well as an ethical framework for utilizing it responsibly, I moved into a sustained discussion of the two mechanisms driving interpellative designs, beginning with *habitus* in Chapter 3. I first described *habitus* as an orienting mechanism, a way of being-in-the world that signals a person's relation to oneself, others, and a broader culture (Bourdieu, 1984). In terms of interpellation, I described *habitus* as the "place" into which one is hailed. Applied to interpellative design, creating *habitus* is synonymous with building a dramatic space that target audiences will identify with and desire to be absorbed within.

After broadly defining *habitus*, I drilled down into its component parts, or the ingredients required to create a dramatic, interpellative space. From Laurel (1993), I culled the ingredients of engagement, agency, and catharsis. These ingredients depend on one another for a cohesive, and from the perspective of constructivism, a usable experience. Laurel (1993) explains that catharsis "depends upon our uninterrupted experience of *engagement* with the representation. More than that, it is the pleasure that results from the

*completion of a form* (p. 122, emphases mine). It is thus imperative that interpellative designs maintain interface transparency (to facilitate an “uninterrupted experience”) and equip users with the agency needed to connect the constellation of dots that, when interpreted together, give the site meaning. The other key element I believed was operational in the design of *habitus* as the staging ground for interpellative designs was procedural rhetoric (Bogost, 2007). As “a system of nested enthymemes, individual procedural claims that the player literally completes through interaction” (Bogost, 2007, p. 43), procedural rhetoric works in much the same way as narrative stories do to interpellate users through “the completion of a form.”

To show how the interpellative process model could be used to analyze an interface in terms of *habitus*, I examined a philanthropic serious game called *SPENT*, and to describe how a user experience progresses in terms of *habitus* and the dramatic ingredients that drive it, I turned to the MMO, *World of Warcraft*. I also located *habitus* in a context in which it is not typically thought of as operating: MS *PowerPoint*.

I concluded Chapter 3 by again affirming the centrality of usability. I argued that usability is the primary means of establishing a transparent interface. As such, it affects all aspects of creating *habitus*. Interface transparency warrants agency for the user, inasmuch as ease of use is positively correlated with users’ feelings of confidence and control when operating a system. When users are fully engaged with, and are in command of, an interface, they are free to become enveloped in the story it tells. They are at liberty to experience cathartic moments and to be persuaded by the procedural rhetoric that is present at the code-level. While transparency is associated with usability even from an accommodationist perspective (it has resonance with the efficient brand of web design advocated by Nielsen (1999), as well as the minimalist information design lauded by Edward Tufte (1990)), the

elements of *habitus* are much more likely to be associated with user-experience design pursuits. Usability has not been afforded access into domains relating to such visceral interface elements such as engagement, catharsis. However, usability practitioners are now able to “see” these things thanks to the constructivist paradigm and the practice of designing for *habitus*.

Closely related to *habitus* is social capital, the other mechanism underlying interpellative designs, which I took up in Chapter 4. Social capital refers to the way taste preferences manifest in the world (Bourdieu, 1984). If *habitus* is the social space into which people are interpellated, then acts and artifacts of social capital are physical expressions of how one fits into or belongs in that space. In terms of the interpellative design process model, designers need to deploy social capital that will spark users’ attention, that users will recognize, identify with, and desire to engage.

Social capital artifacts resonate within a *habitus* because of their revelatory power: they “speak” to others and to oneself about personal identity and place in the world. Because every product has a *daimon* (Coates, 2002) that speaks to its owner and to others, a product can variously serve as a “badge of honor” and/or “provide stories to tell other people” (Norman, 2004, p. 89). As noted in Chapter 3, the ability to string together a compelling narrative is an important moment when it comes to defining a *habitus*. The “constellation” of associations and emotions these artifacts convey likewise make social capital artifacts enthymemes, inviting the viewer to intuit the social role occupied by the person within their *habitus*.

In the context of digital interfaces, I used a series of examples to demonstrate that—both by virtue of the acts + artifacts = status model and through the “bonding” and “bridging” (Shirky, 2009) forms it comes in—social capital is a “belonging” (Howard,

2010b) mechanism which not only encourages participation, but encourages a *specific, predictable* type of participation based on the social role users occupy within the community.

Making accurate predictions about how users will behave on an interface, and whether they will desire to be interpellated into the social role designers set forth is difficult. However, usability practitioners can create personas to *show* (as opposed to tell) designers who they are working for. I maintained that a well-constructed, representative persona can provide access to a target audience's tastes. Because personas offer a means of performing litmus tests on potential design options that catalyze user judgments, I argued their creation is an indispensable part of the interpellative user-centered design process.

While ethnographically-based user-centered research methods like Contextual Inquiry (Beyer & Holtzblatt, 1998) are commonly employed to observe users' work environments from ergonomic and task-flow perspectives, I argued that *also* mining users' *habitus* for relevant social capital artifacts can be a productive enterprise for unearthing the rich stories that might be told about who designers design for—the various social roles occupied by the users, and their taste preferences within the context of those roles. Personas constructed along these lines yield “style boards” (Aldin & Pruitt, 2006) that can work as inspiration for the visual communication aspects of a site. Utilizing personas as a window into audiences' *habitus* and social capital is a novel use for an otherwise common design tool.

Chapter 5 made manifest—in its title and through the findings from the observational study—a claim at the heart of this dissertation. The constructivist approach to usability that is enacted through interpellative design enables the definition and purview of usability to be fruitfully extended. Usability professionals can now identify usability flaws

in interfaces that were not immediately obvious before the mechanisms of *habitus* and social capital were explicated and brought to life through exemplification. We can now speak to enhancements for sites that address the constructivist concerns pertaining to emotion, aesthetics, and other types of “distinctions” (Bourdieu, 1984) we could not “see” before.

### **The Future of Interpellative Design**

In considering some of the limitations of interpellative design, I thought there could be a danger of utilizing *habitus* and social capital *too specifically*—in which case the goal of designing for a persona as an *archetype* of a user group that aggregates a plurality of tastes could potentially degrade into *literally* “designing for one” (Cooper, 2004/1994) real person with a specific taste. Such an outcome, though, can be viewed in two different ways.

First, “designing for one” might be seen as a limitation inasmuch as it could actually result in an accommodationist interface working under the *guise* of constructivist intentions. In other words, designing too specifically for an audience group might lead the design to simply accommodate the normal roles users are accustomed to playing without exposing them to new ones that could push the boundaries of their experience in productive ways. Allowing users to inhabit a role they are familiar with, while at the same time providing room for growth, would truly be to *construct* a rich experience. However, designing for one does not readily support this goal.

On the other hand, interfaces do seem to be moving in the direction of increased and targeted customization. Many sites (like *Amazon.com*) greet users by name if the user has an established relationship there, and so display saved or otherwise “recommended” content. *Facebook* even utilizes a personalized advertising method which shows ads related to users’ specified interests and browsing behavior. These customization methods are instances of

“designing for one.” Customization can certainly be thought of as a positive development in computing, not only because it promotes efficiency (for example, teachers can visually reconfigure the *Blackboard* course management system to only display certain blocks of content, thereby eliminating the “noise” of unwanted clutter), but also because it makes the experience feel more like one’s “own” *habitus*.

Yet, customization is a tricky tool when it comes to the ethics of interpellation. Customization necessarily proceeds from the assumption that the system knows what the user wants, so a certain measure of “libertarianism” is ceded to “paternalism” (Thayer & Sunstein, 2009) from the outset, thereby creating a potentially problematic imbalance. More importantly, though, customization tends to *simply accommodate* users’ habitual behaviors without necessarily exposing them to new options. Still, taken to its absolute logical conclusion, interpellative design would be a design for one.

Although computer engineering may be headed in the direction of increased personalization, there are ways to design for interpellation which do not require extreme customization options on the part of users, but still specify choice. I foresee the design of studies in the future which endeavor to study interpellation from an empirical standpoint, and which attempt to use mixed methods to identify particular design techniques that might act as “hailing catalysts” into a particular social role. Hailing catalysts would be the specific design technique(s) that could be utilized to evoke a certain social role on the part of the user. From there, it would be a short leap to the creation of an interpellative design “pattern library” similar to the existing design-standard libraries sponsored by Yahoo and Welie. Given interpellation’s symbiotic relationship with usability, it could also be the case that content in these pattern libraries might be classified or tagged with interpellative



properties, such as how this technique or that contributes to the creation of a specific *habitus* or the social capital resonances a technique might have for a given audience.

The more designers learn about their users, the better able they will be to leverage their new knowledge of *habitus* and social capital to interpellate users into not only comfortable and known social roles, but also to experiment with the possibilities of extending those roles and constructing experiences which enable them to play new ones and continually re-imagine what it means to belong.

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