Digitally Recoding Althusser: Ideology, Interpellation and the New Digital Landscape

by

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BA, Bishop’s University, 2006

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Abstract

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From Facebook to Pandora, the various opportunities available online for entertainment, self-exploration and socialization have caught the attention of hundreds of millions of Internet users. While users value these opportunities for entertainment as well as an increased ability to connect with friends, these websites, in turn, are able to tap into the value of audience as commodity. While interaction is generally open and free, users are persuaded to internalize notions of commodity fetishism and commodity consumption. Further, the diversification of identity-forming opportunities available to users on these sites, although beneficial to the user, ultimately serve to benefit the sites and their corporate advertisers. It is the dialogical relationship between the user and platform in particular, that effectively veils the highly structured nature of these platforms.

As a result of corporate actions on these sites, ideological interpellation, the process entailing the creation of, and recognition within, subjectivities, becomes more prevalent as a function of new technologies. This thesis will serve as an introduction to the concept of recursive interpellation and demonstrate how individuals come to configure subjectivities in the digital era.
# Table of Contents

Supervisory Committee ...................................................................................................... ii  
Abstract ................................................................................................................................ iii  
Table of Contents ............................................................................................................... iv  
Acknowledgments ............................................................................................................... vi  
Dedication ........................................................................................................................... vii  
Introduction and Summary: ................................................................................................. 1  
  Chapter Summary: .............................................................................................................. 3  
  Purpose and Utility ......................................................................................................... 5  
Chapter 1: The Social Web ................................................................................................. 7  
  1.1 Introduction ................................................................................................................ 7  
  1.2 Support for the Social Web ....................................................................................... 10  
  1.3 Against the Social Web ............................................................................................ 15  
  1.4 Audience as Commodity ......................................................................................... 19  
  1.5 Conclusion: .............................................................................................................. 25  
Chapter 2: Ideology, Interpellation and the Audience ...................................................... 28  
  2.1 Introduction .............................................................................................................. 28  
  2.2 Ideology and Discourse ........................................................................................... 29  
  2.3 Interpellation, the Althusserian Conception ........................................................... 31  
  2.4 Interpellation ‘Perfected’ ........................................................................................ 34  
  2.5 Electronic Interpellation .......................................................................................... 37  
  2.6 Interpellation, Targeted Marketing and Audience Decodings ................................ 40  
  2.7 Conclusion: ............................................................................................................. 45  
Chapter 3: E-Commerce and Web Economics .................................................................... 47  
  3.1 Introduction ............................................................................................................. 47  
  3.2 Online Advertisements ............................................................................................ 48  
  3.3 Long Tail Economics .............................................................................................. 51  
  3.4 Recommender Systems ........................................................................................... 55  
  3.5 Privacy Issues .......................................................................................................... 60  
  3.6 Convergence ........................................................................................................... 64  
  3.7 Conclusion .............................................................................................................. 67  
Chapter 4: Recursive Interpellation .................................................................................. 69  
  4.1 Introduction ............................................................................................................. 69  
  4.2 Community and Individuality ................................................................................. 70  
  4.3 Grounding Recursive Interpellation ........................................................................ 78  
  4.4 Recursive Interpellation .......................................................................................... 80  
  4.5 The Future of Recursive Interpellation ................................................................... 87  
Chapter 5: Conclusions ..................................................................................................... 89  
  5.1 Where Does This Road Lead? ................................................................................ 89  
  5.2 So, What To Do? ..................................................................................................... 92  
Bibliography ....................................................................................................................... 96  
Appendix A: Methodological Appendix ........................................................................... 103  
Sample ............................................................................................................................... 103
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Let me first acknowledge that I would never wish this process on my worst enemies, it certainly is not for the weak of mind or resolve.

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Dedication

This thesis is written in dedication to my grandmother, who bought me smart-kid books when I was young.
Introduction and Summary:

The music world has seen much change through processes of digitization and the subsequently accompanying distribution methods. Peer sharing, which has long been an important source of new music for listeners still occurs, but has been altered amidst new technological advancements. The move into the virtual world, where peer-to-peer (P2P) networks are commonplace, has made discovering new music and exploring new musical genres or artists into a creative and technologically impressive online application. Online ‘music recommendation sites’ such as the Music Genome Project’s Pandora Radio, Apple’s iTunes Music Store, AMG’s Tapestry or iLike, serve the function of profiling users and then either suggesting new music or grouping new and old tunes into a playlist of songs thematically, temporally or aurally related for them. The auspices under which these sites are borne differ: some are created in order to sell directly to the consumer/user, others are built to gain commission indirectly from online retailers, and still others function as an offshoot of a service previously provided. What these sites do have in common is their ideological underpinnings and the interpellation of their consumers. Interpellation is, “the mechanism through which ideology constitutes people as subjects (subjectivity + subjection)” (Purvis and Hunt, 1993, 482). In this thesis, I will explore the relationship between music recommendation sites and their users, via the structure and usage of the user profile by both the listener and the platform itself, using interpellation to show the nuances of this relationship. I believe this line of inquiry will illuminate apparent linkages between new technology and ideology.
Specifically, my study explores the ideological effects common to music recommendation sites, and the manner in which their discourses are disseminated. Preliminary research has shown a superficial dialogic relationship between the user and platform via the user profile, which is the virtual representation of the user within the site. This quite visible relationship veils the highly structured nature of the platform itself, which is generally hailed as a prime example of Web 2.0 capabilities. Web 2.0 is a distinction for sites marked by high user interactivity, decentralized authority and open communication. However, with high levels of user interaction the sites I have chosen to study actually increase their ability to influence (to a degree) the behaviour of its users.

To illuminate these sites’ structures as well as other ways in which music recommendation sites achieve a form of ideological interpellation, I will conduct a critical discourse analysis. Where Web 2.0 technologies allow for a more interactive relationship with the internet, such as music recommendation sites, it is important to examine the protocols and procedures, structures and operating principles of these platforms. These sites create a profile of each user that is unique to that user and becomes a virtual representation of them while they are immersed into each particular site. Sites create these profiles utilizing surveillance data, user inputted data and computer calculated data. The sites’ interactions with these profiles make evident the ideological underpinnings of each site and are thus an important site of analysis.

It is my belief that there is value in the deconstruction and analysis of influential forces in the construction of subject positions, specifically those of commodity consumers. The analysis of music recommendation sites will prove useful for future research on Web 2.0 sites that utilize user profiles in similar ways. Given the popularity
of other social network sites (over 500 million active users on Facebook alone) (Facebook, 2010), there are plenty of potential applications of the core concepts of this thesis.

Chapter Summary:

In Chapter One I will contextualize the Social Web as the dualistic entity on which music recommendation sites exist. The Social Web or Web 2.0 has revolutionized the way we operate on the web, by allowing us to interact both with the site and with other users. This has had significant consequences, both positive and negative, for users. These sites facilitate easy group building via their communal features, however the creation of groups is used by the sites in order to further their own financial interests. Group statistics are what run the sites, providing the information for both the recommendations and the financial strength of their advertisement space. It is this process that turns site users into an exploitable resource for site operators.

In Chapter Two I will address the concepts of ideology and interpellation. I will trace the use of the concept of interpellation from Althusser’s first usage through to its contemporary use and critique. Improvements on Althusser’s conception strip it of its overly deterministic nature, and improve its scope. Discussion will then consider how interpellation has been applied to the field of marketing and advertising. Investigating marketing practices from this perspective will illuminate the ideological underpinnings of advertisers’ practices.
In Chapter Three I will look at the nature of advertising on the web, and how it differs from more traditional forms of marketing. I will speak to the differences between the implicit and explicit advertisements that each individual user faces, and to how sites construct the ads that appear on them. I will show how the market has transformed itself on the web, and what this means for business online. “Long Tail” economics, which is the title given to the nature of retail in the digital world, clearly encapsulates this new transformation. I will then discuss the issues of privacy and convergence which the new marketplace has afforded. From this chapter we will be able to understand how the web has changed business and what this means generally for individuals.

In Chapter Four I will apply lessons from the first three chapters to present a qualitatively new method for interpellating an individual into the consumer subject-position. I will look here at how interpellation occurs on the Social Web, via what I am calling recursive interpellation. This chapter will also include a discussion of community and individualism on the web, as they contribute to the how and why of user interactions and the sites’ manipulation of them.

Finally, I will describe in Chapter Five the direction in which the technological terrain is moving with the proliferation of mobile communications devices, and will consider how the concepts outlined in this thesis will accompany them. This chapter will explain how the concept of recursive interpellation is applicable in forums other than that which I have specifically developed it. I will end the thesis with a brief discussion of a few of the proposed ways users can face the problematic encroachment of new technology into their everyday lives.
In addition, I will also include an Appendix (A) in which my focus will be on the four different music recommendation sites that together represent my field of study. These sites are: the Music Genome Project’s Pandora Radio (Pandora), the All Music Guide’s Tapestry Radio (AMG Tapestry), Last.fm, and iLike. I will describe Pandora and AMG Tapestry’s recommendation process, based on expert analysis of music, combined with distance vector algorithms that match one song as closely as possible with others. Next, I will describe Last.fm and iLike, sites that focus on the social aspect of music recommendation, using collaborative filtering algorithms that work on the premise that if two people have agreed in the past, they will agree in the future. Together these sites represent a few hundred million users (although these are not necessarily unique users. Precise numbers would be impossible to acquire for this reason). This section will show my methods of investigation, the reasons for the selection of each sample site and other considerations taken in the process of writing this thesis.

**Purpose and Utility**

Given the relative size of the music market globally, research in this area can hold great importance. This thesis specifically will address this market as it has transformed in the digital realm, lending more significance to the project as it deals with modern technological issues as well. As Web 2.0 technology proliferates across the internet, research on this topic will become more important. I believe that studying music related Web 2.0 sites is an effective way to explore a significantly large portion of this market to make strong conclusions.
Music’s ubiquity makes its potential for misappropriation dangerous. As DiMaggio (1987) postulates, music is an especially potent medium as its consumption is generally “invisible once it has occurred. This evanescent quality makes the experience, described and exploited in conversation, a portable and thus potent medium of interactional exchange” (443). Music’s potency and its diverse uses make it an important site of interrogation in order to illuminate the ways in which listeners are interpellated to a consumerist ideology, persuading them to internalize notions encouraging commodity fetishism and commodity consumption.

As the world develops technologically, so too do the means through which ideology indoctrinates subjects, it is therefore necessary to critique those structures of resistance that have been taken out of the hands of the general public and put into the hands of those that rule. As Miliband astutely notes: “…the fact remains that ‘the class which has the means of material production at its disposal’ does have, ‘control at the same time of the means of mental production’: and that it does seek to use them for the weakening of opposition to the established order” (Miliband, 1977: 50, cf. Garnham, 1986: 209). Web 2.0’s potential for resistance is high if only those structures used for mental production are made transparent. It is with this in mind that I embark upon this thesis.
Chapter 1: The Social Web

“On the Internet, traffic equals power, which subsequently equals money” (Kim, 2009)

1.1 Introduction

To best understand music recommendation sites, it is important to understand the Social Web, on which they exist. A new and widespread means of operating on the web has recently developed, marking enough change to be designated ‘Web 2.0.’ Where ‘Web 1.0’ is accurately represented in webpages and one-to-many communication, Web 2.0 represents far more interactive platforms, comprising web applications and the possibility of many-to-many communication. Despite its connotation as an improved version of the World Wide Web, the Web 2.0 distinction actually refers to a new age in online technology rather than a new version of the web itself (O’Reilly, 2005). Proponents define Web 2.0 as the second generation of web applications or platforms that invite high levels of user participation, social interaction and collaboration. These sites, in constant development (perpetual Betas\(^1\)), provide services tailored to each user’s individual needs. The more interactive online structure of Web 2.0 can be seen in such platforms as: weblogs, social bookmarking, podcasts, wikis, RSS feeds, social software and online web services. Web 2.0 represents a marked change in the way that people use the web, a central theme of this thesis. The commonalities of these very different online platforms are that they facilitate more open communication between users, an apparent decentralization of authority, and the freedom to share and re-use data (O’Reilly, 2005);

\(^{1}\) “Perpetual Beta” refers to software or applications that are published to the web before being fully refined in order to take advantage of real user interaction in order to work out unforeseen kinks. Often used in order to smooth out a product before it is sold, perpetual betas refer to those products that are able to continually change and organically fix any arising problems.
essentially Web 2.0 represents a far more interactive online experience even for the average user.

To understand music recommendation sites’ popularity and thus potency, it is important to understand the social context in which they have emerged. According to David Matheson (2008), we are in a time where meaningful relationships have declined. People, on average, have fewer contacts that they would consider ‘a close friend’ compared to just fifty years ago (Matheson, 2008). Trebor Scholtz (2007) makes steps in explaining this phenomenon, stating that “…many people are physically isolated due to urban sprawl, a culture of fear, overly controlling parental behaviour, a lost sense of place, and the nature of the job market, as well as widespread individualism” (Scholtz & Hartzog, 2008). Scholtz theorizes that in this state of isolation people do not have the ability to connect with friends or acquaintances in real, meaningful face-to-face interactions (Scholtz & Hartzog, 2008). Connections are thus more likely to happen in the digital world where one can sit safely in what Hand and Sandywell (2002) call ‘the citadel’ and interact from their individual computer stations, an equally isolating and connective locus.

Social Web sites, such as music recommendation websites, represent a very important set of contradictions. Although these sites exemplify the Social Web realm in their social networking aspects and community driven content, they are also premised on the idea of individualization via personalized profiles and individualized music ‘picks.’ While making recommendations, these sites operate in such a way that collects individuals into statistical groups where the actual social connection with others is widely
contested (Hodgkinson, 2008), and the individuality of the music-matches questionable.

Bauwens (2008) situates the contradiction in Web 2.0’s nature in saying that,

…the social web has as basic orientation the convergence of individual and collective interests, that it is geared around the sharing of individual expression, and that it therefore is based on weak ties in the user community. Such weak ties are the very reason that the user communities are not easily able to create their own platforms, and why they need third parties (Bauwens, 2008).

These third parties - the websites - are fuelled financially by their corporate owners looking to capitalize on the weak social ties produced by the sites. Under the guise of building a highly democratized web collectivity aimed at the betterment of the collected users, these sites facilitate the accumulation of capital by invoking highly potent consumerist practices. The danger here lies in the degradation of individualism and alienation of humans from both themselves and each other. I will demonstrate this in speaking to the monetization of web users and their actions. I will begin this discussion by addressing some of the more prominent arguments for and against the Social Web, and then speak to how these supposed negatives and positives both contribute to the manipulation of the user through the exploitation of their ‘free time’. While these new technologies have been used to great positive ends in elections (i.e. the Obama ‘08 campaign), protests (i.e. 2009 Iranian election protests) and crime solving (i.e. 2009 Oregon cop killer), my focus will be on the more insidious daily uses of these technologies. I will show that the regular, day-to-day use of web 2.0 technologies have significant consequences on the individuals using these sites.
1.2 Support for the Social Web

Much debate exists concerning what exactly the far more interactive experience of Web 2.0 actually entails. Proponents of the social web declare it as the harbinger of social justice and equality in the age of second modernity (Coleman, 2008; Ingo, 2008), while others question this notion, theorizing a far more oppressive picture of what the social web means (Scholtz & Hartzog, 2008; Stutzman, 2008). I outline here a relevant sampling of the arguments proponents of the social web have put forth. This will include a discussion of the move away from discrete categorization (of genre and thus identity²), the benefits of community interaction, the aspect of entertainment and finally the user’s control over their own information. Clearly, the tens of millions of active users³ on each of my sample sites respectively have come to find some advantages and benefits to these sites.

Gabriella Coleman (2008), a supporter of the positive outlook on the future of the Social Web, crowns it as the, “current king of positive social change on the internet” (2008). Coleman postulates that the more open attitude towards contribution on the Social Web, seen best in instances such as blogs, allows for more effective attempts at social equality. Countering the idea that blogs, as an example, merely give every critic a voice, thereby fracturing any positive movement, she believes the Social Web allows an escape from dichotomized politics, filling in gaps in the spectrum for a “more subtle and modest transformation of political views and dialogue” (Coleman, 2008: 2). The

² See Vannini and Myers for a discussion on youth identity and music
³ Averaging the disparate accounts of the number of users on each of the services in each of my sample sites, total numbers approach 100 million users, though due to user duplication, multiple account users and other factors, this number is impossible to verify and most certainly an inflation of the true number of total unique users across the sites.
relevance to music recommendation sites is seen in the application of this idea to musical
genres or taste. Music recommendation sites, by introducing more fluid genres and
music categories (based on user preference rather than necessarily on distributor-imposed
types), strip away the discrete understandings of genre. This allows for a more fluid use
of music in order to identify oneself. The site iLike openly presents this facet of their site
on their main page. They say: “We invite every music lover to participate in a more
democratic music industry. By rating, recommending, or simply by listening to music,
you'll impact what gets recommended to others” (iLike, 2008). Evident in this piece of
self-description by iLike is the freedom from genres and the emerging reliance on
individual collections of music, a characteristic allowed by the structure of the more
interactive web format. The rating, recommending and consumption of music dictates
how these sites collect music together, in contrast to (strictly) age-old genre
classifications, as was formerly the case. This is certainly an appealing aspect of these
sites bound to lure in more users.

Paul Hartzog holds that Web 2.0 pulls in two different, but equally positive
directions simultaneously. On the one hand, the idea of individualization and
personalization reigns supreme; on the other hand, community and collectivization hold
prominence. He notes that this happens between different sites, and is thus organized
more by the site designers. Although Amazon.com, for example, harnesses the
information of its network of users, users themselves do not go there to be social.
Contrary to this, sites such as Facebook have sociality as their central purpose. Although
I agree with his point, I think this difference happens simultaneously within each site;
aspects of both individuality and collectivity exist somewhat prominently within each
site. Although the music recommendation sites do have a strong individual orientation in finding new music for each individual user, a strong community aspect also exists, more strongly foregrounded on some sites over others. This dual nature can be seen on the Last.fm site, as an example, when they describe their services. “Last.fm taps the wisdom of the crowds, leveraging each user’s musical profile to make personalized recommendations, connect users who share similar tastes, provide custom radio streams, and much more” (Last.fm, 2008). Furthermore, one of the benefits of the interactive nature of Web 2.0 websites is that they allow communal activities, such as posting comments on the profiles of others, publicly tagging songs, joining/creating groups and generally being a part of what Last.fm calls their “global community” (Last.fm, 2008). This dynamic quality of web 2.0 sites actually contributes to the effective operation of music recommendation sites in their current form, as they leverage information from their community against that of the individuals, as I will speak to more in-depth further on.

Henrik Ingo, another proponent of Web 2.0 technologies claims that (for most) it is as much fun to contribute to Web 2.0 activities (sharing, uploading, etc.) as it is to participate in these activities (watching, reading, etc.). He claims that users essentially provide an entertainment service to each other and concludes that no exploitation occurs. Compared to forms of entertainment where one must pay upfront (movies, etc), the web provides organic entertainment at no evident cost to any of the participants. Although some music recommendation sites offer paid services (AMG, Pandora, Last.fm), all offer a money-free service to all web users. To this Ingo adds, “How did we get to the point where [this]… is exploitation?” (Ingo, 2008). Regardless of the answer to his question however, I must point out that the entertainment does, at the very least, deliver users, and
as I will speak to further into this chapter, it is this delivery that presents opportunity for exploitation.

The interactive nature of Web 2.0 also allows for more in depth and involved modes of entertainment. Individuals dictate their own level of involvement, ranging from occasional trials to avid everyday use. As Pandora states, “you can always maintain a free Pandora account indefinitely, no matter how much or how little you chose to listen” (Pandora, 2008). Naturally, these sites encourage a more involved participation, looking for users to spend their free time rating songs, participating in online forum discussions, reading up on artists’ “backstage” profiles, playing name-that-tune interactive games or simply participating in the “never-ending experience of music discovery” (Pandora, 2008). This point will come up again further into this chapter, but it can be said now, that these offerings, used to attract and hold the attention of the users are something of a ‘free lunch,’ a term that refers to the non-advertising content meant to entice individuals much in the same way that a free meal is used to lure individuals to time-share presentations (Smythe, 1981). Once in the door, the site can pump individuals for further attention, money, and/or personal information.

A major criticism of Web 2.0 is in fact that in many cases it requires a loss of personal information in order to operate effectively. This comes from the fact that many of the activities available to music recommendation site users require personal participation or release of personal information. Critics claim that given the open format of the social web, loss of privacy to any degree should always be a worry (boyd, 2008). Henrik Ingo’s view of Web 2.0 technologies, however, includes the position that although users can freely trade away their information, the information typically holds
little to no importance to the user anyway. In cases in which the information is in fact important, he explains that there are ways to download that information away from the sites’ servers, thereby eliminating any chance of harm. The archived emails on a site such as the Google hosted GMail that can be permanently downloaded off those sites exemplifies this. Information collected that remains unavailable for removal by the user includes: name, email address, gender, date of birth, zipcode, and any information collected via software, i.e. music listening habits. Although what information should be made public and what should be kept private represent a highly debatable issue, I discuss the implications of this information in the hands of the site in later chapters.

Some, like Ingo however, believe in a more open web and that careful users stand to lose little to no significant information in their interactions on the web. In fact, Ingo champions users of social web sites as “allies in the quest for open communication and/or sharing of content” (Ingo, 2008). In an attempt to make their site more global, Pandora attempts to rally a similar sentiment, claiming “you can make a HUGE difference when you all pull together!” (Pandora, 2008). The idea that Web 2.0 can be a site for resistance against larger institutional forces can be felt here. Opportunity for change is a common conception that underpins many of the positive critiques of the social web.

There are many who see Web 2.0 as the way of the future, namely because it is an open site for resisting strict genre or identity types; there is communal beneficence, as well as the amount of individual pleasure and freedom present. Web 2.0 allows individuals to gain a feeling of significance, and feel part of a resistive force. The social web as a resource for social activists has proven an effective tool thought to herald a new

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4 Although it should be noted that this information can be ‘deleted’ such that it no longer influences recommendations, it does not preclude it from being archived and included into listening statistics that the site uses and sells to advertisers
participatory democracy, and an effective voice for one and all, from one and all, though it is not without its problems. Once a clear picture of the at times contradictory nature of the web is presented, the impacts of the web can be brought to the fore.

1.3 Against the Social Web

There are a number of critiques of the Social Web that counter the more optimistic perspectives presented in the previous section. These critiques are mostly centred on the detriments of uncritical use of these technologies. Most prominently, Trebor Scholtz and Paul Hartzog stand out as critics of what they call a naïve positivity towards the Social Web. The negative views of Web 2.0, however, do not necessarily contradict or negate many of the positive aspects. The two sides of this debate must be considered as part of the dualistic nature of the new web. Where proponents see the web as a great equalizer due to its openness, others argue that it is still subject to rules of access. Contribution and participation are hallmarks of the Social Web, but involuntary participation remains a grey area of permission. Finally, although the web can be seen as the place where second modernity is best realized, it can also be seen as a place where old structures of power are simply replicated. I will show here the darker side of the Web 2.0 discussion, a negative but necessary part of discerning the impact of the web on the individual.

James Tully (2006) claims that although the Social Web does in fact offer scope for users to revolt or to enact change, this means very little in light of the fact that corporations and governments still own the means of access, an argument touched on by Paul Hartzog (2007) as well. Hartzog claims that ownership of the means of access has
replaced ownership of the means of production in a more classical capitalist model. This can be seen in the access to production, access to consumption and access to the internet that are all required elements of the Social Web. All of these means of access are controlled not by users, but rather by ISPs (internet service providers), those that run the servers, and the government. Pandora uses this ability to shut down access in order to make their stance on commercial and copyrighted material clear. “Users that post commercial advertisements in the Pandora community are subject to suspension of membership and listening privileges and removal of content. Posting offers for sale of products or services is not allowed in any part of our service” (Pandora, 2008: emphasis added). Hartzog states that as long as there are top down measures that can effectively shut down access such as these, Web 2.0 does not truly represent the harbinger of a new participatory democracy. He summarizes it in saying that:

People are increasingly demanding accountability from the people who run the servers and the ISPs. Nevertheless, as long as there are servers, ISPs, and other bottlenecks — in other words, as long as the Internet is not fully peer-to-peer — there will be ways for the powerful to shut down accounts, block access to websites, etc (Scholtz & Hartzog, 2008)

Despite his bleak conclusion that those with power will likely retain that power, Hartzog does maintain hope that activists can use the tools of this system positively for social change. Although he holds faith that opportunities for change exist within the Web 2.0 world, he does maintain a critical apprehension towards it.

Although Trebor Scholtz agrees with Paul Hartzog on the idea that people are being both empowered and exploited simultaneously on the web, he remains far more critical. One distinction that Scholtz adds to this discussion concerns the nature of participation. A contributing cause of the simultaneous empowerment and exploitation is
the nature of one’s participation. He notes two types of participation, voluntary and involuntary, calling specific attention to data mining, which occurs on many of these sites. Pandora states it plainly in saying that, “We have several areas where you can submit information to us, and we also have features that automatically collect information from the users of the Pandora Services and visitors to our Site” (Pandora, 2008). Interesting to note in this example is the change in the subject when referring to voluntary and involuntary participation. For voluntary information, they use the subject “you” but when the sites take personal information away from you, they use “the user.” Implicit in this subject change is the acknowledgment that involuntary participation is unwanted or unsavoury. Among the information involuntarily collected is:

- The Internet Protocol (IP) address of the user's computer. This may or may not be associated with a particular Internet Service Provider (ISP).
- The referring URL, if any.
- The browser software identification (i.e. the brand and version of your browser software) (Last.fm, 2008).
- registered user's or subscriber's search criteria and results, date, time, connection speed (Pandora, 2008).

Additionally, iLike goes the furthest in, “monitor[ing] all the music you listen to on your computer (even if you are not online)” (iLike, 2008). I will put this involuntary participation (which drives many music recommendation sites’ ability to recommend music) and its effects, into perspective in Chapter Four. This information represents roughly the same demographic information that direct mailing firms would use in order
to solicit consumers (Poster, 1996). The Social Web as perfection of modern data collection methods is evident here.

Martin Hand and Barry Sandywell (2002) present one of the most convincing cases of the benefits and pitfalls of the social web. Their account of second modernity as it manifests on the web includes arguments for those both for and against the social web as it pertains to a new democratic society or as a means of social action. Touching on many of the same arguments of which I wrote earlier (Tully, 2006; Scholtz & Hartzog, 2008), Hand and Sandywell (2002) describe the ways in which traditional forms of oppression have been transposed onto the web. Whereas Hartzog writes generally about the web, they write specifically about corporate bodies on the net in saying:

\[\ldots\] that behind the utopian promises of the worldwide web lie the old structural inequalities and social divisions with the Net as a new instrument of global capitalism. Modern communications technologies simply enhance the power and control of ruling elites and dominant classes (Hand & Sandywell, 2002: 202)

Evident is the enhancement of power and control, seen as especially true with the corporations implicated as partners with music recommendation sites. I will, in the next chapter show more explicitly the ways in which modern communications systems, exemplified in music recommendation sites, have enhanced the power and control of the ruling elites and dominant classes. In short, these sites increase the ability of corporate interests to interpellate users as consumers via the users’ interactions on the sites. Corporate bodies use personal information uploaded onto music recommendation sites as well as trends and habits gleaned via data mining in order to target specific consumer market niches, a topic that I cover in-depth throughout this thesis.
The dualistic nature of Web 2.0 offers an opposing set of effects that one must balance. Access restrictions can deny a user the great opportunities found on the web. Sites can force a user’s participation on the web without their knowledge, as much as users can solicit voluntary contributions. As modern as the web appears, it also maintains familiar forms of oppression. This dual nature of Web 2.0 makes it difficult to pin as either a boon or pitfall of post-modernity, though my discussion will be focused on the ways in which users are exploited.

1.4 Audience as Commodity

The web is a similar medium to the television in that it connects (potentially) globally situated people in a singular experience. Web 1.0 operates in a nearly identical way to the television, minus the temporal aspect, as webpages are always present for viewing, whereas television uses a ‘one-shot’ delivery (if the show is over, it is over but can be re-played later constituting a wholly different audience). Web 2.0 however, allows this globally connected, temporally free audience to interact with not only each other, but also the platform. The lack of distance or time as mediating factors fundamentally changes the dynamic of web users as ‘audience.’ I will, in this section, address how this dynamic has changed, what it appears as now, and how it works for those using the audience in a commodity-like fashion.

As an audience, individuals inadvertently become a cog in the capitalist system. In the most literal sense, by being a part of the audience an individual becomes a part of the push for mass consumerism, even if they do not buy anything at all. As Jerry Mander (1978) points out in the case of television, producers do not need to sell the television
shows, but rather the advertisement spaces in between. Networks use the shows as lures to bring in the widest audience possible, what Smythe (1981) refers to as the ‘free lunch’. Smythe likens this term to the habit in the newspaper industry of referring to the spaces between the advertisements as the ‘holes’ within which appropriate sized news stories must be fit. With this analogy, Smythe intends to call attention to the advertisements as the central interest of the producers, and the non-advertising content as merely the appetizing lure (or ‘free lunch’) to get consumers’ attention. The more successful the show (or appealing the lunch), the more profitable the advertisement space becomes. By watching free programming in our ‘leisure time’, we contribute towards the creation of value for that show. Fiske, labeling this ‘labouring’ at the television screen, claims that the audience works to build (and be a part of) the necessary audience in order for the broadcasters to profit. Fiske (1989) coyly states that, “...by watching television and thus participating in the commodification of people, we are working as hard for commodity capitalism as any worker on the assembly lines” (Fiske, 27). Fiske furthers this notion by stating that the audience is, of course, not paid for the so-called labour that they complete. Smythe’s conceptualizing of the audience as commodity, though plausible, is, as Lebowitz (1986) points out, inadequate. Lebowitz calls attention to Smythe’s misuse of Marxist terminology, specifically ‘commodity.’ He plainly states that producers cannot sell as commodity (in the Marxist sense) what they do not have ownership over, and while producers can attract the attention of their audience, at no point is there a transaction where producers come to own the attention of their audience. Though it is inadvisable to speak of the audience as commodity in the strictest sense, as Lebowitz notes, the audience is still manipulated and the producers are still profiting therefore the
analogy still holds some value in calling attention to the exploitative relationship between producers and audience. I will therefore use the audience as commodity concept, but instead loosely refer to the internet audience as ‘commodity-like’ as I think there are similarities in the audiences of which Fiske and I speak. Given that those on the internet create audiences by merely being on a website, those audiences produce the value in the same way as television viewing audiences, increasing the cost of advertisement space with higher volume. In this way, the web can be seen to operate similarly to more traditional media. The interactive aspects of the web, however, alter this.

Interacting with the media (the site) and the other users on the same site is a major difference between more traditional media and the web. The relationships (contrived or genuine) between Social Web users, as well as the information that comes from a user sharing themselves with their “friends,” produce great value. When users interact together, or social websites bring them together through independent actions (e.g. selecting a favourite band) they create both an audience to which businesses can then market their products as well as information about that audience. With every interaction, users create value (as an audience) (Smythe, 1981). In the case of Last.fm, every time the user listens to a song on their computer or iPod, the site’s database increases along with their understanding of the listeners’ preferred consumer groups. “More than ten million times a day, Last.fm users “scrobble” their tracks to our servers, helping to collectively build the world’s largest social music platform” (Last.fm, 2008).

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5 The process of having an iPod’s play-history updated is not done instantly but rather every time the user updates/docks their iPod at their computer.

6 Scrobbling is the explicit tracking of a user’s listening habits and the transmission of this information to the website for statistical analysis and record keeping purposes. The site also shows this information on the user’s profile page, for view by other users.
Significant value exists in the relationships between Social Web users; a user sharing themselves for others to see, produces value in the same way. Each interaction or data-share offers a glimpse of what sort of product an individual might like (to buy). Ownership over large databases of this type of market information is a powerful tool in the attempt to interpellate consumers to different products, as I will address in full in Chapter Two. These sites wield great power in attempting to sell both music (by commission via recommendation) and explicit advertisement space for related products. Hand and Sandywell (2002) comment on this extension of corporate power on the web.

Corporate power grasps the apparent paradox that virtual capital leads to real wealth and power, that the control of information codes will result in the industrial colonization of ‘digital space’- and the idea is current that the new digital frontier of virtual communities will be infinite in its exploitative possibilities. (Hand & Sandywell, 2002: 201)

We can see this colonization (and resulting power and profit) as corporations’ rationale for entering into the music recommendation market. Major multinational businesses strive for as much of a presence online as they have in the material world in order to extend their grasp on capital (or in the case of traditional music retailers, maintain their grasp). If businesses can successfully interpellate online users such that they recognize themselves as consumers of that product, it can have material consequences as they carry that interpellation into the ‘real world’ in order to purchase those products, something of greater focus in Chapter Two.

Part of the control over information codes of which Hand and Sandywell (2002) spoke, stems from a few different sources, including the ease with which sites record information and interaction for later use and analysis. Trebor Scholtz (Scholtz & Hartzog, 2007) theorizes that people are more easily exploited on the Social Web for this reason. Users’ interactions on the web are commodified, then turned back on them, allowing for
solicitation of purchasable and unwanted content, as is the case with music recommendation sites.

From the moment you create your profile and begin listening to music on Last.fm, our Profile Navigation software will begin to create and maintain your record collection... All of the information that is generated by your activity on the website is fed back into Profile Navigation in order to fine tune your profile so that Last.fm can play more of what you like and less of what you don't like (Last.fm, 2008)

Users create data about themselves by their interactions on the site; users are constantly creating value in the form of useful market information. User input as well as information gleaned via data mining allow for the erosion of social processes, such as in the recommendation of books, movies or, as is evident here, music. Scholtz claims that the intrusion of major corporations into the personal lives of internet users manipulates them in their everyday interactions. In some cases, he argues, the users are fully aware of this manipulation but do not mind it, essentially amounting to an awareness of their “attention being monetized” (Scholtz & Hartzog, 2008).

Users allow the monetization of their attention as the benefits accrued make it seemingly worthwhile. One such benefit or ‘free service’ is that music recommendation sites help users connect with groups according to personal relations or affinity. As Abbe Mowshowitz (1996) describes the phenomenon: “Computer communications technology offers new ways of forming, maintaining and modifying social relations. In particular, computer networks facilitate and support social networks” (79). We can see these sites encouraging networking as they create the means for them to connect. As they say: “Groups are a way for users who have a common interest to get together” (Last.fm, 2008). Given Pandora’s format, they instead, “encourage you to converse via comments – and feel free to post responses to the comments you receive on your Profile Page or
Station Pages” (Pandora, 2008). These group-promoting activities and many more, encourage users to produce value. Although these services appear to be free, what they really cost, however, is what Scoltz and Hartzog (2008) refer to as, “the hidden cost of utilization” (Scholtz & Hartzog, 2008). This is to say that users read wall posts; engage in discussions; create and join groups; read about artists and groups; comment on other’s music tastes; tweak their listed music preferences; and not least of all, watch, listen and buy videos and music. All of these individual and social actions as well as peer-to-peer interactions online have monetary value (Stutzman, 2008). As I have stated before, each music recommendation site, as a ‘free service’ relies on their ability to deliver their market (both in sales as well as for advertisement purposes) to corporate interests in order to make money. Their ability to deliver this market depends greatly on their understanding of the very demographics based on all of these actions and relations.

Advertisers … exploit existing affinity relations in the targeting of direct mail [or targeted online advertisements]. Computer networks facilitate far more powerful and effective targeting than was available previously in the service of advertising, marketing and campaigning. The growth of such networks will call forth a diverse array of affinity groups and at the same time, will stimulate the elaboration and perfection of methods for shaping behavior of individuals within such groups (Mowshowitz, 1996: 80)

The ‘methods for shaping behaviour’ are especially important to me in this thesis. In the case of music recommendation sites, the behavior being shaped is music listening habits (and thus taste) as well as purchasing behaviour (by buying the recommended music). Advertisers and sites achieve this through targeted marketing, the central focus of Chapter Two.

The individuals that make up the audience or user group of music recommendation sites hold great importance in this investigation. Collectively, the audience provides the information on which the music recommending process is based.
They, however, also add value to these sites by being, again collectively, on the site as part of a potential audience to advertisements. The interactive nature of Web 2.0 makes significant changes to audience’s commodity-like nature. All of the actions and interactions in which individuals partake produce information and value for the music recommendation sites. It is this very information that they use to construct and configure the advertisements, both implicit and explicit, for each individual user. The individualization of the advertisements becomes a highly effective hail in the interpellation process, something I deal with in depth in the next chapter.

1.5 Conclusion:

The world of the Social Web provides the context in which music recommendation sites exist; a dualistic platform resulting in opposing effects. With an understanding of the proponents and critics of these new developments, we can begin to see the dual nature of web interaction. It is not my intention to make a ruling one way or another on the inherent nature of the Social Web, as it pertains to individuals, but rather to provide an explanation of the processes occurring, and the results of these processes amidst the highly complex and often contradictory nature of Web 2.0.

Although Web 2.0 is widely seen as a democratizing force (Coleman, 2008; O’Reilly, 2005; Zachariadis, 2008), music recommendation sites, as exemplary of Web 2.0, are also seen to mimic the same models of exploitation as have been seen in industrial society (Boyd, 2007; Tully, 2006). This is to say, although the modern era and digital world have changed many things concerning human interaction, that classic forms of alienation have been transposed into the web, albeit in a far more potent form (Poster,
2001), something this thesis will address explicitly. Some say that these traditional modes of alienation have been missed due to an exaggeration of the democratizing abilities attributed to Social Web sites, while still others stand behind the individual benefits as well as the advantages accrued from the facilitation of group connections.

Some users may celebrate the future upsides of this new technological forum, but the fact remains that these sites are flourishing financially currently on the actions of individual users. Given the fair arguments advanced by both proponents and opponents of the Social Web, I will instead direct my analysis towards not the potential benefits or detriments of Web 2.0 but rather the activity that is actually happening on the web. We can speculate at length to the many future benefits of the web, but a more sociologically productive approach would be to focus attention on challenging the currently existing negative practices, such as vapid consumerism. Althusser (1969) crystallizes the importance of looking at actions:

Indeed, if [s/]he does not do what [s/]he ought to do as a function of what [s/]he believes, it is because [s/]he does something else, which, still as a function of the same idealist scheme, implies that [s/]he has other ideas in his/her head as well as those [s/]he proclaims, and that [s/]he acts according to these other ideas, as a [wo]man who is either ‘inconsistent’… or cynical, or perverse. (Althusser, 1969: 157-58)

Regardless of the politics of the individual users, the proliferation of music recommendation sites belies enough activity on the part of users to make new endeavours still profitable. Music recommendation sites help users produce value in the form of demographic and purchasing information that sites can then use in two opposing ways. This information can help to provide quality recommendations and an enjoyable experience, but they can also be employed ‘against’ users by constructing them as
consumers for the benefit of corporate interests. I critically discuss both of these views in the following chapters.
Chapter 2: Ideology, Interpellation and the Audience

“‘Josef K.!’ K. stood still and looked down at the floor. In theory he was still free, he could have carried on walking, through one of three dark little wooden doors not far in front of him and away from there. It would simply mean he had not understood, or that he had understood but chose not to pay attention to it. But if he once turned round he would be trapped, then he would have acknowledged that he had understood perfectly well, that he really was the Josef K. the priest had called to and that he was willing to follow” (Kafka, 1956)

2.1 Introduction

The purpose of this chapter is to introduce and address the concepts of ideology and interpellation, specifically as they relate to the audience and its commodity-like nature. These concepts build the foundation for the critical thrust of this thesis: recursive interpellation. In this chapter, I will first discuss ideology and discourse in order to define and clarify the terms for use in this thesis. I will then explicate Althusser’s formulation of the concept of interpellation. I will next move to key critical discussions of this concept, namely via Hall (1980), and Hay (1995). I will also speak to how Poster (1996) sees the concept as it has survived transformation into the modern digital era via electronic interpellation. I will then conclude by explicating how marketers use a social-psychological understanding of an audience (and how to hail them) as a marketing tool that in turn supports a capitalist system of domination and exploitation. Here it will become evident how marketers use interpellation as an effective means to position individuals in such a way as to reinforce the consumer-retailer dynamic to the unbalanced benefit of the retailer. It is this discussion that will adequately lay the groundwork for an understanding of the new online marketplace (Chapter Three) and how this impacts the audience (Chapter Four).
2.2 Ideology and Discourse

In the introduction, I provided an initial definition of interpellation as the way in which ideology addresses individuals. However, before launching into a more in-depth discussion of interpellation it is important to clarify the concept of ‘ideology’. Given that this thesis is an examination of ideology and discourse as it manifests on the web, it will be best served by a look at conceptualizations of these ideas previous to the online boom represented by the emergence of the internet as the central communications form of this generation.

Discourse and ideology, as explained in much of the literature (Purvis & Hunt, 1993; Hay, 1995; Blommaert & Bulcaen, 2000; Hier, 2002) are intrinsically tied. I will first provide a definition of discourse with which a definition of ideology can then be understood. According to Purvis and Hunt (1993), discourse refers to “the individual social networks of communication through the medium of language or non-verbal sign-systems” (485). Discourses are thus a collection of the different thoughts, texts and communicative actions in a given subject area. In the case of music recommendation sites, there are many active discourses at play. For example, there are the discourses that make up the individual genres that these sites peddle. In the case of punk music, there is the behaviour, the clothing, the music, the lyrics and the rituals that make up the punk music scene. There are many competing and complementary discourses at work on music recommendation sites, including the discourse around online activity as it pertains to the digital marketplace. It is this discourse that is of central relevance in this thesis, and I will later show how it operates in the favour of the retailers.
Martin Seliger (1976) defined ideology as those sets of ideas, or those discourses through which individuals “posit, explain and justify ends and means of organized social action, and specifically political action, irrespective of whether such action aims to preserve, amend, uproot or rebuild a given social order” (Seliger, 1976, cf. Eagleton, 1991). Seliger’s definition is notably inclusive, in attempt to include those sets of beliefs that may not be dominant. The more inclusive a definition of ideology becomes, however, the more ‘unavoidable’ it is, in that it includes so many belief sets that it simply becomes “the framework of meanings and values within which people exist and conduct their social lives” (Purvis and Hunt, 1993: 479).

The strongest example of ideology on the music recommendation sites in this regard is the system of relations surrounding the capitalist endeavours of those profiting from these sites’ existence. The discourses around the purchase of music related goods influence, or sometimes dictate the dynamic between the user/consumer and the site, their affiliates, as well as related industries. Music recommendation sites construct subject-positions for users, but do so in such a way as to greatly enhance their own situation while manipulating the user to attain this very benefit. This unequal balance however, remains hidden from the user as the site normalizes the entire dynamic. The consumer-retailer dyad appears on these sites as something “universal and neutral” (Purvis and Hunt, 1993: 478); their dynamic common and clearly supported external to these sites, users thinking nothing of exchanging money for service of this nature.

In the user-site relationship, there is a clear winner, and clear loser. Although site users do indeed accrue many benefits from being on the site, the sites themselves gain much more benefit. This can be seen in part by the commodification of the audience, as I
discussed in Chapter One, as well as the financial benefit that comes with users purchasing music/music paraphernalia off the sites or from site affiliates. Purvis and Hunt state, to this end, that “what the concept of ideology adds is the contention that ideology exhibits a directionality in the sense that ideology always works to the favour of some and to disadvantage others” (1993: 478). In this case, the directionality is inherent in the operation of the sites and how they are structured such that they reinforce dominant social relations, namely those of producer and consumer.

Individuals reproduce these dominant social relations in their actions, encouraged by the sites via the process of interpellation, as I will discuss in depth below. It is important to establish here however, what it is exactly that the sites are reinforcing, as well as how they are doing it. Together, individuals and these sites are reinforcing the users as independent, rational consumers purchasing commodities in order to individualize themselves from others. Users are perpetuating and strengthening their role as buyers in the sellers/buyers dyad. The ways in which the sites, specifically, encourage this will be dealt with in the rest of this chapter, while individuals and the sites’ reinforcement of individuality and consumerism are addressed more explicitly in Chapter Four.

2.3 Interpellation, the Althusserian Conception

Decades ago, French theorist Louis Althusser noted the influence that different societal institutions have in reinforcing, and thus sustaining, dominant ideologies. Althusser coined the term Ideological State Apparatuses (ISAs) referring to those institutions that enforce systems of domination through ideological means rather than
through repressive means (e.g. through the police, military, etc.). These institutions, found in communications, religious and cultural fields, to name a few, achieve their goal of reinforcing dominant ideologies by positioning individuals into subjectivities that serve the dominant powers in order to reproduce the conditions of production. This process of positioning individuals is what Althusser called interpellation. Interpellation is, more specifically, “the process by which agents (individuals) acquire their self-awareness as subjects, and the skills and attributes necessary for their social placement” (Marshall, 1998: 326).

Althusser (1969) posits ideology as functioning such that individuals are recruited into subject positions, that is to say that individuals are transformed into subjects via the process of interpellation. His primary example of this process is that of the hail of the police officer on the street: “Hey, you there!” (Althusser, 1969: 163). When the police officer calls out, the hailed individual is the one who, recognizing in themselves the role of ‘you’, turns around to acknowledge this hailing. Althusser posits that individuals rarely miss this interpellation and that, “the one hailed always recognizes that it is really him who is being hailed” (Althusser, 163, emphasis added).

Inherent in the way Althusser poses this scenario are two important figures. The first is the subject (the one hailed) and the second, the Subject (the one in whose name the other is hailed). In the case of the police officer calling out ‘Hey you!’, the Subject is the Law, or the State via the Law. In this example, the subject (assuming he turns around) recognizes that he is a subject of the Law, and thus subjected to the Law. In Althusser’s terms, he is “a subject through the Subject and subjected to the Subject” (Althusser, 1969: 167). Althusser takes the fact that the subject obeys the law as his proof of this.
Functioning in every hail is the ideology it represents, and thus some form of directionality, or exercise of power, as I discussed earlier. In the example of the police officer’s hail, the balance of power is obvious in that the police officer is exerting his power over that of the (hailed) citizen. The citizen recognizing the representation of the Law in the officer, and that his role dictates that he submit himself, subjects himself. It is this exhibition of power that makes evident the presence of ideology as well as its directionality, that is, the discourse of legal authority empowering some to the disadvantage of others. I will, later in this chapter display how these ideological relations of power map onto the system of relations evident on music recommendation sites.

This whole system, according to Althusser, effectively operates in this way so long as four conditions are occurring. The conditions are: “the interpellation of individuals as subjects; their subjection of the Subject; the mutual recognition of subjects and Subject, the subjects’ recognition of each other, and finally the subject’s recognition of himself; and the absolute guarantee that everything really is so” (Althusser, 1969: 168-169). With these four conditions occurring simultaneously, the world, in Althusser’s theory, ‘works.’ Things move along as they should, with the exception of the occasional bad subject, who in turn, incurs the wrath of the repressive state apparatuses.

Althusser’s development of the concept of interpellation is important in that he introduces a conceptual understanding of the constitution of the subject that has, as I will show in the next sections, withstood major critiques, and, more importantly, the move into the information-technology era. Given the major societal shifts that have taken place over the last 50 years, it is a testament to the concept’s value that it can still be applied to a modern society and thus to a modern individual. However, interpellation as a concept
has not remained relevant without a few alterations, which I will outline and address below.

### 2.4 Interpellation ‘Perfected’

Of Althusser’s four conditions for an effectively operating ideological system, the fourth has sparked the most critique from other scholars (Hall, 1980; Hay, 1995). While Althusser is correct in stating that if the act of interpellation is guaranteed, the system operates smoothly in favour of those in power, this is practically impossible. An interpellation cannot ever be guaranteed, a critique expanded on by others, but most importantly and explicitly, I believe, by Colin Hay (1995) in addressing the mobilization of people into moral panics. Amidst this, he also refines the concept of interpellation in ways that are helpful to me here, specifically; he makes two major contributions that I will address. First, he maintains a more critical conception of ideology (than Althusser) in his discussion of interpellation via the idea of ‘degrees of interpellation.’ Second, he speaks in depth about the media’s role in interpellating the public.

The importance of Hay’s critical conception of ideology is that it explicitly breaks away from Althusser’s more structurally determinant approach to interpellation. In this way, individuals being interpellated maintain their agency and are not merely painted as “passive ideological dupes” (Hay, 1995: 198). This idea comes across in his postulation of degrees of interpellation and ideological resonance. Hailed individuals are able to maintain varying degrees of agency in Hay’s conception as he allows for different degrees of interpellation. It is in this opening up of interpellation that allows for an outright rejection of the hail, or a response in degree. As Hay states, “[i]deological effects
are thus seen as contingent and in no sense guaranteed by the relations of textual production nor by the internal structuring of the text” (1995: 217). Some hails are more likely to resonate with individuals than others based on a myriad of variables ranging from gender, race, sexual orientation and nationality. It is in this way that we can see how the Social Web, or music recommendation sites more specifically, will play into the modern day digital interpellation. A flexible structure driven by user input allows a potentially more effective interpellation as the hail is more likely to resonate with the user if they have helped to create it based on their own current identities.

In the context of moral panics, Hay poses interpellation as a scene in which individuals can see themselves taking part. Different media outlets construct these scenes through the ways in which they present their stories, deliver the news or numerous other forms. Hay describes this process as such: “We inject our own subjectivities into the empty scenarios constructed within a mediated discourse. We recognize ourselves (as mothers, fathers, or guardians) as we position ourselves as subjects within the narrative structure constructed within such reported events” (Hay, 1995: 208). Posing an interpellation as an empty scenario into which we inject our own subjectivities helps his theorization of degrees of interpellation or interpellative resonance. Our injection into empty scenarios allows the flexibility of a different reading of these scenarios and a different understanding of our roles within them. In the case of moral panics, for example, mothers and fathers see the role of ‘worried parent’ differently, as they act out what they perceive to be the appropriate responses into the scenario posed to them. Althusser presented his original example of the police officer hailing the individual with
a much more of a dichotomous response to the hail: accept it and turn around, or reject it and continue on one’s path.

In Hay’s (1995) formulations, the media play a substantial role in interpellating the general public (at an individual level) as the media often provide the texts with which individuals are hailed. Not only do the media provide the textual basis for many hails, but they also explicitly provide the hail for many other items, most prominently in the advertisements that drive the media world. Hay (1995) contributes here in two ways: first, he foregrounds the media as an important site for the materiality of ideology, as he argues that the actions of those engaged with the media are often reflective of their understanding of their hail. Second, he focuses on the importance of the concept of interpellation in speaking to the power of persuasion, a central focus of the marketing world. I will address marketing and interpellation in more detail further along in this chapter.

In his application of interpellation to moral panics, Colin Hay (1995) has made important contributions to Althusser’s work. While certainly not the first to critique or make adjustments to Althusser’s seminal work, Hay’s contributions are significant in their concision, as well as in their application. Hay provides examples from which few could count themselves free. The ubiquity of media, in all its forms, implicates everyone in becoming a cog in an ideological wheel, though to varying degrees. Many of our actions belie our previous interpellations. While Hay’s (1995) critiques remain with the more traditional usage of the hail, others, as I will show, have attempted to apply the concept in ways that are more contemporary.
2.5 Electronic Interpellation

As I have stated before, the move into the information-technological era has altered social interactions, communications, and of course, business practices profoundly. The web has opened up a new realm in which corporations can attempt to interpellate potential consumers into particular subject positions. With a more viral form of distribution as well as an increased means for data collection, retailers can attempt a more potent form of interpellation. Poster’s (1996) postulations are at the beginning of this important change in what he calls *electronic interpellation*, the discussion of which he says, “suffices to indicate the importance of databases in complicating the concept of interpellation. The computer database inaugurates a new era of interpellation far different from that of modernity…” (Poster, 1996: 187). This section will address this contemporary era and where it appears in relation to music recommendation sites.

Electronic interpellation, as conceptualized by Poster (1996), developed with the advent of computerized databases. It is Poster’s belief that with these databases, “a new discourse/practice operates in the social field, a superpanopticon if you will, that reconfigures the constitution of the subject” (Poster, 1996: 182). In today’s digital world, many of our day-to-day interactions are automatically recorded into databases of information. These databases, once assembled, can be used by marketers to choose the specific audience with which they would like to attempt to interact. An example of this, which I will address more specifically in Chapter Four, is the collection of databases used by music recommendation sites in order to construct profiles of their users. Businesses can also use these databases to see to whom their products are sold. Consequently, future
ad campaigns or even direct solicitation can be used to more easily target or inform this demographic about store items presumed to be to their liking.

Poster (1996) differentiates this type of interpellation from previous conceptions, as subjects are unknowingly drawn into this process. “The reader [of a book] very often intentionally selects to be interpellated by the particular author, whereas in the case of computer databases that rarely if ever is the case” (Poster, 1996: 187). This is to say that databases can construct individuals as subjects external to the subject’s direct purview. Poster argues that, “With databases, most often, the individual is constituted in absentia, only indirect evidence such as junk mail testifying to the instance of writing, with the reader-subject being hailed by an absent author” (Poster, 1996: 187). The author is absent as databases are authorless pieces of “writing” in the sense that there are so many different authors involved in their construction as to be useless to attempt to attribute the work to an author(s). In this way, as Poster figures, the database belongs to both everyone, and no one (1996: 182). In the case of music recommendation sites, the databases that hold users’ personal and music information are authored both by the users (in that it is either them or their actions that fill the fields) and by no one (as the users “contribution” is often made via data mining and thus they are often unaware of any “authoring”). The product however, while not ‘belonging’ to anyone in the sense of someone having authored it, is indeed owned by the actual database owner: the music recommendation site owners.

The owners of these music recommendation sites, the site operators or sponsors, are able to wield a certain amount of power with their databases, which Poster (1996) believes is directly amplified by its being a database (182-3). To put it bluntly,
“databases are a new instrument through which capitalists can tighten their grip on the mode of production” (175). One of the ways in which this happens involves the complicitness of the individual in the process of interpellation. While Althusser’s conception of interpellation had little to no mention of the individual’s role in the interpellation process beyond being the object of its action, Hall (1980) concludes that the individual is both sender and receiver of these messages. Although the users are not the direct senders of their own interpellations, they are contributors towards the culture that is communicated back to them in their interpellation. Poster (1996) is furthering this notion in light of new technologies, saying that the individual is not only a part of the encoding/decoding loop that Hall (1980) initiates but that they are also more intimately involved in providing those that dominate them with more personal information (Poster, 1996: 184). Poster (1996) uses the example of swiping a credit card, an action that results in personal and purchase information to be recorded together. The product of this new participation is that there is far less effort required of the producer/sellers, and more received from the consumers/buyers. Poster (1996) states, in relation to the computerized databases, that “A gigantic and sleek operation is effected whose political force of surveillance is occluded in the willing participation of the victim” (184).

Poster’s “willing participation” is hardly that, or at least appears as such when contrasted with the willing participation of music recommendation site users. Poster (1996) refers to a general cognizance of being surveilled (by a database) on the part of the individual, and cites an accompanying unease with this, which he refers to as ‘database anxiety’ (183). Since the development of Web 2.0 platforms, this participation to which he referred has blossomed into a larger willingness not only to be surveilled but also to
participate in the surveillance of others. It seems that the unease has settled, where before there was anxiety with the information involuntarily given with a credit card, now, the completion of user profiles belies an acceptance of the surveillance aspects accompanying Web 2.0 interactivity. While this notion must be addressed with further research concerning individuals’ opinions on the matter, the shift in general perception or at the very least in individuals’ actions should be noted as significant here. It is prudent here to call attention back to Althusser’s claim that an individuals’ actions belie their truest or basest beliefs.

The arrival of computer-based technologies and their emergence as business tools began the process of electronic interpellation and subject constitution by those other than a real person. Automated databases set the stage for online venues to leverage their own services onto (unsuspecting) individuals. While Poster’s (1996) formulations are an important addition to the interpellation conversation, I will argue in Chapter Four that the advance of digital technologies have further altered the field of study, resulting in a substantially different mode of interpellation that accompanies the more active participation. The online venue and the resulting marketplace principles, which I will address in the next chapter, speak to the changes influencing interpellation in the contemporary era.

2.6 Interpellation, Targeted Marketing and Audience Decodings

It is in seeing a practical, material application of the concept of interpellation that we can begin to understand its importance. In this section I will explore the relevance of the concept of interpellation as it is related to the practice of marketing. In doing so, I
will address the implications of audience understanding as informed by Stuart Hall (1980). A discussion of the process of marketing will illuminate more clearly the directionality of consumerist discourse, as the actions of marketers clearly demonstrate the exercise of power within the retailer-consumer dynamic.

Fiske (1989) describes how the process of interpellation more directly impacts the processes of marketing. It is clear that an individual’s recognition of themselves as belonging to a particular subject position would benefit advertisers who generally target their marketing campaigns to very particular ‘demographics’. Thus, marketing becomes something of a pseudo-custimization or pseudo-individualization whereby marketers try to apply their products to a distinctness of a particular group, or generality across many groups. As Fiske (1989) postulates, advertising is the means through which products are attributed difference, whether it is present or not, in order to better speak to targeted demographics. Consumers can then see in their purchased commodities aspects of their personal values or character (Fiske, 1989: 6). The better an individual responds to their hail, the more likely they are to consume goods that fit with that identity. It is thus to the benefit of retailers that their advertisements connect and resonate with their intended audiences i.e. that their ads are read positively according to their preferred meanings. It is for this reason that Fiske says, “the ads for designer jeans consistently stress how they will fit YOU…” (Fiske, 1989: 7). Advertisers now have, with the move into the digital marketplace, a much wider audience with whom to engage.

The difficulty with mass marketing is that marketers generally create advertisements with one central meaning in mind but the ads can be understood in a number of ways, due to the potentially wide and diverse audience. Different
interpretations can cause confusion, enforce false information about the product in question, and dilute any unity a company might seek in opinion of their product. Looking at advertisements as a proxy for any given hail, it is clear that this diversity in public understanding of a message impacts the concept of interpellation. It is thus appropriate here to note the importance of tempering the concept of interpellation again in order to account for its lack of ability to always hail the individual, as Althusser insists.

In applying Stuart Hall’s (1980) ideas on the encoding and decoding of meaning we can more appropriately gauge the impact of any given act of interpellation.

Hall draws out the process between message transmission and message reception in a process he describes as encoding/decoding. Encoding is the process whereby producers (of mediated communications) embed meanings and messages into the “object” of these practices, whether that be an advertisement, a song, or a passage of text. The meanings embedded in the message are ones that the producer, on intention of communicating, draws from the greater pool of discourse on the subject matter. When these mediated messages circulate to their respective audiences via the text, the audience members then translate what it is that they see/hear. Hall states that if the audience takes no meaning from the message they are said to have not “consumed” the message (Hall, 1980: 170).

The translation on the part of the individual audience members can be near universally similar, due to the habituation of a culturally accepted decoding. However, although based on (assumed) shared cultural cues, decodings can vary between audience members due to different experiences, environments of consumption and numerous other factors. Messages cannot be encoded to be universally and identically understood, as
there is always a gap between the referent (the object to which a sign refers) and the sign (the signifying object, e.g. the word, a picture, etc) (Purvis and Hunt, 1993: 474; Taborsky, 1985). It is into this gap that difference in decodings enter.

More importantly, the message translated by the audience may not be the same as the one meant or encoded by the producers. While there are “common sense” or “dominant” readings, these are in no regard assured. This is put succinctly by Hall: “there is no necessary correspondence between encoding and decoding, the former can attempt to ‘pre-fer’ but cannot prescribe or guarantee the latter, which has its own conditions of existence” (Hall, 1980: 170). Hall makes evident the impossibility of an interpellation always finding its intended effect with its intended audience. We can conclude that while a message sender can attempt to guide our understanding of an advertisement they cannot ensure that we see it as they mean it, or more importantly that we agree with the message enough to take positive action (in the eyes of the producer – i.e. purchasing a product). Hall (1980) furthers this point in saying that “Before this message can have an ‘effect’ (however defined), satisfy ‘need’ or be out to a ‘use’, it must first be appropriated as a meaningful discourse and be meaningfully decoded” (Hall, 1980: 165).

If there is no necessary correspondence between an encoding and a decoding, and even less of a chance that all those who read the message by the dominant reading will eventually carry the interpellation into a retail store to complete a transaction, it stands to reason that the marketing industry is playing a very big game of chance (especially given the large marketing budgets firms maintain). Smythe explains why advertisers still venture into this field:
The insurance company “gambles” on the probability of your living a certain number of years. … Similarly with advertising, the assurance lies in the law of large numbers and the experience with audience probabilities which yields the basis for prediction on which the price of audience power is based. (1981: 235)

While he admits that there is indeed a major gamble, the gamble is sustained in the fact that it has been a proven successful business plan for so long. “Audience members may resist, but the advertiser’s expectations are realized sufficiently that the results perpetuate the system of demand management” (Smythe, 1981: 244). Therefore, while the encoding and decoding process is certainly not perfect (from a business point of view) there is yield enough for this to become the basis from which marketers deploy other marketing strategies. The increasing potency and reliability of message transmission in the digital era will be addressed more fully in Chapter Four.

In order to fully comprehend the nature of marketing, it is requisite that we understand the process of interpellation, as well as the how audiences respond to hails. Interpellation is the social-psychological basis for the marketing industry, as it is the method by which audiences connect with and respond to advertisements. Hall’s (1980) formulations are an important addition to Althusser’s conception of interpellation and the constitution of the subject. From Hall, we come to understand, from the standpoint of the individual, why a hail cannot be guaranteed. The encoding/decoding process means that individuals understand messages in potentially different ways, something similar in message to the work of Colin Hay (1995) already cited. Clearly, this is the part of Althusser’s work that requires the most attention, his work being too deterministic for critical scholars to accept.
2.7 Conclusion:

The concept of interpellation is clearly an important one, as it serves to explicate the constitution of the subject. Theorists engaging with Althusser have amended and evolved the concept of interpellation as mindset and technology shifts have taken place. As such, Althusser’s interpellation survives as a useful way of conceptualizing subject formation. Interpellation has survived Hall (1980), Hay (1995) and most recently Poster’s (1996) adjustments while still maintaining the heart of Althusser’s intent.

Regardless of any theoretical advancement of the concept of interpellation, marketers have enough of a functional understanding of this social-psychological process to position their products such that they resonate with particular demographics. Online businesses use this kind of marketing strategy (though certainly more effectively as I will later show) such that it reinforces the consumer-retailer dynamic, a dyad whose benefits lean towards the retailer. There are benefits available to both consumers and retailers though, more so now that this relationship has been transferred to the contemporary online venue.

Where Poster leaves off in his discussion however, I intend to advance with my own thesis. Although Poster has brought Althusser’s concept of interpellation to the end of the 20th century, the first decade of the 21st has moved so quickly that his formulations stop short of grasping fully the current situation as exemplified in the Social Web. Possibly, in recognition of this, Poster calls for further research in the area, stating that, “More research needs to be done to specify the configuration of interpellation in various types of databases, to answer the question of just how centered or dispersed subjects are in these cases, and to determine the characteristics of this dispersion or multiplicity”
(Poster, 1996: 187). When Poster refers to ‘the various types of databases’, he unwittingly evokes the new digital database, the database that has been automated. It is with this in mind that I take up the case of interpellation in the modern digital age, more specifically, in the context of Web 2.0.
Chapter 3: E-Commerce and Web Economics

"I'd wager that the high price of not capturing and sharing every moment of our lives will soon dwarf the cost to our privacy." (Cashmore, 2009)

3.1 Introduction

In the last chapter, I discussed ideology and interpellation, the process through which ideology addresses individuals. It is important, however, to discuss the more local context of ideology, that is, the specificities of how ideology plays into the creation and use of music recommendation sites. Given the behaviour-shaping activities that occur on these sites, it should be a wonder that any users return to them. It is not, however, a resilient audience or an altruistic site that allows the continued relationship to exist between many users and the site, but rather that the full details of this relationship remain hidden from the users. Bhaskar & Collier (1998) comment on this phenomenon of veiling in their discussion of oppression: “a true account of oppression in a society would subvert that society, so it is not surprising that there should be mechanisms in oppressive societies for hiding the oppression from the oppressed, and very often from the oppressors too” (Bhaskar and Collier, 1998: 386). I will use this chapter to explicitly display the directionality of a capitalist ideology in the case of these sites and how the mechanisms of manipulation that sustain this system are hidden from the users. What will become clear in this discussion is that which users sacrifice as well as how online retailers increase their gains though the manipulation of users.

A central way in which music recommendation sites hide their manipulation of their users from their users is in the site format. These sites advertise themselves as services with which users can freely interact. While I have already discussed how this
“free interaction” is anything but (Chapter One: Audience as Commodity), I will in this chapter discuss how the different aspects that improve the user’s experience are necessary functions for the sites to operate and profit given the characteristics of the new digital marketplace. An examination of these necessary functions, each centered on the use of recommenders, will include a discussion of online advertisements, privacy matters, and interactivity. However, while these sites are making money on the manipulation of, and intrusion into the lives of their users, they are also serving the purposes of larger corporate interests (namely their investing ownership). I will spend the end of this chapter speaking to the convergence of many major businesses and online entities exemplified on music recommendation websites. This convergence will make evident the larger corporate interests’ gains over and above those of the music recommendation sites with which they are involved. In this instance the music recommendation sites serve merely as mediating entities through which corporations veil their manipulative practices (in perpetuating vapid consumerism) over many of the individual users. Through the discussion in this chapter, a picture of this new form of manipulation, as ushered in by the digital era will become clear. The digital revolution has sparked many changes to society, economic relations and in turn individual agency.

3.2 Online Advertisements

Advertising serves two central functions for producers, first to convince potential consumers that their product is necessary (to whatever end), and second, to convince potential consumers that their brand of product is superior (in any number of ways including price, quality, longevity, etc) to their competitors. Advertisements look to
position their product over and above either another product or no product at all. Marketing gives a voice to those commodities that do not have one of their own. It is in this voice that ideology speaks as it attempts to resonate with consumers.

Interpellation, as I have discussed in Chapter Two, is an inherent function of advertising; if users cannot place themselves into the subject-position of consumers of a particular item (i.e. reject the interpellation), they will not buy the product. Fiske, in the context of blue jeans, discusses the idea of interpellation in advertisements: “advertising is used in an attempt to give meanings to… product differences that will enable people in the targeted special formation to recognize that they are being spoken to, or even to recognize their own social identity and values in the product” (1989: 6). The digital era, however, has brought with it an explosion of products, making the process of attributing meaning and targeting audiences much more complex.

Advertisements appear on music recommendation sites in three different ways. There are explicit advertisements by third parties (paid ads), explicit advertisements by the host site (promotions), and implicit advertisements by the host site (music recommendations). The explicit advertisements by both third parties as well as the host site generally appear in the form of banner ads. The third party sites’ ads will, once clicked, lead the user to their site. Skipping over homepages and clumsy navigation, ads click through to the function the user wishes to complete (based on the ad). In the case of a WestJet ad (as seen on Last.fm), the advertisement clicks through to the flight/date selection screen, ready to give prices to flights, assuming language and location (English, Canada from my particular location) as is usually required when navigating the site manually. The explicit ads by the host site merely lead deeper into the music
recommendation site where users can purchase the viewed item immediately without having to do the normal searches. Finally, the implicit ads found on the host site appear in each recommendation the site offers. Within each recommendation is an implied push to buy from the site, their affiliates or from an external source of the users’ choosing (any ‘bricks-and-mortar’ record store for example).

Although founded on “finding music you love” (Pandora, 2008), these sites instead come across as finding music you would love to buy. With a click of the visual cue7 (i.e. the implicit ad), the site leads the user to the point of purchase for the song/album/artist of ‘choice.’ Despite the fact that the point of purchase is generally through a different site (Amazon or iTunes) it is buying at these points of purchase that provides the site with the commission for the sale, although they downplay its significance to them. Pandora advertises it this way: “Also, if you wish, feel free to use Pandora referral links (from within the Pandora Tuner, from your Profile page, or from the Backstage pages) when making purchases from iTunes or Amazon, as we receive a small commission from those sales” (Pandora, 2008). The casual downplay of this facet of the free service serves to minimize or veil the connection between the free service they offer and the platform as a money making business. It also downplays the perceived connection between these Social Web sites and major large-scale “faceless” corporations, spouting phrases like “Music of the people, by the people, for me” (iLike, 2008).

Clearly, music recommendation sites are heavily dependent on advertisements in some form. Advertisements from other businesses bring in revenue, as does the commission from the implicit advertisements held at the heart of the free service offered.

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7 The music recommendation sites accompany each recommended song with various visual items related to the recommended song. These vary from site to site, but most frequently feature an album cover.
Without advertisements, these sites could lose money and likely shut down, thus making effective advertisements/advertising frameworks of utmost importance. Further, the advertisements in the form of recommendations effectively serve the purpose of disconnecting these services from their capitalist endeavour veiling the sites’ central goal of making money (central inasmuch as no income equals no site). I will show in the next section the importance of shifting the focus of a recommendation from the marketing aspect towards the service aspect.

### 3.3 Long Tail Economics

One could assume that online retailers could/would rely on the same major hits and chart toppers as their physical/material world counterparts (the ‘bricks-and-mortar’ stores) have for many decades. However, overcoming this restriction has been one of the major impacts of the arrival of the digital marketplace. Online retailers are benefitting from what Chris Anderson (2006) describes as long tail economics. The long tail is the graphic shape created when the available products within a genre (such as ‘music’ or even, ‘media’) are arranged by popularity (evidenced by sales). The head of the graph (closest to the y-axis) represents the top sellers or the ‘hits’ and the tail (the proportionally larger x-values) represents the long list of minor selling items and niche markets. The long tail effect describes the economic move from a few major selling commodities, to the addition of many minor selling commodities. No longer do retailers (need to) rely on the handful of chart toppers in order to meet their bottom line, but,

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8 The shape of the long tail graph is alternatively known as: a power-law graph; Bradford’s Law; Zapf’s Law or; a Pareto Distribution
rather, they can sell a few copies of a plethora of less popular items. In more traditional music markets, over 80% of sales are made with less than 3% of their active stock (Pandora, 2001). The tail has, since the proliferation of modern information technology gained many fold in length, increasing the percentage profits accrued from ‘the other 97%’. This chapter will show how this happened by addressing three factors that have contributed to the growth of the long tail. The first is the democratization of the means of production. The second is the democratization of the means of distribution. The third factor is the more effective connection of supply and demand (Anderson, 2006). This discussion will make evident how the move into the digital era has secured more firmly the market’s grasp on individuals as consumers.

The first factor contributing to the long tail is the democratization of the means of (cultural) production. New technology allows amateurs and professionals alike to affordably produce creative works. Apple’s GarageBand, as an example, permits budding musicians to create high quality recordings. Digital cameras and recorders allow filmmakers to submit surprisingly high quality films or digital shorts (Jenkins, 2003). The result is a proliferation of available media. The available media extends the length of the long tail, creating ‘miles’ of available content. Watchable media is no longer produced only from major studios or by corporations, but also from many individuals creating works from their basements or studios (often to be signed down the road).

The second factor influencing the birth of the long tail is the democratization of the means of distribution. There is no benefit to an increase in media if there is no way to access it. Where GarageBand allows young musicians to create music, MySpace allows those musicians to upload their music that would-be fans globally will download.
YouTube and MySpace fill their sites with millions of amateur videos and music that compete for the attention of internet users. Major music artists such as Tila Tequila or Lily Allen have had their careers launched based in large part on MySpace success (O’Neal, 2009). With over 125 million users on MySpace alone (Arrington, 2009), access to minor small-town acts is increasing thousand fold. The increase in access fattens the tail, down its length as it becomes cheaper and easier to deliver to consumers. It is the low cost that encourages music recommendation sites to carry massive databases, stocking songs and artists of all genres and talents. As Pandora states, “We have a lot of indie and even unsigned music in the Music Genome [Project] and we want to play all of it, major and indie, old and new-- no barriers, no prejudice against one or the other so we need licenses for both indie and major-label music” (Pandora, 2008). Online databases no longer have to be particular about what music they aggregate for consumers, allowing for thousands of different stations filled with unique mixes. In the past, radio bandwidth limited the number of possible stations on the dial, but in the digital age, access is near limitless.

Not merely limited to those sites that offer free access to users, pay sites such as Rhapsody or the iTunes Music Store are also able to increase access. The digitization of music files has allowed distributors to shelve their entire stock. Traditionally, distributors and retailers’ decided which commodities to stock through economic cost-benefit projection: a certain number of sales within a certain amount of time were required in order to recoup overhead costs on ‘shelf’ space. This applies, for instance, to the square footage needed for a car in a dealership, to the square inches required for a CD in a record store. However, with the advent of digital music files, the music industry is one of
the most heavily influenced by the emergence of the online market. With no limit to shelf space, inventory is virtually limitless! A limitless inventory results in a massive quantity of stock. E-merchants can scrap the cost-benefit efficiency analysis for the practice of shelving *everything* on the digital rack. Little to no money is lost on carrying all stock that falls within the range of the retailer’s genre (of merchandise - whether that is media from Amazon.ca, or drugs, from MyDrugStore.com).\(^9\)

The final factor, also of the greatest importance to me here, is the increase in efficacy of connecting supply and demand. This comes in the form of recommenders (as an example). A large product base with easy access actually complicates the purchasing process without the help of recommenders. Literally millions of stocked items of merchandise create an unnavigable inventory for even a seasoned online shopper. There is no use in a large inventory if it is not of any interest to anyone, or cannot find those to which it would be of interest. Pandora describes this dilemma as one of the contributing reasons for the creation of their service. “Many consumers have difficulty finding items, such as music or videos, that they like, whether online, in a retail store or at home” (Pandora, 2001). Recommenders serve the purpose of connecting the massive supply of commodities to those who are looking to buy, browse or merely listen (in the case of music). As the long tail increases in length and width, recommenders push the demand down the length of the tail, connecting users with niche market items and proportionally increasing their net profits. I will more fully discuss recommenders and how they operate in the next section but suffice it to say here that recommenders are a driving force in the profit margins of e-merchants.

\(^9\) It should be noted that many online retailers hold either little or no inventory, preferring rather to aggregate the inventories of affiliate “bricks-and-mortar” retailers.
Accommodating the niche markets has become far more profitable than sitting back, relying on the ‘old faithfuls’ or newly popular items peddled by more mainstream media, such as radio or (music) television. Recommender systems are crucial in the navigation of e-commerce sites not only for those looking for the blockbusters and big hits, but especially for those looking to either expand their interests or for those interested in more fringe tastes, effectively impacting aspects of individuality to be dealt with in the next chapter. Due mainly to three mitigating factors, recommender systems and the new digital marketplace go hand in hand. The democratization of the means of production, the democratization of the means of access and the effective connections made between supply and demand interdependently serve to create the long tail of web economics. These factors illuminate one of the *raisons d'être* of the music recommendation sites, both for the retailers and the consumers. The retailers want to increase sales, and the consumers want to find something that they enjoy and *want to* buy/listen/use.

### 3.4 Recommender Systems

Recommender systems, easily one of the most important pieces in the new digital marketplace, take the place of knowledgeable retail staff, in-store promotions, and even one’s peers who offer advice on whether or not to purchase an item. Pandora cites a failure on the part of these alternatives as one reason for their genesis: “…studies have shown that many consumers who enter music retail stores intending to buy, leave without making a purchase and that many of those unsatisfied consumers had fully intended to buy music on that visit” (Glaser, et al., 2006). Implicit here are the polar needs that Pandora intends to meet. Recommenders aid the consumers in their so-called ‘desire’ to
purchase, and the retailers (Amazon and iTunes via Pandora in this case) are aided in their ability to move product. This supposed mutual benefit is presented in the e-commerce literature as follows:

Current recommender systems are mainly “buy-side” systems; that is, they are designed to work on behalf of the consumer to help [them] decide what products [s/]he should purchase. However, modern marketing is designed not only to maximize utility to the customer but also to maximize value to the business at the same time (Schafer, Konstan, and Riedl, 145).

The disparity, however, between the ways in which recommenders serve the consumers and businesses highlights the unequal nature of the recommenders, in that while there is mutual “benefit”, the benefit accrued by the consumer is one that comes through the act of purchasing, and thus of entering into an unequal consumerist dynamic. This section will explore the dynamic of so-called mutual benefit of recommenders, through a discussion of their emergence, as well as the themes of mass customization, engagement and interactivity.

*Mass Customization*

The advent of the internet as a place to buy and sell commodities has opened up markets to more competition. Long distances between consumers and retailers no longer represent a barrier to business. Arising out of this of course is an increase in competition between retailers worldwide. With millions of merchants vested in the web, consumer choice transforms from advantageous choices to overwhelming options. For this reason, value-added services become essential for e-merchants not only to survive, but merely to function; e-merchants, with the loss of potential geographic advantages must instead rely on informational advantages (Schafer, Konstan, and Riedl, 146). In order to provide better service than the other thousands of competing merchants, sites will often opt to
offer more products (which are certainly available, as outlined previously), moving towards a one stop-shopping experience. The infinite “shelf space” of the internet ‘store’ results in an unwieldy amount of stock for the browser/shopper to sift through. The result of this, Schafer et al. (2001) describe in stating that:

Increasing choice however, has also increased the amount of information that consumers must process before they are able to select which items meet their needs. To address this information overload, e-commerce stores are applying mass customization principles not to the products but to their presentation in the online store (Pine and Gilmore, 1999, cf. Schafer, Konstan and Riedl, 116)

This increase in mass customization comes in the form of recommender systems. What is important to note of this phenomenon is that it is a customization of the presentation of products and not the products themselves. As noted in Pine (1993), “Mass customization originally referred to the physical modification of products and services to make them fit each consumer’s needs (cf. Schafer, Konstan and Riedl, 116). The actual commodities being consumed from e-merchants are, for all intents and purposes, nothing new. An increase in choice can be seen as a result of the increase in shelf space, which in turn requires the customization in order to navigate; recommenders have become the solution.

Recommender systems, as a necessary feature on e-commerce sites, have diversified in form. They come in a variety of shapes and themes, with different features or methods foregrounded on each site. These differences emphasize the sites’ strengths, designed to speak to consumers in ways that resonate, in short, these differences interpellate different users differently. Schafer et al. (2001) emphasize this point in stating that:

Automatic recommender systems are specialized data mining systems that have been optimized for interaction with consumers rather than marketers. They have been explicitly designed to take advantage of the real-time personalization opportunities of interactive e-commerce (Schafer, Konstan and Riedl, 117).
This so-called ‘advantage-taking’ is a part of the manipulative action of these sites, in that they are leveraging personal information in order to hail individuals for profit. The ‘optimized interaction’ is the carrot for the user in order to entice them into taking part in this system of manipulation without seeing it as exploitative.

Engagement

With the dissolution of distance via online purchasing, the aphorism of “location, location, location” points to the archaic nature of the traditional market, as well as the main difference in today’s market. The digital marketplace allows e-commerce sites to sell anywhere in the world (assuming there is an internet connection of course). It is possible for one e-merchant to sell simultaneously to the Canadian, Korean and Chilean markets. However, as Schafer et al. (2001) point out, “One of the key challenges for e-commerce sites is to engage visitors – especially new and infrequent visitors – before they leave to visit another site. For sites that list thousands to millions of different products, this challenge is particularly acute…” (Schafer, Konstan and Rield, 140). This necessary engagement comes via value-added services, of which recommenders are a key part. Sites such as Pandora or Last.fm are more than just an inventory of purchasable music, but also providers of recommendations users should consider buying.

Recommenders must also be able to provide quality recommendations (relative to the user) quickly, so as not to lose the potential user to a quicker (if less efficient) recommender. This efficiency dilemma (time-consuming quality over speedy

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10 Pro-Am: Professional Amateurs, a characteristic personality of the social web (Web 2.0).

11 This is a loaded assumption given the geo-demographics of internet access. See Tully, James (2006) for his article on ‘Communications and Imperialism’
inaccuracy) is most opportune handled by iLike. This site first offers a quick set of recommendations based not on one’s entire music library but only on their most played songs, followed in time by recommendations that are more personal. This process happens in the following way:

To make it faster, we first process your most-played-artists, in order to help give you compatibility scores with other users, and to help recommend you music. However, until we have finished processing your entire music library we won't be able to do smarter stuff such as displaying your most-played songs, recommending you only music you don't have yet, or filtering out music you already own (iLike, 2008).

In this way, the site gives users semi-personal recommendations as well as the promise of improved service if they remain a user beyond the first few encounters. Also evident here is an enticement or invitation to more personal interaction. The user is encouraged to surrender information that is more personal in exchange for “smarter” recommendations, and many other statistic-based services that the sites offer as well.

Truly, the enticement from the sites is for more interaction. More interaction between the site and user results in more information for the sites (and theoretically better recommendations for the user). Sites therefore attempt to interact with users in different ways to varying degrees. The process of recommendation can hold varying degrees of interactivity with the user. An editor’s top ten ‘picks’, or a list of chart toppers represents the low end of interactivity in terms of recommendations. This scale ranges from the non-personal, as seen in the editor’s picks, which remain the same regardless of the user, to ephemeral personalization, where recommendations are based on current inputs and current interests. Finally, there is persistent personalization, which offers recommendations based on a more in-depth and long term understanding of the user’s
preferences. Clearly, a higher degree of personalization on the site equals a higher degree of interactivity and thus also of personal intrusion.

The online forum has changed many business practices and policies, raising new issues. E-commerce must have effective recommenders in place in order to maximize customer experiences, and thus sales. Recommenders, while offering nothing actually new as far as product is concerned, serve to increase sales by leveraging customer engagement and interactivity. The information users forfeit through these interactions tip the balance in favour of the sites that forfeit no information, increase their sales and maintain possession over the information from users free for use in future ad targeting or market research. Music recommendation sites truly are the biggest benefactor of the site-user relationship. Unfortunately, recommenders, due to the sheer enormity of products and information on the web are a necessity in the new digital marketplace, and the many detriments and benefits that draw the users in must be analyzed and critically addressed.

3.5 Privacy Issues

The online world has complicated the issue of what is public vs. private in terms of the release of personal information. The internet allows us to connect with one another and consolidate our information in one place, or network it between disparate places. There are plenty of opportunities on the web to hand out personal information or, reversely, to have that information taken via website data mining. This greyness clouds already complicated arguments on personal autonomy and privacy online.

As has been stated previously, recommenders can operate with different methods and algorithms at different levels of personalization. One thing that remains relatively
constant, however, is that the more the recommender system knows about the user, the more accurate (relative to the user) the recommendations.

In order to provide personal recommendations, recommender systems must know something about the customers. Indeed, the more the recommender systems know, the better the recommendations they can provide. Furthermore, E-commerce sites can learn a great deal about customers without the customers’ awareness or consent. (Schafer, Konstan, and Riedl, 147)

Issues of privacy, awareness and consent, are all issues that figure prominently in the digital marketplace. Users are stuck in a spot where they want to receive better service but do not necessarily want it at the loss of their privacy or control over their personal information. However, as the literature points out, many users are somewhat aware of the privacy issues but remain unconcerned (Scholz & Hartzog, 2007; Lyon & Zureik, 1996). While users are likely unaware of the full extent of this intrusion, they do connect a loss of privacy with its potential benefits. Lyon and Zureik (1996) state this succinctly:

Surveillance is not an unmitigated evil, but rather a two-faced social phenomenon with which many cheerfully collude for the sake of the advantages that accrue to them. People are willing to sacrifice a little privacy or autonomy for the sake of political participation or consumer convenience. (Lyon & Zureik, 1996)

There is however, a significant amount of information that users forfeit to these sites in exchange for the services rendered or the ‘consumer convenience.’ Users hand over some information ‘voluntarily’, though some of it is in fact required in order to operate on the sites. Among the information voluntarily handed over: name, address, email address, music preferences, other media preferences and friends to name a few. In an age of rampant identity theft (Koops, et al., 2009), divulging this information can be quite dangerous.12

12 One should note, however, that although some of this ‘voluntary information’ is required, it does not hold true that this information is always correct. Internet users can be expected to supply pseudonyms or false
As I stated before, in addition to the information that the user volunteers, there is also information that is taken from the user. This information, along with whatever the user has offered (to whatever degree of validity) is used by the sites for a variety of purposes, not all of which are completed by the sites themselves. As stated in their privacy policy, iLike uses the information in the following way: “We will share user profile and demographic information with our partners and advertisers, for purposes including, but not limited to, the delivery of targeted advertising” (iLike, 2008). Evident in this admission are two important issues. First, user information, although technically not compromised, is in fact used to some end in targeting users. Second, user information volunteered to the site or taken by the site is shared with partners and advertisers, a potentially large and growing group. This notion is expanded even more in Pandora’s privacy policy which states: “[we] currently have contractual relationships with other Web sites, retailers, original equipment manufacturers, software suppliers and product or service providers through which we provide access to registration for the Pandora Services among others” (Pandora, 2008). The sites’ privacy policies make it clear that while information is protected, this is done within an increasingly larger circle of vendors. In this way, the privacy policy becomes less about the protection of a user’s personal information, and more about describing how a user’s information is being compromised beyond the auspices of the site itself.

While the privacy policies serve to outline exactly who may have access to users’ personal information, they also outline how this information might become exposed. The privacy policies and terms of agreements scapegoat the internet as an untamable platform addresses in order to gain service, seemingly without surrendering privacy, although I will show this to be untrue.
from which no users can ever expect any real protection. Pandora states this as a matter of fact: “due to the open nature of the Internet, we cannot guarantee that any of your personal information stored on our servers, or transmitted to or from a user, will be free from unauthorized access” (Pandora, 2008). In this statement, there are admissions of both potentially inescapable problems as well as Pandora’s guiltlessness. Last.fm has a similar statement, claiming it “is not responsible for any disruption whatever inherent in the operation of the Internet and World Wide Web including viruses or otherwise” (Last.fm, 2008). In the site-user relationship, which the privacy policies and terms of agreement highlight, it is clear that the majority of any detriments are borne by the user. While some might argue that the site-user relationship is one of mutual benefit, these documents suggest otherwise. While both the site and user do indeed accrue benefits, the forfeiture of one’s personal information topples the power balance towards these sites, imposing risk on the user in order to maximize their own benefit, while offering to the site potentially increased profit margins.

It is in the best interest of e-commerce sites to balance these privacy issues in order to find a happy middle ground where the majority of users are both pleased with the amount of service they are receiving as well as the amount of personal information required. The more comfortable users feel to music recommendation sites, in any capacity, the more value they will likely produce. If users feel comfortable subjecting their entire listening history to these sites, they will do so, en masse it seems. As Schafer et al. (2001), astutely observe, “The goal of most retail businesses is to develop long-term relationships with customers that lead to higher lifetime values and greater competitive barriers” (Schafer, Konstan and Riedl, 2001: 141). If e-merchants can provide a better
understanding of users’ ‘needs,’ users are more likely to maintain the service, providing more personal information (often implicitly) with every interaction. This of course serves to strengthen the sites’ grasp and understanding of the market, fostering a better business model and more profitable operation.

This discussion is not meant, however, to paint an overly negative image of these sites, as in the exaggerated claim that they are stealing our personal information in order to share it with their affiliates (a right reserved in their privacy policies) (iLike, 2008; Pandora, 2008; Last.fm, 2008). The individuals involved are equally culpable in this regard. Although the sites glean information from them, they are complicit with the information trade-off, freely volunteering unneeded personal information. Granted, the sites are set up to handle this information, there should be an impetus put on the internet user to be more conscientious, a point I will drive home in the next chapter.

3.6 Convergence

The more horizontally integrated orientation of the web has ushered in a new age of convergence. Convergence refers generally to the alignment and integration of different entities into what the web techs refer to as a ‘mash-up’. Web services combine to offer dashboards full of useful items and actions. Convergence can happen in two main ways. First, companies offering different services can pair up in order to add value to each of their individual brands. Alternatively, different technologies or services can converge on one site, in order to create more of a one-stop shop. While the latter certainly appears on music recommendation sites, the former is of more central interest
here. I will speak to some of the partnerships that have formed on these music recommendation sites and what this means in the larger ideological picture.

As mentioned previously, a successful interpellation need not occur solely within the online forum. Users for whom a particular product resonates can carry this hail outside of the web into traditional bricks-and-mortar stores in order to fully realize their hailed consumer position. It is here, that the convergence of businesses becomes most significant. If a user is not going to buy product from these sites, it is to the sites’ benefit to plant a seed as to where they should make their purchases.

The most blatant example of this partnership style of convergence is in Last.fm’s scrobbling features. The ability to extend their surveillance via the user’s iPod, and thus their iTunes, is an alarming function given that iTunes serves as a portal into the iTunes Music Store, the largest purveyor of digital music. The use of Last.fm and their advanced features therefore encourages the use of iTunes, which additionally has its own mechanisms to encourage purchasing.

Further, inherent in many of these sites’ instances of convergence, there is an attempt to extend the user’s hail to their peer groups. As has been stated previously, Web 2.0 is based on collaboration and networking, two features that play advantageously into the hands of partner sites. Music recommendation sites, while offering networking features themselves, also allow users to connect with one another (over music/music recommendations) on other popular sites. LiveJournal, an online diary community; Facebook, the online networking tool; MySpace, the music and social networking site; as well as a number of blogging sites are all tied to music recommendation sites. In this way, music recommendation sites become the locus for a synchronized system of
consumer behaviour shaping. These sites, in their co-optation of the music recommendation process are also, in this instance, able to take over not only the role of recommender but also push those recommendations out to the user’s friends, who need not be users of the site at all.

In using popular online sites, these music recommendation sites exemplify another trend in their convergence. It is to the sites’ benefit that they are able to accommodate the preferences of their users. Facebook, as an example with 500 million users (Facebook, 2009), is a highly useful application with which to partner, in that users may move from the partner site to the music recommendation site, as opposed to the other way around. It is, in this case, a beneficial marketing tool reaching users who may not have heard about the music recommendation sites otherwise.

Music recommendation sites have also converged with many communication services in order to connect with broader audiences. On the most superficial level, these sites are mostly integrated with sites such as AOL, Yahoo or Hotmail, allowing users to immediately connect their actions on the site to their friends via more traditional online communication methods. Hotmail address books and contact lists are easily transported into the site in order to push out particularly good recommendations or to share playlists. At a more significant level, music recommendation sites, Pandora in particular, work to integrate with communications services available via cell or mobile service, something explicated in more detail in Chapter Five. Music recommendations or playlists can be pushed out to mobile handsets, PDAs or cell phones. From here, they are again wide open to be forwarded on to their friends. As the mobile service and PDA market
explodes, this particular service becomes even more coveted and important in order to secure long-term integrated consumer relationships.

Evident in these short examples of online convergence is the attempt to not only secure more users for the sites and their partners, but also to appeal to the perceived desires of the users – that is, to be able to engage with their favourite sites more seamlessly or in a more integrated fashion. The ability to push recommended songs out to other friends, or to use recommended songs and other products of these sites as identity cues, as is popular on these sites/amongst youth (Boyd & Ellison, 2007), is seen as a value-added feature of these sites. The added convenience for the user veils the more deeply probed nature of their online lives.

3.7 Conclusion

I have written in depth here about the current conditions of advertising on the web, as well as the privacy issues that this opens up. I have detailed the long tail economics of the web that have arisen out of these advertising practices. What we have gained from this chapter is the knowledge of how recommender systems affect individuals generally. I have also shown the ways in which recommender systems are a requirement of the new digital marketplace. Not particular to the online music industry, recommenders, as a requirement in the digital era, highlight the ways in which sites objectify users as consumers or consumption-aiding information sources. Recommend and the different inputs that feed into them manipulate users for the sake of corporations’ profit margins. Further, as digitality and corporate presence on the web has lead to recommenders and long tail economics, these same characteristics have also given rise to
convergence as well, another factor extending corporate grasp on consumers. The web in its current form seems to evolve towards the benefit of corporate interests as they become more easily able to wield their products and services in order to lure potential users into the consumer dynamic. Both companies and product lines continue to grow and grow, entrenching the need for recommenders. As e-merchants cannot survive online without some form of recommender system, it is thus important to investigate exactly what impact these might have over individual agency. It is clear that sites and their owners are often bilking users for their disposable income, but how are users affected as individuals? This will be the topic of the next chapter, and the main critical thrust of this thesis.

More and more, what we are seeing is that users need to forfeit personal information in order to purchase commodities online. Not only is personal information required for the actual purchase (either via credit card information to buy the product or to send physical products to an actual address) but in many cases simply to find an item worth buying (as without some information the massive inventories are crippling). Rather than await a product worth buying, consumers give up their information to have things worth buying brought to them (via recommendations).
Chapter 4: Recursive Interpellation

“...the world of the future will be one in which every person can be identified, and dealt with as an individual,...handled by the only device fast and versatile enough to deal with hundreds of millions on a one-by-one basis – an advanced computer” (Asimov, cf. Mowshowitz)

4.1 Introduction

Through the literature covered thus far, what we can see developing is the need for an alteration or advancement of interpellation as it pertains to the new digital era. E-commerce on the Social Web, under the guiding business principles of long tail economics, requires a new understanding of electronic interpellation beyond Poster’s (1996) conception. It is here that I would like to introduce the idea of recursive interpellation. This concept has been born out of the more active participation on the part of potential consumers in their own interpellations. It is becoming clear that in the practice of consumerism on the web, participation is the key. I will first speak to the two different ways in which users participate. This is via the community-driven and individual-driven aspects of the music recommendation sites and the Social Web. This discussion will also show how the back and forth between the two ‘audiences’ (individual and community) serves the immediate purposes of the site while maintaining a contented and thus complacent user base. I will then briefly summarize the many different factors that have contributed to the new terrain from which a new form of subject formation has begun. Finally, I will introduce and fully explicate recursive interpellation, how it differs from traditional interpellation, as well as why it is an important concept in this new digital era.
4.2 Community and Individuality

A user’s interaction and participation on a music recommendation site generally falls into two related categories. It is either an action that supports the user’s individuality, or reversely, an action that bonds them closer with a particular community or group via common interests. These two actions are contradictory in that the sites’ interactions with individuals serve the goal of personalizing a user’s personal music repertoire, whereas interactions with the groups act to bring people together under one preferred collection of music. Despite their difference, both of these actions simultaneously serve the sites’ drive for larger profit margins. Individuality, as I will show, drives consumerism (obviously among other mechanisms), yet the community aspects of the sites are what provide the sites with the necessary resources to sell to their user-base. I will explicate more fully the roles of these two types of interactions below, beginning with the community interactions.

Community

Participation in communities is an important aspect of the Social Web generally, and music recommendation sites specifically. By using the sites, individuals become a part of the site community, the music community and the community of genre listeners to which they subscribe. Discovering music is, in this respect, not seen as an individual endeavour, but rather as a part of “the social music revolution” (Last.fm, 2008) or as “music discovery with friends” (iLike, 2008). In this section, I will show the importance of individual participation in the music community for making recommendations, as well as the significance of the affinity groups created via these sites.
One method of recommending music comes via a collaborative filtering algorithm. Many sites use this or similar algorithms, based on the notion that if two people agreed in the past that they will be more likely to agree in the future (Last.fm, 2008). If, as an example, everyone who listens to The Beatles also listens to The Rolling Stones then it would follow that the site would recommend the Rolling Stones to a new user who has identified The Beatles as a favourite artist. This is a task not done for each individual listener but rather calculated for each individual artist or band on inventory. The user then steps into the recommendation based on what they have in their music library and/or whom they have identified as a favourite on the site. Last.fm describes this process in rudimentary terms: “The list of artists which you may see on an artist page as being ‘similar’ is based exactly on our users’ listening habits. If a lot of users listen to Artist X, but also Artist Y and Z - Y and Z artists will become similar to X” (Last.fm, 2008). That the groups of collected users hold significance to the site becomes evident in this description, as the recommendations, although seemingly personal, are created previous to the user, based on the group preferences. The group is significant as they are not only the basis for determining the value of their advertisement space (see Chapter One: Audience as Commodity), but also create the basis of the service that is offered to the individuals. Thus, the community aspects of these sites and individuals’ participation in them are necessary to serve individual needs and wants, a driving force behind grabbing interest.

Music recommendation sites allow users to connect with like-minded individuals into affinity groups, which Mowshowitz (1996) defines as, “collections of individuals with limited common objectives” (79). She continues, “affinity groups … shape the
attitudes and behavior of their members, especially when the members belong to several such groups with closely related objectives [such as music discovery]” (79). On these sites, the tastes of an affinity group can have substantial influence on those users that identify with the central defining identifier (genre/band/location) of that affinity group. If most members of an affinity group have music taste $x$, then that taste will be recommended to new members upon their admission of their taste for the music of the group. However, sites can also interject into this group/individual dyad and recommend new music to the entire group if it falls within their (perceived) scope of interest, potentially influencing the entire group’s taste. New music, along with newsletters from the site, on-site conversations and forums combine to create, modify and reinforce group norms or standards. These norms will in part reflect the aims of the advertisers (Mowshowitz, 1996) as they have a degree of influence in stimulating the creation of these norms.

As these affinity groups base themselves on limited common objectives, the norms and standards are generally limited to, as an example, thoughts of what music or styles (clothing, parlance, etc) constitute a particular genre, though, notably, these are often the commodity-based aspects of the groups. There is danger in an affinity group relating around commodity-based aspects of the group, because, as Mowshowitz (1996) theorizes:

> Affinity groups based on consumption constitute the most likely arena for elaboration of the new forms of social control made possible by computer networks. Direct marketing, with its buying profiles and dissemination of targeted advertising, promises to integrate exogenous and endogenous control mechanisms (97).

While I have already discussed targeted marketing from advertisers in Chapter Two, music recommendation sites have an important additional characteristic: presence of the
labels. Labels also potentially hold a degree of influence over the tastes of the affinity
groups. Some music recommendation sites will highlight or showcase particular songs
on behalf of those who would profit from its sale. Last.fm describes their feature in this
way: “For a fee, a label or artist can target a number of radio plays to Last.fm users,
based on their musical taste. They can find out how well our users rate their track”
(Last.fm, 2008). The labels (or artists) that submit for these pay-for-play stations are
clearly attempting to enact influence over the tastes of different affinity groups. User
participation in groups presents corporate interests with a prime opportunity to deliver
highly targeted commodities for purchase.

Although these sites encourage a collective group mentality, they do not
encourage the type of group behaviour that bred this online service (i.e. the sharing of
mixes or playlists). As previously stated, music discovery was a process accomplished
mainly in interaction with one’s peers prior to the technological jump. These sites have
since co-opted this activity. Music recommendation sites encourage users to share their
‘stations’, rather than their music or their own mixes. Thus, the process of sharing a
homemade mix transforms into the process of sharing a mix configured by/for the
individual.13 This does not constitute the sharing of one’s own labour, but rather of a
validation of the mechanical reproduction of (and thus alienation from) this process via
the online platform. In this instance, the site is stepping into the role of the peer,
changing the dynamic between site and user importantly. One reason why the sites have

\[\text{13 The concepts of incorporation/excorporation may be useful here in understanding the cyclical process
whereby individuals create popular culture, such as mixtapes, out of the commodities provided to them by
dominant groups (excorporation) and those same items are then packaged, marketed and sold (or
incorporated) to those following the budding trends of popular culture as exemplified by music
recommendation sites. For more on incorporation/excorporation, see: Fiske, John (1989) Understanding
Popular Culture. Boston: Unwin Hyman.}\]
been able to accomplish this feat has to do with how users view and interact with websites. Reeves & Nass (1996) note: “We have found that individuals’ interaction with computers, television, and new media are fundamentally social and natural, just like in real life” (cf. Poster, 2001: 12). Similar conclusions were found in individuals’ reactions to events in the lives of the people that individuals see/follow via TV, in that the biological responses to someone on TV with whom an individual identifies is similar if not the same as their reaction to their actual friends (Greenwood et al., 2008: 398). In this way, it is clear to see how music recommendation sites, or on any community driven Web 2.0 site, can capitalize on an individual’s participation in this relationship.

The operation of music recommendation sites hinges on the collection of individuals into groups or communities. While membership in a group in part dictates the interaction between a site and the user, it is in fact the triangulation of taste between the different groups to which a user belongs that ultimately decides how the site interacts with them. The more disparate the communities to which a user belongs, the more impressive a quality recommendation becomes, in a display of truly ‘knowing’ the user and their personal tastes. It is thus a highly significant objective on the part of the site to be able to predict individual taste, using all of the possible information available in order to appeal to each and every user. One significant way in which these sites gain information on the user is to encourage them to participate in displaying acts of individuality, as I will show below.

**Individuality**

Individuality has blossomed as an important feature of any service or site in the digital era. With the wide variety and options available, users (of any given service)
would naturally prefer sites tailored to their perceived needs. While users may join numerous groups, they also seek individual treatment and individualized service. Sites are thus in a position where they must balance the needs of both the group(s) and the individuals making up the group(s). In order to be attractive to the individual, sites must offer tailored services. These services however, are generally made possible by catering to the needs of the groups. I will further discuss the implications of the users’ participation in the individuality-based aspects of these sites below.

Music recommendations sites’ predilection towards groups is mostly indicated through their inclusion as a social networking site as well as the actions available to users that reinforce group action. Meanwhile, the sites’ proclivity towards the individual user is foregrounded in the site discourse. Sites give users constant reassurance that the site is in fact all about them.

The central focus of individuality on a music recommendation site (though, true of any site that requires registration) is the user profile. The user profile is the face and personality of the individual as they exist in the particular online venue. A site visitor with no profile is a mysterious entity, in that the site cannot fully or properly carry out its primary function of providing personalized recommendations. Last.fm dictates that, “In order to listen to Last.fm you will need to create a profile. When creating the profile you will be asked to provide an email address and create a username and password” (Last.fm, 2008). It is important to note these profile requirements, as well as the fact that the music recommendation sites also ask users not to share accounts, but rather to create their own. The music recommendation functions operate optimally when all of the input is in fact coming from a single individual. Sites must optimize their recommendations as much as
possible in order to maintain as much credibility as possible as a quality provider of music recommendations and other services.

The user profile can also act as a more deliberate attempt on the part of the user to influence the recommendations the site offers. Site profiles provide an opportunity for users to list keywords denoting their favourite artists (in the case of music recommendation sites, while other Web 2.0 sites may allow for different items to be chosen here), as well as other ways in which someone can influence their own recommendations (concerts attended or looking to attend, CDs owned or looking to buy, etc). Although it may be more work for the user to manually add and adjust their favourites on the site, there is a benefit. Last.fm opens this door by saying, “You have the option of providing more private information to personalize your experience…” (Last.fm, 2008). This more personalized experience is the carrot for the users to continually add more information, ever seeking a better musical experience via more instantly likeable music recommendations. As Pandora says, “We believe that each individual has a unique relationship with music – no one else has tastes exactly like yours. So delivering a great radio experience to each and every listener requires an incredibly broad and deep understanding” (Pandora, 2008). Participation is thus key in articulating a user’s individuality in order for the site to then leverage it.

While the user profile is central to the implicit advertisements found in the music recommendations, the profile is also the hub from which the site selects explicit advertisements for the user. The registration information as well as the information that users continually update/edit on the profile serves to influence the advertisements seen by the user. It is in this way that music recommendation sites offer a value added service to
their advertisers. The more personal information a site can accrue from a user, the more a potential advertiser will know about their audience as well as not “wasting” their efforts on someone unlikely to purchase their products. This issue crystallizes most clearly around Pandora’s request for personal information:

The free version of Pandora is completely supported by advertisements and we want to be able to show the right ads to the right listeners. For this reason we require registered listeners to supply a gender. This also means that you’re more likely to see an ad that’s relevant to you, so we hope it’s a good thing both for our listeners and our advertisers (Pandora, 2008).

This is another clear indicator of how the more in depth interaction between sites and users has a direct influence over the user and their actions.

Music recommendations sites grasp that the individuals who are visiting the sites must be accommodated as best as possible in order to maintain a strong user base. The sites accomplish this by providing the best possible experience for the user, inclusive of favourable recommendations, concert suggestions, as well as industry swag. Site interactions and other opportunities for expressing individuality exist as a way for the sites to discern what type of person the user is. This information is then linked up with pattern recognition to pinpoint generalized group or community preferences. The information that the user uploads demarcates them as a part of a community, of which the site will have the music preferences figured out already. The user’s participation in the community- and individuality-driven parts of the sites act symbiotically in order to flesh out a “service” sought out by (hopefully) millions, fueling the advertisements that finance the project.
4.3 Grounding Recursive Interpellation

In this section I summarize the many factors and processes already considered in order to clarify the terrain that has emerged. That terrain is the ground for recursive interpellation, a new form of subject constitution. Recursive interpellation has roots in many fields already discussed, including the development of the online market, product and service convergence as well as the drive for individuality prevalent on the web, to name the most prominent and significant.

Clearly the most significant factor (to a conception of technological influence on subjectivity) is the emergence of the online marketplace and its widespread acceptance with both consumers and vendors (Anderson, 2006; Schafer, Konstan and Riedl, 2001). More and more consumers are willing to purchase items over the web as well as interact with others online.

The compression of space and time that has become available via digitization (Virilio, 1995 cf. Poster, 2001: 26) has transformed the world, most notably, for present purposes, in the (online) marketplace. The digitization of music (as well as other media) allows for increased manipulation, as well as distribution on the web. Importantly, the digital wave has brought first, an increase in the available media (such as music), and second, an increase in the ease of combining services. Convergence of services has occurred as online consumers look more and more for the online site that can provide all they require (or demand). For example, a music recommendation site and its community can be enjoyed by its users, but a music recommendation site that allows communities to be built based on a user’s email contacts or social networking ‘friends’ is more attractive.
than one that does not. Similarly, a music recommendation site that allows users to buy the music from the site, is more favourable than one that does not.

The desire to have everything in one spot has however resulted in massive inventories that are nearly un navigable to a single user. In order to battle this, sites have taken one of two routes. Some sites harness the power of the entire community in order to make music recommendations from their massive inventory, while others provide recommendations based on complex music categorization, beyond merely genre. Regardless of method, sites must offer some manageable means to sort through their catalogue, lest a potential sale be lost.

Many online merchants increase their inventory weekly or even daily providing an even greater selection from which individuals can purchase their music. The ‘long tail’ of commodities resulting from the digital revolution has given individuals a greater pool of items from which they can manage their identities and express their individuality.

While some users may ‘strive’ to express their identities in this way, others may be more passive. In order to accommodate the more passive (and truly the more active as well, given the amount of inventory they would have to sift through), music recommendation sites seek to provide the best possible recommendations to their users. Sites accomplish this by soliciting users for personal information ranging from music preferences to geographical location. Some of this information is taken by the site, some information is provided by the user and still more information is gleaned from the user’s actions or facilitated by the site (providing space for it in the profile, as an example).

Sites users’ pursuit of individuality is an important mechanism contributing to their role in consumer capitalism. When the sites solicit users for personal information
explicitly or encourage information sharing implicitly (via the profile) in order to provide personalized music recommendations, they are attempting to best match the individualized user with an individualized commodity for purchase. Sites provide users with a forum and resources for expressing what makes them individual as well as the purchase site/personal shopping consultation they can use in buying more commodities towards these individual identities.

In order to synthesize all these factors into a cohesive understanding, I will, in the next section, discuss the concept of recursive interpellation. Focusing the conversation around this concept will allow the most relevant and significant points to surface. Recursive interpellation is useful in understanding the tangible effects of the economy of the web and how the actors in the digital marketplace influence the subjectification of others.

4.4 Recursive Interpellation

The product of all the changes outlined in the previous section is not only a shift in the market, but also a shift in the market’s relationship with individuals. The crossroads of the different factors outlined is a change in the constitution of the subject. The subject of the digital era is defined by an emergent process: recursive interpellation. Recursive interpellation is the extension of Poster’s (1996) electronic interpellation in order to account for the many changes that have taken place since the early 1990s, changes that are generation defining, such as the digitization of numerous cultural items, music and other media. In this section, I will describe explicitly what it means to be recursively interpellated, what these changes entail, and what these changes will amount
to in the near future. A change in the constitution of our subjectivities represents a fundamental change in our lives and how they are lived.

As I stated in Chapter Two, the material for advertisements are taken from the public consciousness (for otherwise they really wouldn’t make sense, appeal to the public or be effective in any way). Marketers encode advertisements with messages in the hopes that the audience members will decode them in ways that lead them to the purchase of commodities. Advertisement audiences are hailed as users of the products for sale and with the advent of digital technologies this can happen more pointedly and thus more potently.

If we take as our starting point (strictly for heuristic purposes) any given moment a user is on the site, this will aid in an understanding of the recursive interpellation process. When a user is on a music recommendation site, or really, any social networking/Web 2.0 site that requires a profile, they are able to fill out a number of fields that address different aspects of themselves which they would like to focus on or by which they would like to be known. Profile information can range from name, location, phone numbers, credit card information, favourite media (TV, books, music), friends and numerous others. The site first synthesizes this information in order to develop the preliminary hail for the user. Users’ first interactions with the site result in rudimentary recommendations or suggestions, (for music, friends on the site, or services). This hail is not dissimilar to any other advertisement on the street or on TV in being created and encoded simply on the basis of information available to advertisers. As an example, a billboard in the upscale Toronto neighbourhood of the Bridle Path (were there ever to be
Billboards in this neighbourhood) would be unlikely to advertise the MacDonald’s value meal, but more likely to advertise Lexus automobiles.

When sites present a user with these first advertisements (both the explicit advertisements on the webpage as well as the implicit advertisements of the recommended songs) users’ interactions with these advertisements dictates how the site will then interact with them. The range of actions is fairly narrow, in that users can either display their approval (with ‘Thumbs Up’ functions), disapproval (with ‘Thumbs Down’ functions), or indifference/implied approval (by doing nothing). Each action holds different consequences from both each other, and each time it is completed. If a user makes their like or dislike of a song known, the formula that calculates their next recommendations is altered in order to reflect this now known variable. A change in the formula results in a change in recommendations and thus the experience of the individual user. This is where the main difference lies between advertisements on recommendation sites and traditional advertisements. If a commercial or billboard of interest (or disinterest) is seen, the viewer’s opinion of it has no impact on the ad itself. In the online venue, their opinion directly influences it.

For the average user, that is, one for whom tastes are fairly constant and consistent, the interaction with the site (which occurs every time the user is on the site, as every moment of attendance results in more information for the system) only helps the site to better understand them. “The customers, in turn, discover that the more they shop, the better the store becomes” (Schafer, Konstan, and Riedl, 147). The store becomes “better” because they are offering both products and advertisements that are more and more likely to resonate with the user. Without an actual purchase of recommended
material, the user can still recognize that the recommendations are accurate and good enough to continue using the service. Even in bricks-and-mortar stores there are few if any ways to ensure that all store visitors purchase an item, but much like their digital counterparts, the goal is to turn as many store visitors (site visitors/users) into store customers as possible. Pandora’s patent (for their Music Genome Project) makes reference to this goal in describing a retail mall store’s situation where they may receive a lot of traffic from ‘mallrats’ and other loiterers. In this instance, it is ill advised to send loiterers away. Of these 30 ‘window shoppers,’14 it is impossible to know which one will be converted into a customer with a product purchase (Glaser et al., 2006). Likewise, online recommenders offer the best service they can to all users in the hope that some of them will in turn become paying customers of the store/service. The best way to do this, of course, is to harvest as much information about users as possible to (cost-effectively) offer the best possible recommendations/hails.

Again, the advertisements or products hawked by the sites are nothing new, nor are the interpellations offered as a part of these ads. The recursive nature of recursive interpellation comes from the ability in the digital arena to take the interactions of the users and the massive inventory of product to sell and combine them in a constantly iterative cycle of advertisement/interaction/new advertisement. This perpetually reflexive spiral adds an interesting dimension to online marketing, such that I believe it is important to address. A reflexive advertisement mechanism is better positioned to offer the best possible recommendations (based on available information) for users.

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14 The number 30 was chosen (by Pandora) solely to illustrate their point and does not necessarily correspond to any real phenomenon.
This is not to say that this process will necessarily continue indefinitely, always providing the user with relevant recommendations/hails, but rather that it increases the likelihood that an interpellation of the consumer will resonate, and potentially the length of time for which the site can actively and successfully interpellate or hail users. Thus, the recursive interpellation becomes a much more effective means of inscribing dominant ideologies. This new method is premised on the idea that the individual must contribute towards his/her own domination. It is not enough that an individual must recognize themselves in the subject-position but that they must also help to create it.

Surely, it can be said that a consumer’s ability to aid in the creation of the advertisements that they see is a good thing. Users who see favourable advertisements, and subsequently purchase these items will likely say that without such services they would potentially be deprived of commodities that ‘speak to them’ or merely resonate as desirable. However, when an individual ‘completes’ a hail by purchasing a recommended item, the degree to which the purchased good is necessary should be queried. Are the presented advertisements exploiting a disjuncture between an individual’s perceived sense of self and the image of themselves to which they strive? Or are the presented advertisements legitimately matching individuals with a best-fit need-filling item? Those who engage in purchasing from a critical, thoroughly thought through perspective stand to potentially gain from a recursive interpellation for two reasons. First, they can process whether advertisements are showcasing actual needs and second, they can reflect on how each recommendation came to be, i.e. on what actions a recommendation might be based. To those, however, that do not engage in this critical thinking or those who seek to find and complete their identities through commodities purchased, the recursive interpellation
can be detrimental in that they may set themselves up into a cycle of being separated from their earnings. There are those who will find a near everlasting supply of seemingly relevant and desirable commodities for purchase.

Another very important facet of recursive interpellation is the role of the subject. As it is the users’ input that is used to tweak hails, it stands to reason that the individual user has a large degree of control over their recommendations. Not that users can make their own recommendations (read: listening suggestions), as they cannot (not to themselves at least),\(^\text{15}\) but they do influence what recommendations come and when they change. By skipping songs, ‘favouriting’ them or giving them a thumbs up or down, the user is the one re-writing their hail. The user expects to see/hear a recommendation, (i.e. the advertisement/hail), and when one arrives with which they agree/disagree or that they like/dislike, they make this known and await a new hail. If they do not like the recommendations they are receiving, (i.e. do not like the hail or are not responding to the hail) then they actively participate in the changing of that hail. They are becoming author of the database that is being used to interpellate them. This is to say that they are actively and constantly populating the database(s) that inform(s) their individual hail.

This process of participation in creation is a crucial one. In the past, marketing was far more of a one dimensional process. This is not to say that individuals did not previously participate in the creation of their own subjectivities, as it was/is their styles and such that were/are being used in advertisements to interpellate them, however, in the

\(^{15}\) This is due in part to fair play legislation that covers royalties on radio play. A user cannot request, and then hear a specifically requested song without influencing the royalties involved, thus on the radio-style music recommendation sites, users cannot make a “recommendation to themselves”
digital age, this happens differently. In the past, marketers had to choose which demographics they were going to pursue with an ad campaign, and then find the best way to interpellate them. Whatever was decided was then cemented in, and remained static. In the digital age, the age of recommenders and social web, the interpellation has the ability to change with every interaction. Whenever a user interacts with the site, the next potential hail changes in order to account for the new information provided to the site, ranging from new favourite artists, new location or a higher play count on a recommended song.

Emerging out of a technological era that serves to provide a massive breadth of knowledge at our fingertips is a new relationship with information, specifically our own. The more traditional broadcast has morphed into a pointcast, where music recommendation sites are hailing each individual interacting with them differently. Each individual’s interpellation is much more varied than traditional forms of mass communication have ever been able to manage. One of the key changes is the individual’s role, as they are an active piece of the puzzle. It is important to note here that in more traditional interpellation the subjectivities are never complete, or never sutured, but always open. This is still the case in the digital era, but what has changed, most importantly, is that now the individual is helping to constitute the position to which s/he will be interpellated. For this reason, I believe these sites are able to persist through musical fads, or phases in users’ lives, as they can always provide relevant recommendations for the user. It is precisely this power that makes this type of web

\[16\] Again, the concepts of incorporation/excorporation may be useful here in understanding this cyclical creation and co-optation of popular culture items. See: Fiske, John (1989) Understanding Popular Culture. Boston: Unwin Hyman.
technology an important point of investigation, as it has the potential for long-term consequences.

4.5 The Future of Recursive Interpellation

The technological world progresses at a speed unseen before, which is cause for immediate concern regarding what will happen in the near or nearer future. Of central concern to me here is the numerous possible and potential fallouts from the current technological situation as they relate to subject formations. It seems that recommender systems are here to stay, as they address a very specific market need. Given the changes that have taken place in the fallout of the recent global economic collapse, apprehension towards wanton consumer purchase may be growing, which makes tailored purchases so much more attractive to the consumers, and thus the retailers also. Retailers are going to be looking for the difference-makers in selling, and as discussed before, the “hits” are not for everyone. A highly refined recommender system that adequately provides purchase advice is a major boon to the online e-merchants in what has become a new economic environment.

As the digital forum matures, more and more items will become available in digital formats, while more and more services and processes will be offered in line with these products. The convergence of online tools and products will likely keep on marching until/unless greater barriers are raised. This would result in an ever-deepening of the virtual stock, increasing inventory and the number of items that can be recommended, as well as the number of cross-promotions likely to emerge. These would likely resemble the cross-promotions on music recommendation sites that result from boards and committees filled with the media world’s who’s who. Current examples
include the promotion of concert tickets, band paraphernalia, music books and much more. Convergence in online products and services equally results in a convergence of the companies that represent each. As the committees at the top become ever more assimilated, the product pitches to the consumers become all the more tailored to the interests and wallets of the consumers too.

This will likely not stop at online digital convergence. Unfortunately, recursive interpellations’ near future will likely spill over into the real world (as opposed to the virtual). The same advertising techniques, based on a pseudo-intrusion of privacy and appealing to the sale of items based on product recommendations, will colonize the world of bricks-and-mortar. There are currently products that, as Simonite (2009) describes:

…allow web-like targeting in the real world…For example, a system developed by Singapore’s research agency lets advertising screens detect the genders of passersby: It will soon be able to tell how old they are, too. IBM has worked on systems that can scan a crowd and estimate numbers, demographics and where people are looking. Computer vision is sophisticated and cheap enough to make it possible to spot the logos on your drinks cup or shopping bags, and serve up ads in response – whether to reinforce your choice or promote a competitor (Simonite, New Scientist, 2009).

This is a clear example of the online recommender system being taken out of its original context for something that is even less voluntary and even more intrusive. Granted, this envisioning of advertisement technology does not include any feedback from the user, but given the ubiquity of PDAs and wireless, this is not a far off prospect either. Much in the same way that recommendations and the resulting recursive interpellative loop can actively adapt to new information and situations, the recommenders themselves will likely be adapted to suit a number of new purposes and situations.
Chapter 5: Conclusions

“Their gloom is not fatalistic pessimism but an adult confrontation of reality and their emphasis is not on the grimness of life but on the capacity of great figures to adequate themselves to it” (Moses Hadas cf. Florman 97)

5.1 Where Does This Road Lead?

The contemporary technological terrain is changing ever dramatically as shown in the staggering rate at which products and services evolve. It is important to understand the particularities of what is happening within this rapid process of technological evolution, including the mechanisms that give rise to these breakthroughs. With a better understanding of the fundamental principles of new technologies and their influence over individuals comes a better position to harness these tools for positive action. In this chapter, I will speak to the future direction of communications technologies. This will include a discussion of the proliferation of new mobile communications technology and how they have come to embrace the concepts brought to fore in this thesis, such as convergence and interpellation. This will make evident the significant impact of the market on the lives of technophiles (and more and more, the average person). There are many dangers in the technological world, but this does not necessarily mean that one needs to fear or pull back from technology. There are ways to embrace the wave of new technology sweeping society in order to make positive change. I will also show, using the most recent mobile technological advancements, how a new technological generation will merely spawn a new iteration of the same ideological principles, and with this, of course, the same dilemmas. Thus, I will end with recommendations on how to mitigate or break free from this apparent pattern and to productively move forward.
The services that we have grown accustomed to online are now becoming mobile, such that technophiles can carry around the globe in their pockets. The proliferation of iPhones©, Palms©, and Blackberries© means that our computers are literally in our hands. The impetus for this mobile extension is, at root, a financial one. The industry creating these devices, as well as the ones that support them and their online services, rank at the multi-billion dollar level. Equally profitable peripheral industries such as the one providing applications for these platforms have spawned on the tail of these devices.

These communication devices, along with their ever-expanding inventory of applications, bring anything that a person could want to their device. Many of the most popular applications are in fact the very same services that websites offer online (Facebook, MySpace, etc.). As new technologies converge with new communications devices, possibilities for new ways to reach and connect with consumers arise.

Many of the applications found on these devices are in fact based on the same recommender system technologies I have described in this thesis. There are applications that will find the best restaurant for the conditions you set (location, price, cooking ethnicity); applications for the best routes to take to a location (based on whether you want the most scenic, the shortest or the easiest route); and of course applications that will recommend to what music you should listen (based on mood, setting, preferences, etc).

As I stated in Chapter Four, many music recommendation sites already have relationships with mobile carriers. Pandora, for example, already carries a highly refined version of their online service ready to be pushed out to a user’s cell phone or PDA. While I suggested earlier that music recommendation sites’ interpellations of their users
can be carried into the bricks-and-mortar world in order to be fully realized (via purchasing of music or music related paraphernalia), the hail itself was always constituted in the online venue. With these devices, however, hails can appear anywhere, as they are no longer tied to the computer but rather to a mobile device.

The number of applications on these devices has already climbed to massive proportions. On the iPhone alone, there are already 2 billion application sales downloaded and growing by 6.6 million every day (Kafka, 2009). At the point of saturation, meta-applications will likely emerge that search and recommend other applications for use. For similar reasons, as described in Chapter Three, once saturation occurs, applications must differentiate themselves via value-added services such as the recommendation or integration of other applications in order to continue to draw an audience. The notions of convergence discussed earlier will arise as applications combine with other applications (recommender for the best wine to bring as a complement to the most highly recommended restaurant that allows bottle service, as a theoretical example). Again, while the convergence of services makes for a supposedly better experience for the user, it is ultimately a function of the servicing company’s bottom line as they attempt to increase sales – a familiar pattern.

While the technologies may change, as the services differ and the devices become smaller, more mobile and accompanied by whatever other features are attractive to the new consumer, the fundamental principles that drive their production remain the same. As competition increases, corporations will attempt to bring together different services or technologies in acts of convergence that will likely reinforce the same cycles that have emerged in the new economy of the web. As attention spans grow shorter and online
meme cycles grow quicker, the outlook for the consumer appears bleak. Without positive action, technology will likely never favour the consumer over the retailer.

5.2 So, What To Do?

Given the speed and strength of the industries propping up the type of consumer manipulation I have described, it may be tempting to do as the proponents of the Social Web have instructed, which is to enjoy the benefits of the user-site relationship, or to deny the existence of any exploitation in the first place. The positive potential attributed to these new technologies by internet philosophers, however, is unlikely to be realized given the passivity of this proposed stance. It is only through active, critical engagement on the part of individual users that the democratic possibilities, the globally decentralized authority, and the distribution of more or less equal nodes of power across many locations come within realistic reach. In the face of technological problems, it is often said that they must be solved technologically i.e. through the introduction of new, more advanced models/technologies. This approach is based on the set-up of a false dyad between an embrace of new technology versus a reversion to a less technological time. If, as Asimov (1975) suggests, no society would willingly give up a technological advance then that leaves embrace of technology as the only plausible approach. As Asimov (1975) states, “The only solution, as always in the history of mankind, is to solve problems by still further advances in technology” (Asimov, 1975: 89). However, this type of thinking and, worse yet, this kind of action does nothing to solve any but the most immediate problems facing us. Moreover, it ushers in the potential for more trouble since technology is, as always, a double-edged sword that with great benefit brings equally
great detriment. Kroker echoes this point stating: “Marx understood this first: every technology releases opposing possibilities towards emancipation and domination (Kroker, 1996: 171). Given these opposing possibilities present in technology for emancipation and domination, moving headlong into new technologies without first making a critical assessment of all dimensions seems a counterproductive and foolhardy solution. The technological problem will become compounded if each advance is not met with critical examination and apprehension.

In opposition to blind acceptance of new technologies as the best solution, some theorists argue for proactive approaches that while embracing the possibilities for positive change, give appropriate pause to accompanying dominations. Schumacher (1973) makes two suggestions that taken jointly may yield a proactive solution to, at the very least, stemming the detrimental faults of new technological advances. He states, first that, “The whole point is to determine what constitutes progress” (Schumacher, 1973: 92). Unstated in this suggestion is that while any movement may be considered progress, it is rather positive progress for humanity towards which we should strive. The violence of new media on individual subjectivities is indeed ‘progress’ in that it has served to increase the wealth and holdings of those creating the programs/platforms of which I have spoke, but certainly not positive progress taken holistically. Are the ‘needs’ being addressed by these new technologies needs at all, or are they, rather, manufactured markets with built-in obsolescence that makes way for the next manufactured need? To a similar end, Florman (1981) reflects on the eternal nature of this debate:

…we find that we are fated to be dissatisfied with much of what we produce because our tastes keep changing. The sparkling, humming, paved metropolises of science fiction – even if they could be realized – are not, after all, the home to which humankind
This tendency towards dissatisfaction is certainly fought against, in that new media technology attempt to offer services that produce favourable commodities regardless of personal preference. The Social Web (inherent with their recommenders) caters to our changing tastes, to which Florman (1981) alluded, but in an individual way such that the tastes of one need not impinge on those of another. Music recommendation sites can offer this unified Utopia in the form of personalization for everyone. Music recommendation sites, or any of the numerous Web 2.0 sites active today, are for everyone and anyone all at the same time.

So how do we decide what constitutes progress to a positive end? This leads into Schumacher’s second insight (and not an uncommon one) that, “we must concern ourselves with justice and see right prevail” (Schumacher, 1973: 91). One way this can happen is through a collective critical engagement with new technology, its uses and its influence on individuals. Though Schumacher’s (1973) pretext to this point may be debated, his call for broader levels of engagement is, if not a viable solution, certainly a step towards one.

Today, the main content of politics is economics, and the main content of economics is technology. If politics cannot be left to the experts, neither can economics and technology. The case for hope rests on the fact that ordinary people are often able to take a wider view, and a more ‘humanistic’ view, than is normally being taken by experts. The power of ordinary people, who today feel utterly powerless, does not lie in starting new lines of action, but in placing their sympathy and support with minority groups which have already started (Schumacher, 1973: 192-93).

The minority groups to which he refers are those that take up technology in a humanistic way. He cites groups such as the Soil Association, who seek to maintain soil health and long-term fertility without sacrificing the large yields that often drives larger producers to
heavy pesticide use, or other short-term solutions to global issues such as world food production. The technologies arising out of this type of practice is what he refers to as intermediate technology or “technology with a human face” (Schumacher, 1973: 193). Intermediate technologies reconcile those that wish to solve technological issues technologically, and those that wish first to think through the issues before marching head first into them. The democratic possibilities of the internet are well documented (Poster, 2001; Bennett, 2008) and stand as a high quality ideal for which to strive. Given the input from the global audience that the internet produces and the possibilities afforded by the internet as a decentralized venue, there stands as no better time than now to effect changes in order to increase the lot of humanity.
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Appendix A: Methodological Appendix

Studying the Internet and network technologies gives us opportunities to better understand modern life and culture, but it can also be great fun. (Jones, 186)

Sample

Music recommendation sites offer a complex plethora of available texts that after critical analysis belie an intriguing account of music and ideology. These methods were applied to the compact sample I have chosen in order to yield the greatest amount of data.

My sample includes four music recommendation sites. They are: Pandora Radio, AMG Tapestry, iLike, and Last.fm. Aside from effectively showing the diversity of the music recommendation platform, there are also many individually important reasons why each site made it into the sample out of a field of nearly 70 similar sites (SiteRapture.com, 2010). I list below the nuances of each site that resulted in their selection for the sample.

Music Genome Project’s Pandora Radio:
The Music Genome Project and its offspring Pandora Radio (www.pandora.com), one of the first music recommendation services of its kind, was investigated as it employs unique recommendation technology to sort and categorize music into a massive database of information. The Music Genome Project (MGP) employs patented technology that requires music technicians to complete a lengthy analysis of any new music that is added to the database (roughly 15,000 new songs a

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17 Due to licensing restrictions, Pandora Radio is no longer permitted to stream free music in Canada, however, all of its features and services significant to this thesis remain available. The streaming feature only served to play the music that had already been sorted into the listener’s custom playlist. As it is the formation of that playlist, and sale of its music that is of more central interest to this thesis, I have opted to keep Pandora in my sample.
month) (Pandora, 2008). The MGP uses highly complex mathematics as well as music theory to make their system work.

The analysis of this site included their many web pages and press kits, as well as their patent application, which were all very rich in information. As the Music Genome Project grows, so too does the popularity of Pandora Radio. The site has recently been offering a more diverse experience for its users, including a blog, an ‘About the Music’ information section and an online radio show. This provided a very rich data set for my thesis.

**AMG Tapestry Radio**

The All Music Guide (AMG) ([www.allmediaguide.com](http://www.allmediaguide.com)) was used as it is a very useful resource not only unto itself, but because many of the other systems that I was dealing with also rely on AMG to supply them with the information that they need on all of the artists, groups, songs and albums that they use. AMG is considered to be among the most wide-spanning sites, continually adding content in order to maintain their claim as the most comprehensive music reference available.

The AMG Tapestry Radio is based on the AMG database which is filled with four different types of information on music. There is meta-data, descriptive content, relational content and editorial content. The meta-data contains the facts on an album or artist including title, tracks, label, as well as the album art belonging to the albums. The descriptive content refers to the ‘deeper details’ including styles, moods, years active and instruments. The relational content section connects the artist or album in question with potential influences, followers or similar artists. Finally, the editorial content is filled
with original and insightful reviews from staff or freelance writers, as well as containing biographies and style descriptions.

AMG also features a service entitled ‘advanced playlisting’ which creates playlists according to mood, location and activity. The advanced playlisting is based on a system of 6200 descriptors, as well as providing percentage readouts, showing precisely how well this service matches the users’ criteria. Much like Pandora, AMG is a highly complex system where the site goes to great efforts to explain how their system works and spell out the details at length. The outlining of their system’s inner workings makes the process of data collection highly lucrative.

**Last.fm**

Last.fm, ([www.last.fm](http://www.last.fm)) the leader in my social model category, is touted as “the social music revolution”, and was investigated as they have highly refined capabilities to access not only user updated information but also to read through the listener’s own files to compute part of their profile. Last.fm is among the world’s largest social music platforms with over 40 million active users (Last.fm, 2010). More so than the other sites, Last.fm offers a social aspect to the music recommendation experience. By including the ability to create and join groups that are theme or location based, to name a few categories, a user can join a group for Canadian members or for fans of Led Zeppelin for example. Other interesting features that were addressed, if briefly were their ‘Events’ feature that alerts users to concerts, shows or album release parties that the user is calculated to enjoy, as well as the Last.fm blog which was an interesting source of data. Contrary to Pandora and the Music Genome Project, Last.fm makes its suggestions based
on a collaborative filtering algorithm which is based on the presumption that those that have agreed in the past will agree in the future. It makes its music recommendations based on the profiles submitted by other users.

**iLike:**
The site iLike ([www.ilike.com](http://www.ilike.com)) is similar to Last.fm in that it encapsulates the social music experience with a motto of, “Instant music discovery, just add friends”. It uses privacy invading technology in order to make recommendations to its users. It also incorporates many more social aspects of the music sharing process. iLike has a very transparent history, with all of those that are involved in the platform (creators, designers, etc) weighing in on their roles within the system. They advertise a ‘behind the scenes peek’ at their site as well as a ‘team blog’ (including Emily Glassman, architect of Amazon’s media marketing program) which were also a very important site of analysis.

**Methods**
For this thesis, I elected to combine aspects of a case study approach and a critical discourse analysis in order to best wield the mass amount of information contained on the four music recommendation sample sites. I will briefly describe below how these two methods were employed.

**Informing the Case Study**
I used a two-step coding process in order to extract the most data from my case study sample sites. The first step was to survey my texts for general themes. I examined
the entire data set making notes on possible themes, including but not limited to: consumer desires and marketing strategies, surveillance and privacy, entertainment or enjoyment, genre and technology. The second step was to evaluate and refine my themes and create sub-themes while filling each out with as many examples as possible from the sites’ literature. This open coding process allowed me the flexibility to include unforeseen issues and emergent themes from my data analysis. These themes were utilized to illuminate the characteristics of the structures at work in the ideological interpellation of users of music recommendation sites.

The core concepts or themes that I ended analysis with were: surveillance and privacy, purchasing practices, advertising and marketing strategies, sociality and individualism, convergence of technology and brand, and finally, general points of interest or statistics. All of these themes were employed throughout the thesis as needed in order to give evidence towards a unifying theory of contemporary ideological hailing. This theory, crystalizing around the concept of recursive interpellation, was arrived at via the critical discourse analysis as described below.

**Informing the Critical Discourse**

I employed a critical discourse analysis as the main method of investigation in this thesis. I completed a close reading on each music recommendation site’s key texts and documents, including, but not limited to: End User Agreements, legal statements, patent applications, ‘About’ pages, FAQ and support pages. As well, the site’s main pages, site blogs and links were given a close reading. Finally, the texts surrounding each site’s unique features supplemented the data extracted from the main site pages, the sites’
available legal documents and the information packages released by the sites. I chose these texts as they represent the structure of these sites. For a structural argument with the potential to lend insight to other Web 2.0 sites, this is where I needed to focus. The form and structure of each site was investigated in order to discern how users are guided and herded through the platform. Each of these sites’ analysis represent ‘tissues of meaning’ that, as a part of the discourse analysis, were considered ‘texts’ according to Ian Parker’s (1992) formulations on what a discourse analysis entails.

Parker’s (1992) steps towards a critical discourse analysis were the guiding structure for my thesis. In conceptualizing critical discourse analysis, he separates institutions, power and ideology as three areas that require specific attention in order to inform a discourse analysis. I will outline these three (methodologically) auxiliary areas and the ways in which they were dealt.

Parker postulates that discourses support institutions and that they inform the discursive practices that reproduce these institutions. This, I believe is highly evident in music recommendation sites as the discourses found were those that inform the practices required to fill each genre, a pivotal facet of these sites. Parker dictates that the first step in this type of discourse analysis is to “identify institutions which are reinforced when this or that discourse is used” (259). This identification process was completed through an in-depth analysis of each site. Many site sponsors or parent companies advertised explicitly at various points on each site.

The next area requiring analysis according to Parker is that of power. He points to the importance of the separation (of analysis) of power and discourse so as not to lose sight of how discourses that appear to challenge power are often actually tangled in
oppressive discourses. This, I believe, was an important point as music recommendation sites heavily push the idea that they are ‘people powered’ and all about the users finding music they love, but as I show, the site-user dynamic is more complicated than this. Web 2.0 sites present an aura of decentralized authority and the freedom to share and communicate openly, while at the same time enforcing dominant ideologies encouraging commodity consumption. Parker continues, that the next steps in the critical discourse analysis should be “Looking at which categories of person gain and lose from the employment of the discourse; and looking at who would want to promote and who would want to dissolve the discourse” (259). The categories of people who were gaining from these sites were mostly clear through the site literature, as these groups were not only advertising their companies, but also their roles in getting the music recommendation sites off the ground.

The final area, according to Parker, that requires analysis is the ideological effects of discourses. The two concepts, ideology and discourse, he argues are nearly unavoidable to investigate together. For this he recommends “showing how a discourse connects with other discourses which sanction oppression” (260). This was something of importance to my thesis project in looking at how the many different discourses operating within these sites synthesize together into a larger more potent, albeit veiled, ideology. Truly, the ways in which certain discourses accompany other discourses as arranged on music recommendation is what lies at the heart of my conceptualizing of recursive interpellation.