

Piracy, pianolas and the internet

James Vale

La Trobe University

jlgvale@gmail.com

Jim Vale graduated with First Class Honours from La Trobe University's Media Studies Program in 2008. He's currently completing a Graduate Diploma in Politics. Years of living in one of those great hot beds of internet file sharing – a University college – has left him with a lasting interest in the practice. Widespread internet piracy combined with vigorous debate both in and out of lectures (as well as intermittent sorties by media companies and IT auditors determined to stamp out the practice) made this a rich and exciting area of inquiry. Jim completed an Honours thesis on the subject of internet file sharing. Rather than treating file sharing as a purely contemporary and unprecedented phenomenon, however, his thesis examined historical controversies that echoed similar themes including sheet music piracy in Victorian England, the early introduction of pianola players and the notorious Sony Betamax test case.

Abstract

This paper draws similarities between key reactions to pianolas and internet file sharing to demonstrate that file sharing is not a wholly unprecedented or revolutionary phenomenon. By highlighting common themes in the ways industries, commentators and legislatures responded to pianolas (as well as the practice of sheet music piracy in the late nineteenth century), internet file sharing can be placed within the context of historical developments in music technologies that have challenged and reshaped the relationships between artists, consumers, and distributors.

Keywords

piracy, file sharing, pianolas, music

Introduction

This paper will examine the practice of music distribution through peer-to-peer file sharing networks within the context of historical changes in technology. Contributions to this debate often take a forceful stance, resulting in an explicit opinion that the practice is either good or bad for the production of music and the companies that sell it. These arguments tend to take on revolutionary themes, suggesting that digital music will sweep aside an established order

of things, an economy based on relationships between artist, consumer, and distributor that have hitherto remained constant and largely unchallenged.

By placing internet music distribution within the context of past upheavals in those relationships that have been driven by changes in music technology, this paper will argue that those central assumptions are incorrect. The intention is not to present file sharing as either beneficial or damaging to music production; instead the practice is located in the ongoing historical progression of technologies and practices that have provoked change in the cultural field of music.

While acknowledging the significance of recent developments in the sale and distribution of music such as the iTunes store, it is not the intention of this paper to discuss the full range of these innovations. Neither is it within the scope of this project to provide an exhaustive historical overview of technologies or practices that have disrupted the music industry in the past, such as the compilation of mix tapes or the rise of pirate radio stations and record bootlegging. It should also be noted that this paper does not attempt to encompass the full range of responses of the music recording industry, in its many guises, to file sharing. It is impossible to generalise about attitudes towards the internet across an industry that is as variegated as it is enormous. Every success story such as the iTunes store is tempered by an example of continued suspicion of internet music distribution such as the strict anti-piracy laws recently passed by the French parliament (“French Net Piracy Bill Signed Off”, 2009).

Rather than providing a linear historical narrative of music technologies, the paper – which is condensed from an earlier project - will draw comparisons between contemporary reactions to two disruptions in the music selling business – sheet music piracy and pianolas – and some of the early and ongoing reactions to internet file sharing. In this way the paper will identify file sharing as part of an historical continuity of practices that have caused upheaval in the music business.

This is not to deny that there are elements of the current changes and debate that are new, or even unique. The concept of a direct relationship between artist and consumer is certainly not a new one. However, what is unique is the possibility of a global music industry that operates without the recording industry. After music began to be distributed as a saleable commodity (and prior to the rise of the internet) the transactions between artist and mass audience most often required an intermediary, or, to use the colloquial term, a ‘middle man’. Various industries and companies have served as this link in the chain as the predominant format of music distribution changed over time. These included publishing companies during the era of

ANZCA09 *Communication, Creativity and Global Citizenship*: Refereed Proceedings: <http://anzca09.org>

sheet music, pianola manufacturers and music roll printers during the relatively brief but popular reign of pianolas, and then recording companies as audio recordings, from the phonograph onwards, attained market dominance.

The sale and purchase of physical copies of music has come to be seen as the normative transactional model between artist and consumer. The passage of time and various copyright laws, as well as the emergence of mass media broadcast technologies, lent a certain commercial heft to the notion of the recording industry as an indispensable intermediary between artist and consumer. Many theorists reject this apparently unavoidable interdependence; Reebee Garofalo argues that the conception of the music and recording industries as the same entity is a relatively recent, market-based corruption, as “initially...they were quite separate and there was little contact between the two” (1999, p. 319). Yochai Benkler, in his influential book *The Wealth of Networks*, elucidates:

Complex modern societies have developed in the context of mass media and industrial information economy.... Our conceptions of human agency, collective deliberation, and common culture in these societies are embedded in the experience and practice of capital-intensive information and cultural production practices that emphasize proprietary, market-based models and starkly separate production from consumption. Our institutional frameworks reflect these conceptual models of information production and exchange, and have come, over the past few years, to enforce these conceptions as practiced reality, even when they need not be (Benkler, 2006, p. 460).

The ‘practiced reality’ of the industrial information economy stems from the fact that, for much of the twentieth century, the broadcast of media content to the mass audience was highly centralised. The only way in which artists could distribute their music to a wide audience was through the physical transaction networks of the recording industry, in a range of formats from sheet music through to CDs. “Because the centrality of record companies has predominated in the second half of the twentieth century,” argues Garofalo, “the prevailing view of the popular music industry is that of record companies at the center, with radio, music videos, live concerts, booking agencies, management firms, indeed musicians themselves, playing various supporting roles”(1999, p. 319). This model may have made sense in the pre-digital environment of physical music forms such as records and CDs. Indeed, it was largely necessitated by the limitations of music technology like record or CD players that could not interconnect, as personal computers can, to form music distribution networks.

The end result is that even though the internet's capacity for decentralised data distribution without the need for an intermediary (also known as disintermediation) has been known for nearly a decade, many recording industry advocates still attempt to entrench the relationship between artist and consumer into analogue, pre-internet models. These theories disregard the unique properties of the internet and center theories of effective data communication around "market-based, proprietary models, with a professional commercial core and a dispersed, relatively passive periphery" (Benkler, 2006, p. 460).

The perception of the recording industry's indispensability has been enforced and reiterated by the very terms which frame the debate – words like piracy, theft or "downloading" (United States Senate, Committee on Governmental Affairs, September 30th, 2003, p. 2) – all carry connotations of anarchy and immorality. The terminology and themes of these arguments are often almost identical to those surrounding the issue of sheet music piracy in the late nineteenth century. The production and sale of sheet music in this era was a lucrative business. By 1898, according to the *Musical Opinion & Trade Review*, the English sheet music trade was averaging sales of 20 million sheets per year (as cited in Coover, 1985, p. 68).

However, the same factors that made mass printing of sheet music commercially viable also did the same for the widespread illegal copying and sale of that music. Just as today's high speed internet connections enable faster transmission of content and override copyright restrictions, the printers of illegal material allowed consumers to access music outside the conventional business models.

The pejorative aspect of the term 'pirate' apparently did little to dissuade the music buying public, and illegal reprints quickly began to sell in the tens of thousands. To the chagrin of the publishers, English law at that time offered them little protection, and the combination of inadequate copyright law and the apparently insatiable public demand for more music at a cheaper price allowed the pirates and their output to increase "in number and brazenness" (Coover, 1985, p. viii).

Publishing industry advocates despaired of the plethora of cheap illegal reprints and "the public's apparent indifference to their illegality, but pleasure at their [low] price" (*Musical Opinion & Musical Trade Review*, as cited in Coover, 1985, p. 90). One prominent publisher, William Boosey, expressed his incredulity in the *Musical Opinion & Musical Trade Review* at the public's apparent preference for the "filthy and unhealthy paper upon which pirated editions are issued" rather than his own pristine offerings (as cited in Coover, p. 112). In ANZCA09 *Communication, Creativity and Global Citizenship*: Refereed Proceedings: <http://anzca09.org>

retrospect one can see in this the emergence of internet file sharers' preference for the music itself, rather than the more traditional physical artefact. In their study of college students who illegally download, John Gantz and Jack Rochester discovered that the trappings of legal music purchases (the cover art, tangible object, etc) were viewed as "[a]dded value stuff" that wasn't worth the extra money (2005, p. 79). The same attitude applies in James Coover's observation that "[t]he [sheet music] buying public did not care that the merchandise was illegal and scruffy [because] the notes were the same, and the prices low" (1985, p. viii)

Section 1

The changing technologies and markets that flowed from cheap printing began to establish the perception of music as a commodity distributed through centralised networks. This model has persisted through many different market permutations and continues to be championed today. By placing it in historical context, however, it is possible to argue that these centralised models have their roots in a technological upheaval no less disruptive than the internet.

The rise of printed music revolutionised both the distribution and the ethos of music. In *Musica Practica* (1994), Michael Chanan notes that the growing prominence and affordability in the seventeenth and eighteenth centuries of printed music (as well as a more affluent middle class which could afford such luxuries) encouraged the rise of amateur musicians as well as the development of standardised musical notation.

Some theorists argue that the rise of standardized notation at this time reflects society's shift from musical performance to musical reproduction – that is, the shift from the performance of music as a cultural process amongst communities to the reproduction of commodified music by professional or amateur musicians. Alan Durant claims that "notation led to an increasing emphasis on reproduction, as against creative, collaborative performance. Indeed, the term 'reproduction', when used for music, seems to have itself encroached, during this period, upon senses previously attached to the word 'performance'" (1984, p. 101). This process resulted in the growing perception that the formerly fluid boundaries between artist and consumer had become fixed. Before the commodification of music and the rise of copyright law these boundaries were constantly in flux; music was a cultural product that was primarily shaped, performed and reshaped in the nexus of public performance and exchange. The construction of music as a commercial rather than social good imposed more rigid distinctions between the artists who produced content and the audience that consumed it. It also created space for the emergence of an intermediary between artist and consumer.

The growth of musical printing promoted a perception of music as a chiefly commercial rather than social product. Standardised musical notation provided the first of many distribution formats that provided a commercial conduit between artist and consumer. This process was accelerated by the emergence of technologies that enabled the sale of actual recordings of music to the consumer in a manner ordained by the distributor – piano rolls, gramophones, and later radio and television broadcasts, cassettes, CDs and MP3s. Laing points to audio recordings as a key milestone in the transition of music consumption from social performance to commercial reproduction, or as he puts it, from the “‘musica practica’ of piano playing and actual singing in the family circle [to] the passivity of simply listening to phonograph recordings” (1991, p. 5) Karl Marx argued that in this way, the social production of music was “rendered into commodity form and subordinated to the capitalist mode of production” (as cited in Chanan, p. 146) The ability to sell a potentially unlimited number of recordings of a single performance meant that musical performance and production could earn more than a single transaction between artist and live audience, and therefore generate even higher profits (Chanan, p. 146).

These transactional processes were never impervious to disruption; successive challenges, from sheet music piracy to new technologies such as pianola rolls, cassette tapes and finally MP3s and the internet, have ensured that there was never a golden age in which the publishing or recording industry has wholly dominated and controlled the exchange and distribution of music amongst artists and listeners.

Bearing this in mind, it is impossible to argue that the internet is a completely unprecedented trailblazer of disintermediation. It is more accurately described as another significant disruptive technology that will continue the process of challenging and changing the music and recording industries. If cheap print and standardised notation began to fix the boundaries between creator and listener, the internet has accelerated the process of challenging (if not deconstructing) them. Peer-to-peer file sharing networks mirror the sharing and intermingling of music amongst people that predates the recording industry; ‘mash-ups’ and re-edits of content blur the distinction between active artists and passive consumers.

The digital world – or, as Benkler (2006) describes it, the networked information economy – shifts the focus of musical production and the use of musical content from the physical product to more fluid, active uses. This is a potentially major shift in the cultural field of music that requires the music and recording industries as well as legislatures to shift their focus as well. As Reebee Garofalo argues, “[d]ying was the moment of music-as-product – the notion that music must be tied to a particular sound carrier, be it black vinyl, cassettes, or

CDs. Ascending was the notion of music-as-content – a conception of music as free-floating digital files that could be accessed from and transmitted to anywhere in the world. In this new era, possession diminishes in importance, and use moves to center stage” (2003, p. 32)

An increasing number of businesses and organisations are being built around these digital themes of active consumer engagement and reshaping. Benkler claims that these newer organisations are more efficient than older ones at producing “platforms and tools that are much more loosely designed, late-binding – that is, optimised only at the moment of use and not in advance – variable in their uses, and oriented toward providing users with new, flexible platforms for relationships” (2006, p. 126). In contrast, Garofalo castigates the incumbent recording industries that insist on “protecting a business model whose core business revolves around the manufacture, sale, ownership and possession of physical property...[r]ather than embracing the potential of the internet and taking the lead in developing convenient, affordable, easy-to-use methods of downloading music” (2003, pp. 30 – 31).

The increasing prominence of ‘use’ rather than ‘reception’ in shaping music transaction models and technologies represents a potential threat to the business models of the transnational recording companies that operate on more linear, prescriptive business models. This results in an uneasy tension between those organisations that existed before the internet and those that have been created around it. As Lawrence Lessig points out in *The Future of Ideas*, however, the battle between old and new is not a recent development (2001, p. 6). The internet and related digital technologies certainly allow active users to bypass restrictions on use with more ease than before – but this should not be taken to mean that there ever was a period in which consumers *were* wholly passive and submissive. The friction and unease between incumbent sheet music printers and the first pianola roll manufacturers exemplifies this argument and exposes many compelling similarities and parallels with later debates over evolving music formats and copyright laws.

Section 2

Pianola rolls have music perforated into them in a special notation, with each perforation indicating a note to be played. By feeding in the perforated roll, a specially designed piano (or a mechanical player attached to a normal piano) can play the music by sensing the perforations and striking the relevant notes. Although the pianos require a user to pedal at an appropriate speed in order to reproduce the music at the correct tempo, their operation does not require any particular musical or instrumental knowledge or education. The user can therefore play a potentially unlimited range of songs at a professional standard.

The new technology enabled a wider range of people to ‘perform’ music and there was a concomitant change in listening patterns and buyer behaviour. Such was the popularity of the new technology that it rapidly became a very lucrative business. In 1907 *Musical Opinion* reported that “[i]n America the expansion of the industry has been very striking; the production of mechanical piano-players and of piano-player attachments – as certified in the bulletin on the manufacture of musical instruments just issued by the United States census bureau – [has] advanced from 607,873 dollars in 1900 to 2,029,754 in 1905” (as cited in Ord-Hume, 1984, p. 327). Edward Samuels estimates that by 1902 there were nearly 75,000 pianolas in the US, and sales of over one million rolls a year (as cited in Lessig, 2001, p. 108). As their use expanded the players enabled the consumption of music in different and hitherto unpredicted ways, as part of the broader shift in music towards amateur rather than professional performance.

Contemporary music copyright laws, however, were ill-equipped to deal with the new format. The Berne Convention, for example, predated the invention of pianolas and therefore did not cover the reproduction of their music rolls. A clause of the convention “exempting mechanical musical instruments from the range of the ordinary copyright law” that had been inserted to exempt toy music boxes provided a loophole enabling printers to copy sheet music onto music rolls (Ord-Hume, 1984, p. 329). After sustained pressure from a range of recording industry lobbyists, however, the Berne Convention was revised in 1908 to “protect composers against reproduction of their music by mechanical means” (Laing, 1991, p. 7)

Prior to that, however, the lack of explicit legal protections for their property did not stop copyright holders in the music publishing industries from pursuing pianola manufacturers in the courts. Persistent legal challenges surrounding the reproduction of copyrighted material “dogged all makers of every type of mechanical musical instrument, not just the piano-roll makers” (Ord-Hume, 1984, p. 106). Ord-Hume attributes part of this litigious fervour to a desire to delay or even halt the move towards mechanical musical reproduction, reflecting that the “coming of the gramophone served only to intensify the rush for litigation against organette makers such as Ehrlich in Leipzig, piano-roll sellers, Aeolian and others” (1984, p. 106).

The Aeolian piano player became the focus of a significant court battle, *Boosey v. Whight*, in 1899 (Coover, 1985, pp. 73 – 77). The plaintiff sought to stop the Aeolian Organ & Automatic Pianoforte Co. (Messrs. Whight & Co.) from publishing pianola rolls of “three of Boosey’s more popular songs.” (*Musical Opinion & Musical Trade Review*, May 1899, as cited in ANZCA09 *Communication, Creativity and Global Citizenship*: Refereed Proceedings: <http://anzca09.org>

cited in Coover, p. 73) The plaintiffs argued that, despite the specialised notation used by the player, the rolls were copies of their sheet music. The defendants retorted that the rolls were “merely part of the machinery for producing sounds” (Coover, p. 73). Boosey won the case, but the judge had agreed in his *obiter dictum* remarks with the defendant’s argument that the medium itself – perforated music rolls – was not to blame and that pianola rolls could not automatically be considered copies of content published elsewhere in sheet music form (Coover, p. 73)

In December 1899, the Court of Appeal overturned the original ruling on the grounds that the perforated rolls were an entirely new format; as Albert Strong summarises, not only did contemporary copyright law not encompass them, they could not be considered a ‘copy’ of Boosey’s product in the truest sense of the word (as cited in Coover, 1985, p. 73). The decision of *Mabe v. Connor* in 1909 elaborated on this principle, holding that a pianola roll is “not a ‘musical work’ within the meaning of the [Copyright] Act of 1902, and therefore cannot be seized under the provisions of that Act as a pirated copy of a musical work” (Strong, as cited in Coover, p. 73). This principle was upheld abroad by the United States’ Supreme Court in the case of *White-Smith Music Publishing Co. v. Apollo Co (1908)* (Lessig, 2001, p. 108).

The themes of *Boosey v. Whight* have been cited in many subsequent legal cases pertaining to new technologies. In 1907, defendants in the case of *Newark vs. National Phonograph Co.* cited the Court of Appeal’s overturning of *Boosey v. Whight* in their own defence. In this case the plaintiff was suing the Phonograph Company for producing a phonograph recording of a song he owned the copyright to (Coover, 1985, p. 73). Following the precedent of the earlier case, the defendants successfully argued that their phonographic recordings were an entirely new format (and one insufficiently covered by contemporary copyright law) and were therefore not infringing copies of the plaintiff’s property.

The influence of the pianola conundrum even extended as far as the landmark Sony Betamax case in the 1980s. In the *obiter dictum* comments attached to his majority judgement, Supreme Court Justice Stevens referred to pianola rolls as part of the range of “antecedents to the Sony Betamax recorder in the history of copyright law” and commented that “player pianos and perforated rolls of music challenged the assumptions of copyright owners, and led to the enactment of the *Copyright Act 1909 (US)*” (Rimmer, 2007, p. 64).

These lawsuits invite significant comparisons to today’s debate on new music technologies. Most tellingly, they indicate that mechanical music companies – early constituents of the

recording industry – were themselves once disruptive innovators and beneficiaries of shifting distribution models in music, while the copyright holders and printers of sheet music argued a reactionary message of crisis. Lawrence Lessig, in his account of the pianola controversy, points out that the recording industry took a very different position in the copyright debate than it does now:

Authors of sheet music complained, saying that their content had been stolen. In terms that echo the cries of the recording industry today, copyright holders charged that these commercial entities were making money off their content, in violation of the copyright law. The Supreme Court disagreed. Though the content the piano player played was taken from sheet music, it was not, the Court held, a ‘copy’ of the music that it, well, copied. Piano roll manufacturers (and record companies, too) were therefore free to ‘steal’ the content of the sheet music to make money with their new inventions. (Lessig, 2001, p. 108)

The unwillingness of many sheet music publishers and copyright holders to embrace the potential of the ascendant pianola technology (or, at least, to acknowledge that it may not have been a mortal threat to their business interests) anticipates the ongoing reticence of today’s recording industry in its approach to the internet. As the successive issues of vinyl record, cassette, CD and finally MP3 copying later came to prominence it was the audio recording industries, now occupying the dominant market position vacated by sheet music, that argued in favour of the *status quo*.

Lessig admits that this resistance to change usually makes sense as a short term measure to protect established business models, but counters that it is ultimately harmful to innovation. The leading companies in any given field are often unwilling to “identify and develop disruptive technologies” (2001, pp. 89 – 90). We must, however, resist the temptation to infer sinister conspiracy theories from this. We cannot accuse an entire industry of sharing the reticence of a few vested interests and copyright owners. It is also important not to automatically attribute a company’s reticence to a mean spirited desire to hold back progress. Rather, as Lessig argues, the “blindness that keeps the company fixed in a dying path is actually its clear understanding of probable returns.... It doesn’t see the revenue from radically new technologies that depend upon unidentified or undeveloped markets” (2001, pp. 89 – 90).

Applying this mindset to today’s debate, we can understand how the vagaries of internet music file distribution could be seen as a potentially losing bet, as opposed to the established business models and revenue streams of the recording industry. However, the notion that a

company is motivated by its own immediate business interests rather than more sinister motives does not necessarily mean that it has the best interests of consumers (or even the industry) in mind. Entertainment industry corporations are often more concerned with their bottom line than with more cerebral arguments concerning the greater good of the cultural economy – or, to be more generous, they tend to perceive the two as being one and the same. George Megalogenis asserts that the recording industries “make the emotional leap no other industry would dare by seeing themselves as the creators of the art rather than merely the means by which it is transmitted [and therefore] confuse the end of a corporate monopoly (theirs) with the end of recorded music” (Megalogenis, 2007). This helps to explain why copyright holders and recording industry companies – with the support of many artists – have sought to maintain their dominance in the transactional cycle between artist and consumer.

The examples of sheet music piracy and pianolas indicate that disruptive technologies in the past have allowed musical activity to flow into new areas of expression and exchange by “changing existing power relationships and influencing cultural choices” (Garofalo, 1999, p. 329). The fact that a certain business model is dominant in the current economy does not mean that its proponents should have a dominant role in determining change. It certainly doesn’t mean that their interests should be paramount when considering legislative change. No industry can maintain long term sustainability or efficiency if it is totally isolated from competitive forces. The constant challenge posed to incumbent business models by disruptive technologies is a vital part of evolutionary change and innovation in the music and recording industries.

Conclusion

The comparison by Motion Picture Association of America spokesperson Jack Valenti of the Sony Betamax to the Boston Strangler has gone into folklore as one of the greatest errors of judgement in the media business (as cited in Rimmer, 2007, p. 68) The sheer vituperation of the statement defined the movie industry’s approach to the VCR; later still it underscored the irony of their embrace of home video as an essential and lucrative source of income. Despite the benefit of hindsight, the recording industry’s approach to the internet has largely run along the same negative, defensive lines. The same unfortunate preoccupation with strangulation certainly seems to run through both debates, as witnessed by one anonymous industry figure’s early response to the manifold potential of the internet: “We are going to strangle this baby at birth” (Whelan, 2006, p. 58).

There are echoes of Valenti's decrial of the Betamax in Recording Industry Association of America (RIAA) Chairman Mitch Bainwol's dismissal of peer-to-peer music distribution in 2003 as a "totally illegitimate platform" (United States Senate, Committee on Governmental Affairs, September 30th, 2003, p. 23). Bainwol dismissed suggestions that the recording industry attempt to work with peer-to-peer networks as "just silly...like Jesse James wanting to be hired at the bank." (United States Senate, Committee on Governmental Affairs, p. 23). Such unequivocal condemnation of a platform that an increasing number of consumers clearly favoured may ultimately prove to be unwise.

To describe a technology as challenging or unprofitable is one thing. Calling it 'totally illegitimate' carries much deeper connotations of immorality and could complicate future attempts to work with it. An adversarial approach may also risk delaying the development of new technologies. The constant fear of lawsuits is a significant disincentive against investing in new products or services. Lessig argues that society should encourage disruptive technologies instead, because they produce movement toward a more efficient, prosperous economy" (2001, p. 92). At the same time, however, legislation must still provide sufficient protection for the artist and to provide incentive for future creation.

In view of these pressures law makers must strike an extremely fine balance between control and freedom when responding to technological change in the area of music. Attempting to shape legislation to protect dominant business models from change or upheaval is inefficient, and even potentially harmful; as Paul Romer warns, "giving an industry veto power over new technologies that threaten its current business model would set a very dangerous public-policy precedent" (2002, p. 215).

The rise of internet music distribution highlights a range of issues surrounding the ways in which music is created, listened to and distributed. These debates are unlikely to be resolved by oversimplification or hyperbole. Placing the debate in a historical context provides a firmer and more positive foundation from which to approach the problem. The most important conclusion to draw from an historical appraisal of music is that the continued production of music is not dependent on the recording industry remaining exactly as we know it today. Change can still be monitored and controlled in order to protect artists, but the basis of such action should not be a reactionary desire to maintain the *status quo*.

References

- Benkler, Y. (2006). *The Wealth of Networks*. USA, New Haven: Yale University Press.
ANZCA09 *Communication, Creativity and Global Citizenship*: Refereed Proceedings: <http://anzca09.org>

- Chanan, M. (1994). *Musica Practica: the social practice of Western music from Gregorian chant to postmodernism*. UK, London: Verso.
- Coover, J. (1985). *Music Publishing, Copyright and Piracy in Victorian England*. UK, London: Mansell Publishing Limited.
- Durant, A. (1984). *Conditions of Music*. UK, London: Macmillan.
- French net piracy bill signed off. (2009) Retrieved May 27, 2009, from <http://news.bbc.co.uk/2/hi/technology/8046564.stm>
- Gantz, J., & Rochester, J. B. (2005). *Pirates of the Digital Millenium*. USA, New Jersey: Financial Times Prentice Hall.
- Garofalo, R. (1999). From Music Publishing to MP3: Music and Industry in the Twentieth Century. *American Music*, 17 (3) 318 – 354
- Garofalo, R. (2003). I Want My MP3: Who Owns Internet Music?. In M. Cloonan and R. Garofalo, *Policing Pop*. USA, Philadelphia: Temple University Press.
- Laing, D. (1991). A Voice without a Face: Popular Music and the Phonograph in the 1890s. *Popular Music*, 10(1) 1 - 9
- Lessig, L. (2001). *The Future of Ideas*. USA, NY: Random House
- Megalogenis, G. (2007, April 24). Never mind the disc count. *The Australian*, p. 12
- Ord-Hume, A. W. J. G. (1984). *Pianola: The History of the Self-Playing Piano*. UK, London: George Allen & Unwin (Publishers) Ltd.
- Rimmer, M. (2007). *Digital Copyright and the Consumer Revolution: Hands off My iPod*. USA, MA: Edward Elgar Publishing, Inc.
- Romer, P. (2002). When Should We Use Intellectual Property Rights?. *The American Economic Review*, 92 (2), 213 – 216
- United States Senate. Committee on Governmental Affairs. (2003). *Privacy and Piracy: The Paradox of Illegal File Sharing on Peer-to- Peer Networks and the Impact of Technology on the Entertainment Industry*, Washington, D.C, USA.

Whelan, A. (2006). Do U Produce?: Subcultural Capital and Amateur Musicianship in Peer-to-Peer Networks. In M. D. Ayers (Ed.), *Cybersounds: essays on virtual music culture*. USA, NY: Peter Lang.