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Music in the eyes: Contextual framing and emotional attributions in user-generated content and culture

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Most scholars agree that music can have psychological and cognitive effects on audiences and extensive research has been conducted on the effects of mainstream music, music in films, and music in television commercials and documentaries (Moore, 2010). However, previous research has often taken music into account as an independent entity that is separated from visual information (Shevy & Rouner, 2004) and few studies have emerged to consider the role of music in user-generated culture. This study begins to fill this gap in academic research by empirically examining the psychological effects of music in interpreting visual information at the intersection of these approaches are the concepts of media produsage (Bruns, 2009) and user-generated culture. Here, an online experiment presented visually identical film trailers with two highly unique musical tracks to examine the influence auditory context has on viewers' impressions of user-generated media. Through manipulations of the audio tracks of the widely popular movie Twilight Eclipse, results of this study confirm that music is a significant factor in shaping audience interpretations of this film in user-generated content, even when taking into consideration consecutive exposure conditions. Implications of these findings are positioned in larger themes of dynamic media environments and effects in user-generated content and culture.

Introduction

In the early development of film, music played an important role. Not only with the intention to arouse emotions, but to mask the noisy sound of the early film projectors (Cohen, 2001). Today, it is standard that visual images in films are accompanied by music, and this music plays an important role in the production of movies. Most scholars agree that music can have psychological and cognitive effects on audiences, and extensive research has been conducted on the effects of mainstream music, music in films, music in television commercials, and music in television documentaries (e.g. Bharucha, Curtis & Paroo, 2006; Cohen, 1999; Moore, 2010; Vitouch, 2001). The results of prior studies, however,

may not apply to the more complex stimuli in contemporary media environments.

Specifically, rapid changes in technology have reconfigured the nature and impact of media and the way media content and audiences are understood. With hundreds of millions Internet users actively producing and publishing (user-generated) content to online media, today's media environments are characterized by user agency and the role of active participants. Subsequently, the field of mass communication has extended beyond the early communication model of producer/text/audience (Livingstone, 2008; Van Dijck, 2009), compelling the research community to reconsider traditional theories on audiences and effects.

Hence, numerous studies have started to explain 'new' media and touched upon the nature and impact of audiovisual content in the context of online, social and mobile media environments (e.g. Cha, Kwak, Rodiquez, Ahn, & Moon, 2007; Haridakis & Hanson, 2009). However, previous analytical approaches mainly focused on audiences and social interactions, leaving a need for further film and music interaction research (Moore, 2010). Improved understandings about audiovisual interaction in the context of contemporary media environments could be very beneficial for theoretical as well as empirical purposes; especially to expand current perceptions about the effectiveness of music in trailers and teasers (Septak, 2008).

Therefore, the purpose of this study is to contribute to this field of research by focusing on contextual framing in the light of contemporary digital media environments. For this purpose, the effects of different audio tracks on the viewers of two visually identical online trailers for the widely popular film *Twilight Eclipse* were examined. Particular attention was directed (a) the diversity of audience genre interpretations in online visual film sequences and (b) to the ability of music to influence differentiating emotional attributions on audiences' impressions of otherwise identical film clips in the context of user-generated content and culture.

Background

In the silent era, music was first introduced to cover up the silence and effectively mask unwanted external annoyances (Buchanan, 1974). The noisy sound of the early film projectors and audience disturbance could draw the attention away from the screen and film-makers used therefore background music to keep the audience from becoming distracted (Williams, 1974). Musicians were hired to play improvisations to popular tunes during the motion pictures and had their own repertoire, either printed, or played from memory (Beeman, 1988). They were not meant to be listened to as music by the audience, but only "to breathe musically across the screen as an aid and comfort to the muted picture, softly rocking the cradle in the darkness of the theatre through quiet interludes, violent action, or intimate moments" (Bazelon, 1975, p. 14). Hence,

music was not part of the film itself, but played along with the film on the place of performance.

However, when the music stopped playing, both filmmakers and their audiences felt something was missing (Seidman, 1981). People started to realize that music works upon the unconscious mind, that it plays upon emotions and adds a third dimension to the two-dimensional screen (Fischoff, 2005; Palmer, 1990). The onscreen action provided clues and cues of how the audience was supposed to feel and interpret the visual product, but the music was the missing link in completing the emotional experience. So, it was in the 1930s that a "miraculous discovery" was made: "acting in a catalytic way, music can operate at a psychological level to influence individuals' interpretive meanings and experiences (Seidman, 1981, p. 22). When properly selected, film music could, and can, establish atmosphere, maintain and alter emotions, reinforce actions and even define characters (Berg, 1975; Zuckerman, 1949).

Consequently, music became increasingly important to illustrate and explain the action, whereas the masking function became less significant (Cohen, 2001, p. 250). Film companies started developing cue-sheets and made suggestions for music accompaniments in motion pictures (Rapée, 1924). Large theatres engaged whole orchestras to use these cue-sheets and enrich the film experience. Smaller theatres, however, continued hiring single pianists who guided the audience with music they played from memory (Beeman, 1988). This meant that the music, and thereby the film experience could be different between cities, theatres and even between different showings by the same musician.

Due to this interaction between images created by the filmmaker and music played by the musician, silent film, thus, was never a fixed product. It was a psychological experience that presented a complex interplay between the visual product, the musical accompaniment and audience creativity. To illustrate: filmmakers could determine the fictional environment, characters, objects, transitions and events, but it were the viewers who created the words to dialogues and completed the imaginary reality in their minds. As a result, it could be the case that one and the same visual product, was perceived very differently, depending on the music and audience. Watching a film was therefore more than observing some pictures, it was a vivid experience and a perfect opportunity for audience creativity.

In cognitive psychology, this phenomenon have been subsumed under the concept of *context determination*. It suggests that "one and the same entity can be perceived very differently, depending on particular context in which it is embedded" (Vitouch, 2001, p. 17). Lev Kuleshov, who was probably one of the first film theorists of *montage*, was intrigued by the way manipulation of context could alter emotional attributions and conducted an experiment that would become one of the most famous film experiments (Mobbs, Weiskopf, Lau, Featherstone, Dolan & Frith, 2006). Around 1918, the Russian filmmaker showed audiences a neutral, identical shot of a famous actor paired with various other shots (a girl, a

plate of soup, a child's coffin), and these shots acquired different meaning (Kuleshov, 1974). The actor, who did nothing and expressed nothing, became engaging and compelling to those who saw the film. From then on, generating emotional reactions through the editing of images became known as *the Kuleshov effect* (Cohen, 2001).

Along with others, Kuleshov deeply analyzed this phenomenon and wrote about its findings. Central to all of his writings was the idea that the filmmaker could create a new dynamic hole by putting together two or more distinct shots (Russel, 2005). In film theory, this became known as *film montage*, which developed itself as "the basic means of cinema art, the specific and fundamental quality of the medium" (Kuleshov, 1974, p. 71). Famous filmmakers, such as Sergei Eisenstein, further developed the theory and also included music as potentiality for montage. Like images, Eisenstein believed that sound was more than a "musical illustration" and combined his great passion for editing with music and its emotion effect. Consequently, he was one of the first filmmakers who engaged visual editing with rhythmic music to deliver maximum effect, resulting in seminal films such as *Battleship Potemkin* (Eisenstein, 1949).

This process of emphasizing certain features and drawing attention to images in order to alter the viewer's impression can be considered a specific, and often intentional, macro-level *framing technique* (Goffman, 1974). Specifically, framing is the assumption that how a story or issue is characterized by the sender can have influence on how it is interpreted by the receiver (Sheufele & Tewskbury, 2007). Especially in ambiguous scenes, or neutral images, filmmakers could 'frame' music to "encourage viewers to generate inferences about the characters' motivations, personality, and emotional reactions to different events in lieu of explicitly stating this information in the story's dialogue and ongoing action" (Boltz, 2001, p. 447). Music thus holds the opportunity to substantially change the spirit of a scene and might even change the expectations a viewer has of the scene development.

This argument suggests that a congruent combination of auditory and visual stimuli reduces the amount of different evaluations, whereas viewer's interpretations are likely to be more spread when a scene is accompanied by an incongruent soundtrack (Bottin, 2001). Likewise, when poorly matched to the visual images, sound effects or dialogue, music could present an ironic message to the viewers and thereby confuse the audience (Berg, 1975; Thomas, 1973).

However, previous research has shown that the film experience is more than just watching audiovisuals and that the film itself is not even the most important part of visiting the cinema (Kuhn, 2002). To illustrate, individuals produce memories not only of the film and music, but also of the places and people one goes to the cinema with (Kuhn, 2002). The process of memorizing thus is influenced by a combination of information that the film provides, the experience of going to a certain cinema with certain people, and even the technologies used to convey the audiovisual product (See: Boltz et al., 1991; Kuhn, 2002; O'Hara, Mitchell & Vorbau,

2007). The result of these multiple factors of influence was that even the most perfectly framed audiovisual product could not predict with certainty that the presumed effects will occur among viewers.

Today, the majority of film experiences, however, has transformed to an even more involved interplay of factors. Rapid changes in technologies increasingly transformed the traditional feature film from theatres to online and social media. Though music, creativity and audience relationship in contemporary media tend to have some similarities with the silent film performances, the most significant difference is that today's viewers play an active role in the consumption of media content (Fischer, 1998). Audiences now have the means to produce media content in order to take on these active roles.

Rather than having a gap between creators and consumers, the development and diffusion of the Internet has shifted power to the non-professional media users / producers because of the decentralized mode of information sharing. Consequently, traditional media is now struggling in their role as gatekeepers of published content because it is losing ground to online and social media (Balasubramaniam, 2009). These new developments are closely related to the concept of *Web 2.0*, which can be seen as a more general umbrella term for forms of online participatory media.

More specifically, Web 2.0 also suggests a more socially interconnected mediascape, in addition to media-creating features. It could be visualized as "a set of principles and practices that tie together a veritable solar system of sites that demonstrate some or all of those principles, at a varying distance from that core" (O'Reilly, 2007, p. 18-19). Understanding Web 2.0 is going beyond the page metaphor of Web 1.0 to deliver user experiences. Web 2.0 is the network as platform, "a continually-updated service that that gets better the more people use it" (p. 17). It is the "architecture of participation", characterized by millions of users actively participating and contributing to add their own value to the application as they use it (Anderson, 2007, p. 19). But most of all, Web 2.0 is the cause *and* effect of *user-generated content* (UGC).

User-generated content refers to "all media content created or produced by the general public rather than by paid professionals and primarily distributed on the Internet" (Daugherty, Eastin & Bright, 2008, p. 16). In addition, it is characterized by three features. Firstly, the content has to available through the Internet and should be public. Secondly, it has to have a connection with creativity. And thirdly, the content should not be professional (Wunsch-Vincent & Vickery, 2007). This understanding suggests that most output of user-generated content are not created with the expectation of generating profit, which also signals an important cultural shift in media production.

Relating back to the theory of context determination and framing, user-generated content can also be used to create new meanings and expand the limits of an original media product. Specifically, regarding

film production and experience, the emergence of social media and video-sharing sites resulted in a phenomenon that is considered "one of the most popular forms of fan subversion in the age of digital video", namely *recut trailers* (Hildebrand, 2007, p. 52). Whereas original film trailers are created by professional studios with the intention to generate enthusiasm and attract audiences to an upcoming feature film (Kernan, 2004), recut trailers are created by fans. More specifically, "recut trailers take source footage from one or more texts and recut it, either to displace the film's original genre or to create a new film that will never exist" (Williams, 2012, p. 3). By creating the recut trailers, or *fan trailers*, amateurs perform their status as fan to the community of fans (Williams, 2012).

Editing plays a central role in the recut trailers and fans often seek to displace the original genre of the film. For example, by re-cutting original footage of the film, Aeronez (2009) created the trailer *Twilight Horror Spoof* which presents the popular story of Twilight as a horror film with the accompaniment of melodramatic music. The video was uploaded to the video-sharing website Youtube and has generated over 9,000 views. Similar to professional media producers, the creators of recut trailers use music, title and text to situate the world of Twilight according to their preferences (Williams, 2012). Consequently, recut trailers generally extend beyond the original purpose and story of the film and could therefore also be seen as rejecting elements of a genre or feature film (Williams, 2012).

However, it does not necessarily suggest that all creators of recut trailers generally have the intention to create a different film experience than the original. Some user-producers, only add different music to an original film trailer, without editing the visuals. Thus, in the light of film theory it *could* be feasible that the change of music, unintentionally may alter the experience and interpretation of the original visual product, even in an online environment of user mashups and dynamic co-creation. This eventuality would suggest that the practice of creating fan trailers is actually quite similar to the silent film era, where single pianists, often unintentionally, played a fundamental role in the evaluation of the visual product.

While building on a long history of considering audios and visuals in information processing, there is good reason to believe that music plays a major role in the film experience that is transitioned to online and social media-based viewing. At this point in time, however, there is virtually no extant research that develops and tests this idea. Crucially, there is also a general dearth of empirical research on cognitive effects of film music in the area of music psychology (Vitouch, 2001), and almost none that investigates the role of music in de-professionalized online media creation and consumption. Another shortcoming in academic research is that music is often taken into account as an independent entity that is separated from the visual information when analyzing the impact of music in audiovisual context (Vines et al., 2010; Moore, 2010; Shevy & Rouner, 2004). As Stilwell (2002, p. 20) formulated it: "It is truly

astonishing how many studies of the music tend to ignore completely what is happening on the screen."

Therefore the purpose of this study is to start filling this gap in academic research by empirically examining the psychological effects of music on visual information processing of online, user-generated film presentations. Specifically, the goal is to test whether music plays a similar role in the experience and interpretation of film in user-generated content as it was the case in more traditional media (film) settings. In so doing, the study reported here presents an online experiment to examine the extent to which music shapes different impressions for the receivers in user-generated content. While building on a long history of film theory and cognitive psychology, it proceeds by advancing the following research question and hypotheses regarding the influence of music and film presentations in user-generated culture:

> RQ1: To what extent do disparate audio tracks influence audiences' impressions of otherwise identical visual film sequences in online user-generated content?

> H1: The style of music that accompanies visual film sequences in online user-generated content influences audience genre interpretations.

> H2: Less ambiguous audio with a clearer evaluation direction will reduce the diversity of audience genre interpretations in online visual film sequences.

Method

While building further on the theory of *montage* and *framing*, two visually identical film sequences with two disparate audio tracks were created in a similar way that recut trailers are made. Specifically, two different trailers of the movie *Twilight Eclipse* were created for this study by two of the authors (den Hartogh and Hsu). This movie was chosen for analysis because it was one of the most popular movies of 2010 and the word "Twilight" was the most searched term in November 2011 (Eggermont, 2011). In producing the trailers, the exact same images, scenes and lengths were used, but the music differed for each trailer. Both trailers were user-generated creations, with video edited together into a series of shots from *Twilight Eclipse* by one author (den Hartogh) and the highly unique audio tracks being performed and developed by another author (Hsu).

The trailers were uploaded on YouTube and presented on a WordPress website that provided respondents a clear overview and the possibility to register their reactions. The audiovisual stimuli had clip lengths of 60 seconds, and by being uniquely created for this study by non-professional audience members, demonstrate authentic user-generated content in an externally valid environment. Importantly, both of these musical tracks

can still be considered congruent to the visual material, since each was specifically performed and edited to match the visual sequence. Though created for research purposes, the film sequences qualify the three characteristics of user-generated content defined by Wunsch-Vincent & Vickery (2007), and therefore considered as such.

The selection process of musical excerpts with emotional direction is similar to the method employed in Bullerjahn and Güldenring (1994). In the first trailer, relatively emotionally ambiguous and gentle ballad-type piano music was specifically developed and adapted to the visual sequence. In the second trailer, exciting and up-tempo music with a clearer evaluative direction was likewise performed and recorded to match the cuts of the exact same visual sequence. For reference purposes, the first trailer is denoted as the 'piano' trailer and is considered more ambiguous. The second trailer is identified as the 'epic' trailer and considered to have a clearer evaluative direction upon which respondents could form genre decisions. Both trailers themselves contained emotionally ambiguous or non-specific and decontextualized images, so adapting it to both musical tracks would not be incongruent with the visual presentation.

The trailers comprise images of the film *Twilight Eclipse,* which is an American vampire film from 2010 based on the novels of Stephenie Meyer. The movie was a great commercial success, grossing over $300 million worldwide (Box Office Mojo, 2010). Set against an ongoing deadly conflict between vampires and werewolves, the plot in the movie depicts an unorthodox romance between a human girl and a male vampire, with a twist of love triangle as a werewolf boy is in love with the same girl. This rivalry can be observed in the violence portrayed in the movie, as there are two principle clans in *Twilight Eclipse* that battle against one another for their respective causes.
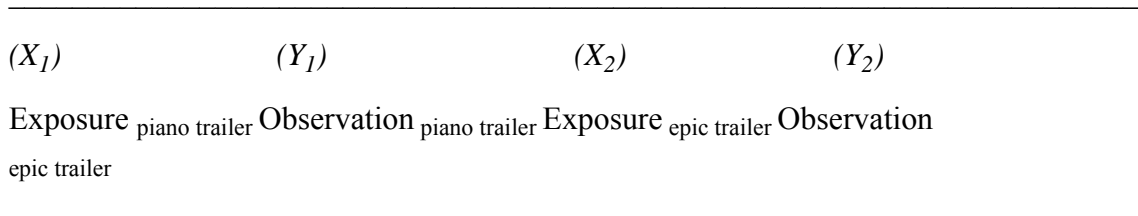
Procedure

Since prior studies with comparable research questions and/or hypotheses conducted experiments, this study built on this tradition to examine the research questions and hypotheses posed here (Vines et al., 2011; Vitouch, 2001; Shevy & Rouner, 2004). The steps followed in this experiment are based on prior academic literature from Babbie (2007) and Shevy & Rouner (2004). On the WordPress website, respondents were first presented a clear overview of the procedure and given simple instructions. Google analytics tracked locations and basic demographic characteristic (as available) of the participants.

For this study, we formulated an independent (X) and a dependent variable (Y). The independent variable is the audio track of each otherwise identical trailer and the dependent variable is the perceived genre of the movie *Twilight Eclipse*. This research design can probably be most accurately described as a repeated one-group posttest-only form of pre-experimental design. Though this design does introduce certain limitations, particularly on generalizability, it has the benefit of

accounting for repeated exposure to visual stimuli. In this way, the possible effects of audio on audience interpretations can be considered fairly isolated, and ecological validity can be considered reasonably high since participants engaged in identical self-selected online viewing environments. See Figure 1 for a graphical summary of this design.

Figure 1: Repeated one-group posttest-only research design.

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(X_1) (Y_1) (X_2) (Y_2)

Exposure $_{piano\ trailer}$ Observation $_{piano\ trailer}$ Exposure $_{epic\ trailer}$ Observation $_{epic\ trailer}$

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After instructions were presented on the website, the participants were tested using both audiovisual stimuli. Each participant was exposed to the 'piano' trailer first, followed by the 'epic' trailer. After exposure to each trailer, respondents answered the question: "To which of the following genres do you think the Twilight movie belongs?" Participants could choose one of the following genres as their answer: Romance, Action, Drama and Thriller. The genre definitions and classifications are based on information by IMDB (2012) and genre research by Austin & Gordon (1987). After watching the two trailers and answering the two questions, participants were then posed the following question: "Did both videos give you similar feelings and/or thoughts." Participants could answer "Yes" or "No" to this question and were aware that their responses were recorded as poll statistics on the website.

After the exposure and responses, participants were requested to comment on the created trailers and the experiment, so this study could also examine the uses and gratifications experiences of the audience. The data collection for the experiment started on December 9, 2011 and ended on January 18, 2012.

Participants

This study operated on a limited budget that did not allow for probabilistic sampling of the online *Twilight* audience, and is it unlikely that a perfect sample of all online or offline *Twilight* viewers could be drawn. Thus, a purposive sample based on interest was drawn with the goal of drawing a large and diverse a sample as large as possible.

Recruitment included extensively promoting the media stimuli on different social media channels, such as YouTube, Twitter, Facebook, Hyves, fan sites and through emails. In addition, the media stimuli were promoted on several *Twilight* forums, including,http://www.thetwilightforums.com (http://www.thetwilightforums.com/),http://www.twilighted.net (http://www.twilighted.net/), and http://www.twilight.123forum.nl (http://www.twilight.123forum.nl/). These websites were selected because they were among the top results of a Google query for "Twilight forum,"

and thus were likely to have relatively large numbers of individuals that might be interested in participating in this study.

In total, there were over 300 viewers of the trailers on YouTube, and when the study closed the questionnaire had been completed by 295 respondents. The trailers were accessed by a mix of ages and genders from a variety of countries, including Belgium, Germany, India, Indonesia, Netherlands, Qatar, and the United States. In sum, though this study does not claim generalizability, it does provide insights into information processing amongst an issue-centric online audience.

Findings

This study proceeded by examining an overarching research question (RQ1), which posed: To what extent do disparate audio tracks influence audiences' impressions of otherwise identical visual film sequences in online user-generated content? Though also explored further with two separate hypotheses, this research question was first directly examined by participants' self-reported answers to the exit question of whether or not both trailers provided viewers with similar feelings and thoughts. The question was posed to show a first impression of how the respondents felt about the trailer: "Did both videos give you similar feelings and/or thoughts?" Here, an overwhelming 98.3% of respondents agreed that music gave the trailers different emotions and answered that the trailers did not provide similar interpretations.

In addition, the research question was evaluated using Spearman's rho, which is a correlational coefficient based on rank-ordering the relative frequency of genres identified across audio tracks. Somewhat unexpectedly, following exposure to the 'piano' audio condition, the most frequently identified genre was Drama (118 responses), followed by Romance (71 responses). Thriller was third with 61 responses, and Action (45 responses) was identified least among this sample of 295 participants for the 'piano' stimulus. The rank ordering of genres by the same audience members after viewing the 'epic' audio treatment was, first, Thriller (144 responses), then Action (107 responses), with Drama (28 responses) third, and Romance fourth with 16 responses, respectively. When compared with Spearman's rho, these two series of rankings were negatively correlated to one another ($\rho = -0.60$, $p > .05$), but not to a statistically significant level.

It can therefore be observed that there is no similarity of genre interpretations across the two audio treatment conditions, at least in terms of rank-ordering by frequency. In other words, from the measures applied here it seems clear that disparate audio tracks can drastically influence audiences' impressions of otherwise identical visual film sequences when considered in online user-generated content. There was qualitative evidence of this outcome as well, where one voluntary comment noted "it's surprising that both movies gave such different feelings" and another respondent indicating watching the trailers again "to check whether it was

the same images". This general finding was analysed further by examining each of the hypotheses.

To begin, the first hypothesis expected that the style of music that accompanies visual film sequences in online user-generated content influences audience genre interpretations. This hypothesis was examined with a chi-square to compare the relative observed percentages of genre identifications against those that could be expected within these distributions. Here, the 'piano' audio condition was interpreted as Drama by 40.0% of the respondents. Another 24.1% of respondents indicated the genre as Romance, while 20.7% indicated their preference for the genre Thriller. Finally, within the 'piano' audio condition, 15.3% of the respondents here indicated Action as the most appropriate genre for this *Twilight* trailer.

After watching the 'piano' audio treatment, respondents were exposed to the 'epic' audio condition of an otherwise visually identical *Twilight* trailer. In this case, the 'epic' audio format led to 48.8% of the same respondents identifying the genre as Thriller, and another 36.3% of the sample determined the genre as Action. Drama was the preferred genre selection of 9.5% of the audience in this condition, and 5.4% still indicated Romance as the genre with this less ambiguous audio applied.

When examining the differences between these distributions of genres across exposure conditions, even when noting that all respondents were exposed to the 'epic' audio condition after viewing the 'piano' audio treatment, support for H1 could be observed. A cross tabulation found statistical significance for this proposition when examined with chi-square ($\chi2$ (*df*: 3) = 149.14, *p* = .000) and the strength of the relationship was reasonably strong (*Cramer's V* = 0.50, *p* = .000). Further support for H1 was found in the comments of the viewers, with one of them stating:

> "It surprises me that both movies gave me different experiences to the visuals. The slow one made it more romantic and the fast one made it more an action movie. To me, it was as if I was watching trailers from different movies."

Altogether, these findings seem clear evidence that audio conditions in online user-generated content can, indeed, directly influence audience genre interpretations. Results are summarized in Table 1.

Table 1: Genres identified after exposure to 'piano' and 'epic' audio conditions of visually identical *Twilight* trailers

	Audio	
Condition Genre Identified	'Piano'	'Epic'
Romance	24.1% (*n* = 71)	5.4% (*n* = 16)

Action	15.3% ($n =$ 45)	36.3% ($n = 107$)
Drama	40.0% ($n =$ 118)	9.5% ($n = 28$)
Thriller	20.7% ($n =$ 61)	48.8% ($n = 144$)
Total (n=295)	100.0%	100.0% ($n = 295$)

Note: Chi-square (df: 3) = 149.14, p = .000

The second hypothesis predicted that 'epic' audio with a more clear evaluation direction applied in online visual film sequences will reduce the diversity of audience genre interpretations. This proposition was measured using separate difference of independent proportions. Here, the most frequently identified genre from the 'piano' exposure, Drama (118 of 295 responses), was compared proportionally to the most frequently identified genre, Thriller (144 of 295 responses) of the 'epic' exposure condition. Results of this test confirmed this was the case, where a statistically significant result (Z = 2.15, p = .02) was observed between the audience exposure conditions.

What this finding suggests is that the 'epic' audio condition was, indeed, less ambiguous than the 'piano' condition, and the overall diversity of responses was more limited for the 'epic' audio treatment. In addition, the difference of proportions was significant at every level of frequency measured here, where a statistically significant difference between the second-, third-, and least-most frequent genres across audio conditions was observed. This finding signals far less diversity of genre interpretations with the more clear evaluation direction of the 'epic' audio.

In short, all findings reported here align in suggesting that music can truly be in the eyes of the audience, cueing interpretations and reshaping genre perceptions in online, user-generated media. Some respondents directly confirmed the findings in their comments, as one comment noted "it was as if I was watching trailers from different movies" and another indicated that "the slow one [trailer] made it more romantic and the fast one made it more an action movie." Importantly, these results were observed even when media stimuli featured well-known subjects and were arranged in sequential exposure conditions.

Conclusions

When looking at the findings, it can be said that the most important and noticeable conclusion is that respondents did perceive the two trailers differently. Indeed, nearly all (98.3%) of the respondents felt there was a clear distinction between the two trailers. At this level, and as measured with rank ordering of the indicated genre frequencies, it is all but undeniable that the disparate audio tracks cued and influenced audiences' impressions, and led to different self-reported feelings.

When considering the first hypothesis, it can also be stated with a high level of confidence that the style of music accompanying visual film sequences in online user-generated content does, indeed, influence audience genre interpretations and contributes to their overall evaluation of a film. This finding was evidenced by the statistically significant chi-square and Cramer's V that indicated the wide differences in genre choice by audio exposure condition. In addition, in the voluntary feedback that was received, participants wrote that they perceived the 'piano' trailer as a less violent trailer, even though *Twilight* has a relatively high degree of violence, and identical scenes featuring the conflict between vampires and wolves were presented identically visually in both trailers.

This unexpected finding suggests that disparate audio tracks seem to have encouraged viewers to neglect certain aspects of these trailers specifically, but films more generally. With the stimuli examined here, the slow-paced and more ambiguous piano music apparently obscured some of the violence and emphasized the more dramatic and romantic aspects of the film. In turn, the more up-tempo and evaluative epic music seems to have emphasized the tension and conflict between the vampires and wolves in the movie and diminished other components of the story related to genre selection. Taken together, it can be argued that disparate audio tracks may influence genre identifications of self-selected online viewers of movie trailers, even under the circumstance that the trailers are known by the audience to be user-generated media.

In examining the second hypothesis, the distribution of genre responses for the 'piano' trailer was more even across answer options when compared to those of the 'epic' trailer. Under these conditions, the more ambiguous piano music still had reasonable numbers of respondents (20.7% and 15.3%, respectively) that identified 'Thriller' and 'Action' genres whereas after the epic music exposure, a more clear preference emerged for the 'Thriller' genre and relatively few participants indicated 'Drama' (9.5%) or 'Romance' (5.4%) as preferred genres. Support for this hypothesis indicated that less ambiguous audio with a clearer evaluation direction did reduce the diversity of audience genre interpretations in online visual film sequences that were user-generated by definition.

Though it is possible that the popularity of the Twilight movie series could bias respondents' interpretations, it is worthwhile to note that changes could be observed between both exposures, and that the sample that participated here likely already had well-formed genre opinions about *Twilight*. Even with the limitations of self-selection taken into consideration, the findings here suggest malleability of audience interpretations with regard to audiovisual associations in online and user-generated culture. Our findings thus generally align with previous work in the arena of audio interpretations as presented in other, more traditional and professional media production on television and in movies.

In one such example, Bottin (2001) found evidence with an experiment

that with certain music, one could guide the perspective of a participant to a desired direction. Here, similar effects could be observed in this study, as the results closely matched hypothetical expectations. In particular, ambiguous music may be related to more diverse genre interpretations, and music with a strong-minded evaluative direction can influence the majority of the respondents towards a more uniform interpretation of the trailer.

Altogether, it can be concluded that music can certainly generate differentiations on audiences' impressions of visual content. Music can have an appreciable impact on audience interpretation of films, or in this case film trailers. Yet as was previously identified, Kuhn emphasized the experience of the cinema and that films can lead to memory producing. Cohen (2001) likewise elaborated on the social aspects of information processing and argued that music plays an important role in films, as it can have several functions, including activation of memory, as Kuhn also stated. Furthermore, attention and arousal can be heightened because of music, and associated sense of emotion. When taking these arguments into account with the study reported here, we can safely report that the answer to our overarching research question is that audio tracks influence audiences' impressions of otherwise identical visual film sequences in online user-generated content to a clearly observable and significant extent, at least under conditions of readily identifiable dissimilarities in musical styles.

In summary, statistical evidence and qualitative feedback has shown that respondents sampled here perceive the two trailers differently because of the disparate audio tracks. Given that the two trailers were intentionally user-generated creations, it can also be argued that there is a possibility that modern communications technologies have the potential to reshape genre perceptions. Moreover, as user-generated content and culture are now overlapping and converging with mainstream mass media in the form of websites such as YouTube, Vimeo, and others, it is crucial that media scholars and practitioners take these shifts into account. User-generated content and culture, however, present now a considerable challenge for the field to explore and more fully understand this mode media production and effects. Yet from the analysis presented here, it is also clear that the influence of music cannot and should not be ignored in the online, de-professionalized media environment where its interpretive impact seems comparable to that of more traditional mass media formats.

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