

# Integrating Accessibility Into the Creative Sector - A Social Imperative for the Arts in the 21st Century

NAT BARRETT<sup>1</sup>

<sup>1</sup> Centre for Musicians, Lambeth, London, UK  
e-mail: nbarrettfiles@gmail.com

## Abstract

In the United Kingdom and the United States in particular, the number of people with disabilities and the age of the overall population have been steadily increasing.<sup>1</sup> In the United States, for instance, estimates suggest that 18.7 percent of the population has been diagnosed with a disability.<sup>2</sup> Given this increase in the number of disabled individuals, in tandem with the rise of online disabled activist groups,<sup>3</sup> media accessibility is more important than ever in the 21st century. As evidenced by the ability of music therapy to improve the quality of life of disabled patients,<sup>4</sup> the arts can provide disabled people with essential opportunities for self-expression, empowerment and personal fulfilment. This paper therefore seeks to bridge the gap between disability accessibility and artistry by providing practical solutions for 21st-century media creators.

## 1 Introduction

Accessibility is defined as the measures that are taken to ensure that disabled people have equal opportunity to partake in a given activity. Accessibility in the modern landscape, as well as in the creative sector, has largely focused on what Church and Marston define as ‘absolute access’.<sup>5</sup> Under this model, accessibility is successful when it allows for a disabled person’s participation in a given activity. The technological advancements of the 21st century such as the development of virtual world gaming<sup>6</sup> and the increasingly diverse nature of our multicultural society,<sup>7</sup> however, demand that modern artistic creators adopt a ‘relative access’ approach.<sup>8</sup> Creators must take into account not only the ease with which disabled individuals can access their media through for example providing audio description<sup>9</sup> but also the extent to which this accessible experience is as immersive as the standard media experience.

This paper therefore will detail possible, practical and accessible solutions for 21st century media creators across the film/television, social media, music and

visual art industries in order to encourage this ‘relative access’<sup>10</sup> paradigm.

## 2 Practical Accessibility

This section features an examination of the current measures being taken to improve accessibility in media and offers practical suggestions for 21st century media creators which consider relative access.

Since the inception of film in the 1890s,<sup>11</sup> the industry has seen an improvement in terms of practical accessibility. Recently, the online video-on-demand company Netflix has added ‘trigger warnings’ to its new original film *13 Reasons Why*. These warnings serve to help individuals with mental illnesses such as post-traumatic stress disorder (PTSD) to avoid content which may serve as a catalyst to self-injurious symptoms.<sup>13</sup> It could be said therefore that Netflix succeeds in terms of absolute access as viewers with mental illnesses avoid triggering content.

These measures, however, fall short of the ‘relative access’ model required in the 21st century. The ‘trigger warnings’ which Netflix uses only appear at

the beginning of the film and do not change with new scenes.<sup>14</sup> This accessibility therefore is flawed as it prevents viewers with mental illnesses from having

an immersive experience as they cannot select particular episodes to view based on the avoidance of ‘triggers’ - they must either view the film and hope to pass through triggering content or avoid the film in its entirety. As a result, this lack of relative access creates a lack of absolute access.

In contrast to this, 21st century technology can enable viewers with mental illnesses to be alerted to particular ‘triggers’ through pop-up notifications whilst watching shows on Netflix. This approach which considers relative access and the immersive nature of media to a greater extent has been pioneered by software engineer Danielle Leong, whose app ‘Fearless’<sup>15</sup> allows users to customise their list of personal ‘triggers’ amongst a set of 13 different options.<sup>16</sup> Whilst the number of options could certainly be expanded thereby making the viewing of films more enjoyable to those with more uncommon ‘triggers’, Leong’s entrepreneurial approach serves as an example of the type of measures which need to be taken by 21st century media creators if they wish to make films accessible to individuals with mental illnesses.

A similar approach could also be considered with regards to closed captioning - defined as subtitles of visual content provided in the lower portion of a screen for those who are deaf or hard-of-hearing (HoH). Closed captioning and audio descriptions are a hallmark of modern media accessibility, beginning in 1972 with the French Chef program.<sup>17</sup>

The automatic closed captioning of the video-sharing website Youtube, however, is inadequate with regards to relative access. Disabled users have complained that the captioned words do not match the spoken context and are often incomprehensible,<sup>18</sup> making Youtube videos less accessible and entertaining for these viewers. Although the Gaussian Mixture Model (GMM) has shown that spoken words can have a translation error rate of above 50%,<sup>19</sup> adapting the Youtube algorithm using modern coding has shown an improvement of 13%.<sup>20</sup> This statistic could represent the difference between a string of A case study conducted by the charitable organisation Attitude Is Everything has found that half of the 386 music venues studied offered poor access for disabled

coherent or incoherent sentences resulting in an accessible or inaccessible experience for a person who is deaf or hard-of-hearing. Both of these examples in the film sector demonstrate the importance of using 21st century technology in order to make viewing films an immersive experience for all viewers.

Much like the use of ‘trigger warnings’ in Netflix, the social media platform Tumblr uses a tagging system whereby online ‘posts’ are filtered according to key terms, allowing users to search for particular information.<sup>21</sup> The process of avoiding particular tags, however, is more complicated and inaccessible as mentally ill or disabled users who wish to avoid ‘triggering’ content such as self-harm or flashing images (potentially harmful towards those with epilepsy) must use an additional xkit system - an avoidance-based algorithm is not programmed into the framework of the social media website.<sup>22</sup> The tagging system of Tumblr is also unsuccessful with regards to relative access as content related to mental illness and the LGBT community is flagged as “inappropriate” and users under the age of 18 cannot view this content - a system mirroring Youtube’s failed Restricted Mode.<sup>23</sup> This has a knock-on effect for disabled queer individuals, whose experience is less immersive as a result of the intersectional nature of their identity which is dually censored by social media ‘flagging’ systems. Tumblr staff and 21st century software developers must work together to design a functional algorithm which blocks truly inappropriate content whilst affording disabled users the same immersive experience as their abled counterparts.

### 3 Music and visual media

With the decline in sales of physical compact discs (CDs) in favour of online music downloads, the live music sector has become one of the most significant sources of income for the modern music industry in recent years.<sup>24</sup> This sector, however, poses challenges to the issue of disability accessibility.

individuals such as ramps and designated areas.<sup>25</sup> This inadequate access prevents disabled audience members from having an enjoyable and stress-free

experience, removing them from an essential part of the live music ethos.

Despite this, 21st century media creators can take a stand against inaccessible venues by performing only in accessible venues such as the Bonnaroo festival, resulting in economic pressure on the part of music venue organisers to install adequate facilities for disabled individuals.<sup>26</sup> Moreover, creatives can take inspiration from the success of sensory friendly concerts in AMC theatres and music therapy trials<sup>27</sup> by designing live music spaces with quiet sound-proof areas and flexible seating choices, resulting in an immersive experience for all audience members. This has been pioneered in particular by the creative team in charge of the *Lion King Musical* as autism-friendly sensory screenings have been a regular occurrence since 2011.<sup>28</sup> It is also crucial to stress the importance of making soundtracks and live TV screenings of Broadway musicals available to the general public either online or through CD purchase as this prevents disabled users from having to resort to low-quality Youtube videos<sup>29</sup> as for many the long distance journeys required to see theatre shows are inaccessible. These practical measures, therefore, can help to ensure that musical productions and live music remain accessible to all audience members.

At present, art galleries are to a large extent inaccessible to individuals who are visually impaired. Whilst the National Gallery has developed the “Love Art” mobile application tailored to disabled individuals, few galleries have followed in its footsteps and audio description for visually impaired visitors remains the standard approach.<sup>30</sup> An alternative to this approach which may serve to provide a more immersive experience to visually impaired visitors can be seen through the development of tactile art exhibitions. The ‘tactile’ nature of this experience may pose a challenge to art curators as the paint used in traditional art is sensitive to light (including photography) and touch.<sup>31</sup> Galleries including the Tate Modern and the Prado Museum, however, have designed art galleries with pieces that can be touched such as non-degradable

sculptures, avoiding physical restraints on accessibility and allowing disabled visitors to interact with art in a dynamic fashion.<sup>32</sup> As the curation of art galleries in the 21st century illustrates therefore, it is possible to both take into account physical barriers to accessibility and design an aesthetic, immersive experience for disabled individuals.

## 4 Accessibility in the Narrative

The examples above address practical accessibility in 21st century media. Another important aspect of accessibility is the construction of narrative. Video games, novels and films all rely on structured narratives to provide their viewers - or, in the case of video games, ‘gamers’ - with an immersive experience, creating a crucial bond between the individual self and the portrayed individual.<sup>33</sup> Whilst narratives focusing on disabled experiences have improved since the 1990s with the politicisation of disabled identity and the resultant increasing prevalence of disabled characters in popular media,<sup>34</sup> much still needs to be done on the part of 21st century media creators to enable a captivating experience for disabled viewers via accessible narratives.

As Ellis argues, 21st century media places disabled narratives into two specific ‘tropes’; disabled characters are viewed either as ‘inspiration porn’ as they combat the “struggle” of disability or are reduced to helpless individuals dependent on the abled (main) character.<sup>35</sup> Both of these portrayals are dehumanising, preventing disabled individuals from identifying with one-dimensional disabled characters whilst abled characters are given an attractive, three-dimensional and complex role. Even with measures to increase absolute access through, for example, smart closed captioning and ‘trigger’ warnings, this gulf between genuine disabled experience and narrative results in a lack of absolute access as the flawed narrative is unattractive to disabled individuals.

Media creators can prevent this through the development of complex narratives for disabled characters who feature as part of the main framework of the game or film as seen through the character of Tyrion in the HBO fantasy program *Game of Thrones* whose dwarfism is acknowledged as a cause of social stigma in an ableist society.<sup>36</sup> The inclusion of accessible narratives in modern popular media is therefore essential as it allows disabled individuals to see their own lives and experiences represented and as a consequence enjoy the immersive experience that characterises 21st century media.

## 5 Conclusion

As seen through the examples provided across different sectors of the media industry, modern media creators have focused on absolute access through the use of ‘trigger’ warnings, automatic closed

captioning, social media tagging systems and audio description. Whilst these measures have integrated access in media to an extent, they are not sufficient in providing disabled viewers, readers and listeners with an enjoyable and profound media experience.

This paper has outlined ways in which media creators can take advantage of 21st century technology in order to increase relative access through, for instance, improving Youtube’s closed captioning algorithm and developing tactile art galleries. Creators, however, must also take into account the importance of accessible narratives which portray disabled characters as diverse and unique individuals rather than tropes defined by their pseudo-inspiring or helpless nature. By using these outlined suggestions which consider relative access, media creators can take crucial steps towards integrating genuine accessibility into the fabric of modern society.

## References

1. W. Lutz et al, “The Coming Acceleration of Global Population Ageing”, *Nature*, 2008, accessed 6th May 2017, pp1-2.
2. M. Brault, *Americans with Disabilities*, Health & Disability Statistics, 2012, accessed 6th May 2017, p. 3.
3. C. Pearson and F. Trevisan, “Disability Activism in the New Media Ecology: Campaigning Strategies in the Digital Era”, *Disability and Society*, 2015, accessed 6th May 2017, abstract.
4. H. Svansdottir and J. Snaedal, “Music Therapy in Moderate and Severe Dementia of Alzheimer’s Type: a Case-control Study”, *International Psychogeriatrics Association*, 2006, accessed 6th May 2017, p. 2.
5. R. Church and J. Marston, “Measuring Accessibility for People with a Disability”, *Wiley Online Library*, 2002, accessed 3rd July 2017, p.2.
6. N. Pinkwart and H. Olivier, “Cooperative virtual worlds—a viable eCollaboration pathway or merely a gaming trend?”, *Electronic Markets*, 2009, accessed 3rd July 2017, p.5.
7. C. Taylor, *Multiculturalism*, Princeton University Press, 1994, p.10.
8. R. Church and J. Marston, “Measuring Accessibility for People with a Disability”, *Wiley Online Library*, 2002, accessed 3rd July 2017, p.7.
9. Jorge Díaz-Cintas et al, *Media for All: Subtitling for the Deaf, Audio Description, and Sign Language*, Rodopi, 2007, p.127.
10. R. Church and J. Marston, “Measuring Accessibility for People with a Disability”, *Wiley Online Library*, 2002, accessed 3rd July 2017, p.1.
11. D. Bordwell and K. Thompson, *Film History: An Introduction*, McGraw-Hill Company, 2003, pp.12-13.
12. T. Andrews, *Netflix’s ‘13 Reasons Why’ gets more trigger warnings. Critics say it glamorizes teen suicide*, *Washington Post*, May 2017, accessed 4th July 2017.
13. J. Medina, *Warning: The Literary Canon Could Make Students Squirm*, *New York Times*, 2014, p.1., p.3.
14. T. Andrews, *Netflix’s ‘13 Reasons Why’ gets more trigger warnings. Critics say it glamorizes teen suicide*, *Washington Post*, May 2017, accessed 4th July 2017.
15. “Fearless App Demo”, *Youtube Online video*, 4th December 2015, accessed 4th July 2017.

16. M. Lang, *Trigger warning: New app warns Netflix viewers of graphic content*, San Francisco Chronicle, February 2016, accessed 4th July 2017.
17. *A Brief History of Captioned Television*, National Captioning Institute, 2010, accessed 4th July 2017.
18. J. Blake, *YouTube: We know automatic subtitles aren't good enough*, BBC News, 2015, accessed 4th July 2017.
19. H. Liao et al, "Large scale deep neural network acoustic modeling with semi-supervised training data for YouTube video transcription", *Automatic Speech Recognition and Understanding (ASRU)*, 2013, pp.2-3.
20. Ibid.
21. J. Power, "Access the Web: Tumblr", *Journal of Access Services*, 2014, p.1.
22. R. Deller, "Simblr famous and SimSecret infamous: Performance, community norms, and shaming among fans of The Sims", *Transformative Works and Cultures*, 2015, pp.4-5.
23. M. Moon, *Tumblr apologizes for filtering out LGBTQ+ content*, Engadget, 2017, accessed 4th July 2017.
24. S. Frith, "Live Music Matters", *Scottish Music Review*, 2007, pp.2-3.
25. I. Burrell, *Music venues and festivals 'excluding disabled fans with lack of information on access'*, The Independent, 2016, accessed 5th July 2017.
26. The Access Denied Panel, Madison Public Library, 2017.
27. C. Shiloh and A. Lagasse, "Sensory Friendly Concerts: A community music therapy initiative to promote Neurodiversity", *International Journal of Community Music*, 2014, abstract.
28. *Autism Friendly Performance – The Lion King*, Autism Network Scotland, accessed 5th July 2017.
29. J. Burgess and J. Green, *YouTube: Online Video and Participatory Culture*, Polity Press, 2009, p.35.
30. F. Candlin, Blindness, "Art and Exclusion in Museums and Galleries, *The Journal of Art and Design Education*", 2003, p.10.
31. M. Van Loo, "Physical chemistry of paint coatings", *Journal of paint technology*, 1956, p.1126.
32. E. Davison, *Tips for visually impaired art-lovers*, The Guardian, 2014, accessed 9th July 2017.
33. See a discussion on the importance of narrative with regards to human identity in J. Brockmeier, *Narrative and Identity: Studies in Autobiography, Self and Culture*, John Benjamins Publishing, 2001, p.15.
34. K. Ellis, *Disability and Popular Culture: Focusing Passion, Creating Community and Expressing Defiance*, Routledge, 2016, pp.4-5.
35. Ibid., pp.139-140.
36. Ibid., p.8.