WIKI-PIANO: EXAMINING THE CROWD-SOURCED COMPOSITION OF A CONTINUOUSLY CHANGING INTERNET-BASED SCORE

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ABSTRACT: Alexander Schubert's WIKI-PIANO.NET is an internet-based score, commissioned by the author and performed by him on an international tour from 2018 to 2020. The website score contains modules of notation, text, images, video and sound that can be edited by any member of the public, similar to a Wikipedia page. This article explores the huge volume and variety of content added to the score over the first 20 months after the premiere, and the extreme compositional approaches and unusual patterns of internet behaviour displayed. Examining these contributions offers insights into the online culture of new music, including its approaches to humour, its creative competitiveness, its mastery of memes, and its sophisticated subversions of the relationship between composer, performer and audience.

WIKI-PIANO.NET is an internet-based score created by Alexander Schubert, which I commissioned and premiered in April 2018, and subsequently toured to (so far) 21 venues. The score is a website that, like a Wikipedia article, can be edited by any member of the public. This article explores the huge volume and variety of content added to the score over the first 20 months after the premiere and the extreme compositional approaches and unusual patterns of internet behaviour displayed, including embedded personal signatures, absurd material, political content, many types of memes, personal messages, references to other composers, explicit content, meta-content, and the opposing behaviours of trolling and collaborative cooperation. Examining these contributions offers insights into the online culture of new music, including its approaches to humour, its creative competitiveness, its mastery of memes, and its sophisticated subversions of the relationship between composer, performer and audience.

Zubin Kanga's research was undertaken as part of a Leverhulme Early Career Fellowship at Royal Holloway, University of London.

¹ Alexander Schubert, WIKI-PIANO.NET for piano and internet, self-published website-based score and documentation, 2018, www.alexanderschubert.net/works/Wiki.php.

Alexander Schubert is one of Germany's leading composers, with work frequently performed at leading festivals and institutions including Huddersfield Contemporary Music Festival, Ultima Festival (Norway), IRCAM (Paris) and Donaueschingen Festival. His work utilises and responds to digital media and internet culture, subverting stage conventions to create distinctive and innovative interdisciplinary works. Schubert's output can be considered central to the development since 2010 of a new type of interdisciplinary music. Identified by Marko Ciciliani as 'Music in the Expanded Field' and by Jennifer Walshe as 'The New Discipline', this new interdisciplinary genre combines music with performance art, theatre, film, video art and other modes of performance. WIKI-PIANO.NET encompasses many of these combinations, but the method of crowdsourcing its compositional material makes it a unique outlier of this new field.

Influences and predecessors

When I commissioned Schubert in late 2015, he suggested an internet-based website-score that members of the public could add to or edit. Schubert originally conceived this as a post-Cagean experiment, with chance processes and widely interpretable graphical content in the vein of John Cage's *Music of Changes* (1951), or *Concert for Piano for Orchestra* (1958). This work was distinct, however, in its extreme application of Distributed Creativity (borrowing Georgina Born's term) with thousands of online compositional contributors. There are relatively few precedents for audience participation in the composition process, including Adrian Piper's *Funk Lessons* (1980), which has similarities to improvisational theatre, Robert Ashley's *Public Opinion Descends upon the Demonstrators* (1961), where the performers use the audience's behaviour to generate their musical materials, and Johnny Parry's experiment in community composition and performance *Concerto Magnificent: An Anthology of All Things* (2012).

There are also a number of recent small-scale experimental compositional projects that use online or mobile technologies to crowd-source content including Oh and Wangs' *Tweet Dreams* (2011), Wu, Zhang, Bryan-Kinns and Barthet's *Open Symphony* (2016), a series of crowd-sourcing-based works by Joe Manghan as part of his doctoral research, and mobile-based crowdsourcing of materials for improvisation by Tin Men and a Telephone. Schubert, however, cited the

² For further biographical information, see www.alexanderschubert.net.

Marko Ciciliani, 'Music in the Expanded Field', Lecture at the Darmstädter Ferienkurse, 2016. Available at voicerepublic.com/talks/wide-is-the-new-deep (accessed 1 July 2019); Jennifer Walshe, 'The New Discipline', Blog on Borealis Festival website, 9–13 March 2016, www.borealisfestival.no/2016/the-new-discipline-4 (accessed 1 July 2019). I also use the term 'new interdisciplinary music' interchangeably with the two above. It should be noted that, although Schubert is often grouped into these categories, he rejects these labels as only useful for marketing. See Zubin Kanga and Alexander Schubert, 'Flaws in the Body and How We Work with Them: An Interview with Composer Alexander Schubert', Contemporary Music Review, 35/4–5 (2016), p. 537.

Georgina Born, 'On Musical Mediation: Ontology, Technology and Creativity', twentieth-century music 2/1 (2005), p. 7.

Judith Wilson, 'In Memory of the News and of our Selves: The Art of Adrian Piper', Third Text 5/16-17 (1991), p. 61. Rebecca Lentjes, 'Robert Ashley, Giordano Bruno, and The Infinity of the Everyday', Music & Literature, 6 February 2015, www.musicandliterature. org/features/2015/2/5/robert-ashley-giordano-bruno-and-the-infinity-of-the-everyday (accessed 20 December 2019).

⁶ Luke Dahl, Jorge Herrara and Cara Wilkerson, 'Tweet Dreams: Making Music with the Audience and the World Using Real-Time Twitter Data'. International Conference on New Interfaces for Musical Expression, Oslo, 2011, www.nime.org/proceedings/2011/nime2011_272.pdf,

primary inspiration for his work as being a non-musical project, the Reddit-based visual artwork, 'Place', in which online users could each change only one pixel at a time. 727,000 users took part, generating a widely varying tapestry of images, from national flags to a reproduction of the *Mona Lisa*. 8 Schubert saw this as 'something that can and should be also available in music'. 9

The website score of WIKI-PIANO.NET

The score is a website editable by any member of the public: a user name is required to make edits but users can remain anonymous (see Figure 1). There are 60 modules enabling users to add notation, select actions, write text, free drawing, and embed images, video, websites or sounds as well as combinations of these. ¹⁰ In addition, there are also the options to move and switch on/off modules, allowing the entire structure of the piece to be changed. After the launch of the score in March 2018 the public response was overwhelming, with the entire score changing on an almost daily basis. Any user is limited to ten edits in quick succession – this is intended to prevent single users from exerting too much control over the site – and the work is archived every minute, so a specific version can be chosen for the performance (this also allows some degree of control over objectionable content such as hate speech).

Categorising the content of WIKI-PIANO.NET

After the premiere in Esslingen, I gave 20 further performances of the work, at venues ranging from major festivals to small bars:

PODIUM Festival, Esslingen (Germany, 26 April 2018)
City, University of London (UK, 8 May 2018)
Klang Festival, Copenhagen (Denmark, 2 June 2018)
Darmstadt Summer Courses (Germany, 19 July 2018)
Huddersfield Contemporary Music Festival (UK, 17 November 2018)
Resonator Festival, Malmö (Sweden, 25 November 2018)
Free Range, Canterbury (UK, 7 February 2019)
De Montfort University, Leicester (UK, 13 February 2019)
University of Leeds (UK, 22 February 2019)
Royal Holloway, University of London (UK, 1 March 2019)
The Cube, Graz (Austria, 19 March 2019)
Ian Potter Southbank Centre, Melbourne (Australia, 10 April 2019)
Sydney Conservatorium of Music (Australia, 13 April 2019)

p. 272; Leshao Zhang, Yongmeng Wu and Mathieu Barthet, 'A Web Application for Audience Participation in Live Music Performance: The Open Symphony Use Case'. *International Conference on New Interfaces for Musical Expression*, conference proceedings, Brisbane, 2016, www.nime.org/proceedings/2016/nime2016_paper0036.pdf, p. 170; John Lewis, 'Tin Men and the Telephone: The Jazz Band You Control with a Smartphone', *The Guardian*, 23 August 2017, www.theguardian.com/music/2017/aug/23/tin-men-and-the-telephone-ronnie-scotts-tinmendo-smartphone-apps. Another recent case is Jennifer Walshe's opera, *TIME TIME (2019)*, whose duration is determined by the net entropy of the audience over time, measured using infra-red cameras. See also examples in Atau Tanaka, Nao Tokui and Ali Momeni, 'Facilitating Collective Musical Creativity', *Proceedings of the 13th Annual ACM International Conference on Multimedia* (New York: Association for Computing Machinery, 2005), pp. 191–8.

⁷ Private correspondence between Alexander Schubert and Zubin Kanga, 18 June 2017.

⁸ Antony Cuthbertson, 'Reddit Place: The Internet's Best Experiment Yer', Newsweek, 4 November 2017, www.newsweek.com/reddit-place-internet-experiment-579049.

⁹ Private correspondence.

¹⁰ See www.wiki-piano.net.

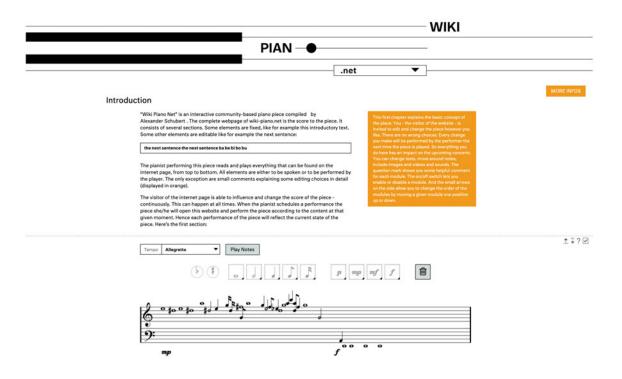


Figure 1: The website score of WIKI-PIANO.NET (excerpt)



Figure 2: Zubin Kanga performing WIKI-PIANO.NET at Huddersfield Contemporary Music Festival (Photo: Aaron Holloway-Nahum).

WA State Theatre, Perth (Australia, 24 April 2019) Queensland Conservatorium of Music, Brisbane (Australia, 26 April 2019)

Nonclassical Series, London (UK, 22 May 2019) Music and/as Process Conference, London (UK, 3 June 2019) November Music (Netherlands, 3 November 2019) Cambridge Music Festival (UK, 17 November 2019) Birmingham Conservatoire (UK, 3 December 2019) University of York (UK, 7 February 2020)

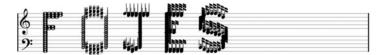
My typical stage setup for the performance, with keyboard sampler, piano, laptop on the piano and headset microphone, is shown in Figure 2.

There have been 24,973 edits to the score, by 801 unique users, from over 9,000 website visitors. ¹¹ In this article I will focus just on content featured in performances, a small subset of the huge range of contributions to the score. Grouping the content into categories and trends reveals many insights into internet culture and, more specifically, new music culture on the internet. As Schubert said after the premiere, 'I don't see the piece as being a toolbox, with which people can make a "great masterpiece", I see it more as an opportunity to observe the evolution of community behaviour and internet use.' ¹²

Statistics collected from WIKI-PIANO.NET site documentation (accessed on 31 December 2019).

Alexander Schubert interviewed in the Podium Festival documentary short on WIKI-PIANO.NET, 2018, www.youtube.com/watch?v=XDvPM5U1htw (accessed 10 January 2020).

Figure 3: Excerpt from *WIKI-PIANO.NET* (archive version on 26 April 2018)



1. Personal signatures of obsessive users

A small number of users spent many hours on the website, imprinting their identity into the score. A number of notable cases included:

- Arranging the notes in one of the music-notation sections to show their online name, 'FOJES' (see figure 3).
- Posting the website 'ask.fm/Stockhausen' in the feedback section ten consecutive times. The linked website allows the public to ask 'Karlheinz Stockhausen' a question of their choice.
- Writing the word 'Unless' at the beginning of a number of text sections, and in one version, filling the entire text box with 'Unless'. Unlike the other examples this content appeared repeatedly at least one instance of 'Unless' appeared in the work in every version between the April 2018 premiere and the Sydney performance on 13 April 2019, almost a year later.

It is notable that these three users were all from within the world of contemporary music: 'Fojes' has been identified as a young London-based new music pianist; the website was added by a user who knows Stockhausen's work well enough to create a parody page; and the 'Unless' user has been identified as a young Sydney-based composer, who cites Schubert as an influence. In every case Schubert's tracking of edits (and corresponding IP addresses) revealed that each user had spent many hours on the site in order to input these personal signatures into the score.

2. Nonsense and absurdist humour

As might be expected of a work edited by the internet public, much of the content consisted of playfully nonsensical content. This included:

- Actions that were impossible to execute, such as 'do nothing backwards'.
- Text made up of random characters or emojis.
- Notation arranged to look like a smiley face emoji.
- Text made up of real words that were largely grammatically coherent but surreally absurd, such as 'The only friends I ever had have stole my maple syrup, I fear, and hope my neighbour destroys his stupid car'. Many of these were probably the result of different users editing the same text module.

These contributions often added to the absurd humour of a performance, and were occasionally a site of almost-hidden crossreferencing with other modules.

3. Political content

There have been occasional 'political' images, such as the Palestinian flag with 'Free Palestine' written over it within the image matrix

module, or a hammer and sickle created within the 'painting' module. These have been rare, however, and became less common after the early performances, following a general trend for content within the work to be playful, humorous or absurd, rather than having serious intent.

4. Memes and in-jokes

Another dominant type of content was internet memes and other types of in-jokes, directed at a subset of the audience. They can be divided into three types:

The first type consists of pop culture memes and references. These included a video trailer of *Aladdin* (2019) featuring a blue, CGI Will Smith, that had been released online in the previous weeks. Another example was an instruction to scream 'You're tearing me apart, Lisa': a triple-reference to *The Room* (2003), a notoriously bad film, now a cult classic, *The Disaster Artist* (2017), a film dramatizing the making of *The Room*, and *Rebel without a Cause* (1955), the original inspiration for the line in *The Room*. These references to popular culture reveal an understanding of the demographics of particular audiences: in the first case, a group of undergraduate students, who would be very familiar with the social media ridicule of this thenrecent trailer; in the second case, composers attending the Darmstadt summer courses (a slightly older demographic, who would be more likely to be familiar with *The Room* and its cult-appeal).

Second are jokes and memes directed at an audience familiar with contemporary music. These included the video, 'Ferneyhough Disco Bonanza', which sampled Brian Ferneyhough's String Quartet No. 2, turning it into a mid-1970s disco track, accompanied by a video derived from the disco-focused film *Saturday Night Fever*, with Ferneyhough's portrait superimposed over John Travolta's face (see Figure 4). The humour of this juxtaposition required a recognition of Ferneyhough's face and his music. Neither would probably be familiar to a general classical music audience but at Huddersfield Contemporary Music Festival, which often features Ferneyhough's music, the audience could be expected to know both.

Finally, there are jokes and memes directed at a specific audience for a specific event, in which the users drew on their intimate knowledge of that audience to engage with them. Examples included:

- A video clip from the 1980s or early 1990s by Royal Holloway, University of London academics, offering comically outdated advice about anxiety in performance exams. This clip appeared in the performance at Royal Holloway for an audience of students, who would recognise the backdrop of the university and thus deduce that the video was intended for an earlier cohort of students.
- An image from the 2017 Huddersfield Contemporary Music Festival
 with accompanying text repeating the line 'Don't Go There'. This
 version also included the text 'Huddersfield Cuddersfield
 Muddersfied Fuddersfield', replacing the first letter of
 Huddersfield with each letter of the festival's acronym. These references appeared in my Huddersfield performance in 2018, the
 humour clearly directed at the festival audience.



Figure 4: Screenshot of 'Ferneyhough Disco Bonanza' uploaded to WIKI-PIANO. NET (archive version 17 November 2018).

5. Personal messages

Messages, instructions and references have been made to both Schubert and me. These included:

- Transformations of our names, including 'Alex Under the Shoe Butt', and 'Zuborn Krankyer is cool'.
- Directed messages to both Schubert and me. Schubert received comments ranging from straightforward compliments like, 'Great work, Alex!' to more strange or absurd messages like, 'THAnks you for this dear mr Schubert we offer u 7 free ceramic for you performance (nice for sound)'. I received several messages of admiration (genuine or parodying) such as 'His hair is so thick and his hands are so large' and the following, which riffs on an obscure (and in the original, obscene) 4chan meme,

Zycobin is so cute $omg(// \omega / /) / when you hold one in your hand and it starts twitching its like its nuzzling <math>you(/\omega \setminus)$ or when they perk up and look at you like' owo nya? :3c' hehe \sim Zycobi-kun is happy to see me!!

 Directed instructions, particularly in the 'action' modules such as, 'Zubin stands up' or 'Zubin flips his hair'.

In all these cases (similar to the meta-content, below) the users were engaging in a creative and critical dialogue with Schubert and me, turning the outwardly directed work back on its creators.

6. Music by other composers

Many of the users referenced the music of other composers. These included:

- Score Excerpts in the image modules, including Morton Feldman's Two Pianos (1957), Louis Andriessen's Workers Union (1975) and Salvatore Sciarrino's Piano Sonata No. 3 (1976) as well as graphic scores such as John Cage's Concert for Piano and Orchestra (1958) and graphical representations of works such sketches for Iannis Xenakis' Evryali (1975).
- Links to excerpts from musical recordings. These were often obscure, such as BBC's Sound Effects No. 4: Uncomfortable Silences (1971) featuring static and electronic noise, a recording of 11 hours of 'Night Time Forest Sounds', traditional Chinese music

- on a Guquin (a plucked Chinese string instrument), and the 'hold' music from HM Revenue and Customs.
- Live musical performance films, including many contemporary music ensemble performances including Ensemble Klang (Netherlands) performing Louis Andriessen's Hoketus (1976), and House of Bedlam (UK) performing Disappointment and Small Relief, Hospital Scenes (2016) by Joe Snape. There were also homemade videos of performances of more mainstream music that had been put online by YouTube users, such as a drumming student playing the opening drum fill for the Hawaii Five-O title theme, and a consumer synthesiser (Korg minilogue) cover of the Stranger Things title theme.
- Music videos from bands/popular musicians made multiple appearances, including Van Halen's 'Jump' (1984), Daft Punk's 'Da Funk' (1997) and The Knife's 'Pass This On' (2003). Manipulated music videos also made multiple appearances, including the video for David Bowie's 'Changes' (1973) with the repeated 'Ch' syllable multiplied with each iteration and Daft Punk's 'Around the World' (1997) video with the choreography played in reverse over the original track.
- Music from film soundtracks, ranging from the 'Stargate' sequence
 at the end of Stanley Kubrick's 2001: A Space Odyssey (1969) that features György Ligeti's Atmosphères (1961), to YouTube videos that
 include soundtrack music (either recorded on camera or added
 later), such as a video of a cat watching Alfred Hitchcock's Psycho
 (1960) with Bernard Hermann's score accompanying the cat's
 reactions.
- Diegetic music in film, especially 'live' performances within the films. These included a performance by Elvis Costello and Burt Bacharach of the latter's 'I'll Never Fall in Love Again' (1968) in Austin Powers: The Spy Who Shagged Me (1999), in which Powers dances onscreen beside the performers, and an improvised piano performance by Gerard Depardieu in Green Card (1990) from a scene in which his character impersonates a composer-performer; his playing is full of loud clusters and glissandi, a hyperbolic caricature of the high modernist piano music of perhaps Xenakis or Stockhausen.

In all these cases, the users were effectively composing by proxy, inserting music that would both appear in the work and require my engagement (either through imitation, juxtaposition or another complementary musical strategy). In many cases the sophisticated layering of texts (such as performances within films, or music videos played in reverse) also created deeper games between the user, me and the audience, games that went beyond the 'trainspotting' amusement value of simply including identifiable music.

7. Explicit content

There was surprisingly little sexualised content, but some types made an appearance: These included:

 Explicit language in the text modules, including directed text such as, 'FUCK YOU, FUCK YOU, FUCK YOU, PLEASE JUST FUCK YOURSELF, YOUR FUCKING SELF' and 'Stop fucking writing the same thing over and over' (which appeared in the feedback • Sexual images and videos, such as a sexually suggestive ASMR video featuring a young woman eating a banana, and a trailer for a TV show with a sex scene. Neither of these was pornographic, and the only instance of hardcore pornography was a link (in the 'website' module) to NudeLive.Net, a live pornography webcam site. However, at the time of the performance (at the 2018 Huddersfield Contemporary Music Festival) there was nobody broadcasting on the live camera, so there has been no pornography in performance versions of the work thus far.

The lack of hardcore pornography on the site can be attributable to the demographic of younger, liberal millennial/Gen-Z users, who might consider pornography insensitive, misogynistic or just too predictable. ¹³

8. Meta-Content

There have been several examples of meta-content, which comments on, or creates, score materials out of the performance (or past performances) of the work. These included:

- Meta-images, including the instruction to take a 'selfie' with the audience with my camera, thus integrating the audience into the work and its documentation. I was also referenced in images, with publicity portraits used in the image modules.
- Meta-videos, including clips from a publicity video for the first premiere in Esslingen (created by the festival, featuring interviews with both Schubert and me) appeared in several versions. A more complex pattern of self-referencing was found in the use of films of previous performances, played at precisely the same place in one of the video-with-notation modules. Thus the Esslingen premiere appeared onscreen in the Darmstadt performance, and that in turn appeared in the Huddersfield performance, with subtle variations in the notated accompaniment (see Figure 5). The video from the Huddersfield performance was then uploaded on several further occasions, creating four layers of simultaneous performance.

A final, more surreal form of meta-content was the bespoke reaction videos which used images, text and video content from previous performance videos, including images of Schubert and me combined into hallucinatory animated melting pots of WIKI-PIANO.NET-related images, sound and text (see Figure 6).

9. Trolling

The website composition process is intrinsically destructive: all new content writes over existing content. But a handful of early users took this to extremes. The most well-devised example was a user who replaced all the text, image and video modules on the website with a meme derived from *The Simpsons*, based on a scene where

¹³ See further discussion of the demographic makeup of users, below.



Figure 5: Nested videos in the HCMF performance on 17 November 2018 (with the performance films from Darmstadt and Esslingen onscreen).



Figure 6: Excerpt from reaction video, posted to *WIKI-PIANO.NET* (archive version 13 April 2019).

Principal Skinner serves his superintendent hamburgers rather than steamed clams (calling these hamburgers, 'steamed hams'). The meme often refers to deliberate deception and disingenuous contributions on the internet and in this case the user's actions could be interpreted as a direct criticism of the work, or could be seen as a form of 'shitposting' (aggressively filling a forum with off-topic content, a common use of this meme). ¹⁴ Although the change to the website was dramatic it was overwritten within 24 hours, as Schubert immediately predicted: 'wow – yes, the site seems to be taken by one user pretty badly . . . I think we'll need to get some other people to edit it: '.' This rare occurrence can be seen as a legitimate, extreme use of the website, but it raises questions about the ethical implications of leaving a site open to a single user who, with enough patience, can wipe over many weeks of content created by other users.

¹⁵ Correspondence with the author, 23 April 2018.

¹⁴ Further context see Anonymous authors (wiki), 'Steamed Hams', Know Your Meme, knowyourmeme.com/memes/steamed-hams (accessed 10 January 2020).

10. Collaborative composition

Although the work is built on collaboration between many anonymous users, some users actively communicated about their contributions, either working on sections together or comparing content and its appearances in my performance. These included:

- A Skype message group, who later contacted Schubert to discuss his opinions on their work.
- Posts within Facebook groups dedicated to classical music-focused memes. Comments on a post of a WIKI-PIANO.NET performance film included: 'Omg I got him to read dick pasta', 'That fucking bird video is my idea', 'I also added the YouTube classic "Let me borrow your top", and 'I spent two hours changing everything to "Chug a bottle of Smirnoff quickly". ¹⁶ All these comments seem to be directed at each other (rather than at the creators, or the general public), as an internal conversation within this private group, comparing content that they had posted, which in some cases had made it into my performances.

In both these cases the collaborative discussions were limited to a few days of activity and it is likely these were isolated cases, with most content posted on *WIKI-PIANO.NET* added by individuals who had no direct communication with other users.

WIKI-PIANO.NET as mirror for new music culture

Looking across the intentions and obsessions of these different types of contributions it is possible to draw a number of conclusions.

Demographics

The references and humour of much of the content suggest that the contributors were relatively young, with many closely connected to the contemporary music scene, either as composers, practitioners or audience members. This correlates with the data received from audience surveys: of the 25 who returned surveys, only one was over 35 and only two had no previous involvement in classical or contemporary music (as either practitioners or regular audience members). Given the relatively small sample size (out of almost 800 unique contributors), one must be wary in drawing firm conclusions about the demographics of the users, but the extreme skew of these results is supported by the evidence of the content. Thus the score contributions can be (potentially) viewed as a portal into the culture of young contemporary music on the internet.

'High' and 'low' culture

In a work that is inherently intertextual it is unsurprising that much of the content uploaded was highly referential, ranging from popular culture to very specific references to high modernist contemporary music. This confirms *WIKI-PIANO.NET* as a prime postmodern work that 'close[s] the gap ... between high and low art forms ...

These comments were in response to one of the WIKI-PIANO.NET concert films, posted to the facebook group '4'33" Dangerposting' on 27 May 2018. This is a selection of the 22 comments, and this is one of several posts within this group about the piece.



Figure 7: Image posted to WIKI-PIANO.NET (archive version 9 May 2018)

through the ironizing of both'.¹⁷ There was also a sophisticated crossing of the cultural divide by some users, such as the 'Ferneyhough Disco Bonanza' mix, or the meme shown in Figure 7, which requires a knowledge of Stockhausen's oeuvre to understand the pun.

The Work as meme complex

The work's modules each attracted a wide variety of memes and the transformation of content over successive versions of the score parallels the method of propagation of memes on social media where, according to Limor Shifman, editing and adding to content, rather than merely sharing it, are markers of memetic (as opposed to viral) success. 18 Shifman's model also explains the several modes of meme humour commonly found in the score. He cites three types of memetic humour: playfulness (where the content is an overt game or joke, that invites other users to take part), incongruity (often between audio and visual information) and superiority (which involves comic competitiveness, with a spirit of oneupmanship between participants, and also scornful imitation of content they consider inferior). 19 All are found repeatedly in the score, with examples including the emoji constructed from musical notation (playfulness), the combination of a pointillistic score and video of a man in a dog costume bouncing on balloons (incongruity), and the

¹⁹ Shifman, Memes in Digital Culture, pp. 79-81.

¹⁷ Linda Hutcheon, A Poetics of Postmodernism: History, Theory, Fiction (New York: Routledge, 1988), p. 3.

¹⁸ Limor Shifman, Memes in Digital Culture (Cambridge, MA: MIT Press, 2014), p. 56.

piano performance scene from *Green Card*, that is both a relatively obscure film reference and a mocking of contemporary piano writing (superiority). Perhaps this work composed of memes provides a model for a memetic analysis of other interdisciplinary music by single composers, where similar techniques of humour and memetic editing of cultural references can be found in abundance.

New music humour

Given the demographic of most users we can view the humorous content as a window into the comedic sensibilities of the new music scene. The humour was often directed at a contemporary music-literate audience, and Shifman identifies the use of in-jokes and directed memes as one way in which subcultures mark out their online space, drawing on knowledge that is specific to their community. As he explains, 'as public discourse, meme genres play an important role in the construction of group identity and social boundaries'.²⁰

Much of this humour came from its complex intertextual and reflexive qualities. Many videos featured multiple layers of cultural content and context, from the meta-performances featuring past WIKI-PIANO.NET performance films, to the cat watching Psycho accompanied by the film score, and the performance of Burt Bacharach within an Austin Powers film. My own performance strategies amplified these intertextual and subculture-focused games of amusement and added new ones. Even relatively 'straight' material, such as the 'Stargate' sequence from 2001: A Space Odyssey gained humour from my rough attempts to imitate Ligeti's original score on the piano.²¹

Ego over collective creativity

Close collaboration on single modules was unexpectedly rare, especially in comparison to the 'Place' project that inspired the work. Most of the content was aimed at making an individual mark, sometimes in extreme ways, such as the 'Unless' and 'Fojes' users. Most of the collaborative discussions on the Facebook/Skype pages were comparisons of content, with competitive one-upmanship more prevalent than cooperation. These trends suggest that individual identity was more important to the users than collective effort, although this can partially be attributed to the much broader options for editing and adding content in WIKI-PIANO.NET, rather than the one-pixel-at-a-time 'Place' interface.

However, the structure and size of the work moderates and diminishes the individual impact of these compositional 'selfies' into something else. As Stanyek and Gopinath point out, in online collaborative projects there is a mismatch between the individual users' perception of their contribution and their actual control over the result, something also demonstrated in Eric Whitacre's 'Virtual Choir', made up of carefully edited recordings/videos sent in by amateur singers. ²² Stanyek and Gopinath use the term 'Otherie' to refer to

²⁰ Shifman, Memes in Digital Culture, p. 100.

²¹ My strategies for performance are explored in more detail in a separate forthcoming article.

this crowdsourced portrait that is curated and controlled by a single, more powerful, author. ²³ This term (though awkward) is applicable to *WIKI-PIANO.NET*, where the work both facilitates an egotistical, competitive approach, while also subsuming these approaches into a single work under the control of the interpreter-curator-pianist, making them collaborators by design, rather than choice.

Interdisciplinary music's appetite for popular entertainment

Ciciliani has noted younger composers' simultaneous embrace and critical observation of pop culture²⁴ and Walshe has cited the influence of pop culture on contemporary music, suggesting that the preconditions for The New Discipline include 'MTV, the Internet, Beyonce ripping off Anne Teresa De Keersmaeker, Stewart Lee, *Girls*, style blogs and yoga classes at Darmstadt ...'.²⁵ The result of these wider cultural conditions, and the omnivorous cultural appetite of new interdisciplinary musicians is that this quintessentially postmodern discipline is actively engaged with popular culture, subsuming it into their own authorial frame. *WIKI-PIANO.NET* exemplifies this tendency, with an omnivorous appetite for a huge range of popular culture content, references and content-manipulation techniques (including memes) that nonetheless combine to create a work that young Darmstadt composers described as 'a typical Alexander Schubert work'.²⁶

Composer-performer power dynamics

In many of the more extreme action instructions, and in the use of explicit text, users seemed to be revelling in their (apparent) ability to exert enormous control over the performer. Action modules, in particular, were the site for mildly sadistic and sometimes selfcontradictory instructions. I've experienced this type of joy-of-control frequently in my workshops with composers (including educational projects with school-age composers who are often gleeful in their apparent power to make an adult act in ridiculous ways). Some professional composers also enjoy this power dynamic and, as Alex Temple observes, these situations can become dangerously unhealthy and exploitative.27 In WIKI-PIANO.NET, the audience-users' exploitation is an illusion: I actually have a high degree of control and agency over the work, and my 'control' by the audience-users is highly curated and filtered through my own interpretative lens. But the fact that the audience is drawn to this exploitative power dynamic suggests that the anonymity of the internet draws out this type of behaviour from many online users (and would-be composers), allowing

Gopinath and Stanyek, 'Technologies of the Musical Selfie', p. 93.

Walshe, 'The New Discipline'.

Audience members (all composers attending the Summer Courses) in conversation with the author after the Darmstädter Ferienkurse performance on 18 July 2018.

²⁷ Alex Temple, 'Composers, Performers and Consent', New Music Box, 24 November 2015, https://nmbx.newmusicusa.org/composers-performers-and-consent/ (accessed 12 January 2020).

²² Sumanth Gopinath and Jason Stanyek, 'Technologies of the Musical Selfie', in The Cambridge Companion to Music in Digital Culture, ed. Nicholas Cook, Monique Ingalls and David Trippett (Cambridge: Cambridge University Press, 2019), p. 107.

²⁴ Ciciliani, 'Music in the Expanded Field', p. 26. For perspective, Rutherford-Johnson has discussed the ways in which the new digital media and marketing landscape have affected contemporary musicians, ranging from those attempting to embrace new audiences, to those making a point of resisting these marketing methods and attempts at popular appeal; see Tim Rutherford-Johnson, *Music After the Fall* (Oakland: University of California Press, 2017), pp. 38–42.

them a sense of power and control over a public performance that isn't possible in most other concert situations.

The creators as content

Sanne Krogh Groth has written about the New Discipline phenomenon of composers appearing in performances of their work, a presence that is non-transferable and inextricably linked to the other content, unlike with conventional scores.²⁸ In discussing this phenomenon, Shlomowitz cites Schubert as one who does not appear in person but in projected videos within performances.²⁹ It is notable that in almost every performance version of WIKI-PIANO.NET, Schubert and/or I have been included in the work through images and videos of us and in messages directed to us. The editable score may seem to erase our authorial identity, but this is re-asserted by the online composers, embedding us as content into the score. The result is another point of similarity with Schubert's other work, achieved not through his input but as a result of anonymous online contributors. These users reverse Stanyek and Gopinath's concept of the 'Otherie', with the internet community turning the work into a musical selfie, not of themselves but of Schubert and me.

The audience as composer as audience

Much of the content in WIKI-PIANO.NET breaks down traditional separations between audience and composer in extreme ways. The open nature of the score might invite an interpretation of the work as a literal manifestation of the 'Death of the Author', where Schubert's and my authorship is rendered irrelevant by the audiencecomposers, who in some cases direct their content towards specialised subcultures or just to themselves (especially in the case of more obscure memes or coded messages uploaded to the score).³⁰ One might question the point of having this solipsistic content performed on stage at all, when composer and audience are the same person. Yet it is the very idea of the author's death that allows the content to be intriguing for a wider audience. As Kramer notes, 'the demise of the notion that the textual unity of music is intimately related to the experiential unity of listening suggests that we should be sceptical of the relationship between the composer and the music'. 31 The content itself might be solipsistic but the work's effect of distancing the content from the user, as well as the effect of my own authorial voice on the interpretation of all the content, allows this material to become ironic and to be viewed as an entertaining insight into the internet behaviour that attempts a humour of superiority through the obscurity of users' references and codes. The website content is not the content of the work and the distance between the audience's perception of their compositional input, and the transformation of these diverse contributions into a coherent performance, is what makes this content not just relevant, but fascinating to a wider audience.

²⁸ Sanne Krogh Groth, 'Composers on Stage: Ambiguous Authorship', Contemporary Music Review 35:6 (2016), p. 694.

Matthew Shlomowitz, 'Where Are We Now?', TEMPO 72, No. 285 (2018), p. 73.
 Roland Barthes, 'The Death of the Author', in *Image-Music-Text*, trans. Stephen Heath (New York: Noonday, 1977), p. 146.

³¹ Jonathan D. Kramer, Postmodern Music, Postmodern Listening, ed. by Robert Carl (New York: Bloomsbury, 2016).

A network of interdisciplinary composition

WIKI-PIANO.NET takes to new extremes the criteria set forth by Seth Kim-Cohen for an expanded sonic practice, a truly interdisciplinary music:

An expanded sonic practice would include the spectator, who always carries, as constituent parts of her or his subjectivity, a perspective shaped by social, political, gender, class, and racial experience. It would necessarily include consideration of the relationships to and between process and product, the space of production versus the space of reception, the time of making relative to the time of beholding ... Nothing is out of bounds.³²

The work achieves all these aims not through compositional control, but by opening the doors of the score to thousands of website visitors, creating an ideal vessel for the anonymous internet public to fill with their own diverse ideas and experiences. The similarities to other works of The New Discipline suggest that the genre is underpinned by a deep understanding between composers of the genre and their audiences. This mirror held up to the internet public is also a mirror held up to the genre itself, with the same obsessions, quirks, and weaknesses.

If, as Georgina Born has argued, all music is a product of social, material and temporal distribution of creativity, then scholars of new music can use *WIKI-PIANO.NET* to cast new light onto distributed creativity. ³³ If a work of such extreme distribution can be rendered coherent in performance, perhaps all works can be seen as similar illusions, apparently singular in voice yet hiding a messier, distributed construction. As Lydia Goehr points out:

We see works as objectified expressions of composers that prior to compositional activity did not exist. We do not treat works as objects just made or put together, like tables and chairs, but as original, unique products of a special, creative activity. We assume, further, that the tonal, rhythmic and instrumental properties of works are constitutive of structurally integrated wholes that are symbolically represented by composers in scores. Once created, we treat works as existing after their creators have died, and whether or not they are performed or listened to at any given time. ³⁴

WIKI-PIANO.NET demonstrates the myth of sole authorship by showing the coherence of its extreme opposite. But this coherence is only realised through the interpretative frame of a performer who treats each iteration of the score as though it was the product of a singular vision, whether it is actually the work of a single composer or hundreds. At the centre of this massive compositional web, I am both the captive of its maelstrom of creativity and its master.

³² Seth Kim-Cohen, In the Blink of an Ear: Toward a Non-Cochlear Sonic Art (New York: Continuum, 2009).

³³ Born, 'On Musical Mediation', p. 7.

³⁴ Lydia Goehr, The Imaginary Museum of Musical Works: An Essay in the Philosophy of Music (Oxford: Oxford University Press, 1992), p. 2.