Performing WIKI-PIANO.NET Strategies for Realizing Alexander Schubert's Ever-Changing Internet-Composed Piano Work

MUSIC AND SOUND ART

This article explores strategies for interpreting Alexander Schubert's *WIKI-PIANO.NET*, a composition commissioned and performed by the author in an international tour in 2018 and 2020. Schubert's score is a website, all sections of which can be edited by the public, similar to a Wikipedia page. The author's strategies for interpreting the huge range of content added to the website-score draw upon Schubert's suggestions, the interdisciplinary rigor advocated by Jennifer Walshe, Henri Bergson's theories of comedy and the author's own experience as a composer-performer. These strategies are devised so that, despite the hundreds of compositional contributors, in performance, the final piece is perceived as an "Alexander Schubert work."

This article explores the development of strategies for interpreting *WIKI-PIANO.NET* for piano and Internet by Alexander Schubert, a work I commissioned and premiered in April 2018. These strategies were first developed collaboratively with Schubert and then extended in complexity and variety in response to the increasingly varied content of this constantly changing work [1]. The work presents the performer with particular challenges, and the resulting strategies reveal new perspectives on the role of performer and the nature of authorship in contemporary music.

Alexander Schubert is one of Germany's leading composers. His work uses and responds to digital media and Internet culture, subverting stage conventions to create masterful and innovative interdisciplinary works [2]. Schubert's output can be considered central to the development of a new type of interdisciplinary music since 2010. Identified by Marko Ciciliani as "Music in the Expanded Field" and by Jennifer Walshe as "The New Discipline," this new interdisciplinary genre draws influence from the earlier interdisciplinary "music-theatre" works of Mauricio Kagel and Karlheinz Stockhausen, as well as from post-Internet culture, contemporary video art, postmodern cinema, improvisational performance theater, stand-up comedy, video gaming and cyborg aesthetics [3–5].

See https://direct.mit.edu/leon/issue/54/2 for supplemental files associated with this issue.

WIKI-PIANO.NET encompasses many of these different disciplines and aesthetic elements, but the method of its composition makes it an outlier in this new field, which requires a specific type of "discipline" to interpret.

INFLUENCES AND PREDECESSORS

Schubert originally conceived of WIKI-PIANO.NET as a post-Cagean experiment with chance processes and abstract graphic scores, in the vein of Cage's Music of Changes (1951) or Concert for Piano and Orchestra (1958). However, this work ended up not as a game of chance but as an experiment in extreme distributed creativity (borrowing Georgina Born's term), with hundreds of online composers making thousands of edits to the website-based score [6]. Although there are a few musical precedents involving audience participation in the composition of a work—such as Adrian Piper's Funk Lessons (1980) and Robert Ashley's Public Opinion Descends upon the Demonstrators (1961) and a few recent small-scale, technologically driven experiments in collaborative composition, including Oh and Wang's TweetDreams (2011) and Wu, Zhang, Bryan-Kinns and Barthet's Open Symphony (2016)there are no musical precedents at the scale and level of public engagement of Schubert's work [7,8].

Schubert cited a nonmusical work as his primary inspiration: the Reddit-based visual art project *Place*, in which online users could each change only one pixel at a time [9]—27,000 users took part in a work that generated a widely varying tapestry of collaboratively generated images [10]. Schubert commented to me, "I see it as something that can and should be also available in music" [11].

THE WEBSITE SCORE OF WIKI-PIANO.NET

The score of *WIKI-PIANO.NET* is a website that is editable by any member of the public; a username is required to make edits, but users may remain anonymous, as they can in Wikipedia. (See Fig. 1, which shows the top of the *WIKI-PIANO .NET* home page, including the login box and introduction.) There are 60 movable modules within the site/score, including sections for notation; instructions for actions; embedded

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Fig. 1. The top of the website for WIKI-PIANO.NET. (© Alexander Schubert)

images, video or sound; text to be spoken or displayed on a screen; and assorted combinations of these actions [12]. Further explanation of the website score can be found in Appendix 2 in the online supplemental files.

THE ROLE OF THE PERFORMER

As Born, Clarke, Östersjö and I (among many others) have previously demonstrated, complex distribution of creativity between composers and performers can be found in conventionally notated works [13]. But *WIKI-PIANO.NET* has many more layers of complexity of creative distribution—between the composer, the website programmer, the hundreds of

online contributors, and myself, as the performer of this constantly changing content (in a process created afresh with each performance). All these layers together form a massive web of influence and control.

There are huge gaps for my interpretive input to fill—from realizing chaotic music notation to creating compositional responses to images, text and video. Schubert and I shared similar goals for any interpretation: We agreed that, despite the wide variety of content, each performance needed to be tightly structured and coherent (internally and across all versions) and have a compelling dramatic arc [14]. And we both agreed that despite the constantly varying content, each interpretation needed to have an aesthetic kinship with Schubert's other works—it needed to look and sound like an "Alexander Schubert work."

THE COLLABORATIVE DEVELOPMENT OF THE FIRST INTERPRETATION

Before the PODIUM Festival premiere in Esslingen, Germany, on 26 April 2018, Schubert and I spent 11 hours over two days collaboratively preparing the first interpretation of the work using the minimal tools we had devised: a piano, a keyboard sampler and my voice (shown in Fig. 2) [15]. This collaborative interpretation of the score as it appeared on that day became a starting point for my own future sole-created interpretations.

Despite the intrinsically uncontrollable nature of the score, Schubert was interested in controlling and shaping it just like



Fig. 2. Alexander Schubert and Zubin Kanga rehearsing for the first performance in Esslingen, Germany. (© Zubin Kanga. Photo: Steven Walter.)

his most precisely notated works. He provided a set of keyboard samples (mainly drones and other familiar electronic sounds), devising mappings of sounds to types of text and action; he compared these tools to those used in a *horspiel* (radio play). He also suggested that I create a "cheat sheet" of my interpretive decisions, to facilitate fluency between modules and precision of execution [16]. Many of the interpretive devices we conceived in this rehearsal I reused in subsequent performances, including the following:

- The opening text is addressed to the audience without accompaniment;
- most text boxes are accompanied by long sounds or drones;
- "philosophical" text (relatively speaking) is accompanied by an organ chorale;
- actions are accompanied by a rotating propeller sound; and
- the feedback is always accompanied by a crescendo using a literal feedback sound.

These devices all create coherence by categorizing widely varying input materials and mapping a single sound to each, thus exaggerating the similarities between seemingly diverse content. Schubert's strategy was not just to create internal coherence but also to create an aesthetic coherence with



Fig. 3. Zubin Kanga performing *WIKI-PIANO.NET* in Sydney, 13 April 2019. (© Zubin Kanga. Photo: Chris Hayles.)

his other works. These tools provided a starting point for interpreting the many versions of the piece I would subsequently encounter and, more significantly, demonstrated to me Schubert's priority of extreme control of interpretation and execution to interpret this seemingly out-of-control score.

THE PERFORMER'S STRATEGIES FOR INTERPRETATION

Including the premiere, I have toured the work in 22 performances across seven countries, from major festivals to club venues (listed in supplemental Appendix 2); and many future performances are planned. A photo from the Sydney performance is shown in Fig. 3.

There have been 26,942 edits to the score, by 920 unique users from among more than 10,000 website visitors [17]. Contributions to the score have been extremely varied, with users posting memes, references to other music, musical jokes, absurdist humor, explicit content, meta-content and messages directed at myself and Schubert [18]. The strategies described below were developed over the first 18 months of touring the work, with new strategies still being added in response to the ever-evolving work.

Despite Schubert devising the first interpretation as a kind of aesthetic template, the huge variety of input over the next 20 performances, the fast turnaround of realizations (usually with 24 hours of preparation time) and the need for aesthetic coherence (within the work, between realizations and with Schubert's other work) required me to devise many more complex strategies. My compositional engagement drew on techniques found across composers of The New Discipline, including its use of humor, play of multilayered intertextuality, abrupt changes in tone, and mastery of simultaneous musical, theatrical and multimedia performance. My own experience as a performer and composer of interdisciplinary works was also key, and the strategies I generated exist in tension between my musical aesthetic and Schubert's.

Curation of Duration

Although the order of the modules cannot be altered in performance, their duration is entirely under the pianist's control—videos and text can be truncated simply by hitting the pedal, moving immediately to the subsequent section. This curatorial choice allows significant compositional control over content based on my perception of their relative interest to the audience.

Variation of Actions

In the section shown in Fig. 4, users choose a sequence of 24 actions from six options via a drop-down menu; the wording of these actions is determined by users in an earlier module. My strategy is to choose a balance of physical actions, musical phrases and verbalizations to produce a varied set of content that maintains interest despite many repetitions. In Fig. 4, the obviously nonverbal actions—"perform sign language" and "stare at audience"—propelled me to choose gestures mixed with verbalizations for "order cocktail" and "interject politely," saying "gin martini?" and "excuse me"

perform these actions extremely rapidly:			
perform sign language 🗸 🗸	stare at audience	•	order cocktail 🗸
order cocktail 🔻	order cocktail	•	interject politely 🔻
order cocktail 🗸	order cocktail	•	order cocktail 💌
regret 🗸	perform sign language	•	perform sign language 🔹
stare at audience 🗸 🔻	order cocktail	•	order cocktail 🗸
order cocktail 🗸 🗸	tilt head left right	▼	perform sign language 🗸 🔻
tilt head left right 🗸 🔻	order cocktail	•	perform sign language 🗸 🗸
order cocktail 🔻	order cocktail	•	tilt head left right 🔹

Fig. 4. Matrix of actions from London performance, 8 May 2018. (© Zubin Kanga)

while appropriately gesturing with one hand, even though nonverbal interpretations of these instructions would be possible. The varying approaches help to distinguish the individual actions, allowing the audience to recognize when they reappear in other modules. I employed deadpan delivery and exaggerated, mechanical gestures to create a cyborg aesthetic similar to that used in Schubert's *Codec Error* (2007) as well as to those used in other New Discipline works such as Matthew Shlomowitz's *Letter Pieces* (2007–2015).

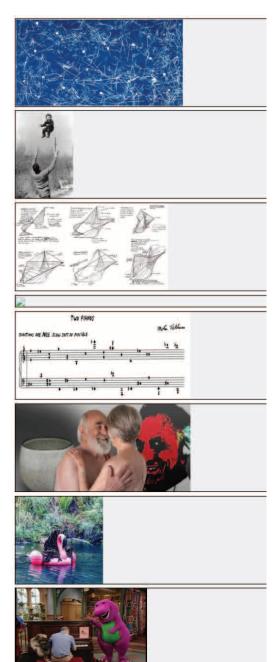
Varied Interpretation of Images

The module with a sequence of images could easily have been just used as stimuli for improvisation, but I found that more careful categorization and planning allows for greater variation. Strategies along these lines include:

- playing any written notation as accurately and as literally as is feasible (e.g. the Morton Feldman excerpt in Fig. 5);
- interpreting abstract patterns and images as graphic notation (e.g. an all-piano cluster over the NASA image of a black hole);
- employing humorous musical references to parts of the images (e.g. the quotation of Debussy's *Claire de Lune* with an image containing a moon); and
- using humorous references to other music (e.g. quoting "Darth Vader's theme" from *Star Wars* to accompany the satirical political candidate, Lord Buckethead).

This variety of approaches creates suspense and resulting humor by playing on the audience's expectations as they see each image and then hear an interpretation that might mimic, comment on, or exaggerate its content. The approach also allows for strengthening of inherent intertextual references as well as layering on new ones, with the audience engaged by the rapid game of musical trainspotting.

> Fig. 5. Excerpt from the sequence of actions from the Huddersfield Contemporary Music Festival performance, 17 November 2018. (© Zubin Kanga)



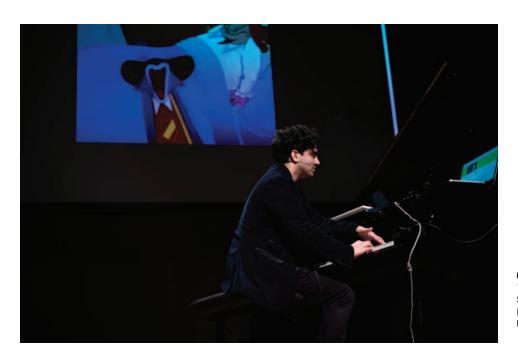


Fig. 6. Performing with the Tom and Jerry compilation, Sydney, 13 April 2019. (© Zubin Kanga. Photo: Chris Hayles.)

Further Mappings of Sound to Text Categories

Building on Schubert's mapping of text categories to drones, I developed several additional strategies, including

- layering additional drones for each phrase of a long text passage;
- using piercing sound effects (including beeps and old stock "computer sounds") for a single nonsense speech or emoji section; and
- matching speech and piano rhythms for one of the structured text sections, in a mode similar to that employed in Peter Ablinger's *Voices and Piano* (1998–) works.

This typology provides easily repeatable yet malleable strategies that balance variety and musical interest. In all strategies, I maintain the deadpan delivery of text developed in the first interpretation, creating humor from the serious, almost mechanical presentation of website text that is often garbled or surreally disjointed.

Direct Imitation of Video Image or Sound

Like the images discussed above, videos uploaded to the website can be treated like graphic scores. I can interpret them by tracking the movement of an image around the screen—for example, mirroring the ascent, stalling and rapid descent of a plane crashing using fast glissandi. Or I can imitate the sounds on the screen (users can choose whether videos play with or without sound). For example, to interpret a compilation of *Tom and Jerry* cartoons with Tom screaming in terror, I used tremolos at a variety of pitches (see Fig. 6), a type of "Mickey Mousing" that creates associations with other cartoon and comedy soundtracks, where this technique of kinesthetic imitation is prevalent. As with the images, the direct mapping of image to sound is engaging for the audience through the short-term suspense and payoff and the slapstick incongruous juxtaposition of a concert pianist imitating cartoon sound effects.

Composed (or Re-Created) Soundtrack to a Film Excerpt

I use more sophisticated approaches to interpret videos in cases where users have uploaded excerpts from classic films. In response to an excerpt from the final "Stargate" sequence from Stanley Kubrick's *2001: A Space Odyssey* (1969), I developed a musical response resembling the original soundtrack featuring György Ligeti's *Atmosphères* (1961): the dense or-chestral, micropolyphonic orchestral textures condensed down into a similarly complex chromatic piano texture. This approach allows for a seemingly complex balance between graphic score interpretation and film music re-creation, while also being efficient to prepare.

Re-Creation/Rearrangement of a Filmed Performance or Music Video

A more sophisticated approach is brought to bear on filmed musical performances or music videos. In each case, I arrange the work for piano, sometimes doubling and sometimes complementing the music on the video, and sometimes singing along with a vocal line in a quasi-karaoke style. Examples included the title theme from *Stranger Things*, the music video for "Pass This On" (2003) by Swedish electropop duo The Knife and a diegetic performance of Burt Bacharach's "I'll Never Fall in Love Again" from *Austin Powers: The Spy Who Shagged Me* (1999), shown in Fig. 7. In all these cases, the close imitation of the music video is engaging and humorous to the audience in itself; that a seemingly random piece of music from popular culture is enacted by the pianist adds an element of surprise.



Fig. 7. Performing with Elvis Costello singing Burt Bacharach's "I'll Never Fall in Love Again" from the Cambridge Music Festival performance, 13 November 2019. (© Zubin Kanga. Photo: Marc Gascoigne.)

Humorous Musical References

Another relatively sophisticated strategy is the deliberate insertion of humorous musical references in response to videos. In one case, I accompanied a sexually provocative film clip with a bossa nova—a 1970s adult film music cliché. In another case, a scene from the satirical British show *Brass Eye*, I accompanied a fake news clip about a massive crime outbreak across the U.K. with Elgar's "Land of Hope and Glory." The videos would be humorous on their own, but music is used to heighten the hyperbolic qualities of the videos and exaggerate their comic effects.

UNIFYING FEATURES OF THE INTERPRETIVE STRATEGIES

A number of unifying features of my final interpretation can be observed across all these different approaches, maintaining coherence within each performance, consistency of quality across performances and an aesthetic kinship with Schubert's other works, despite the huge variation in content.

Expanded Intertextuality

The score facilitates many types of intertextual referencing from diverse sources, ranging from the classical music canon to popular cinema to audience-specific memes—a type of post-Internet postmodernism that is distinct from previous forms [19]. This joining together of "high" and "low" art is particularly characteristic of Schubert's work, and my performance plays with these combinations [20].

Interdisciplinary Virtuosity

Walshe's use of the term "The New Discipline" is not just a definition of a genre but is also a manifesto for an approach to interdisciplinary music-an approach that calls for a rigorous mastery by musicians of many other artistic disciplines; such a mastery can be found across Schubert's other multimedia works, including Codec Error (2017) and Star Me Kitten (2015) [21]. My interpretive strategies combine many musical and nonmusical disciplines simultaneously, including voice acting, singing, physical theater, comic timing, imitation of a range of musical genres, control of electronic sound, improvisation around graphic notation and tight synchronization with video. The interpretations thus exemplify the "discipline" implied by Walshe's term, requiring a precision and virtuosity in both composition and performance, even though the score itself can be chaotic and incoherent. But whereas Walshe envisions the composer exerting this control, in WIKI-PIANO.NET the performer must generate this discipline anew in each interpretation.

Humor

Another feature of The New Discipline that I utilize is humor, creating comedy through imitation as well as juxtaposition.

My strategies chime with Henri Bergson's essay *Laughter* (1900), in which he emphasizes that "the attitudes, gestures and movements of the human body are laughable in exact proportion as that body reminds us of a mere machine" [22]. The reproduction of familiar music, the mechanical reproduction of text on the website and the crude imitation of image and video are all comic in precisely this way, creating the perception for the audience that I am utterly at the mercy of a website, even when this effect has been carefully crafted and designed.

Bergson's theories can also account for the work's contemporary music-focused humor and my relationship with the audience: "Laughter appears to stand in need of an echo ... like thunder in a mountain. This reverberation ... can travel within as wide a circle as you please: the circle remains, nonetheless, a closed one" [23]. My recomposition and performance of the audience-derived content closes the circle for the audience: The humor and engagement comes not just from seeing their content appear in the work but also from seeing it transformed into something far beyond their expectations.

CONCLUSIONS

Despite attempts by some users to steer the work in extreme directions, my strategies were largely successful in facilitating performances that were internally consistent as individual versions, as well as aesthetically consistent across all versions. These realizations were successful with audiences and critics, including one who described it as ranging "from the beautiful to the sublime, and from the absurd to the comedic . . . a rewarding experience" [24].

The close correlation between my strategies and Schubert's original vision was confirmed when a group of young composers in the audience for a performance in Darmstadt, Germany, deemed it "a typical Alexander Schubert work" [25]. This finding mirrors the results of my collaboration with composer David Young on his *Not Music Yet* (2012); his score consisted of a large watercolor painting. Despite the great freedoms I had in interpreting the work, my understanding of his aesthetic and influences resulted in a performance that he could recognize as "a David Young piece" [26]. In both cases—the Schubert performance and the Young performance—this perception disguises a web of tensions between the composer's aesthetic and my own. In *WIKI-PIANO.NET*,

my realizations are not "Alexander Schubert works" as much as they are a reflection of my own interpretation of Schubert's aesthetic.

The audience's participation in the creation of each version of *WIKI-PIANO.NET* also creates a new type of space for interaction between performer and audience. Whereas the public perceive themselves as authors, and me as their humorous web-controlled automaton, their contributions merely change the details of the space I have to explore in enacting a singular aesthetic vision. The content of the website is secondary, because the work's identity resides in the interpretive strategies.

Although the strategies and techniques I employ are common to the arsenals of many contemporary music performers, what is required of me in interpreting *WIKI-PIANO.NET* goes beyond this repertoire of performance practice toward forming and protecting a shared aesthetic vision of the work. I have increasingly assumed the role of composer-curator from Schubert, with my conception of our initially shared taste and understanding of the work maintaining the coherence across many performance versions [27]. Bruce Benson's model allows for a fresh perspective on the rich web of dynamic relationships in this process:

If we say (modifying Heidegger) that a piece of music opens up a world, it should be clear that this "world" of the piece of music is one that is not self-contained. Rather, it is a world within a world, a musical space that is created *within* and *out of* a larger musical practice. Moreover, just as the world of Dasein is not a *physical* world but a world of activity, so the piece of music is likewise a world of activity. It is a "space" that is both created by and allows for musical activity. But what does it mean for a performer to exist within this space? . . . If composers improvise their pieces amid the activity of music making, then performers are *already there* [28].

WIKI-PIANO.NET is not just one world to inhabit but a multiverse in which each possible world exists for only one performance. The performer cannot just *be* in each new world but must work to connect and build each world out of the rich and chaotic content that the Internet community provides on a given day—so that each possible realization is recognizably related, not just through the composer's original conception, but through the vision of the performer.

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