

Audience Interaction and AI in Classical Concerts

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Abstract—The format of classical music concerts has been codified over a long period of time. The roles of the various parties involved, such as performers and the audience, are well established as well as the behaviours and rituals surrounding the performance. In this contribution we challenge the status quo and present the experiences of an interactive classical music concert. We introduce new elements such as audience interaction and new compositions created with the help of AI tools, also aimed at preserving core elements of the traditional format so as to carefully balance established expectations of the target audience and innovative impetus. The framework, consisting of digital music stands where the music scores were streamed in real-time is presented. The technical requirements are described, together with decisions taken during the compositional process, as well as practical considerations crucial for the preparation of this concert. We also present a survey conducted on the audience after the concert that helps to better understand the strengths and shortcomings of this experience and guide the design of future events. The feedback on the concert was generally positive, encouraging its further adoption and development.

Index Terms—Audience Interaction, Classical Music Innovation, AI Co-Creation, Networked performances

I. MOTIVATION AND STATE OF THE ART

Traditional music organisations, such as theatres and orchestras, have long faced the challenges of stagnating or diminishing audiences. Concert organisers are looking for new and innovative ideas to make classical concerts more attractive to a wider range of potential concert-goers, especially for a younger audience [1].

The emergence of a “participatory culture” [2], together with the shift in social expectations, has prepared the ground to explore new forms of audience engagement, as well as music creation and performance. Traditionally, the established model of live performances has positioned the audience as a collective of passive receivers while the performers were the sole producers of content largely predetermined beforehand (e.g., by the composer). Throughout the years, various attempts have been made to establish a more dynamic and collaborative model, in which the audience becomes active participants in the “musicking” [3] process. Interaction and participation in this context are not uniquely-defined terms, and there can be many different interpretations. For example in [4] the

authors reflect on three different approaches and solutions they have implemented in their practices when dealing with non-linear music. The authors have identified as sources of non-linearity in their practices: (1) audience interaction, (2) performer decisions, and (3) audience reception. The concert presented in this paper explores the first of the three modalities.

Audience development is a perennial question in arts management and is often pursued through efforts on many fronts to convince potential audience members to attend concerts [5]–[7].

In [8] it has been observed that several art movements of the 20th century were fundamentally concerned with the “dissolution of one-way communication” [3] between performer and audience. This shift resulted in the emergence of salient features of interactivity: music that is “structurally different” in every iteration, with structures determined, at least in part, by the performer or the audience.

However, the terminology surrounding these practices requires scrutiny. Some theorists caution that the term “interactive” is often overused, applied indiscriminately to trivial user inputs, or limited to artistic practices dependent on high-end computing and audio-visual equipment. [9] argues that “‘interactivity’ is a buzzword used rather indiscriminately to describe everything from computer games to Internet shopping”, noting that “it is not the case that all computer-based art is interactive in any interesting sense”.

Despite this skepticism, the strategic integration of interactivity aligns with urgent needs in audience development, a perennial challenge in arts management [5]–[7]. [10] states that “human-machine interaction” has permeated practically all forms of art, while [11] claim that “the disciplines of composition and sound design are compelled to tap into the format of high-performance human-computer interaction”.

This integration is particularly significant for attracting younger demographics. Research indicates that programming interactive concerts featuring digital technology can aid these efforts [12]. Younger audiences, who may engage with classical music primarily through streaming services rather than live performances [13], show a more positive association with works explicitly framed as “experimental” [14]. Indeed,

a study of 1400 audience members at new music concerts revealed an average age of 48, with one event attracting an audience with an average age of 33—significantly younger than traditional classical concert norms [14].

Beyond demographics, interactivity addresses psychological barriers. Scholars note that audience members unfamiliar with classical music often feel excluded due to a perceived lack of specialised knowledge [15]. By enabling all audience members to experiment with technology to create novel symphonic experiences, interactive formats can help to “level the playing field”, alleviating the sense of exclusion and lowering the barrier for attendance. Furthermore, these formats offer a civic benefit: they create opportunities for critical engagement by drawing audience members into the “public arena”, a social site for shared experience and debate [16]. Concerts featuring interactive works, therefore, can offer multifaceted benefits—artistic, social, and demographic—that deserve thorough exploration by contemporary composers and orchestras.

To bridge these theoretical benefits with practice, it is necessary to examine the historical precedents that have paved the way for modern audience participation. In music theatre, Henri Pousseur and Michel Butor’s *Votre Faust* (1969) allowed audiences to influence the plot and musical structure live [17]. Early experiments, such as Tod Machover’s “Brain Opera” (premiered at Lincoln Center in 1996), introduced the concept of the “interactive lobby”, where audience members interacted with hyperinstruments to generate musical material that was subsequently woven into the live performance [18]. As mobile connectivity emerged, Golan Levin’s “Dialtones: A Telesymphony” (2001) demonstrated the potential of the audience’s personal devices, choreographing the ringing of hundreds of pre-smartphone cell phones to create waves of polyphony [19]. Advances in sensor technology later enabled works like “Glimmer” (2005), where computer vision tracked light sticks held by the audience to influence the orchestra [20].

Building on these foundations, the smartphone era has further democratised this access. The “Open Symphony” system [21] allows audience members to vote on musical features (e.g., tempo, dynamics) via a web-based interface, effectively crowd-sourcing parts of the conductor’s role in real-time. Similarly, [22] developed “*echobo*”, a mobile instrument that transforms audience smartphones into sound-producing devices, blurring the acoustic distinction between performer and listener. In the domain of large-scale interaction, [23] have investigated smartphone orchestras, identifying critical design challenges regarding latency and the “distraction factor” of screen-based interaction. In [24] authors present the Technology-Mediated Audience Participation (TMAP), a framework designed to analyse the roles of technology in musical performance.

The implementation of such concerts comes with challenging technical requirements and infrastructure that might discourage organizers. In this paper we present a solution that can be more easily replicated since the required technology is already present for the most part. In addition we present a

survey on the audience acceptance that may guide organizers of future events.

The rest of the paper is structured as follows: In Section II we present the conceptual framework for the concert, the compositions and technical setup. In Section III we report a survey conducted with the audience and highlight the key findings that emerged. Finally, in Section IV we summarise the knowledge gathered from this experience and how this can be employed in the development of future concerts.

II. THE CONCERT

In late 2024 we organised a lecture-concert with chamber music that was partly composed using AI technologies, as part of a series of cultural events¹ on creativity in the times of AI. It is the precursor of the concert we discuss here. While that concert took place as planned in November 2024, part of the funding agreement also included the organisation of a larger open-air version in the following year. Admission was free. The concert should appeal to a wide range of audiences, including regular and casual concert-goers, as well as walk-in audiences that do not normally visit concert halls. We decided to refrain from the lecture format of the first concert in favour of a more participatory and exploratory approach, i.e. a concert that experiments with innovative ideas to further the classical concert format while carefully balancing these with audience expectations. Finding this balance was a requirement to avoid alienating traditionally coined audiences. The concert, titled “Zukunftsmusik: Klassik neu verkabelt” (English translation: “Music of the future: classical music rewired”), took place in a park in Detmold (Germany) on the 12th of September 2025. Around 300 people attended.

A. The Music

The concert comprised six pieces, with an interlude with short musical excerpts used to introduce the audience to the general concepts of music generation used in the concert. The programme was as follows:

- 1) Wolfgang A. Mozart: “*String Quintet in C major, KV 515 (1st movement)*”
- 2) Axel Berndt: “*Experiment Canon Crossover*”
- 3) Interlude
- 4) Axel Berndt: “*Polyphonic Skeleton*”
- 5) Johann Philipp Kirnberger: “*Der allezeit fertige Polonoisen- und Menuettencomponist*.”
- 6) Matthias Bucher: “*Klangpfade: Eine interaktive musikalische Reise*”
- 7) Wolfgang A. Mozart: “*String Quintet in C major, KV 515 (4th movement)*”

All were original compositions for string quartet or quintet and were performed by the Ixora ensemble of the Hochschule für Musik Detmold. The most traditional compositions were two movements of Wolfgang A. Mozart’s String Quintet in C major, KV 515 (1st and 4th movements, played as opening

¹<https://blogs.uni-paderborn.de/kreative-intelligenz/>, last accessed: September 2026.

and closing numbers, respectively). All other pieces explored different kinds of ideas yet uncommon in classical concerts. Moderation served to contextualise the music being played.

Following the hype of AI and especially AI generated art, a concert involving innovative technologies has to contextualize the subject. In this concert we wanted to contrast AI-generated music with the other elements of the program. Therefore two pieces (2 and 4) included AI techniques for their creation. They were part of a suite of three compositional experiments named Mozart Deconstructions [25], originally commissioned by Stuttgarter Kammerorchester (Stuttgart Chamber Orchestra, SKO). Drawing on these pieces, the moderation discussed the role AI can (and probably will) play in the creative process of composing and in future concert programmes. This was complemented by a live demonstration of the first steps of music generation, also being played live by the musicians (Interlude).

Two other pieces (5 and 6) explored different types of audience participation. A musical dice game is a system that utilises dice to generate music from pre-composed options. We performed the very first such composition by Johann Philipp Kirnberger (1721–1783) [26]. Members of the audience were invited on stage and rolled large foam dice. The results were input in a software application that we developed specifically for the performance (see Fig. 1) and was then used to generate MEI encodings and deliver them via the FlowScore system to the musicians (the technical setup is detailed in Section II-B). In this piece all the interaction takes place before the performance begins.

In contrast to this, the piece “Klangpfade: Eine interaktive musikalische Reise” (Matthias Bucher, *1988, English translation: “Sound Paths: An interactive musical journey”) involved audience interaction during its performance. It is an original composition that premiered at the concert. To interact, the audience did scan a QR code with their smartphones, thereby gaining access to an online voting system. The music is organised in sections that correspond to waypoints on a visual map, see Fig. 2. Whenever the performance approached a waypoint, a new vote was triggered and the audience had some time, while the music was playing, to decide on the next waypoint by a majority vote. The choices were recorded and the selected path was displayed on a stage screen. The corresponding section of music was sent to the musicians.

B. Technical Infrastructure

In addition to the musicians, there was also a station on stage that controlled the technical infrastructure, rear left on Fig. 2. A large LED stage display presented instructive visualisations of the pieces being played. The entire stage setup is shown in Fig. 2.

The FlowScore [27] system² has been employed to stream digital scores, encoded in the MEI format [28], to digital music stands (quite commonly adopted nowadays are devices such as iPads, two of the musicians also used a PadMu³ device).

²<https://github.com/sonovive/flowscore> last accessed: September 2026.

³<https://padformusician.com>, last accessed: September 2026.

FlowScore is a web-based score viewer that enables the real-time delivery, rendering, and display of musical material on digital music stands. It is structured around a client-server architecture with the addition of a third component called *Music Provider*. During the preparation phase of the concert and based on user experiences, the system was extended to include automatic networks discovery for the server and the generation of QR code to simplify the connection of the clients. A scrolling indicator has been added to improve usability.

Music Provider applications are in charge of sending music materials to the server that in turn distributes them to all the clients that are subscribed. In the case of the Klangpfade composition the application was in charge of both rendering the map on the stage display and sending the corresponding music excerpts to the server.

The FlowScore *Server* receives materials from *Music Providers*, parses the MEI data in order to generate on the fly voice parts, and send them to the clients.

The *Client* web application is accessed by musicians on their devices via a standard web browser. It offers various customisations for the selection of voices and parts, and for the layout of musical scores.

Playing chamber music open-air can be a challenge when taking into account the reception history and expectations of this musical genre. We therefore decided to incorporate extended reality elements by creating virtual concert hall acoustics via an array of 10 full-range loudspeakers surrounding the audience as the main sound reinforcement principle, all controlled from a rear mixing booth. The goal was to achieve a subtle and realistic sounding concert experience. We used DPA4099 microphones to achieve maximum signal isolation between players. The signals were amplified via Yamaha RIO1608-D2 and controlled via a Yamaha CL3 mixing desk. The sound sources were subsequently sent via Aux-Inserts via Dante to a separate computer into SPAT Revolution,⁴ where the virtual acoustics scene and sound placement were realised using the KNN algorithm.⁵ A schematic of the setup is presented in Fig.3.

Instead of creating only one virtual acoustic scene for the whole concert, we experimented with a different solution for nearly every piece, varying from classical concert halls, over a wide reverberant space that got smaller the more filigree the music became, to the instruments being acoustically placed and moving around the audience. The decisions were musically based: e.g. for Klangpfade a more cinematic setup was applied. Scenes were controlled via OSC messages to accommodate the live situation.

C. Performer Perspectives

To complement the audience-facing survey, we conducted brief semi-structured interviews with three members of the per-

⁴<https://www.flux.audio/project/spat-revolution/> last accessed: September 2026.

⁵https://doc.flux.audio/spat-revolution/Spatialisation_Technology_Panning_Algorithms.html last accessed: September 2026.

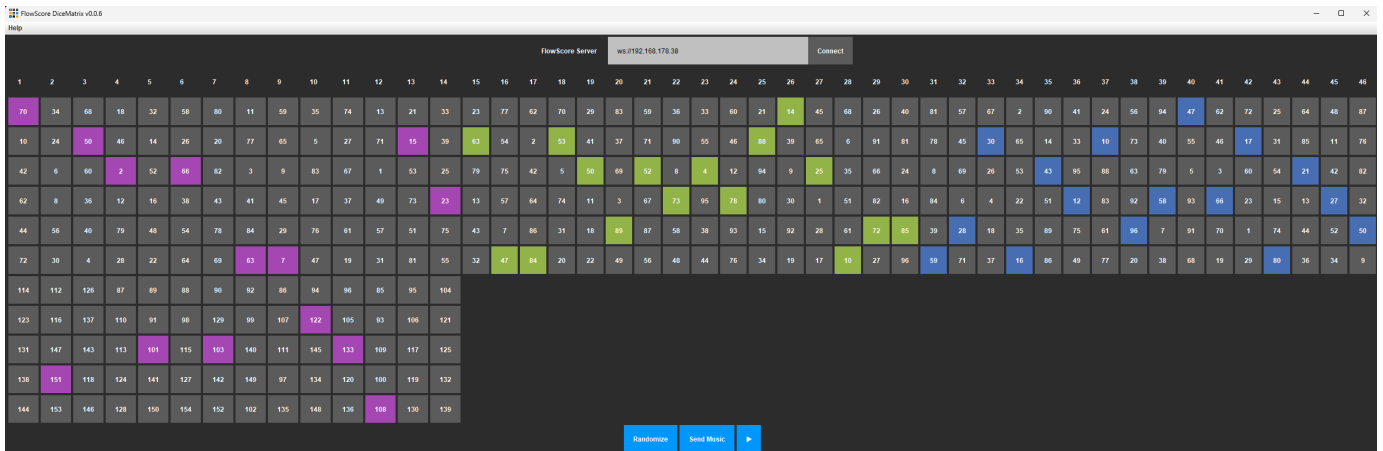


Fig. 1. Interface for the Dice Game application.



Fig. 2. View of the concert stage during the performance of Klangpfade. The stage display shows a map that the audience navigated via a voting system. The music reacts accordingly.

forming ensemble immediately after the concert, asking about their experience rehearsing and performing the AI-assisted pieces. These conversations were exploratory and anecdotal rather than a systematic qualitative study, but they expose a performer-side perspective that the audience questionnaire does not capture (translations from the authors).

Performing without an interpretive tradition: All three performers contrasted the AI-assisted pieces with canonical repertoire such as Mozart or Bach, for which an established performance tradition tells them what to do — how much vibrato to use, and which tempo and phrasing conventions apply. For newly generated material, this shared reference

point is missing.

“With Mozart, we know exactly what to do — little or no vibrato, a particular style; we’re trained to reproduce it. But with a piece the AI composed, there’s no such guidance. There’s no wrong answer here, only an interesting one.” — Performer A, first violin

“It’s different — we’ve rehearsed so much more classical repertoire. This is very new, there’s no direction to follow. I was a bit unsettled at first, but it’s already good.” — Performer C, viola

“Rather than feeling free without a template, I had to concentrate on tempo and intonation instead — it’s more

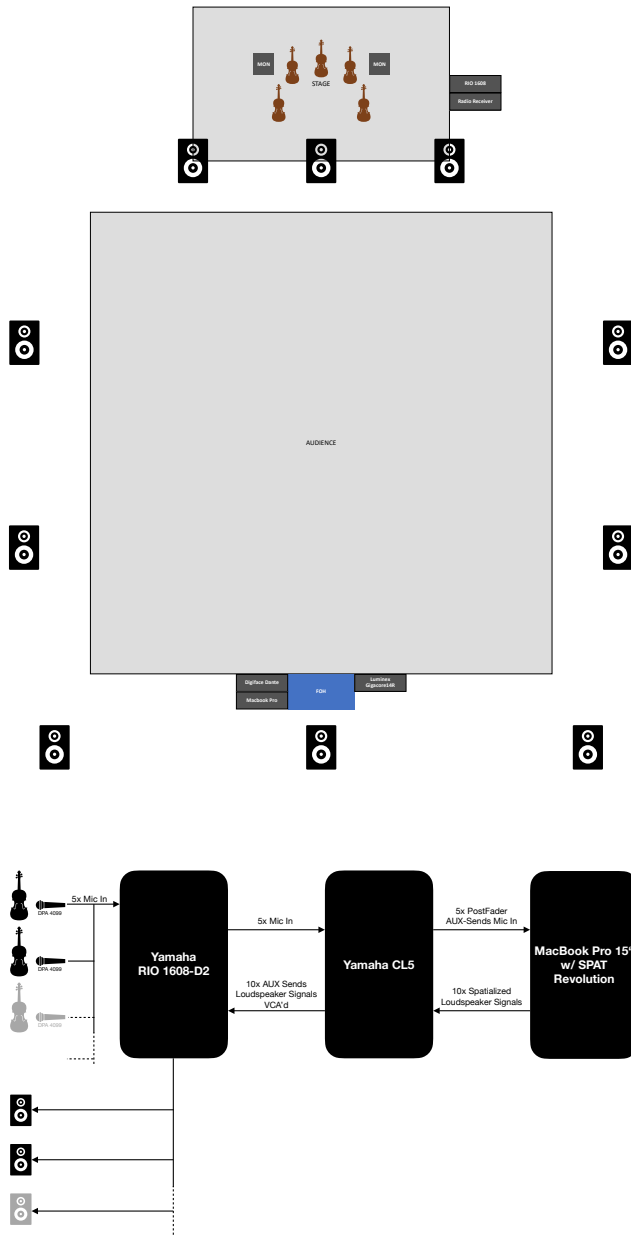


Fig. 3. Audio setup for the performance.

uncertainty than freedom.” — Performer C, viola

Practical consequences for ensemble coordination: For Performer A, who joined the ensemble as a substitute with less rehearsal time than the other players, the absence of a shared interpretive convention translated into a concrete coordination problem within the ensemble itself.

“This situation is quite stressful for me as first violin — the other four had already rehearsed three or four times without me. We play in completely different styles; our bowing almost never matches. I don’t even know at which point the second violinist uses vibrato — I start a note without vibrato, they

start with vibrato, and I don’t know if it needs to match. It’s a challenge for performers — but also a step toward the music of the future. I have to get used to it.” — Performer A, first violin

Compositional quality, not origin, drives artistic engagement: Performer B, who also plays contemporary repertoire, related the AI-assisted piece to her broader experience with new music, and argued that a human origin does not by itself guarantee a better piece.

“I think the harmony works, it’s not that strange — we play a lot of new music for strings that’s much more chaotic and tricky than this. A piece composed by a human isn’t automatically better than one a machine produces. I’ve played plenty of contemporary pieces where you could tell the composer had no idea how the instruments actually sound or what they can do.” — Performer B, viola

“For classical music — Brahms, Mozart — there’s a right and a wrong way to play it. For this piece, there isn’t. You can bring your own idea to it.” — Performer B, viola

“If the machine composed well, you can bring it to life. If it’s a bit off, it doesn’t work.” — Performer B, viola

Convincing style and audience reception: Performer C (viola) recalled an earlier concert in which the ensemble performed an AI-generated piece written in the style of Bach, which the group chose to interpret accordingly — illustrating that a convincing stylistic imitation can lead performers to fall back on an existing interpretive tradition after all, even for AI-generated material.

“I could tell it wasn’t really by Bach when I listened closely — a bit different, not necessarily worse, just not the original. But the audience was very satisfied with the piece.” — Performer C, viola

“Listening to the canon piece in this concert didn’t feel strange to me either — it reminded me of Stravinsky.” — Performer C, viola

Low perceived professional threat: None of the three performers described AI as a threat to their profession; all framed it instead as an extension of the compositional process that leaves the performer’s interpretive and expressive role intact.

“I don’t see this as a danger — more as an opportunity, a support for us as musicians. The others said the same: none of us feel like we’ll be replaced.” — Performer C, viola

“I still think AI can’t replace us as artists. This part of the music is interesting, but it’s not really a replacement for a performer or a composer — at least for now. I’m not sure, because AI is moving so fast.” — Performer A, first violin

All three performers also reported using generative AI tools (e.g., ChatGPT, Gemini) in their everyday or academic work, suggesting that their reservations were specific to AI as a compositional collaborator rather than to AI tools in general.

Taken together, these accounts add a performer-side layer to the audience’s significantly lower ratings for the AI-generated piece (see Sec. III): performers’ concerns centred less on the aesthetic merits of the AI composition itself and more on the practical and interpretive consequences of performing

music without an established stylistic tradition to draw on — a factor the audience-facing questionnaire, focused on listeners rather than performers, was not designed to capture. This complements the “performative impression” dimension already visible in the audience’s open comments (see questionnaire data) and suggests that a planned bigger study should capture the performer’s perspective systematically alongside audience reception, for instance through structured pre/post-rehearsal interviews.

III. AUDIENCE SURVEY

To assess how the audience responded to the different musical formats presented during the concert, participants completed a post-performance questionnaire comprising 19 items organised into five sections (demography and musical background, personal characteristics, evaluation of the musical works, general attitudes toward AI, and musical preferences). The resulting data were analysed using paired-samples *t*-tests, Wilcoxon signed-rank tests, and the corresponding effect size estimations. These procedures allowed us to examine systematic differences in enjoyment, perceived originality, and openness to hearing similar works again. The questionnaire and anonymised data (in German) are available on GitHub.⁶

The sample comprised 60 individuals across various age groups. Two participants were younger than 20 years, four were between 20 and 29, ten between 30 and 39, four between 40 and 49, seventeen between 50 and 59, and twenty-three were 60 years of age or older. The majority identified as female (39), followed by male participants (20); one person identified as non-binary. Educational attainment was high: 38 participants held a university degree (Bachelor’s or Master’s), 11 reported a higher secondary school qualification, 6 a lower secondary qualification, and 5 had completed a doctorate. Musical background varied substantially, with 8 participants reporting formal music studies, 29 indicating that they played one or more instruments, and 6 working professionally in music. Classical concert attendance ranged from occasional to frequent, with 35 participants attending 1–2 concerts per year, 9 attending 3–5 concerts, and 16 attending more than five concerts annually.

A. Results

Quantitative analyses, summarised in Fig. 4, revealed substantial differences in aesthetic liking across musical conditions. For this analysis five classes have been investigated corresponding to: 1) Mozart Quintet 2) Experiment Canon Crossover and Polyphonic Skeleton 3) Kirnberger’s Dice Game 4) Klangpfade 5) Virtual Acoustics rendering. The classical Mozart composition received significantly higher enjoyment ratings than the AI-generated piece ($t(59) = 3.50$, $p < .001$, $d = 0.45$; Wilcoxon $W = 546$, $p < .001$, $r = 0.64$). A similar clear preference emerged for the Musical Dice Game (Kirnberger) compared to the AI composition ($t(59) = 3.49$, $p < .001$; Wilcoxon $W = 475$, $p = .001$; $r = 0.60$). While

Ratings of the Musical Works (Enjoyment)

Likert scale (1 = strongly disagree, 5 = strongly agree)

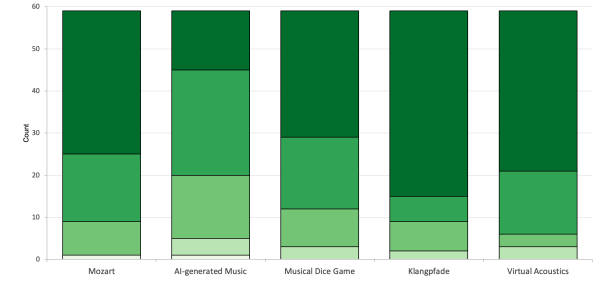


Fig. 4. Stacked bar chart showing the distribution of Likert-scale ratings for overall enjoyment of the five musical formats presented in the concert.

Mozart and the Dice Game were rated almost equally highly ($t(59) = 0.76$, $p = .452$, $d = 0.10$; Wilcoxon $W = 289$, $p = .412$; $r = 0.16$), the AI-generated music scored markedly lower in both comparisons.

The Klangpfade format and the Virtual Acoustics condition were likewise evaluated significantly more positively than the AI music, with medium to large effect sizes. Klangpfade showed a strong advantage ($t(59) = -5.70$, $p < .001$, $d = 0.74$; Wilcoxon $W = 97.5$, $p < .001$, $r = 0.79$), as did Virtual Acoustics ($t(59) = 5.04$, $p < .001$; $d = 0.65$; Wilcoxon $W = 80.0$, $p < .001$; $r = 0.78$). No significant differences were observed between Klangpfade and Virtual Acoustics ($t(59) = -0.57$, $p = .57$, $d = 0.07$; Wilcoxon $W = 186$, $p = .513$, $r = 0.15$), both of which received very positive evaluations.

Regarding perceived originality, no significant differences emerged between Mozart and AI-generated music ($t(59) = 1.90$, $p < .063$; $d = 0.25$; Wilcoxon $W = 528.0$, $p < .094$; $r = 0.29$), although the AI composition tended to be judged slightly more original. This pattern suggests that higher originality attributions do not necessarily translate into higher aesthetic appreciation. At the level of the concert as a whole, participants also reported very high ratings for overall enjoyment and originality (see Fig. 5).

To assess participants’ willingness to experience different musical formats in future performances, the statement “I would like to hear this more often” was used as an indicator of acceptance. A paired-samples *t*-test revealed a significant difference between Klangpfade and AI-generated music, ($t(59) = 3.56$, $p < .001$, $d = 0.46$; Wilcoxon $W = 382.0$, $p = .001$; $r = 0.64$). Klangpfade received a mean rating of $M = 4.37$ ($SD = 0.96$), whereas the AI-generated composition lagged notably behind with $M = 3.90$ ($SD = 1.09$). Participants thus expressed a significantly higher willingness to experience interactive live music such as Klangpfade more frequently compared to AI-generated music.

A similar pattern emerged when comparing Virtual Acoustics with the AI-generated piece. Acceptance ratings were significantly higher for Virtual Acoustics, ($t(59) = 4.58$, $p < .001$, $d = 0.59$; Wilcoxon $W = 444.0$, $p < .001$;

⁶<https://github.com/evamariaklimpel/Zukunftsmusik>, last accessed: September 2026.

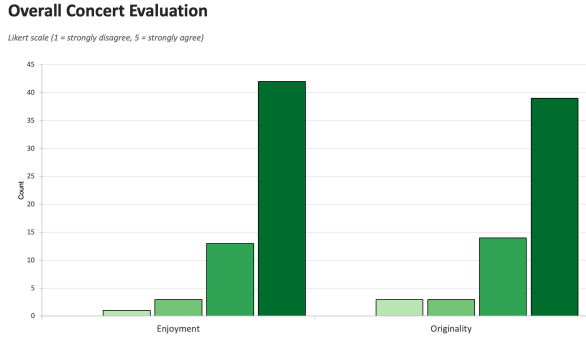


Fig. 5. Grouped bar chart displaying the absolute frequencies of Likert-scale ratings for the items assessing overall enjoyment and perceived originality of the concert overall.

$r = 0.79$). Participants reported a markedly greater openness to encountering Virtual Acoustics again ($M = 4.42$, $SD = 0.83$) than the AI-generated work ($M = 3.90$, $SD = 1.09$). The results above rest on nine primary pairwise comparisons across the enjoyment, originality, and acceptance dimensions. Because testing this many pairwise hypotheses on the same sample inflates the family-wise probability of a false-positive finding, we additionally applied a Holm-Bonferroni step-down correction to this set of tests. Table I reports the uncorrected and Holm-adjusted p -values for each comparison. All five originally significant differences (Mozart vs. AI, Musical Dice Game vs. AI, and Klangpfade vs. AI and Virtual Acoustics vs. AI for both enjoyment and acceptance) remained significant after correction (all $padj < .005$), whereas the comparisons that were not significant beforehand (Mozart vs. Dice Game, Klangpfade vs. Virtual Acoustics, and the originality contrast between Mozart and AI) remained non-significant. The pattern of results is therefore robust to multiplicity adjustment [29]. We note, however, that family-wise correction reduces statistical power, and that given the modest sample size ($N = 60$) this pilot study remains better suited to detect medium-to-large effects than smaller ones.

The examined moderating factors—musical training, frequency of concert attendance, and openness to new experience—showed no significant effects on the evaluation of AI music. For example, musical training did not significantly predict the liking of the AI piece (ANCOVA: $F(1, 57) = 2.70$, $p = .106$, $\eta_p^2 = .045$), nor did concert attendance ($F(2, 56) = 1.85$, $p = .166$, $\eta_p^2 = .062$) or openness ($F(3, 55) = 0.83$, $p = .484$, $\eta_p^2 = .043$). A weak positive association appeared between attitudes toward AI and liking of AI-generated work, but this correlation was not statistically significant (Spearman’s $\rho = .23$, $p = .085$). With respect to age, small non-significant trends emerged: older participants rated Klangpfade slightly more critically (regression: $b = -0.13$, $p = .086$), and acceptance of the concert format decreased minimally with increasing age ($b = -0.10$, $p = .183$). However, these effects were statistically inconclusive and of negligible practical relevance.

In summary, the significant findings indicate that liking and acceptance of musical pieces were primarily shaped by their stylistic and sonic characteristics. AI-generated music was rated significantly lower possibly due to its stylistic deviations. Demographic and dispositional characteristics accounted for only marginal variance in these evaluations. This pilot study thus suggests that the reception of AI-generated classical music is primarily driven by its musical and aesthetic design rather than by biographical, cultural, or technology-related factors.

B. Discussion

Several limitations qualify the interpretation of these findings and should inform the design of a larger planned study.

First, although the significant effects reported above survive correction for multiple comparisons, the analysis remained exploratory rather than confirmatory: comparisons were not pre-registered, and a residual risk of selective reporting cannot be fully excluded.

Second, the sample ($N = 60$) was a convenience sample recruited on-site after a single concert and was skewed toward older, highly educated, and musically engaged attendees (40 of 60 participants were 50 years or older; 38 held a university degree or a doctorate; 29 played at least one instrument), which limits the generalisability of the findings to more heterogeneous or younger audiences.

Third, several dependent variables deviated significantly from normality (Shapiro-Wilk $p < .001$ in multiple cases); this was addressed with non-parametric and robust tests, but the reliance on single-item Likert measures for complex constructs such as enjoyment and originality still restricts construct validity and precludes reliability estimation.

Fourth, the four discrete compositions were presented to all participants in a single fixed order (Mozart, the AI-generated pieces, the Musical Dice Game, and Klangpfade, with a closing Mozart movement); in the absence of counterbalancing, position-in-programme effects such as novelty or fatigue cannot be fully disentangled from the effect of musical format itself. Virtual Acoustics involved a different type of manipulation—an acoustic rendering strategy varied across several pieces rather than a discrete composition—so this particular caveat applies most directly to the compositional comparisons.

Fifth, the moderator analyses (musical training, concert-attendance frequency, openness to experience, age, attitudes toward AI) were themselves exploratory, were based on unequal and in places small subgroups, and were not corrected for multiplicity; their uniformly null results should therefore be read as preliminary rather than as evidence for the absence of such effects.

Finally, the quantitative results capture aggregate evaluative judgments but not the reasons behind them: as the qualitative analysis of participants’ open-ended comments suggests, factors such as the performers’ visible expressivity, the acoustic and atmospheric conditions of the open-air venue, and participants’ attitudes toward AI as a creative agent may all

TABLE I

UNCORRECTED AND HOLM-BONFERRONI-ADJUSTED SIGNIFICANCE FOR THE NINE PRIMARY PAIRWISE COMPARISONS (PAIRED T-TESTS, $df = 59$).

Comparison	Measure	t(59)	Raw p	Holm-adj. p	Sig. after corr.
Mozart vs. AI-generated music	Enjoyment	3.50	<.001	.0045	Yes
Musical Dice Game vs. AI-generated music	Enjoyment	3.49	<.001	.0045	Yes
Klangpfade vs. AI-generated music	Enjoyment	5.70	<.001	<.001	Yes
Virtual Acoustics vs. AI-generated music	Enjoyment	5.04	<.001	<.001	Yes
Mozart vs. Musical Dice Game	Enjoyment	0.76	.452	.901	No
Klangpfade vs. Virtual Acoustics	Enjoyment	0.57	.571	.901	No
Mozart vs. AI-generated music	Originality	1.90	.062	.187	No
Klangpfade vs. AI-generated music	Acceptance	3.56	<.001	.0044	Yes
Virtual Acoustics vs. AI-generated music	Acceptance	4.58	<.001	<.001	Yes

contribute to the observed preferences in ways a purely quantitative post-performance questionnaire cannot disentangle.

Taken together, these limitations point to concrete design choices for a bigger study: a larger and more diverse sample, counterbalanced presentation order, pre-registered contrasts with a planned correction procedure, and a mixed-methods design that systematically integrates qualitative material.

IV. CONCLUSIONS

In this contribution we presented an experimental classical music concert and reflected on the implications. We discussed the technical aspects involved in composing and performing the music as well as the perspective from the audience collected through a questionnaire.

This work is part of a larger project aimed at investigating the possibilities of innovating classical music concerts by introducing elements such as audience participation, interactivity, and the use of emerging technologies (including AI) to contemporary concert culture. Preliminary results indicate a general openness towards these aspects as long as artistic and aesthetic criteria remain at the core of these experiences.

Interactive elements (especially audience participation and immersive technologies) are better received by audiences than AI-generated compositions, and innovation in classical concerts is more readily accepted when it complements rather than replaces traditional concert practices.

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