



## Music, Feeling, and Transcendence: Nick Cave on AI, Awe, and the Splendor of Our Human Limitations

BY MARIA POPOVA

*"All truth is comprised in music and mathematics,"* Margaret Fuller proclaimed as she transfigured the cultural and political face of the 19th century. Her contemporary and admirer Walt Whitman considered music the profoundest expression of nature, while Nietzsche bellowed across the Atlantic that "without music life would be a mistake." But something curious and unnerving happens when, in the age of artificial intelligence, mathematics reaches its human-made algorithmic extensions into the realm of music — into the art Aldous Huxley believed grants us singular access to the "blessedness lying at the heart of things" and philosopher Susanne Langer considered our foremost "laboratory for feeling and time." When music becomes a computational enterprise, do we attain more combinatorial truth or incur a grave existential mistake?

That is what musician and feeling-artisan **Nick Cave** addresses with great thoughtfulness and poetic sensitivity in answering a question from a Slovenian fan named Peter, posed on Cave's blog:

Considering human imagination the last piece of wilderness, do you think AI will ever be able to write a good song?



Nick Cave in Belgium, 1986 (Photograph by Yves Lorson)

Nearly two centuries after Ada Lovelace wrote the world's first algorithm and celebrated the human imagination as that wild faculty which "seizes points in common, between subjects having no very apparent connexion, & hence seldom or never brought into juxtaposition" — Cave responds:

Dear Peter,

In Yuval Noah Harari's new book *21 Lessons for the 21st Century*, he writes that Artificial Intelligence, with its limitless potential and connectedness, will ultimately render many humans redundant in the work place. This sounds entirely feasible. However, he goes on to say that AI will be able to write better songs than humans can. He says, and excuse my simplistic summation, that we listen to songs to make us feel certain things and that in the future AI will simply be able to map the individual mind and create songs tailored exclusively to our own particular mental algorithms, that can make us feel, with far more intensity and precision, whatever it is we want to feel. If we are feeling sad and want to feel happy we simply listen to our bespoke AI happy song and the job will be done.

But, I am not sure that this is all songs do. Of course, we go to songs to make us feel something — happy, sad, sexy, homesick, excited or whatever — but this is not all a song does. What a great song makes us feel is a sense of awe. There is a reason for this. A sense of awe is almost exclusively predicated on our limitations as human beings. It is entirely to do with our audacity as humans to reach beyond our potential.

More than half a century after computing pioneer Alan Turing posed playfully the most serious and abiding question about AI in wondering whether a computer could ever enjoy strawberries and cream, and two centuries after Frankenstein author Mary Shelley raised the most fundamental questions about what makes us human, Cave writes:

It is perfectly conceivable that AI could produce a song as good as Nirvana's "Smells Like Teen Spirit," for example, and that it ticked all the boxes required to make us feel what a song like that should make us feel — in this case, excited and rebellious, let's say. It is also feasible that AI could produce a song that makes us feel these same feelings, but more intensely than any human songwriter could do.

But, I don't feel that when we listen to "Smells Like Teen Spirit" it is only the song that we are listening to. It feels to me, that what we are actually listening to is a withdrawn and alienated young man's journey out of the small American town of Aberdeen — a young man who by any measure was a walking bundle of dysfunction and human limitation — a young man who had the temerity to howl his particular pain into a microphone and in doing so, by way of the heavens, reach into the hearts of a generation. We are also listening to Iggy Pop walk across his audience's hands and smear himself in peanut butter whilst singing 1970. We are listening to Beethoven compose the Ninth Symphony while almost totally deaf. We are listening to Prince, that tiny cluster of purple atoms, singing in the pouring rain at the Super Bowl and blowing everyone's minds. We are listening to Nina Simone stuff all her rage and disappointment into the most tender of love songs. We are listening to Paganini continue to play his Stradivarius as the strings snapped. We are listening to Jimi Hendrix kneel and set fire to his own instrument.

What we are actually listening to is human limitation and the audacity to transcend it. Artificial Intelligence, for all its unlimited potential, simply doesn't have this capacity. How

could it? And this is the essence of transcendence. If we have limitless potential then what is there to transcend? And therefore what is the purpose of the imagination at all. Music has the ability to touch the celestial sphere with the tips of its fingers and the awe and wonder we feel is in the desperate temerity of the reach, not just the outcome. Where is the transcendent splendour in unlimited potential? So to answer your question, Peter, AI would have the capacity to write a good song, but not a great one. It lacks the nerve.

Love, Nick

And if an AI were to ever sign a letter to a human being who cherishes its music with “Love, Nick,” would that not be a mere simulacrum of the human experience the word *love* connotes and of the sense of self with which we imbue our own names? Alan Turing laid the foundation for these perplexities with the central question of his famous Turing test — “Can machines think?” — but it is impossible to consider the implications for music without building upon Turing’s foundation to ask, “Can machines *feel*?” Cave’s insightful point comes down to the most compelling and as-yet poorly understood aspect of human consciousness — the subjective interiority of experience known as *qualia*. Nina Simone knew this when she sang *I wish you could know what it means to be me* in her iconic 1967 civil rights anthem, which might well be the supreme anthem of qualia and the paradox of AI. Franz Kafka knew it when he told his young walking companion that “music is the sound of the soul, the direct voice of the subjective world.”

We don’t yet know, and we might never know, how to algorithmically map, dissect, project, and replicate *what it feels like* to have a particular subjective experience — we only know how to *feel* it. This knowledge is non-transferrable with the current tools of science. It is most closely relayed to another consciousness through the language and poetics of art, which Ursula K. Le Guin well knew is our finest, sharpest “tool for knowing who we are and what we want.” And if Susan Sontag was right, as I feel she was, in insisting that music is “the most wonderful, the most alive of all the arts,” then music would be the art least susceptible to machine creation.



One of Arthur Rackham’s rare 1917 illustrations for the fairy tales of the Brothers Grimm