

Getting ready for the reading part of the Baccalaureate

Lumni • 4

AI and music: will we be slaves to the algorithm?

- 1 **Tech firms have developed AI that can learn how to write music. So will machines soon be composing symphonies, hit singles and bespoke¹ soundtracks?**

5 From Elgar² to Adele, and the Beatles or Pink Floyd to Kanye West, London's Abbey Road Studios has hosted a storied list of musical stars since opening in 1931. But the man playing a melody on the piano in the complex's Gatehouse studio when the Observer visits isn't one of them.

The man sitting at the keyboard where John Lennon may have finessed A Day in the Life is Siavash Mahdavi, CEO of AI Music, a British tech startup exploring the intersection of artificial intelligence and music. [...]

10 "I've always been fascinated by the concept that we could automate, or intelligently do, what humans think is only theirs to do. We always look at creativity as the last bastion of humanity," says Mahdavi. However, he quickly decided not to pursue his first idea: "Could you press a button and write a symphony?"

Why not? "It's very difficult to do, and I don't know how useful it is. Musicians are queuing up to have their music listened to: to get signed and to get on stage. The last thing they need is for this button to exist," he says. [...]

1. bespoke: custom-made, tailor-made

2. Elgar: Sir Edward Elgar, English composer, 1857-1934

15 AI Music (the company) is working on a tool that will “shape-change” existing songs to match the context they are being listened to in. This can range from a subtle adjustment of its tempo to match someone’s walking pace through to what are essentially automated remixes created on the fly.

“Maybe you listen to a song and in the morning it might be a little bit more of an acoustic version. Maybe that same song, when you play it as you’re about to go to the gym, it’s a deep house or drum’n’bass version. And in the evening it’s a bit more jazzy. The song can actually shift itself,” says Mahdavi.

20 Australian startup Popgun has a different approach [...]. Its AI – called “Alice” – is learning to play the piano like a child would, by listening to thousands of songs and watching how more experienced pianists play them. In its current form, you play a few notes to Alice, and it will guess what might come next and play it, resulting in a back-and-forth human/AI duet. The next step will be to get her to accompany a human in real-time.

25 “It’s a new, fun way to interact with music. My 10-year-old daughter is playing the piano, and it’s the bane³ of our existence to get her to practise! But with Alice she plays for hours: it’s a game, and you’re playing with somebody else,” says CEO Stephen Phillips. [...]

Stuart Dredge, *The Guardian/The Observer*, Sunday 6 Aug 2017

3. bane: trouble, curse, misfortune

Denny Somach's book is a collection of interviews with major recording stars. Here is an excerpt from Billy Joel's interview. Joel is a prolific American rock music singer and songwriter.

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 I really had no idea that it was possible to be a rock 'n' roll star, until the Beatles. Before them, there was either soul music – and I was a kid from Levittown, so what kind of soul did I have? I thought you had to be from the
5 ghetto in Philadelphia. Then there was the manufactured rock stars, the Fabians, the Frankie Avalons, and the pretty boys who seemed to be put together by a Hollywood conglomerate, with a lot of money behind them.

 I really had no idea that you could play an instrument, write your own music, go out and perform it, and be big at it. It looked like that wasn't in the cards. And then I saw the Beatles on Ed Sullivan.

 Here were these guys... they didn't look like they came from the San Fernando Valley, they looked like these four
10 working-class scruffs. John Lennon had this wise-guy look on his face, just like me and my friends were a bunch of wise guys, street kids.

 They were playing their own instruments, doing their own arrangements, writing their own songs, on TV! On Ed Sullivan!

 It made it all possible, it made it all conceivable. I said, "That's what I want to do!"

15 And the amount of output they came out with! Amazing, to be able to pump out those albums like they did, and they were all incredible albums, too.

 And then there were the changes, the evolution that went on with the Beatles. I mean, I grew up with them. And as I got older, they got older, and as I changed, they changed. And it was a big part of our lives; that was a big deal about the sixties.



Beyoncé singing a duet with a young blind girl during a concert in Perth, Australia, 8 Nov 2013

Source: published on metro.co.uk

DOCUMENT A

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Australian startup Popgun has a different approach again. Its AI – called "Alice" – is learning to play the piano like a child would, by listening to thousands of songs and watching how more experienced pianists play them. In its current form, you play a few notes to Alice, and it will guess what might come next and play it, resulting in a back-and-forth human/AI duet. The next step will be to get her to accompany a human in real-time.

"It's a new, fun way to interact with music. My 10-year-old daughter is playing the piano, and it's the bare of our existence to get her to practise! But with Alice she plays for hours: it's a game, and you're playing with somebody else," says CEO Stephen Phillips.

Stuart Dredge, The Guardian, Sunday 6 Aug 2017

DOCUMENT B

DOCUMENT B

Denny Somach's book is a collection of interviews with major recording stars. Here is an excerpt from Billy Joel's interview. Joel is a prolific American rock music singer and songwriter.

If it wasn't for me seeing them that night on The Ed Sullivan Show, I wouldn't be doing what I'm doing right now. I might not even be alive. I credit them with creating a lot of my life.

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They were playing their own instruments, doing their own arrangements, writing their own songs, on TV! On Ed Sullivan!

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And then there were the changes, the evolution that went on with the Beatles. I mean, I grew up with them. And as I got older, they got older, and as I changed, they changed. And it was a big part of our lives; that was a big deal about the sixties.

Denny Somach, A Walk Down Abbey Road, 2020

DOCUMENT C

DOCUMENT C



American singer Beyoncé interacting with a 13-year-old fan, who is blind.
Photograph published on metro.co.uk in 2013 (

DOCUMENT A

A. Find information about the two interviewees and their machines. Use words from the text. Copy the answers onto your paper.

DOCUMENT A

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From Elgar to Adele, and the Beatles or Pink Floyd to Kanye West, London's Abbey Road Studios has hosted a storied list of musical stars since opening in 1931. But the man playing a melody on the piano in the complex's Goldsmiths studio when the Observer visits isn't one of them.

The man sitting at the keyboard where John Lennon may have fingered A Day in the Life is Siavash Mahdavi, CEO of AI Music, a British tech startup exploring the intersection of artificial intelligence and music. [...]

"I've always been fascinated by the concept that we could automate, or intelligently do, what humans think is only there to do. We always look at creativity as the last frontier of humanity," says Mahdavi. However, he quickly decided not to pursue his first idea: "Could you press a button and write a symphony?"

Why not? "It's very difficult to do, and I don't know how useful it is. Musicians are queuing up to have their music listened to: to get signed and to get on stage. The last thing they need is for this button to exist," he says. [...]

AI Music (the company) is working on a tool that will "shape change" existing songs to match the content they are being listened to. This can range from a subtle adjustment of its tempo to match someone's walking pace through to what are essentially automated versions created on the fly.

"Maybe you listen to a song and in the morning it might be a little bit more of an acoustic version. Maybe that same song, when you play it, is only for about to go to the gym. It's a deep house or drum'n'bass version. And in the evening it's a bit more jazz. The song can actually grow itself," says Mahdavi.

Australian startup Proqun has a different approach again. Its AI – called "Alicia" – is learning to play the piano like a child would, by listening to thousands of songs and watching how more experienced pianists play them. In its current form, you play a few notes to Alicia, and it will guess what might come next and play it, resulting in a back-and-forth human/AI duet. The next step will be to get her to accompany a human in real time.

"It's a new, fun way to interact with music. My 10-year-old daughter is playing the piano, and it's the same of our existence to get her to practice but with Alicia she plays for hours: it's a game, and you're playing with somebody else," says CEO Stephen Phillips.

Stuart Dredge, The Guardian, Sunday 6 Aug 2017

Siavash Mahdavi / Stephen Phillips	
1) Their machines generate a) _____ using b) _____.	
Siavash Mahdavi	
2) Name of his company:	
3) His machine will:	
Stephen Phillips	
4) Name of his company:	
5) <u>Ultimately</u> , his machine will:	

B. Say if the following statement is TRUE or FALSE. Justify your answer with one quote from the text.

Siavash Mahdavi has never changed his mind about the need for AI-generated music.

C. Mahdavi and Phillips don't think their machines may endanger human-generated music. In your own words, explain why.

DOCUMENT B

DOCUMENT B

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I really had no idea that it was possible to be a rock 'n' roll star, until the Beatles. Before them, there was either soul music—and I was a kid from Levittown, so what kind of soul did I have? I thought you had to be from the ghetto in Philadelphia. Then there was the manufactured rock stars, the Fabians, the Frankie Avalons, and the pretty boys who seemed to be put together by a Hollywood conglomerate, with a lot of money behind them.

I really had no idea that you could play an instrument, write your own music, go out and perform it, and be big at it. It looked like that wasn't in the cards. And then I saw the Beatles on Ed Sullivan.

Here were these guys, they didn't look like they came from the San Fernando Valley, they looked like these four working-class scruffs. John Lennon had this wire-guy look on his face, just like me and my friends were a bunch of wire-guy, street kids.

They were playing their own instruments, doing their own arrangements, writing their own songs, on TV! On Ed Sullivan!

It made it all possible. It made it all conceivable. I said, "That's what I want to do!" And the amount of output they came out with! Amazing, to be able to pump out those albums like they did, and they were all no-frills albums, too.

And from there were the changes, the evolution that went on with the Beatles. I mean, I grew up with them. And as I got older, they got older, and as I changed, they changed. And it was a big part of our lives; that was a big deal about the sixties.

Denny Somach, *A Walk Down Abbey Road*, 2020

D. Copy out the following paragraph filling in each blank with one word taken from the text.

_____ was interviewed for a book written by Denny Somach. As a young boy during the _____, he was deeply impressed when the _____ made an appearance on a _____ show he was watching.

E. What skills did those artists have, which caused the interviewee to admire them? Answer by quoting the text.

F. “And as I got older, they got older, and as I changed, they changed” (l. 18). Explain that statement in your own words.

DOCUMENT C



American singer Beyoncé interacting with a 13-year-old boy, who is blind.
Photograph published on www.fox.com in 2011.

G. Comment on the photographer's choice to capture this moment (angle, lighting, people, postures).

DOCUMENTS A, B and C

I. Taking into account the three documents, show how the attitude towards music has evolved.

DOCUMENT A.

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From Elgar to Adele, and the Beatles or Pink Floyd to Kanye West, London's Abbey Road Studios has hosted a storied list of musical stars since opening in 1931. But the man playing music on the steps is the somewhat forgotten studio when the Obamas made their own

The man sitting at the keyboard where John Lennon may have finessed *A Day in the Life*

a Sowash Mahdavi, CEO of AI Music, a British tech startup exploring the intersection of artificial intelligence and music. [...]

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Why not? "It's very difficult to do, and I don't know how useful it is. Musicians are quick-

At the same time, however, it is unclear on a level that will become clearer, whether a person is really

the content they are being listened to. In this, can range from a subtle adjustment of tempo to match someone's walking pace through to what are essentially automated remixes created on the fly.

*Maybe you listen to a song and in the morning it might be a little bit more of an acoustic version. Maybe that same song, when you play it as you're about to go to the gym. It's

deep house or drum/bass version. And in the evening it's a bit more jazzy. The song can actually shift itself," says Mahfouz.

Australian startup Pangu has a different approach again. Its AI – called “Alice” – is trained to play the piano like a child would, by listening to thousands of songs and watching her more experienced pianists play them. In its current form, you play a few notes to Alice, and

The next step will be to get her to accompany a human in real-time.

It's the same of our existence to get her to practice! But with Alice she plays for hours. It's game, and you're playing with somebody else," says CEO Stephen Phillips.

Stuart Dredge, *The Guardian*, Sunday 6 Aug 2006

DOCUMENT 8

Denny Lomack's book is a collection of interviews with major recording stars. Here is an excerpt from Billy Joel's interview. Joel is a prolific American rock music singer and

If it wasn't for me using them that night on *The Ed Sullivan Show*, I wouldn't be doing

I really had no idea that it was possible to be a rock 'n' roll star, until the Beatles. Before

here, there was this enormous house – and I was like, from Louisiana, so what kind of house do I have? I thought you had to be from the ghetto in Philadelphia. Then there was this manufactured rock star, the Fabians, the Frankie Avalons, and the pretty boys who seemed to be, not together in a well-oiled continuum, with a lot of money behind them.

I really had no idea that you could play an instrument, write your own music, go out and perform it, and be big at it. It looked like that wasn't in the cards. And then I saw the Beatles on *The Ed Sullivan Show*.

Here were these guys...they didn't look like they came from the San Fernando Valley they looked like these four working-class scruffs. John Lennon had this wise guy look on his face, just like me and my friends were a bunch of wise guys, street kids.

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And then there were the changes, the evolution that went on with the Beatles. I mean,

grew up with them. And as I got older, they got older, and as I changed, they changed. And was a big part of our lives. That was a big deal about the sisters.

Denny Sornach, *A Walk Down Abbey Road*, 2012

DOCUMENT C



American singer Beyoncé interacting with a 13-year-old fan, who is
Photograph published on metro.co.uk in 2019 (

*Practice makes
perfect!*