

# The CHRISTIAN SCIENCE MONITOR

WORLD	USA	COMMENTARY	MONEY	ENVIRONMENT	INNOVATION	SCIENCE	THE CULTURE	BOOKS
-------	-----	------------	-------	-------------	------------	---------	-------------	-------

Innovation / Tech All Innovation Topics



Subscribe | E-mail newsletters |  RSS

## How a computer program became classical music's hot, new composer

'Emily Howell' is a computer program that composes classical music by following rules of music its programmer taught it.

(Page 2 of 2)



 Like  You and 31 others like this. 31 people like this. · Admin Page · [Error](#) [Unlike](#)

He believes that Emily, which is "nowhere near artificial intelligence," and other artistically able machines signal a chance for collaboration with human artists, not a digital replacement for them. "Computers are there [for us] to extend ourselves through them," he says. "It seems so utterly natural to me. It's not like I taught a rock to compose music."

Los Angeles Times classical-music critic Mark Swed says although he has received copies of Emily's works, he has not listened to them yet, in part because the composer is a computer.

Fred Childs, host of the popular public radio show "Performance Today," says he was impressed with Emily's songs.

"I enjoyed them," Mr. Childs says. "I thought they were really accomplished imitations of other composers' styles." However, "it felt a little mechanical in a way. But then again, I knew I was listening to a computer," he added. "If I hadn't known that, I might've thought it's the work of some not-so-great composer who is trying some interesting things, but not quite getting it."

The fact that a computer can create music that's indistinguishable from what a human can compose "scares" Childs a bit, but he says he has no problem with the idea of computers writing music.

"The proof is not in who composes it or who is responsible for writing the notes. The proof is in the emotional reaction the music triggers," he says. Emily "wasn't quite there" in terms of sparking his emotions.

Childs's sentiment touches on one of the core problems with computers experimenting with music. In 2008, a study from the University of Sussex in England found that, even when a person does not know the source of a performance, the human brain has a stronger emotional response to music played by humans than work performed by a computer.

Similarly, some question Cope's assertion that Emily is truly an artistic machine. "I think there's a creative aspect to music that is still well beyond what a computer can do," says Aniruddh Patel, a

### More Innovation



Horizons  
**Facebook again taken to task on user security**

Looking for the best way to read the latest book reviews or daily blog posts from the Monitor?

**SIGN UP FOR A MONITOR EMAIL NEWSLETTER**

**They're FREE!!**

About these ads

Subscribe to the weekly *Monitor* and save 71%!

### Most viewed

1. Bigfoot discovered? Virginia man says he's on verge of Bigfoot discovery
2. Jeremy London kidnapping: California man arrested
3. Deadliest Catch to honor Capt. Phil Harris
4. How an Alabama fire chief risked jail to save town from Gulf oil spill
5. Studies suggest MMS knew blowout preventers had 'critical' flaws
6. Five crucial moves by BP: Did they lead to Gulf oil spill disaster?
7. Report: What does Obama's global popularity bring the US?
8. Billionaires Bill Gates, Warren Buffett want other billionaires to donate more to charity
9. In Waxman, BP execs face a master interrogator at Gulf oil spill hearing
10. Drug recall expands: More Tylenol, Benadryl recalled due to moldy smell

senior fellow at The Neurosciences Institute in San Diego.

Others have argued that Cope's invention and his claims that its work is truly creative is disrespectful to artists who put passion, emotion, and feelings into their work based on years of human experience – something a computer can't share.

But Cope says he welcomes such criticism. "I want people to have different ideas than me," he says. "My wife will tell you one of the strangest things about me is I enjoy the controversy.... As a teacher that's how you learn things."

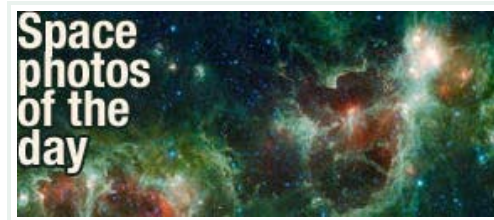
Emily's album, "From Darkness, Light," is available in some music shops and through Apple's online iTunes Store. Cope says the young composer will follow up with a new album annually for the next five or six years.



Like You and 31 others like this. 31 people like this. · Admin Page · Error Unlike

Click here to receive the next full month of the Daily News Briefing – a new news service from The Christian Science Monitor – ABSOLUTELY FREE!

### In Pictures



Space Photos of the Day 06/17

### Photos of the day

06.17.10 >



#### Flipper bridge could sort out Hong Kong traffic switch [Video]

Flipper bridge: In Hong Kong, people drive on the left. In mainland China, they drive on the right. A Dutch architectural firm has proposed a solution for traffic between the two places.

#### Supreme Court backs police department that read employee's texts

#### Gas stations boycott won't hurt BP. Is there a better protest?

Terrorism & Security

#### EU set to follow US in upping sanctions on Iran

#### UN condemns Somalia's use of child soldiers, but US aid still flows

About these ads

### FREE Daily Digest E-mail

CSMonitor.com top stories, cartoons and photos

Sign up!

See sample | Privacy Policy



What happens when ordinary people decide to pay it forward? Extraordinary change. See how *individuals are making a difference...*



Babar Ali stands in front of students who have gathered at the afternoon school he began in his parents' backyard in Bhabta, a village in eastern India.

**A passion for learning results in a school for India's poorest children**

Babar Ali, just a teenager himself, has started a free school in his parents' backyard for the poorest children in his village in India's West Bengal region.

Become part of the Monitor community

14,550 Fans | 5,520 on Twitter | 700K RSS subscribers



**Get 4 FREE issues ►►**



THE CHRISTIAN SCIENCE MONITOR

**The Culture »**



'Toy Story 3': Pixar's 'Toy Story' movies keep getting better and better

**World »**



Facebook draws 7,000 to anti-Muslim pork sausage party in Paris

**USA »**



NBA Finals: Celtics, Lakers have game 7 date with history

**Innovation »**



How a computer program became classical music's hot, new composer

**World »**



Africa Monitor: South Africa World Cup hopes dashed by Diego Forlan

**Innovation »**



Horizons: Apple gives the Mac Mini the extra-Mini treatment

Ads by Google

(About these)

**Computer Deals at Dell**  
Find Specials on High Performance Computers w/ 2010 Intel Core.  
[www.Dell.com](http://www.Dell.com)

**Learn Music Composition**

Sponsored Links

- |                             |                        |                         |
|-----------------------------|------------------------|-------------------------|
| Booking Agency              | Graphic Design         | Speakers Bureau         |
| Grabow Entertainment Agency | Logo Design - LogoBee  | Christian Speakers      |
| Business Resources          | Real Estate            | Motivational Speakers   |
| Business Cards              | International Shipping | Sports Speakers Bureaus |
| Checks                      | Mortgage Calculator    | Web Services            |
| Computers                   | Moving                 | Dedicated Servers       |
|                             | Moving Companies       | Web Hosting             |

Local Guides

- Alabama
- Alaska
- Arizona
- Arkansas
- California

Get Your Music Production Bachelors Degree at Full Sail University!

[www.FullSail.edu](http://www.FullSail.edu)

**Romantic Classical Music**

Vast selection of high quality recordings by great artists.

[Passionato.com/Romantic](http://Passionato.com/Romantic)

[PowerEdge Memory](#)

[Real Estate](#)

[Charitable Donations](#)

[Car Donations](#)

[Boat Donations](#)

[Colorado](#)

[Connecticut](#)

[DC](#)

[Delaware](#)

[Florida](#)

[Georgia](#)

[Hawaii](#)

[Idaho](#)

[Illinois](#)



Ads by Google

[About these ads](#)

---

[Home](#) | [About](#) | [Site Map](#) | [Monitor Topics](#) | [Contact Us](#) | [Subscribe](#) | [Text](#) | [Specials](#) | [Multimedia](#) | [Make Us Your Home Page](#)  
[Careers](#) | [Corrections](#) | [Find us online](#) | [Advertise With Us](#) | [Monitor Mall](#) | [Today's Article on Christian Science](#)

---

© The Christian Science Monitor. All Rights Reserved. [Terms](#) under which this service is provided to you. [Privacy Policy](#).