Creativity: can computers cut it?

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Creativity: can computers cut the mustard?

The problem with creativity

Poorly defined Covers both the mundane and the profound Unclear where the mind of the programmer stops and that of the computer begins

Does computational creativity = creativity?

Linguistic arts

Story telling, metaphor and analogy, jokes, poetry and other fun

Creativity in problem solving

Visual arts

Music

Linguistic arts

Computational humour

JAPE What do you call a strange market?

STANDUP What do you call a washing machine with a September?

Ritchie, G & Masthoff, J 2011, The STANDUP 2 Interactive Riddle Builder. in D Ventura, P Gervas, F Harrell, ML Maher, A Pease & G Wiggins (eds), Proceedings of the Second International Conference on Computational Creativity. Universidad Autónoma Metropolitana, Mexico City, pp. 159.

The Chargers take down the Chiefs

. . .

Even with an unexceptional outing for Philip Matt Cassel, Russell Wilson and March Sanchez Rivers, the Chargers handled the Chiefs, 37-20, at have struggled, and their starting jobs are in Arrowhead Stadium.

Rivers found the end zone for two touchdowns NFL quarterbacks have landed far short of against the Chiefs on 18 of 23 passing for 209 yards and one pick. Matt Cassel went 24 of 42 with 251 yards passing, two touchdowns and three picks for the Chiefs.

Lastly, Nick Novak was perfect, hitting all three of the field goals he attempted...

Three quarterbacks are walking a tightrope

jeopardy. Their passes migh sail high, but three expectations.

Through, four games, the three have combined for 14 touchdowns and 15 interceptions, and each plays for a team in danger of falling behind early in their retrospective division races.

Clerwall, C. (2014), Enter the Robot Journalist: Users' perceptions of automated content, Journalism Practice, http://dx.doi.org/10.1080/17512786.2014.883116

. . .

The man whose name I do not know

The earth and of a woman to lament, I see that you are in the eastern game To me the odor of his hat and scent, And if it shall be dear to me his name. And now I say it is without surprise It is the odor of his neck and eyes.

Shall I Compare Thee to a Machine-Written Sonnet? An Approach to Algorithmic Sonnet Generation, John Benhart, Tianlin Duan, Peter Hase, Liuyi Zhu, Cynthia Rudin, Nov 2018, <u>ArXiv:1811.05067</u>



Visual arts





From: A Neural Algorithm of Artistic Style, Leon A. Gatys, Alexander S. Ecker, Matthias Bethge, Sept, 2015, arXiv:1508.06576















Portrait of Edmond Belamy

Sold at Christie's New York, Oct 2018 \$425,000

'The algorithm is composed of two parts,' says Caselles-Dupré. 'On one side is the Generator, on the other the Discriminator. We fed the system with a data set of 15,000 portraits painted between the 14th century to the 20th. The Generator makes a new image based on the set, then the Discriminator ies to spot the an-made image and one difference between a h The aim is to fool the created by the Generat Discriminator into thin ng that the new images are real-life portraits. T h we have a result.'

Pierre Fautrel, À la découverte d'une IA artiste, https://www.youtube.com/watch?v=xWS_kIJ7ws&t=1s





Musical arts

Melomics

J D Fernández and F Vico, "AI Methods in Algorithmic Composition: a comprehensive survey, Journal of Artificial Intelligence Research, 48 (2013), 513—582.





Can you spot a hit?



Ben Novak, "Turn your car around"

Number 12 in UK Singles Chart

Top 20 in many other European countries

https://youtu.be/gQCORp_241M

"The artist risks becoming a machine hitched to another machine."

Eugène Delacroix 1850

The Versificator

"There was a whole chain of separate departments dealing with proletarian literature, music, drama, and entertainment generally. Here were produced rubbishy newspapers containing almost nothing except sport, crime and astrology, sensational five-cent novelettes, films oozing with sex, and sentimental songs which were composed entirely by mechanical means on a special kind of kaleidoscope known as a versificator."

Chapter 4 of "Nineteen Eighty-Four" by George Orwell (1949)

Next season:

six lectures on the digital state

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