

Using twitter to generate a realistic birdsong soundscape

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Scientists in Brazil are using a genetic algorithm to create a realistic soundscape of birdsong that can be triggered by updates from the micro-blogging service, Twitter, which celebrates its tenth anniversary this year. Details of the computer model which mimics the behavior of a bird's songbox, its "syrinx", to create realistic sounds are published this month in the *International Journal of Arts and Technology*.

José Fornari of the Interdisciplinary Nucleus for Sound Communication (NICS), at the University of Campinas (UNICAMP), in São Paulo, explains how [birdsong](#) is an integral part of many landscapes, in the urban environment and countryside. He has developed an evolutionary, or genetic, algorithm that synthesizes authentic sounding birdsong in the computer. The system could be used to manipulate the acoustic space of a shopping mall to create a realistic soundscape fed by actual twitter updates so would not have the looped repetitiveness of a recording of actual birdsong that would be played interminably on a loop. "This evolutionary algorithm creates an artificial soundscape (of birdsongs) that is always acoustically original, Fornari says. He adds that the birdsong is like an individual in a population that will never be repeated again.

Such soundscapes, of course, might also be said to represent a unique, crowd-generated audio-artwork. Given the nature of Twitter activity, which inevitably follows the highs and lows of daily life and the trends of news and popular culture, the soundscapes generated might offer a fascinating acoustic reflection of our world and at times a chaotic

cacophony. One could also imagine linking the system to a single user's account and giving them a personal experience in birdsong of the tweets from their friends and contacts.

More information: José Fornari. An evolutionary algorithm to create artificial soundscapes of birdsongs, *International Journal of Arts and Technology* (2016). [DOI: 10.1504/IJART.2016.075409](https://doi.org/10.1504/IJART.2016.075409)

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