Politicians and advertisers are now able to resort to digital trickery to win over the inhabitants of internet-based virtual worlds such as Second Life.

Second Life was started in San Francisco in 1999 and now has seven million players who can create their own characters, known as avatars, buy goods, throw parties and build their own homes.

But the increasingly realistic three dimensional avatars in Second Life can make it easier to deceive fellow inhabitants, Judith Donath at the Massachusetts Institute of Technology Media Lab, Cambridge, notes in the journal Science.

Sophisticated software enables designers to give avatars simple behaviours such as waves and smiles to communicate nuances of meaning and emotion, along with facial expressions, gaze direction, realistic gaits and trendy fashions.

But research at Stanford University in California suggests that people could also be more easily influenced by an avatar of a politician whose face was slighly altered to match that of the listener, she says.

"It is quite conceivable that in a few years avatars whose behaviour is nearly imperceptible from humans' will be available," says Dr Donath. "Yet this raises important questions about the reliability of the impressions we form."

"As behavioural software becomes more sophisticated, are we creating avatars that will be increasingly attractive and seemingly friendly but are in fact the ideal mask behind which a dishonest or manipulative person can operate?"

She cited a study led by Dr Jeremy Bailenson of Stanford University, California, that found that politicians' arguments became more persuasive when their faces were made to subtly resemble the listener's, "raising the spectre of a world in which you are bombarded with oddly compelling ad campaigns presented by people just like you," says Dr Donath.

"Suspicious citizens of the future may demand to interact with candidates only through trusted "manipulation-free" sites, "she added.

Dr Bailenson's study on 76 volunteers suggested that men in particulalr were more susceptible to the charms of a virtual politician that had been morphed to look like them.

A paper by the team in the journal Political Psychology warns it is "only a matter of time" before candidates start to distort their images this way, a strategy psychologists call Transformed Social Interaction, or TSI. "Overall," he says, "the maxim "birds of a feather flock together" seems apt."

"Imagine a scenario in which a candidate broadcasts a political advertisement or press conference to two different districts, one in which the distribution of voters is more heavily African American, and one in which the distribution of voters is more heavily Latino.

By applying TSI filters to the video feeds of his image in real-time, the candidate could appear more African
American in one district and more Latino in the other." Their research suggests that "the political payoffs of implicit visual similarity are indeed significant."

One reason to expect the increased use of morphed faces in campaign advertising is that the technology can be automated, requiring no human artistry or manipulation.

"Software that automatically morphs a candidate's image based on stock images that are archived with a voter's address is a possibility that could arrive in months rather than years."

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