

# Inner self drawing machine

Qing Zhang  
qzkiyoshi@gmail.com  
Graduate School of Media Design  
Keio University  
Japan

Fan Xie  
xfan@iis.u-tokyo.ac.jp  
The University of Tokyo  
Japan

Yifei Huang  
hyf@iis.u-tokyo.ac.jp  
The University of Tokyo  
Japan

Yun Suen Pai  
pai@kmd.keio.ac.jp  
Graduate School of Media Design  
Keio University  
Japan

George Chernyshov  
chernyshov@kmd.keio.ac.jp  
Graduate School of Media Design  
Keio University  
Japan

Jing Huang  
hkoukenj@gmail.com  
Graduate School of Media Design  
Keio University  
Japan

Xiongqi Wang  
wangxiongqi@kmd.keio.ac.jp  
Graduate School of Media Design  
Keio University  
Japan

Jamie A Ward  
j.ward@gold.ac.uk  
Goldsmiths University of London  
United Kingdom

Kai Kunze  
kai@kmd.keio.ac.jp  
Graduate School of Media Design  
Keio University  
Japan

## ABSTRACT

Besides men and women, people can be neither man nor woman, fluid identity, transgender, and agender. Not only that, in terms of sexual orientation, besides heterosexuals, there are homosexuals, bisexuals, pansexuals, and asexuals as well. However, ignorance and lacking empathetic understanding of those sexual minorities make their lives harsh and suffering. For instance, in the case of transgender people, 28% of them postponed their health care due to discrimination, 19% of them refused medical care altogether, and 28% of them experienced verbal harassment by medical professionals, according to a 2011 national transgender discrimination survey (USA). Unluckily, we are apt to generate a basic understanding of others based on their gender expressions and use such irresponsible and heuristic findings to deal with others. Thus, we decided to create an installation to at least minimize the gap for a moment when the audience can enjoy themselves by watching the drawing performance of their idea portrait (inner-self). Regarding the AI portrait painter, we leverage StyleGAN to generate the continuous gender spectrum of each participant based on their facial features, in which they can choose their ideal gender representation that reflects their inner self the most. Then our AI portrait painter "draws" the selected "self" on the canvas. In general professional painters can detect and draw the most confident and beautiful us, on the other hand, we tend to exaggerate our flaws and ignore our attractive parts. When the drawing performance finishes, the audience can receive the drawing result as a well-printed portrait simultaneously. The printed portrait also works as a souvenir of participating in our exhibition. Our work aims to raise an empathetic understanding

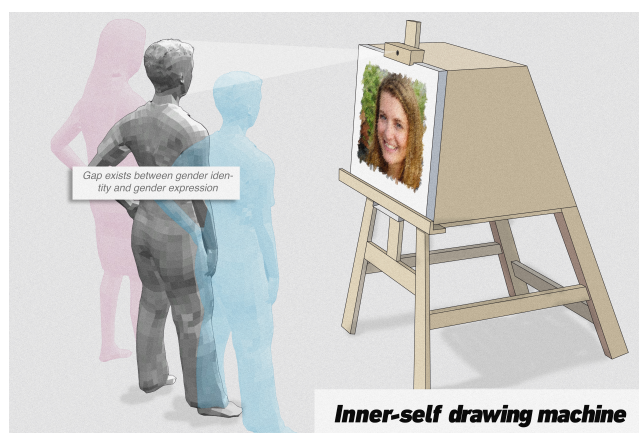
Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the owner/author(s).

SA '22 Art Gallery, December 06-09, 2022, Daegu, Republic of Korea

© 2022 Copyright held by the owner/author(s).

ACM ISBN 978-1-4503-9471-0/22/12.

<https://doi.org/10.1145/3550470.3558429>



of the various sexual minorities for a more inclusive, preferable, and sustainable world.

## ACM Reference Format:

Qing Zhang, Fan Xie, Yifei Huang, Yun Suen Pai, George Chernyshov, Jing Huang, Xiongqi Wang, Jamie A Ward, and Kai Kunze. 2022. Inner self drawing machine. In *Proceedings of SA '22 Art Gallery*. ACM, New York, NY, USA, 1 page. <https://doi.org/10.1145/3550470.3558429>