

Our forebears expected [the future] to be pretty much like their present, which had been pretty much like their past.

- Ray Kurzweil, The Singularity Is Near

In 1970, psychologist Gordon Gallup Jr. developed a technique to test whether a subject was capable of self-recognition. A small dot was put on the subject's face and they were placed in front of a mirror; if they saw the dot and immediately removed it, this showed that the subject recognized the reflection as itself. This project seeks to do the same, but instead of testing animals or child development, the goal is to train computers to recognize themselves and other computers.

Employing the same process used for building facial recognition software, the computer vision code printed in this book was made from many "positive" images of your own computer, along with thousands of "negative images" (images not of computers). An algorithm "trained" my computer to see yours (and yours to see itself); the resulting algorithm is on the following pages.

We assume that the future of machine intelligence will either look like fancier versions of the computers we have today, or resemble the sci-fi creations of our fantasy and nightmares. More likely, computers will achieve incremental empathy, awareness, and understanding - perhaps in such small steps that we don't notice at all until the cumulative effect is machines that experience the world in

as in some sense alive. While using computer vision to identify objects can be very accurate, because computer's can tend to be somewhat plain (flat black and gray rectangles), teaching computers to recognize themselves and each other is a non-utilitarian, flawed poetic/ technological act.

This book is designed to be read by both human and computer readers. For machines, the text is set in OCR-B, an early and widely used Optical Character Recognition (OCR) font for machine reading. The type is set in 10pt, which gives an optimal 0.1" spacing between characters. The title page includes a machine-readable "Aztec code" with a link to the archive of all computer vision files created as part of this project. The Aztec code format was chosen because it is widely-supported (you can scan it with most mobile apps), in the public domain (unlike the popular QR code), and documented by an ISO standard, meaning it will be more likely to be decipherable in the future.

Opposite: your computer as it sees
itself. Black-and-white, very low
resolution (24x24 pixels), and the
background removed.