MIRROR TEST

2014

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 computer, along with
thousands of "negative images" (images not of
computers). An algorithm "trains" the computer
to see these objects, and the result is what you
see 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 amounts of 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
such complex ways that we cannot but see them

as in some sense alive. While using computer
vision to identify objects can be very accurate,
because the shapes of computers 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 supported
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 computer vision files. 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.

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