Seduction:
Promotional image of the Predator B, from General Atomics Aeronautical Products and Services Page
Some Moral and Technical Consequences of Automation As machines learn they may develop unforeseen strategies at rates that baffle their programmers.
Norbert Wiener, Science, 6 May 1960

“When a machine constructed by us is capable of operating on its incoming data at a pace which we cannot keep, we may not know, until too late, when to turn it off.
If we use, to achieve our purposes, a mechanical agency with whose operation we cannot efficiently interfere once we have started it, because the action is so fast and irrevocable that we have not the data to intervene before the action is complete, then we had better be quite sure that the purpose put into the machine is the purpose which we really desire and not merely a colorful imitation of it.
We must always exert the full strength of our imagination to examine where the full use of our new modalities may lead us.”
Can you take humans out of any of these loops?
• Psychology v Technology
• RCA engineer Zworkykin observed Japanese training and construed kamikaze pilots as “eyes.”
• US “radio-controlled planes” could be used as air torpedoes but they were blind beyond visual contact with operators
• “One possible means of obtaining practically the same results as the suicide pilot is to provide a radio-controlled torpedo with an electric eye.”
Antiaircraft Predictor

OQ-3, El Paso, Texas, 1941
Radioplane built about 9K of these
OQ3 Radio Controlled Target Drone, 1943
9,403 built and shot down during war
1944 version, 180 mph
Dresden, February 1945
The right to be killed by a human being
Vietnam War era “Lightning Bug” version of the “Firebee” RPV
Reconnaissance Drones: Timer, gyrocompass, altimeter
Eventually, repurposed by Israel
The first Predator to shoot a Hellfire Missile, #3034, now hangs in the National Air and Space Museum.
“Though it makes for great fiction, the fear of robot rebellion should not be our biggest immediate concern. Engineers should certainly keep such possibilities in mind in order to safeguard against them—especially in light of the disaster in which a robotic anti-aircraft gun being tested by South Africa started firing randomly, killing nine and injuring fourteen. The immediate question, however, is whether we should use robot soldiers at all, even if we could be absolutely certain that they would never malfunction and go on a rampage.” In Meyers, *GI Robot*, 2011
Obama’s Drone War

Director of National Intelligence Report, 2015: Account of all drone strikes outside areas of active hostility

• 473 strikes outside areas of active hostilities from 2009 to 2015,
• Deaths of approximately 2,300 to 2,600 combatant/terrorists
• 64 to 116 civilians (or 200-900?).
The Hunting Ground, AS17-148-22727
Blue Marble, 1972, Apollo 17
The kamikaze implies a total fusion of the fighter’s body and weapon.

The drone ensures their radical separation.

The kamikaze: My body is my weapon.
The drone: My weapon has no body.

LAWs: My mind has no body.