"Let us also, at the end of our long road, return once more to the "heuristics of fear" [...]. For many, the apocalyptic potential of our technology is concentrated in the atom bomb. I am sure that they do not exaggerate the peril. But it has one consolation: it lies in the realm of arbitrary choice. Certain acts of certain actors can bring about the catastrophe – but they can also remain undone. Nuclear weapons can be abolished without this requiring all of modern existence to change. (The prospect is admittedly small.) Anyway, decisions still play a role - and in these: fear. Not that this can be trusted; but we *can*, in principle, be *lucky* because the use is not *necessary* in principle, that is, not impelled by the production of the thing as such (which rather aims at obviating the necessity of its use).

"My main fear rather relates to the apocalypse threatening from the nature of the unintended dynamics of technical civilization as such, inherent in its structure, whereto it drifts willy-nilly and with exponential acceleration: the apocalypse of the 'too much', with exhaustion, pollution, desolation of the planet. Here the credible extrapolations are frightening and the calculable time spans shrink at a frenzied pace. Here averting the disaster asks for a revocation of a whole life-style. even of the very principle of the advanced industrial societies, and will hurt an endless number of interests (the habit interests of all!). It thus will be much more difficult than the prevention of nuclear destruction, which after all is possible without decisive interference with the general conditions of our technological existence. Most of all, the one apocalypse is almost bound to come by the logic of present trends that positively forge ahead toward it; the other is only a terrible contingency which may or may not happen.

"Therefore, with all respect for the threat of sudden destruction by the atom bomb, I put the threat of the slow incremental opposite, overpopulation and all the other 'too much', in the forefront of my fears. That time bomb, whose ticking so far cannot be checked, competes in destructive power, alas, with any amount of hydrogen bombs. The apocalypse which threatens here from a total *development* (not just a single act) seems to me not smaller than the sudden one of an atomic holocaust, its consequences possibly as irreversible, and to its coming every one of us contributes by

mere membership in modern society. This apocalypse waits for our grandchildren, if we are lucky enough till then to have avoided the nuclear peril.

"Darkest of all is, of course, the possibility that one will lead to the other; that in the global mass misery of a failing biosphere where 'to have or to not have' turns into 'to be or not to be' for whole populations and 'everyone for himself' becomes the common battle cry, one or the other desperate side will, in the fight for dwindling resources, resort to the *ultima ratio* of atomic war - that is, will be driven to it."

Hans Jonas, *The Imperative of Responsibility: In Search of an Ethics for the Technological Age* (Chicago: University of Chicago, 1984), 202.