

# Tecnologia e Società



RENÉ GIRARD

*Delle cose nascoste  
sin dalla fondazione  
del mondo*



ADELPHI

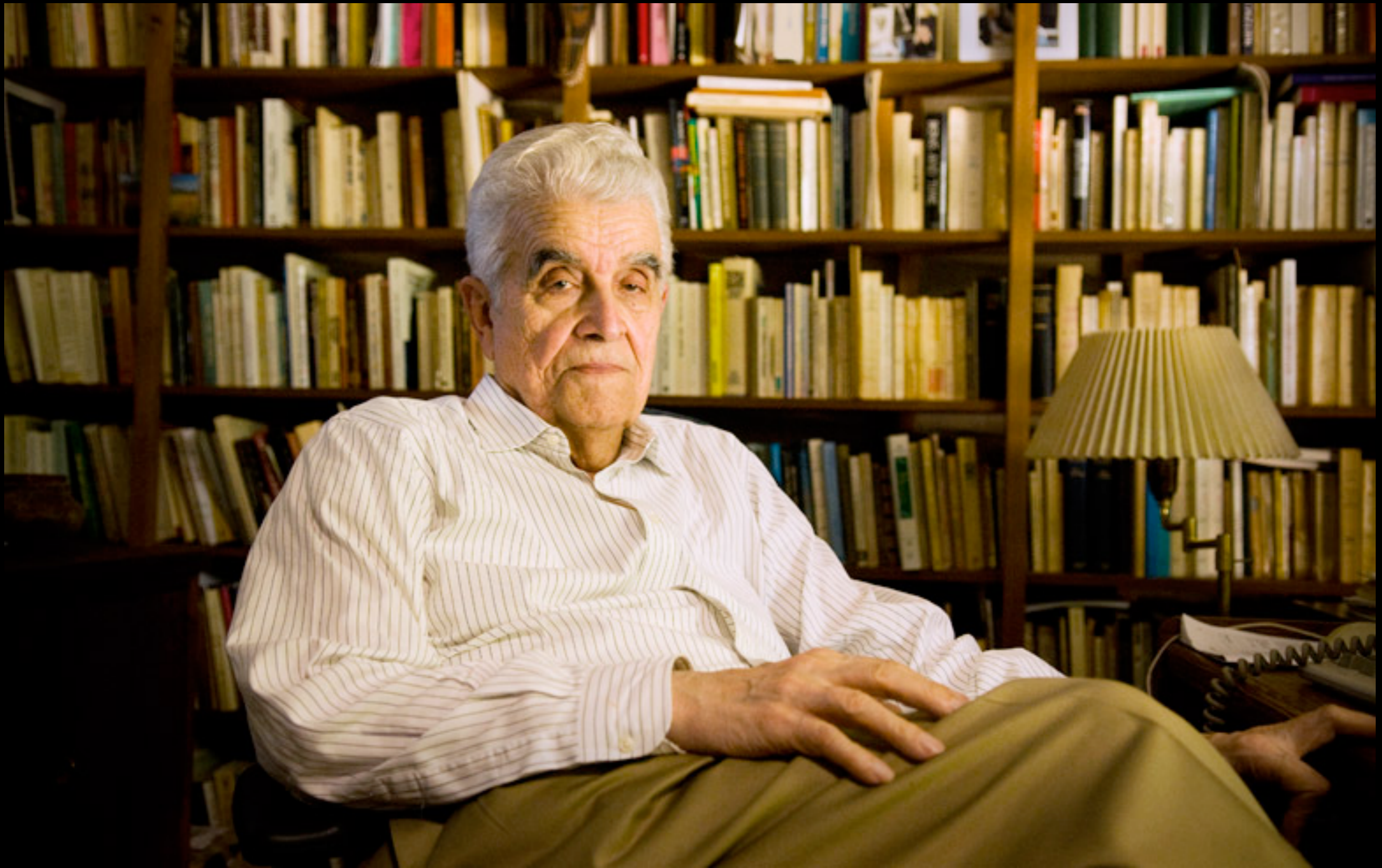


Peter  
Thiel

3.3 B\$

**facebook**

Che cosa avevano **in comune** queste due persone apparentemente così diverse?



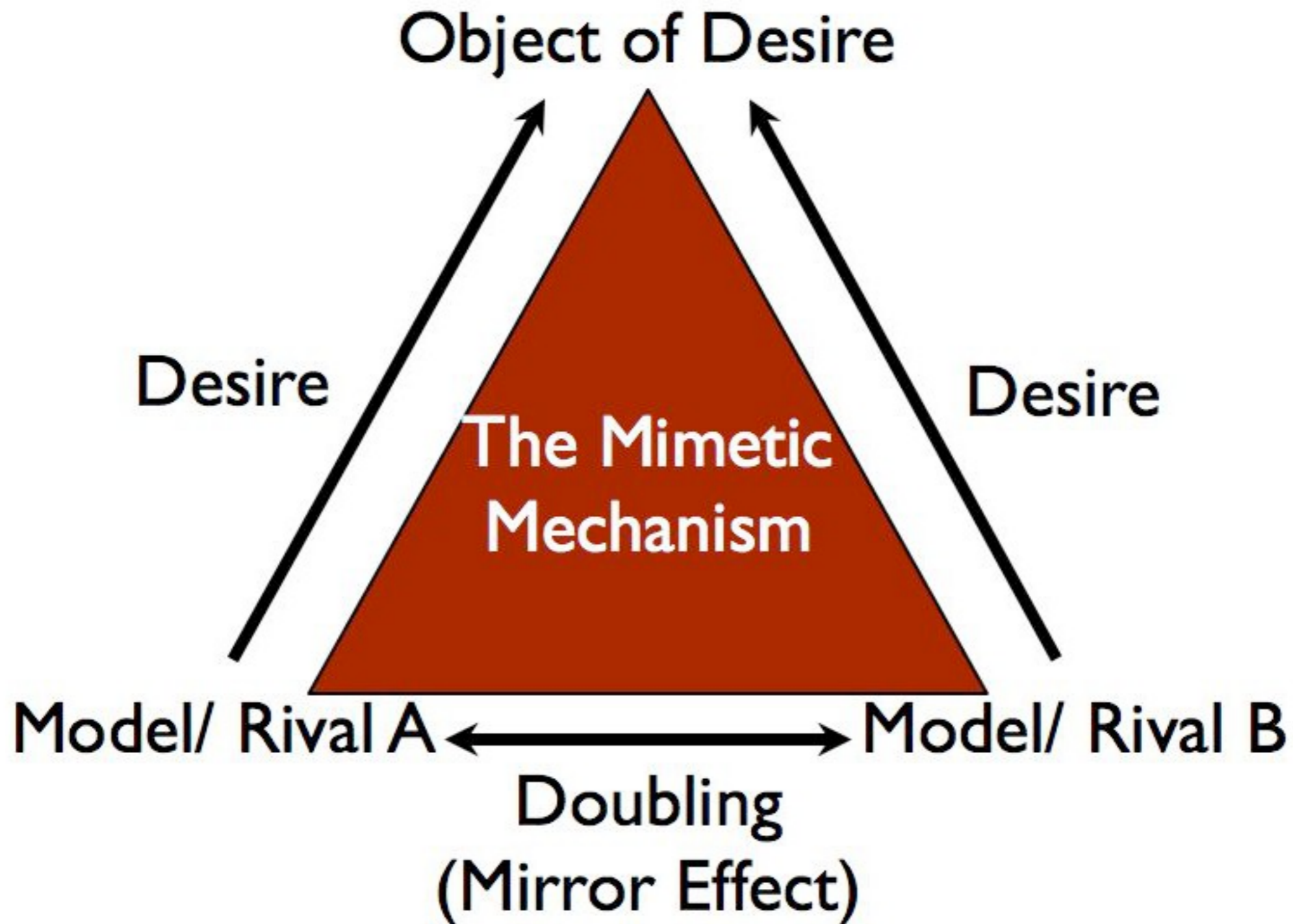


**René Girard**

**MENZOGNA  
ROMANTICA  
E VERITÀ  
ROMANZESCA**

**Le mediazioni del desiderio nella letteratura  
e nella vita**

# teoria mimetica



E' difficile aver successo  
- in uno dei **numerosi modi** in cui  
si può aver successo -  
senza **una comprensione**  
**profonda della rivoluzione digitale**

non solo tecnologia,  
non solo management,  
non solo design,  
non solo personalità

cultura

cominciamo parlando  
di  
tecnologia e società

viviamo in un'epoca di  
tecno-determinismo acritico

strumenti tecnologici  
come **idoli**



miti

“due ragazzi inventano  
qualcosa in un garage e poi  
diventano miliardari”

la **tecnologia** come qualcosa  
per definizione  
**inevitabile e positivo**

e chi osa formulare  
critiche  
è un “luddista”

# Ned Ludd



*Drawn from Life by an Officer*

# THE LEADER OF THE LUDDITES

*Publ. May 18. by H. W. Walker and Knight, Baring's Alley, Royal Exchange.*

**TECNOLOGIA**



**SOCIETA'**

visione più estrema:  
alcuni miliardari di Silicon Valley  
che vorrebbero rifondare tutto  
(incluso lo Stato)  
basandolo sulla tecnologia



tuttavia

la tecnologia  
non si materializza  
dal nulla

la tecnologia **non si autogenera**

non c'è nulla di impersonale  
a riguardo della tecnologia,  
la tecnologia non “capita”:  
è dovuta  
a forze che hanno  
*“nome, cognome e soprannome”*

**UOMINI**



**TECNOLOGIA**



**SOCIETA'**

**UOMINI**

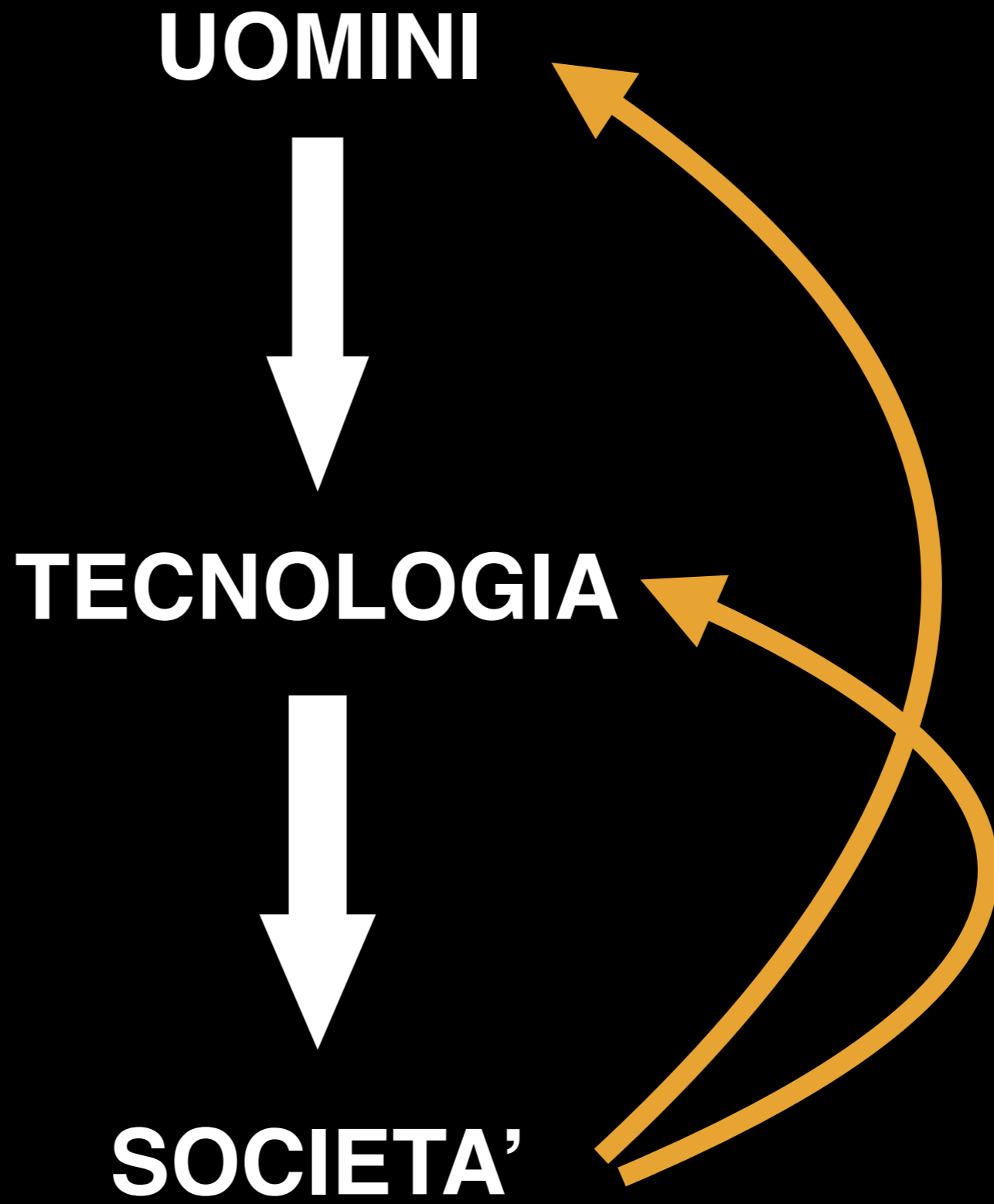


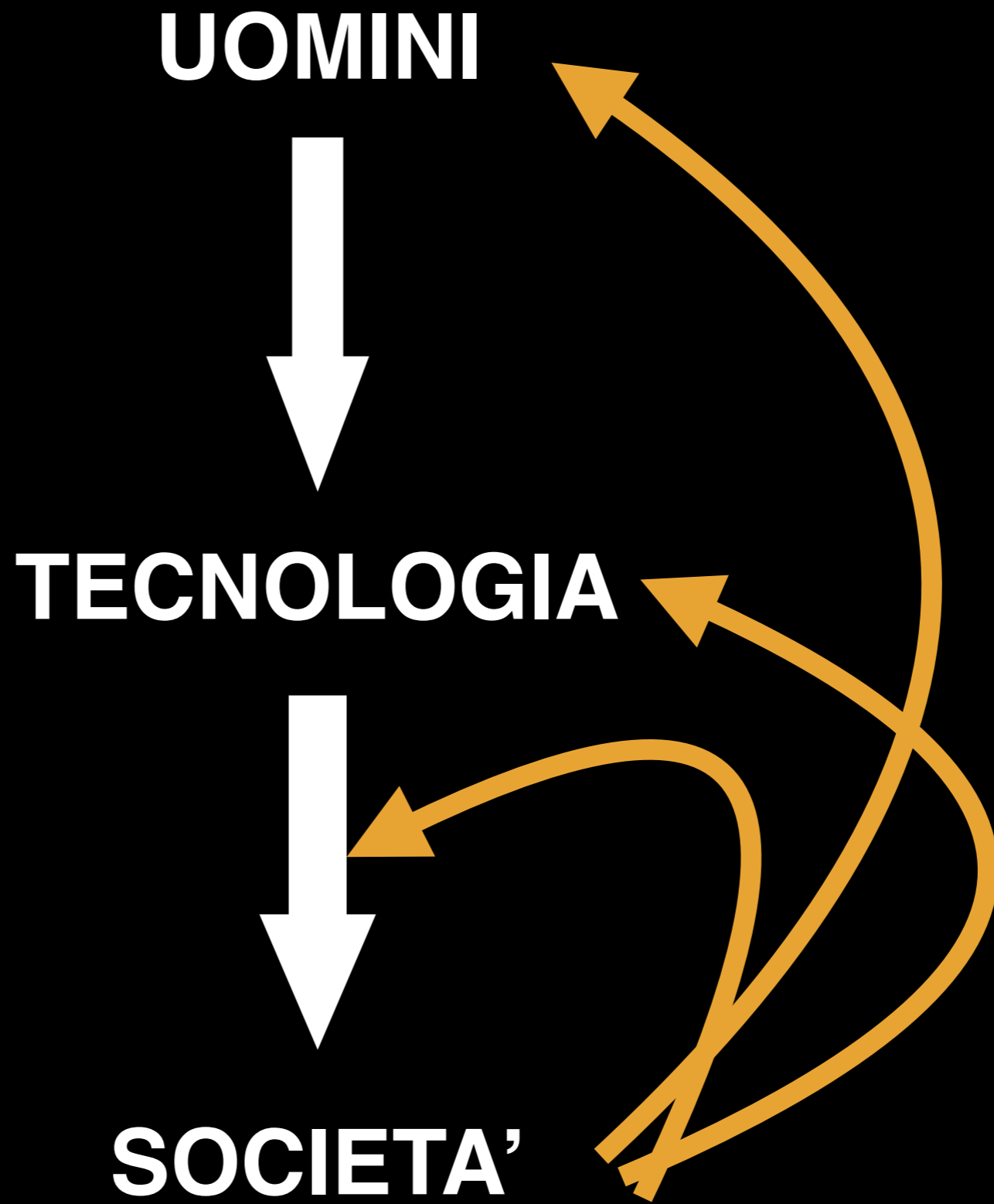
**TECNOLOGIA**



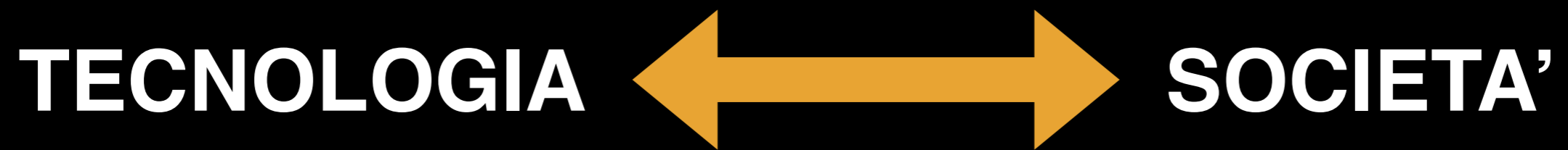
**SOCIETA'**











**analizzare, capire, valutare**  
**il complicato rapporto**  
**tecnologia-società**

**senza pregiudizi**

**né positivi**

**(“il Progresso”, “il Futuro”, ecc.),**

**né negativi**

**(“l’Uomo schiacciato dalle macchine”,**

**“la tecnologia che ormai è fuori controllo”, ecc.)**

# 1<sup>a</sup> Legge di Kranzberg (l'inizio):

“La tecnologia di per sè non è né buona, né cattiva...”

*(Melvin Kranzberg, storico della tecnologia)*

**Lo dicono in molti**

**Se fosse vero, la tecnologia di per sè non  
sarebbe mai un problema.**

**I problemi verrebbero solo dall'uso che  
se ne fa.**

# 1ª Legge di Kranzberg:

“La tecnologia di per sè non è  
né buona, né cattiva,  
**né tantomeno neutra.”**

*(Melvin Kranzberg, storico della tecnologia)*

Fonte: Melvin Kranzberg, “Technology and History: Kranzberg’s Laws”, 1986, Technology and Culture, Vol. 27, No. 3, pp. 544–560.

**cosa vuol dire?**

esplorare egualmente  
sia il potenziale **negativo**,  
sia il potenziale **positivo**



**tenendo in considerazione  
gli interessi di tutti,  
non solo quelli di alcuni**

**tenendo anche presenti  
i limiti della tecnologia:  
ci sono problemi, infatti,  
che non hanno  
soluzioni tecnologiche**

(ma dipendono invece  
per esempio da povertà)

**c'è anche un altro aspetto**

la tecnologia ha **conseguenze**

**Uno degli aspetti del  
rapporto tra  
tecnologia e società  
è quello etico**

dal momento che **la tecnologia è un prodotto umano**, infatti, essa deve essere soggetta allo stesso **scrutinio etico** di tutte le altre attività umane

# etica e tecnologia





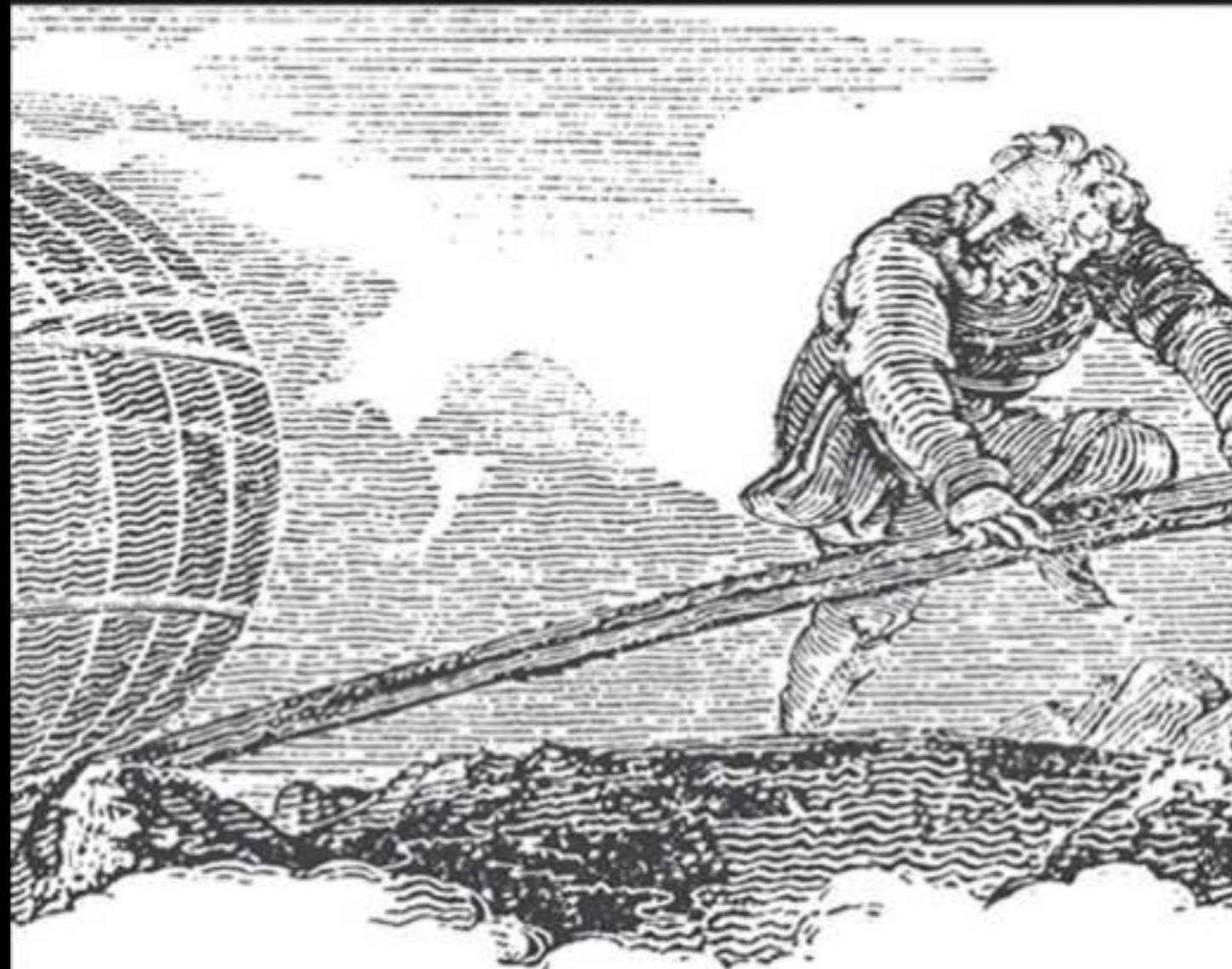
**etica**  
**di chi PRODUCE tecnologia**

# engineering ethics

David Douglas and Greg Papadopoulos with John Boutelle

# CITIZEN Engineer

A HANDBOOK FOR SOCIALLY RESPONSIBLE ENGINEERING



“Δῶς μοι πᾶ στῶ καὶ τὰν γᾶν κινάσω”

“Give Me a Place to Stand and I Will Move the Earth”

p.es., **Software Engineering Ethics**

- The types of harms the public can suffer as result of this work;
- How software engineers contribute to the good life for others;
- Who exactly are the 'public' to whom the engineer is obligated;
- Why the software engineer is obligated to protect the public;
- What other ethical obligations software engineers are under;
- How software engineers can actually live up to ethical standards;
- What is the end goal of an ethical life in software engineering;
- What are the professional codes of software engineering ethics;

*(fonte: Santa Clara University Ethics Center)*

# QUALCHE RISORSA

<http://onlinemasters.ohio.edu/ultimate-guide-to-engineering-ethics/>

[https://en.wikipedia.org/wiki/Engineering\\_ethics](https://en.wikipedia.org/wiki/Engineering_ethics)

<https://www.nspe.org/resources/ethics/code-ethics>



**Consiglio Nazionale degli Ingegneri**

# Carta eco-etica dell'ingegneria italiana

[cni-online.it/Attach/DV10695\\_ALL.pdf](http://cni-online.it/Attach/DV10695_ALL.pdf)

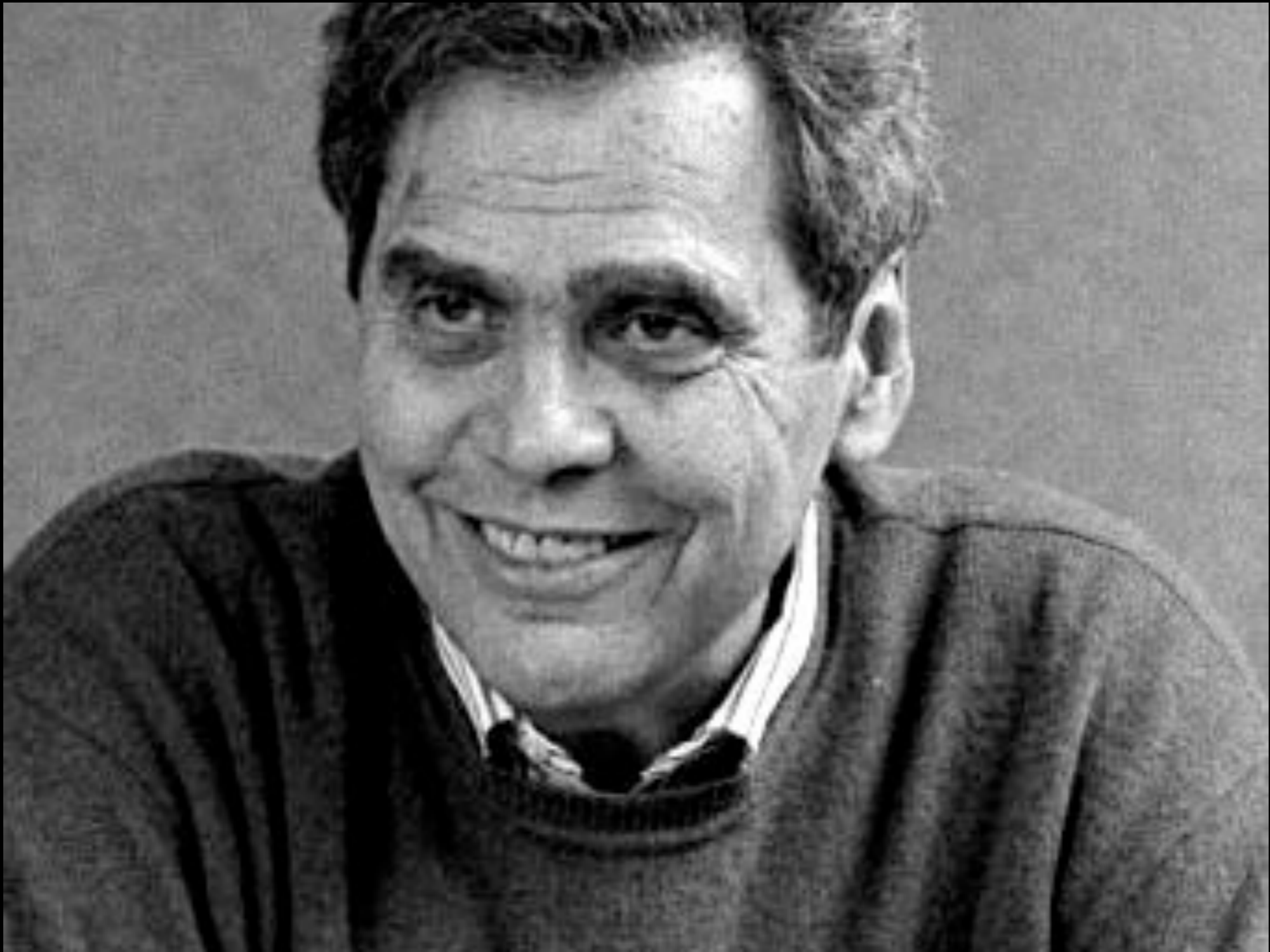




Un punto di svolta per gli scienziati:  
**la Bomba Atomica**

*(V. per esempio:*

*<http://www.reformation.org/leo-szilard.html>*)



**Neil Postman (1931-2003)**

1. “What is the problem to which this technology is the solution?”
2. “Whose problem is it?”
3. “Which people and what institutions might be most seriously harmed by a technological solution?”
4. “What new problems might be created because we have solved this problem?”
5. “What sort of people and institutions might acquire special economic and political power because of technological change?”
6. “What changes in language are being enforced by new technologies, and what is being gained and lost by such changes?”

*(da Neil Postman, “Come sopravvivere al futuro”)*

## **DUE DOMANDE AGGIUNTIVE:**

7. What happens when you hit this piece of technology with a rock?

8. What will happen and who will be impacted by this piece of new technology once it becomes a piece of old technology?

*(da <https://librarianshipwreck.wordpress.com/2014/01/13/technology-does-not-stay-new-for-long-another-question-for-neil-postman/>)*



**Jacques Ellul (1912-1994)**

**“76 ragionevoli  
domande  
da porre in merito  
a qualsiasi  
tecnologia”**

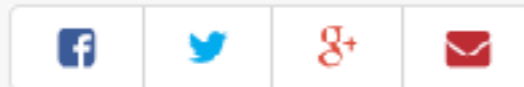
# Ecologiche

- What are its effects on the health of the planet and of the person?
- Does it preserve or destroy biodiversity?
- Does it preserve or reduce ecosystem integrity?
- What are its effects on the land?
- What are its effects on wildlife?
- How much, and what kind of waste does it generate?
- Does it incorporate the principles of ecological design?
- Does it break the bond of renewal between humans and nature?
- Does it preserve or reduce cultural diversity?
- What is the totality of its effects, its “ecology”?



# THE COBALT PIPELINE

Tracing the path from deadly hand-dug mines in Congo to consumers' phones and laptops



Story by **Todd C. Frankel**

Photos by **Michael Robinson Chavez**

Video editing by **Jorge Ribas**

September 30, 2016

The sun was rising over one of the richest mineral deposits on Earth, in one of the poorest countries, as Sidiki Mayamba got ready for work.

Mayamba is a cobalt miner. And the red-dirt savanna stretching outside his door contains such an astonishing wealth of cobalt and other minerals that a geologist once described it as a “scandale geologique.”

This remote landscape in southern Africa lies at the heart of the world's mad scramble for cheap cobalt, a mineral essential to the rechargeable lithium-ion batteries that



# E-waste Republic



*By Jacopo Ottaviani*

*Photography and design: Isacco Chiaf*

Over 40 million tonnes of electric and electronic waste (also known as e-waste) are produced worldwide every year. That is boundless heaps of refrigerators, computers, television sets, ovens, telephones, air conditioning units, lamps, toasters and other electric

# Sociali

- Does it serve community?
- Does it empower community members?
- How does it affect our perception of our needs?
- Is it consistent with the creation of a communal, human economy?
- What are its effects on relationships?
- Does it undermine conviviality?
- Does it undermine traditional forms of community?
- How does it affect our way of seeing and experiencing the world?
- Does it foster a diversity of forms of knowledge?
- Does it build on, or contribute to, the renewal of traditional forms of knowledge?
- Does it serve to commodify knowledge or relationships?
- To what extent does it redefine reality?
- Does it erase a sense of time and history?
- What is its potential to become addictive?

# Pratiche

- What does it make?
- Who does it benefit?
- What is its purpose?
- Where was it produced?
- Where is it used?
- Where must it go when it's broken or obsolete?
- How expensive is it?
- Can it be repaired?
- By an ordinary person?

# Morali

- What values does its use foster?
- What is gained by its use?
- What are its effects beyond its utility to the individual?
- What is lost in using it?
- What are its effects on the least advantaged in society?

# Etiche

- How complicated is it?
- What does it allow us to ignore?
- To what extent does it distance agent from effect?
- Can we assume personal, or communal responsibility for its effects?
- Can its effects be directly apprehended?
- What ancillary technologies does it require?
- What behavior might it make possible in the future?
- What other technologies might it make possible?
- Does it alter our sense of time and relationships in ways conducive to nihilism?

# Professionalism

- What is its impact on craft?
- Does it reduce, deaden, or enhance human creativity?
- Is it the least imposing technology available for the task?
- Does it replace, or does it aid human hands and human beings?
- Can it be responsive to organic circumstance?
- Does it depress or enhance the quality of goods?
- Does it depress or enhance the meaning of work?

# Metafisiche

- What aspect of the inner self does it reflect?
- Does it express love?
- Does it express rage?
- What aspect of our past does it reflect?
- Does it reflect cyclical or linear thinking?



# Politiche

- Does it concentrate or equalize power?
- Does it require, or institute a knowledge elite?
- Is it totalitarian?
- Does it require a bureaucracy for its perpetuation?
- What legal empowerments does it require?
- Does it undermine traditional moral authority?
- Does it require military defense?
- Does it enhance, or serve military purposes?
- How does it affect warfare?
- Is it massifying?
- Is it consistent with the creation of a global economy?
- Does it empower transnational corporations?
- What kind of capital does it require?

# Estetiche

- Is it ugly?
- Does it cause ugliness?
- What noise does it make?
- What pace does it set?
- How does it affect the quality of life (as distinct from the standard of living)?

# **Altre 41 domande**

(fonte: <http://thefrailestthing.com/2014/11/29/do-artifacts-have-ethics/>)

1. What sort of person will the use of this technology make of me?
2. What habits will the use of this technology instill?
3. How will the use of this technology affect my experience of time?
4. How will the use of this technology affect my experience of place?
5. How will the use of this technology affect how I relate to other people?
6. How will the use of this technology affect how I relate to the world around me?
7. What practices will the use of this technology cultivate?
8. What practices will the use of this technology displace?
9. What will the use of this technology encourage me to notice?
10. What will the use of this technology encourage me to ignore?

11. What was required of other human beings so that I might be able to use this technology?
12. What was required of other creatures so that I might be able to use this technology?
13. What was required of the earth so that I might be able to use this technology?
14. Does the use of this technology bring me joy?
15. Does the use of this technology arouse anxiety?
16. How does this technology empower me? At whose expense?
17. What feelings does the use of this technology generate in me toward others?
18. Can I imagine living without this technology? Why, or why not?
19. How does this technology encourage me to allocate my time?
20. Could the resources used to acquire and use this technology be better deployed?

21. Does this technology automate or outsource labor or responsibilities that are morally essential?
22. What desires does the use of this technology generate?
23. What desires does the use of this technology dissipate?
24. What possibilities for action does this technology present? Is it good that these actions are now possible?
25. What possibilities for action does this technology foreclose? Is it good that these actions are no longer possible?
26. How does the use of this technology shape my vision of a good life?
27. What limits does the use of this technology impose upon me?
28. What limits does my use of this technology impose upon others?
29. What does my use of this technology require of others who would (or must) interact with me?
30. What assumptions about the world does the use of this technology tacitly encourage?

31. What knowledge has the use of this technology disclosed to me about myself?
32. What knowledge has the use of this technology disclosed to me about others? Is it good to have this knowledge?
33. What are the potential harms to myself, others, or the world that might result from my use of this technology?
34. Upon what systems, technical or human, does my use of this technology depend? Are these systems just?
35. Does my use of this technology encourage me to view others as a means to an end?
36. Does using this technology require me to think more or less?
37. What would the world be like if everyone used this technology exactly as I use it?
38. What risks will my use of this technology entail for others? Have they consented?
39. Can the consequences of my use of this technology be undone? Can I live with those consequences?
40. Does my use of this technology make it easier to live as if I had no responsibilities toward my neighbor?
41. Can I be held responsible for the actions which this technology empowers? Would I feel better if I couldn't?

sono domande da Politecnico



sono nella nostra tradizione

obiettivo ultimo:  
controllo democratico  
delle evoluzioni tecnologiche