

Philosophy of hacking

Contemplations on the essence of hacking

groente ['xruɲtə]

Chaos Communication Congress

December 30, 2013

A definition?

There is no consensus on a definition of hacking.

But, it is rooted in a community of communities, sharing a relation to technology that has digressed from the normative approach.

This begs two questions:

- What is technology?
- What is the hacking approach?

Technology

Techne (τέχνη): art, skill, craftsmanship

Common definitions:

- The practical application of knowledge or science
- The making or using of tools or systems to accomplish a task

Aspects:

- It is based on human knowledge
- It involves creation
- It is a means to an end.

Critical examination: *Heidegger, Frankfurter Schule.*

Means to an end

Causality according to Aristotle:

- *Causa materialis* - the material
- *Causa formalis* - the form
- *Causa finalis* - the telic end
- *Causa efficiens* - that which brings about the effect

Teleology: substances have an inherent orientation towards an end.

“Every occasion for whatever passes over and goes forward into presencing from that which is not presencing is poiesis” - Plato

Poiesis (ποίησις): a bringing-forth, production, poetry

“Technology is a way of revealing” - Heidegger

Towards modernity

Shift in understanding of causality:

“But of these the causa finalis, far from being beneficial, that it even corrupts the sciences, ...” - Bacon

“An object precedent and contiguous to another, and where all the objects resembling the former are placed in like relations of precedency and contiguity to those objects, that resemble the latter” - Hume

“We may regard the present state of the universe as the effect of its past and the cause of its future.” - Laplace

Modern technology

Science \leftrightarrow Technology

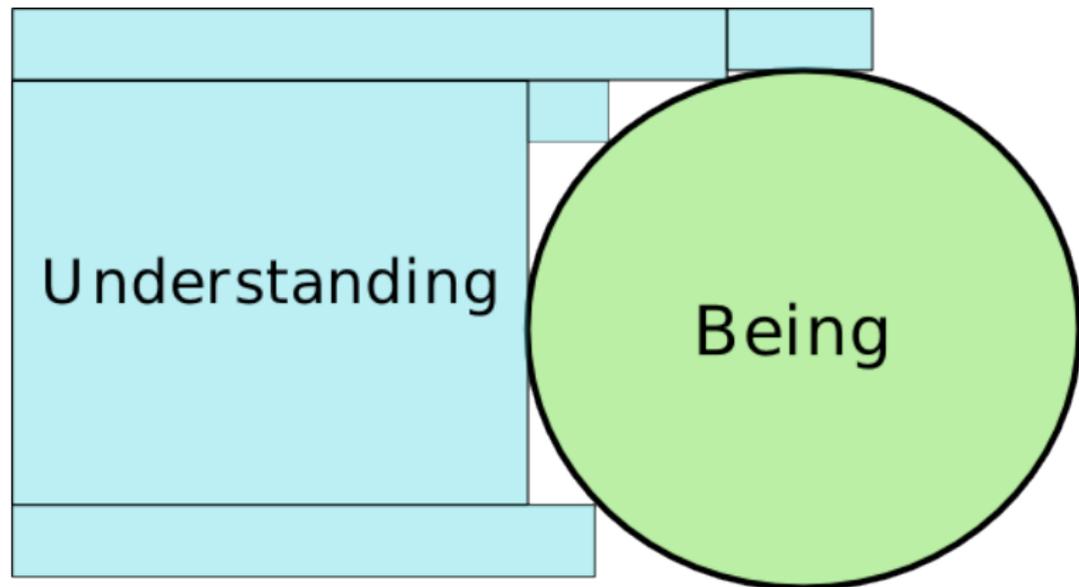
Scientific method & engineering practices:

- objectification
- formal logic
- suspension of judgement

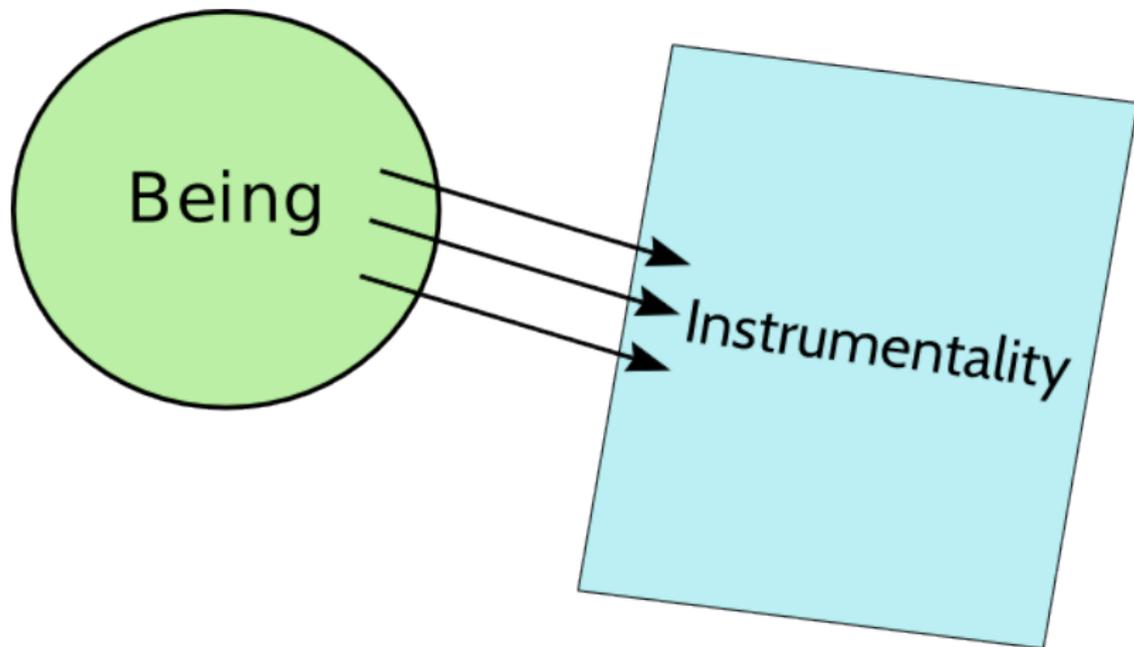
The *metaphysical* 'What is?' is replaced by the *functional* 'How?'

Enframing

Only what is calculable in advance counts as Being.



Technological a priori



Technological apparatus

- *“It is a heterogeneous set that includes virtually anything, linguistic and nonlinguistic, under the same heading: discours, institutions, buildings, laws, police measures, philosophical propostions, and so on. The apparatus is the network that is established between these elements.”*
- *“The apparatus always has a concrete strategic function and is always located in a power relation.”*
- *“As such, it appears at the intersection of power relations and relations of knowledge” - Agamben*

Neutrality?

The realm of the practical is the concern of ethics.

Digital technology

- Physical realization of what is of the mind
- Space for intervention
- Deterministic logical framework
- Could it be different from regular technology?

- Deterministic \neq predictable
- Controlling the unpredictable nature of the Turing machine

Hacking

Hacking is irrational.

Bugs

It's not a bug, it's a feature!

- Bugs reveal the nature of the machine
- Exploits bring forth previously hidden potential
- Hacking as poiesis?

Poetry in code

```
print STDOUT q  
Just another Perl hacker,  
unless $spring
```

- Larry Wall

Poetic code

```
#!/usr/bin/perl
# 472-byte qrpff, Keith Winstein and Marc Horowitz
# MPEG 2 PS VOB file -> descrambled output on stdout.
# usage: perl -I <k1>:<k2>:<k3>:<k4>:<k5> qrpff
# where k1..k5 are the title key bytes in least to
# most-significant order

s''$/=\\2048;while(<>){G=29;R=142;if((@a=unqT="C*",_)[20]&48)
{D=89;_ =unqb24,qT,@b=map{ord qb8,unqb8,qT,_ ^$a[--D]}@INC;s/.
..$/1$&/;Q=unqV,qb25,_;H=73;0=$b[4]<<9|256|$b[3];Q=Q>>8^(P=(
E=255)&(Q>>12^Q>>4^Q/8^Q))<<17,0=0>>8^(E&(F=(S=0>>14&7^0)^S*
8^S<<6))<<9,_=(map{U=_%16orE^=R^=110&(S=(unqT,"\\xb\\ntd\\xbz\\x
14d")[_/16%8]);E^=(72,@z=(64,72,G^=12*(U-2?0:S&17)),H^=_%64?
12:0,@z[_%8]}(16..271))[_]^((D>>=8)+=P+(~F&E))for@a[128..$#
a]}print+qT,@a}';s/[D-HO-U_]/\\$$&/g;s/q/pack+/g;eval
```

Why?

Because I can...

Dialectics

- Every hack that comes into being can subsequently be objectified
- Hacking takes place in the ever-shifting margins of technological development

Conclusions

- Challenge engineering practices
- Be curious, be creative, be disruptive
- Why? because you can.

Questions?

Many thanks to anice and maxigas

Further reading:

The question concerning technology - Martin Heidegger

One-dimensional man - Herbert Marcuse

What is an apparatus? - Giorgio Agamben

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