

# **GROKING THE CODE: how science fiction participates to hacking practices**

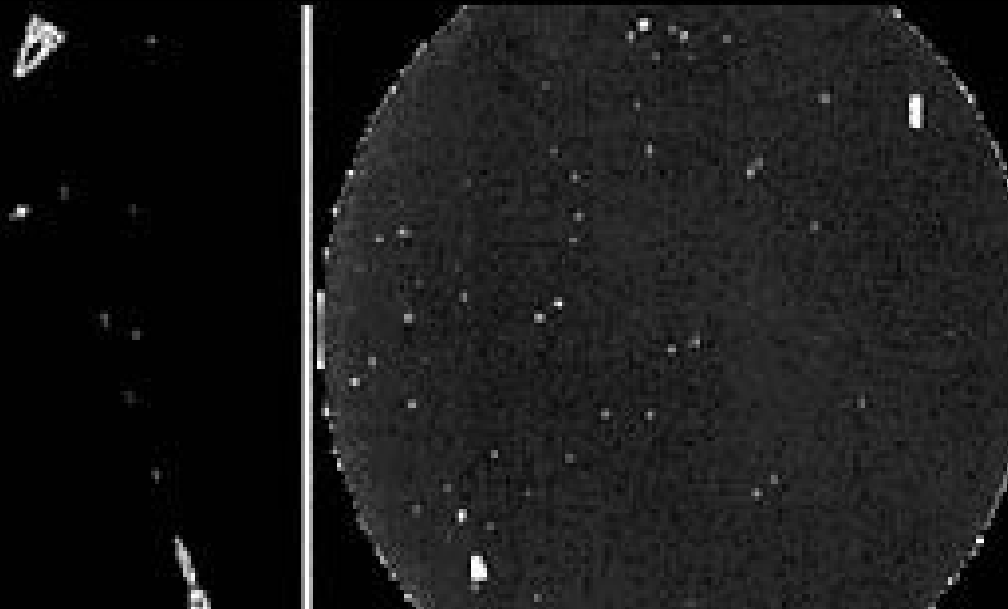
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# Science Fiction & hackers

- a computer hacker is a person who enjoys programming with a sense for aesthetics and playful cleverness
- “cultural” contamination: from Star Wars to Spacewars



# SF & Organization Studies

- SF as metaphor in organizational studies – example of *Organization* 6(4) Special Issue on SF
- Philip Dick's androids metaphor for talking about resistance to commodification (Srinivas, 1999)
- Asimov "*Foundation*" for discussing the limits of Organizational Studies as predictive science (Phillips and Zyglidopoulos, 1999)
- Lem's *Solaris* metaphor to understand human emotions in organizations (Case, 1999)

# A different perspective

**From SF as a source of concepts and metaphors**



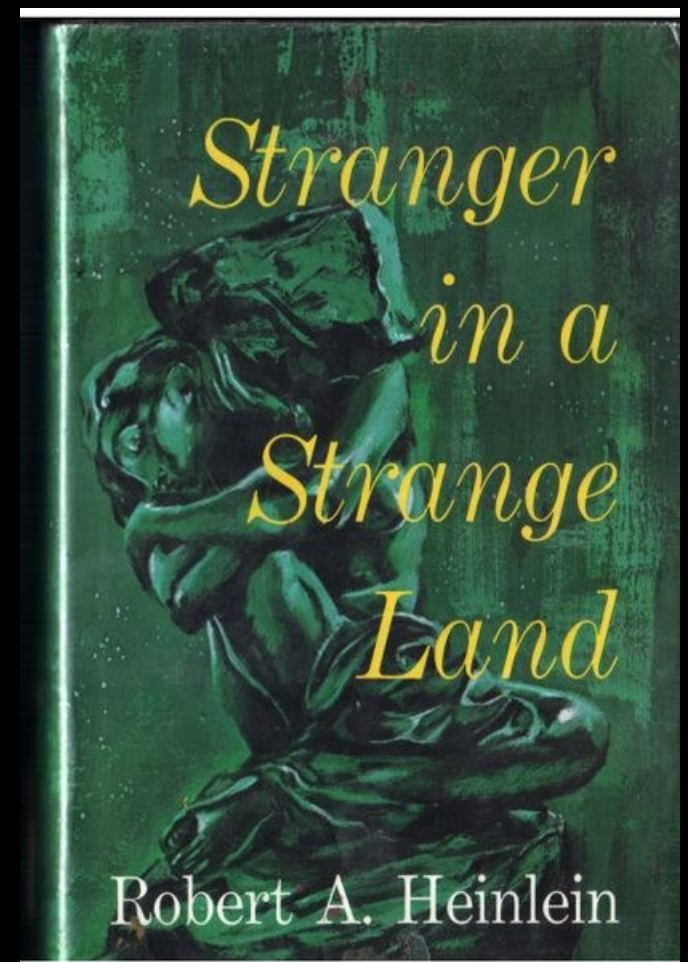
**To SF as active part of organizational processes (first-class citizen)**

# “Stranger in a strange land”

Robert H. Heinlein, 1961

The story of Mike, a human being raised by the Martians on the planet Mars.

Heinlein novel focuses on Mike's adaptation to human beings and on his understanding of their culture and practices.



# Our interest

- Mike experiences an alienation
- the practices through which the man of Mars tries to know the terrestrial world that surrounds him
- and especially how this activity is mediated by the Martian language.

# To GROK

- This verb, according to the attempts to describe its meaning in Martian, assumes a multiple meaning: “to drink, to understand, to love or 'to be one with' a person.”
- To grok means therefore to know a thing or a person in his/her completeness, in the totality of his/her being and at the same time to become part of this thing or person

grok |gräk|

verb ( **grokked**, **grok•king**) [ trans. ] informal  
understand (something) intuitively or by empathy : *because of all the commercials, children grok things immediately.*

• [ intrans. ] empathize or communicate sympathetically;  
establish a rapport.

ORIGIN mid 20th cent.: a word coined by Robert Heinlein (1907–88), American science fiction writer, in *Stranger in a Strange Land*.

# There is no Descartes on Mars

- Grok – there isn't a dualism between subject and object
- Grok means to drink – the observer becomes one with the water s/he drinks
- You cannot be separated from the water you drank
- Once Grokked, water isn't an external object anymore



# Grokking the code

- “professional programmers” see computers as instruments
- Hackers: they exist only thorough the computers
- Jargon File

“Connotes *intimate and exhaustive knowledge*. When you claim to ‘grok’ some knowledge or technique, you are asserting that you have not merely learned it in a detached instrumental way but that it has become part of you, part of your identity. For example, to say that you “know” LISP is simply to assert that you can code in it if necessary — but to say you “grok” LISP is to claim that *you have deeply entered the world-view and spirit of the language*, with the implication that it has transformed your view of programming.” (Jargon file-voice Grok)

# grokking more

One search. Many sources.  
Broad discovery. Dynamic research.

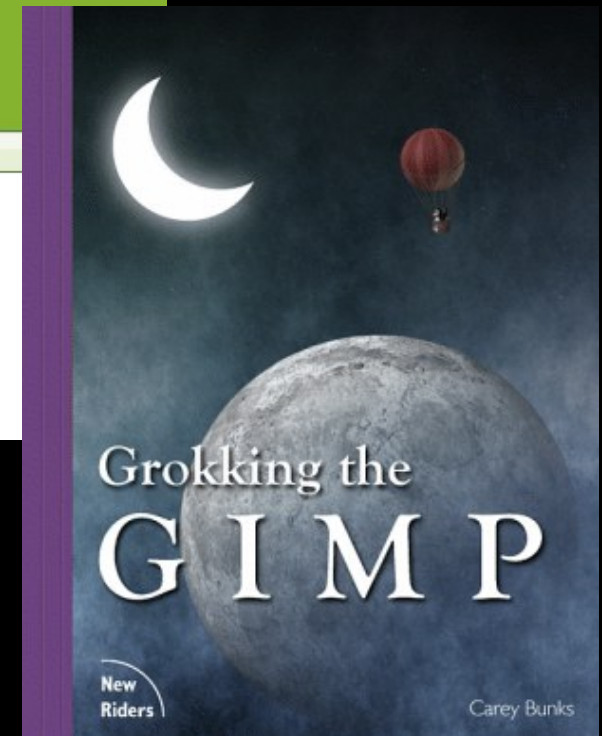
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but don't know where to look.*

# Theory, materials and methods

- Case of OpenSolaris code browser: **OpenGrok**

<http://www.opensolaris.org/os/project/opengrok/>

- Sociology of association Latour (1987 and 2005) and others (Callon, 1986; Law, 1987 and 2004). See also the paper by Melian and Mähring later today.
- Methodology:
  - observation of the discussions taking place in the mailing lists (e.g. OpenGrok-discuss; osoldiscuss)
  - email interviews with three OpenGrok developers, the two main developers (Chandan, Trond) and another one (Knut).

# OpenGrok

- Needs to view and control of software, in order to evaluate security problems
- OpenGrok allows the “security sentry” to reduce the distance between him and the source code
- groktose  
*“Your source code ... people will relish it.”*
- Grok is mobilized as a form of knowledge

# Grokking OpenGrok

- Full understanding is a requisite for the participation to the OpenSolaris project
- OpenGrok: allows to overcome the participation boundary
- the name explains also what is expected from those that will participate
- The Martian term becomes part of community practices, it is an actor that shapes the community

# Back to Mars

Hackers' grokking allow humans to become Martians: "to relish the code".

"Happiness is a matter of functioning the way a human being is organized to function ... but the words in English are a mere tautology, empty. In Martian they are a complete set of working instructions." (Heinlein, 1961, p. 490)

thanks for grokking with us ...

:-)

questions ?