

Free as in Freedom, Shared as in Giving

An Anthropocentric Freedom History of the World - and a bit about Free software and co-operation

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“It is fundamentally social and
political...”

producing increasingly means
constructing cooperation and
communicative commonalities ...
Private property, despite its juridical
powers, ... transcendental concept ...
detached from reality. A new notion of
“commons” ... *

*Hardt and Negri, Empire, 2000

But now we are successful.
(The PC is dead!)
Who cares about Linux on the desktop
any more?

- ▶ Android ... Meego
- ▶ iOS
- ▶ Quanta/litera servers

- ▶ GNU(ish)/Linux
- ▶ BSD tradition
- ▶ Linux *only* *

*Yes, I know Litera/Quanta will probably go the way of Transmeta

Did we go through all this just to
produce cellphones/music
players/games machines usable by the
mentally superlazy?

► A note on evolution



► A note on evolution



- ▶ What does it mean to be human?

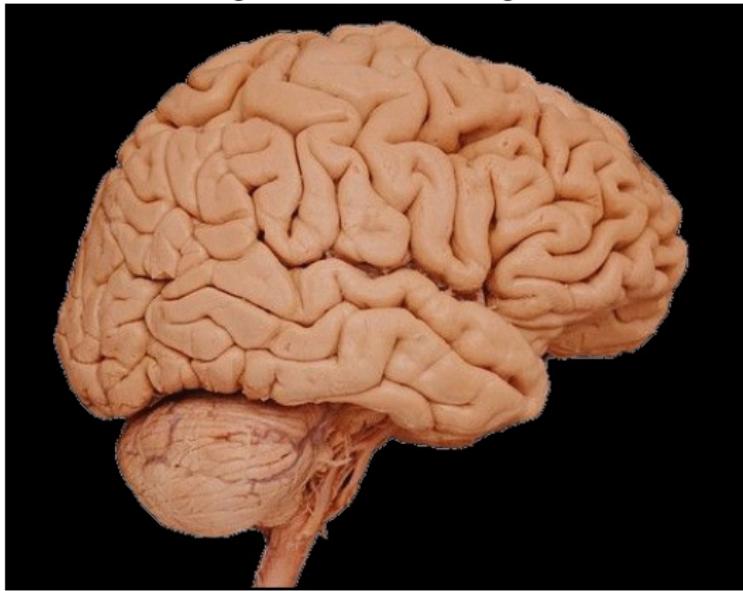
- ▶ To have one of these.



► What is it for?



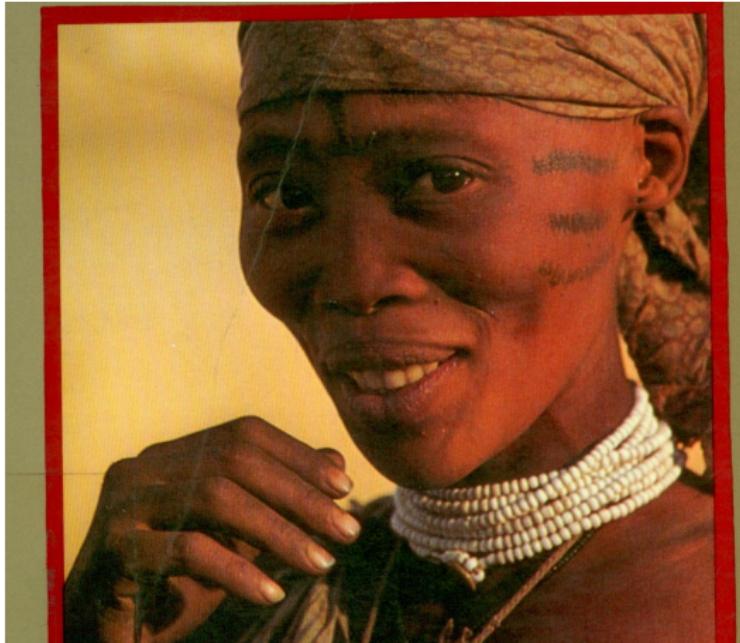
- ▶ It is expensive - 20% of all energy consumed by the body



- ▶ It is particularly large in animals with complex vision - or complex social interaction

- ▶ The advantage from our expensive brain is the ability to co-operate and pass on knowledge.

- ▶ How we began
- ▶ The !Kung or San



Why do they need a big brain?

Bushmen women gather fruit, berries, tubers, bush onions, and other plant materials for the band's consumption. The eggs of ostriches are gathered, and the empty shells are used as water containers. Bushmen consume 105 species of plant food and also grasshoppers, beetles, caterpillars, moths, butterflies, and termites. *

*Shostak, Marjorie, Nisa, The Life and Words of a !Kung Woman, NY 1981 ↗ ↘ ↙

Why do they need a big brain?

Bushmen men traditionally hunted using poison arrows and spears in laborious, long excursions. Kudu, antelope, deer, dikdik, and buffalo were important game animals. *

*Shostak, Marjorie, Nisa, The Life and Words of a !Kung Woman, NY 1981 ↗ ↘ ↙

Children and the old have no social duties besides playing. Leisure is very important to Bushmen of all ages. Large amounts of time are spent in conversation, joking, music, and sacred dances. Women have a high status in the San society, are greatly respected, and may be leaders of their own family groups. They make important family and group decisions and claim ownership of water holes and foraging areas. Women are mainly involved in the gathering of food, but may also take part in hunting.

*

*Shostak, Marjorie, Nisa, The Life and Words of a !Kung Woman, NY 1981



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Traditionally, the San were an egalitarian society. Although they did have hereditary chiefs, the chiefs' authority was limited. The bushmen instead made decisions among themselves by consensus, with women treated as relatively equal. In addition, the San economy was a gift economy, based on giving each other gifts on a regular basis rather than on trading or purchasing goods and services.

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- ▶ A society based on sharing, collaboration and particularly on sharing knowledge.

The first person to find fire was a woman. She sat by the fire and fed her children cooked food, while her husband slept in the dark and ate raw food. After waiting a long time, the husband stole the fire and ran off, and since then fire has been known throughout the world. It was a woman who first found fire because “a woman naturally is a great thing.”

*

*Ju/'hoan Folktales: Transcriptions and English Translations, Trafford First Voices, Victoria, British Columbia 2009



*

The making of the story book.

*<http://www.kalaharipeoples.net/>



*

Written, the language looks like this.
te ka !|| aan te ha ± 'haan hi ko || ± akoa

*<http://www.kalaharipeoples.net/>



*

Using L^AT_EX

*<http://www.kalaharipeoples.net/>

What is happening to these people
now?

Their knowledge exploited
Their hunting banned

Engels: “A historical defeat for women”

Trotsky:
“You can judge the level of civilisation
of a society by the way it treats women”

And then...

- ▶ History began to happen

And then...

- ▶ Agriculture
- ▶ Rich and poor
- ▶ Unshared knowledge

Among the parts of their sciences that came to us, I must mention the numerical calculation later developed by Abu Ja'far Muhammad Ben Musa al-Khuwarizmi...it bears witness to the Indians piercing intellect..

In the beginning
The end of prehistory
History begins
Politics
Back to Free Software

The sharing of Zero
The resistance to zero
The Victory of Zero
Keeping it obscure

Abu Ja'far Muhammad Ben Musa al-Khuwarizmi



The spread to Europe was
slow and resisted.

Leonardo of Pisa (Fibonacci) (1170-1250)

“The nine Indian figures are the following 987654321. This is why with these nine figures and the sign 0 called zephyrum in Arabic, all the numbers you may wish can be written.”

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The sharing of Zero
The resistance to zero
The Victory of Zero
Keeping it obscure

The Victory of Zero



Keeping it obscure

Jan Hus was a Czech follower of Wycliffe, the creator of the first widely distributed English language translation of the bible. And what happened to him....

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The sharing of Zero
The resistance to zero
The Victory of Zero
Keeping it obscure

Keeping it obscure



Keeping it obscure

And this is why - what happens when people can read the bible for themselves...

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The sharing of Zero
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Keeping it obscure

Keeping it obscure



Keeping it obscure

The dilemma

- ▶ Knowledge is necessary
- ▶ Knowledge is dangerous

Keeping it obscure

The dilemma

- ▶ Knowledge grows by sharing
- ▶ Sharing is dangerous

Intellectual Property Rights - sharing by division, not giving.

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The end? of hierarchy in the East 1989-1991



The end? of hierarchy in the Middle East 2011

- ▶ Gates: “Virus”
- ▶ Ballmer: “Unamerican ...
Communism”

If only....

Oppression and incorporation:

- ▶ Oracle owns MySQL and Java
- ▶ Open Office is a clone of MS Office
- ▶ Google, Android and licences

James Gosling

Refactoring considered harmful, sometimes

Friday February 18, 2011

[Refactoring](#) covers a broad swath of techniques to make code cleaner, more reliable, more maintainable, ... But sometimes, these attributes fight against each other. The usual attribute that causes trouble is "more performance". For example, consider factoring out a loop-invariant boolean:

```
for(...){  
    ...  
    if(b) A;  
    else B;  
    ...  
}
```

when b is loop-invariant, this can become:

```
if(b)  
    for(...){  
        ...  
        A;  
        ...  
    } else  
    for(...){  
        ...  
        B;  
        ...  
    }  
    ...
```

Depending on a wide variety of factors, this can be faster. Although it might be slower. Careful benchmarking is required :-)

It is certainly less maintainable and less clear. When you see a piece of code that is the result of such a transformation, it's often difficult to tell that the two loops are related. If a bug is found in any of the replicated pieces of code, it has to be fixed in "both" places. Testing gets more complicated because the replicated code paths have to be independently (and somewhat redundantly) tested. To compound the problem, if you have (for example) multiple loop-invariant booleans, the code expansion is exponential (!!) in the number of factored-out booleans. This can get

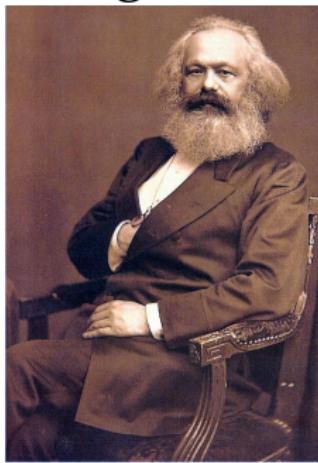


*<http://nighthacks.com/roller/jag/category/Java>



James Gosling needs to spend more
time playing.

“From each according to their ability to
each according to their needs”*



*Critique of the Gotha Programme, Karl Marx, 1875