
Another way of thinking software

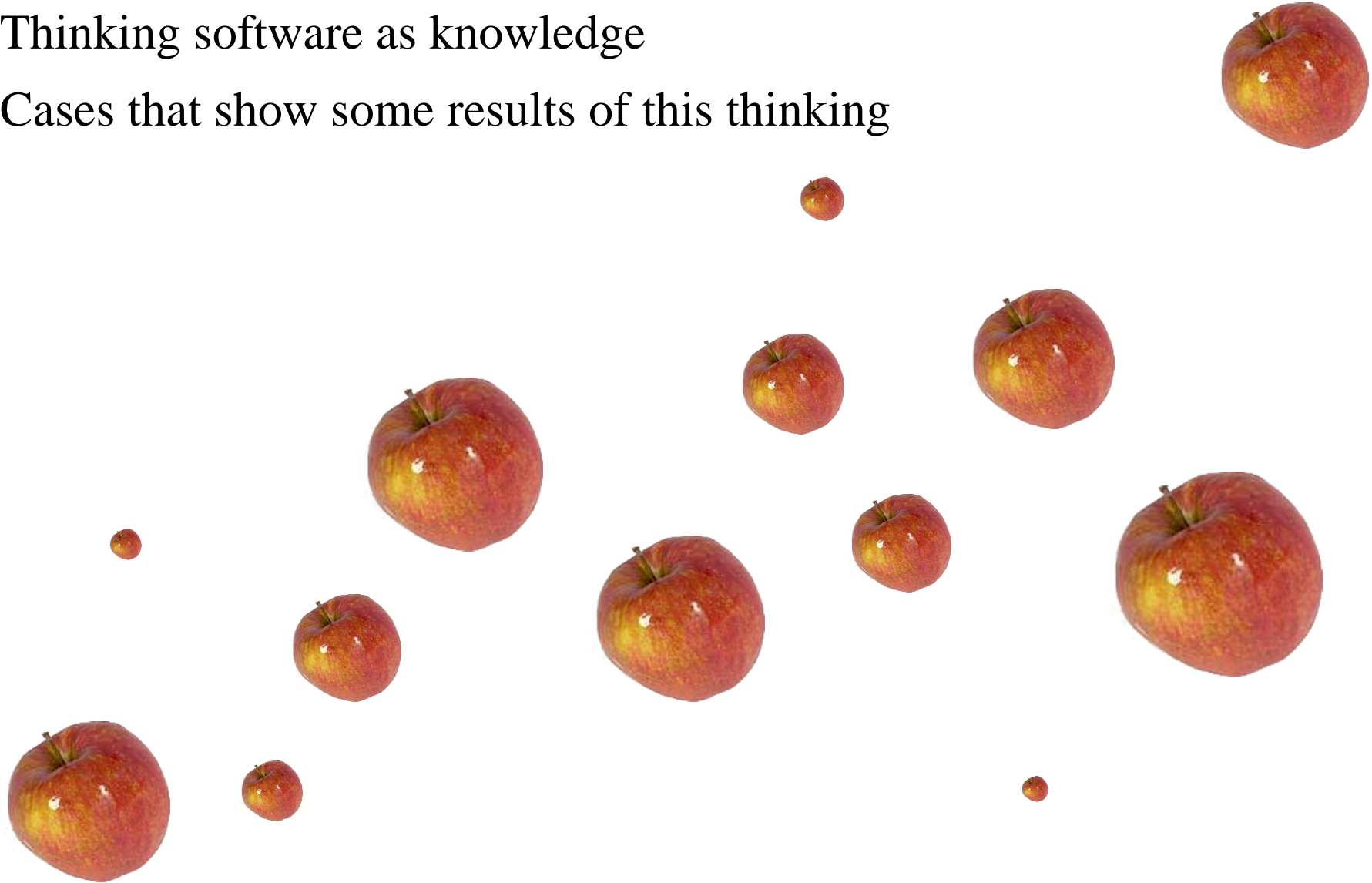
Jan 4, 2005

22 slide

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What I'll be talking about

- 1) Thinking software as knowledge
- 2) Cases that show some results of this thinking



Software as a product

- You buy it once and you run it until it breaks
- When it breaks, you buy the new version
- You can use it, and only use it
- You cannot give it to your friends
- It crashes, and there's nothing you can do
- Apart from creating software from scratch, you can only work with existing ones



What is the difference?

Spaghetti al sugo

Serves 4 people.



Ingredients:

300gr durum wheat spaghetti

400gr tomato sauce

extra virgin olive oil, 1 onion

salt, pepper, fresh basil leaves

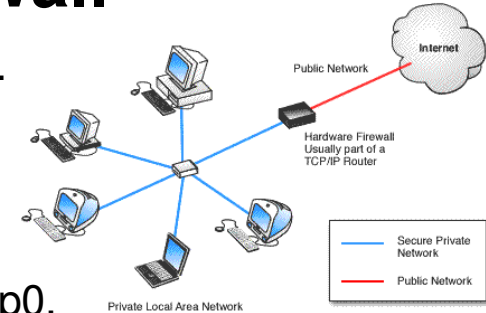
Boil the water, then add salt and the spaghetti. In another pan, stir-fry the onion in olive oil until it starts becoming yellow, then add the tomato sauce, salt and pepper.

Lower the fire and simmer until the sauce becomes thicker. When spaghetti are cooked "al dente", dry them and add the sauce.

Serve with a fresh basil leaf.

Internet firewall

Protects one network.



Ingredients:

External interface: ppp0.

Internal interface: eth0.

Allow all packets to get from eth0 to ppp0.

If a packet arrives in ppp0 as a response to a previous connection, pass it to eth0.

If a packet arrives in ppp0 for port 80, forward it to the web server machine.

Else, drop all packets arriving from ppp0.



What if recipes were products?

- You cook the same food every day, with the exact same taste
- When you are bored with it, you buy a new recipe
- You can't change the way you cook
- You can't talk with your friends about cooking
- If the rice is overcooked, it will always be overcooked



Software as knowledge

Free Software works like knowledge. It is defined by 4 freedoms:

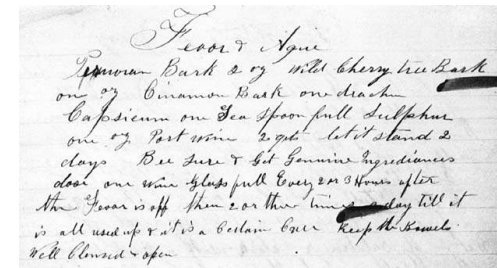
- 1) The freedom to run the program, for any purpose.
- 2) The freedom to study how the program works, and adapt it to your needs.
- 3) The freedom to redistribute copies so you can help your neighbor.
- 4) The freedom to improve the program, and release your improvements to the public, so that the whole community benefits.

- You can copy it legally, without being a "pirate"
- It is copyright protected



Software as a recipe

- If you don't like it, you change it
- You can discuss about cooking with your friends
- You can exchange recipes and improvements with your friends
- It changes as your tastes change
- If it breaks, you fix it, or you get someone to fix it
- If the rice comes out too cooked, next time you cook it less
- You can open a restaurant
- You can create software, sell it, and also sell improvements and customizations



L'Antica Ricetta
gr. 1000 farina di tipo 00; gr. 550 di acqua; gr. 25/50 di lievito; gr. 50 olio extra vergine di



INGREDIENTI: gr. 600 farina, gr. 150 zucchero, gr. 150 burro (o di olio di oliva), 4 uova, 1 bicchierino di anice forte, la buccia grattugiata di un limone, un pizzico di sale, una busta di LIEVITO ANGELO per 1/2 kg.
PREPARAZIONE: sbattere le uova con lo zucchero e una parte della farina; aggiungere il burro (o l'olio), la buccia del limone, il sale impastando gradatamente con il resto della farina. Unire infine l'anice e il LIEVITO ANGELO amalgamando bene. Ridurre l'impasto a bastoncini di 4/5 cm. e friggere in strutto bollente a fiamma alta. Quando i bastoncini galleggeranno, sgocciolarli e porli in un piatto spolverando con ZUCCHERO A VELO de "LA COMMERCIALE".

Some examples

A cooks network: Debian GNU/Linux

16302 "packages" (programs, code libraries, documentation...)

920 volunteer developers from 50 different nations

11 supported architectures

Open self-organised community with constitution, elections, votes...

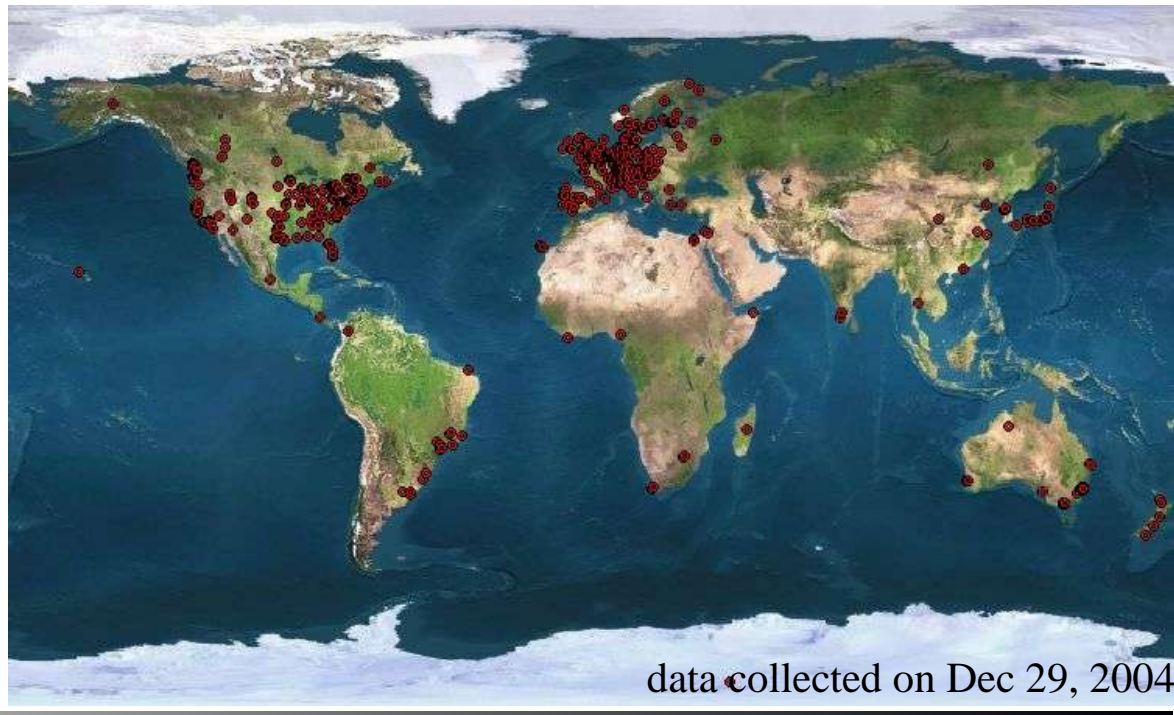
Infrastructure dedicated to community services and groupwork

10 years old

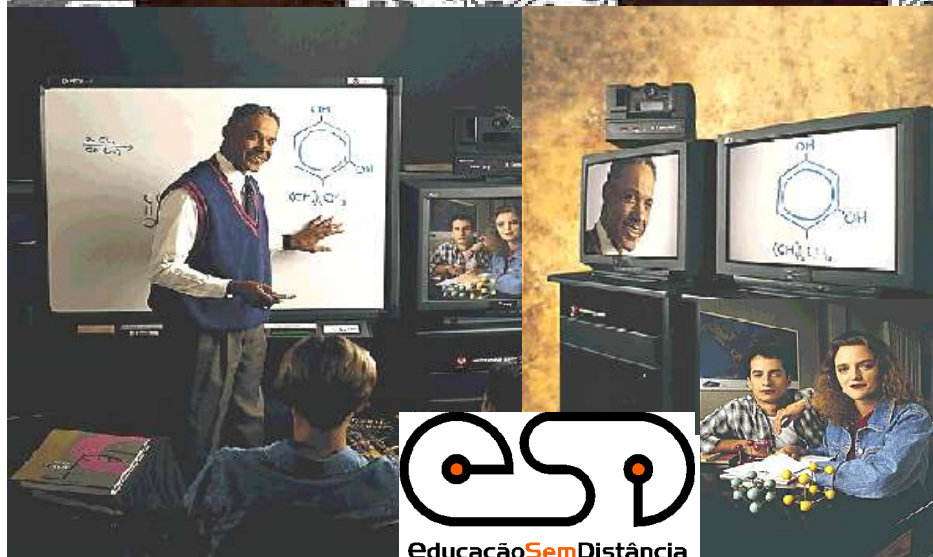
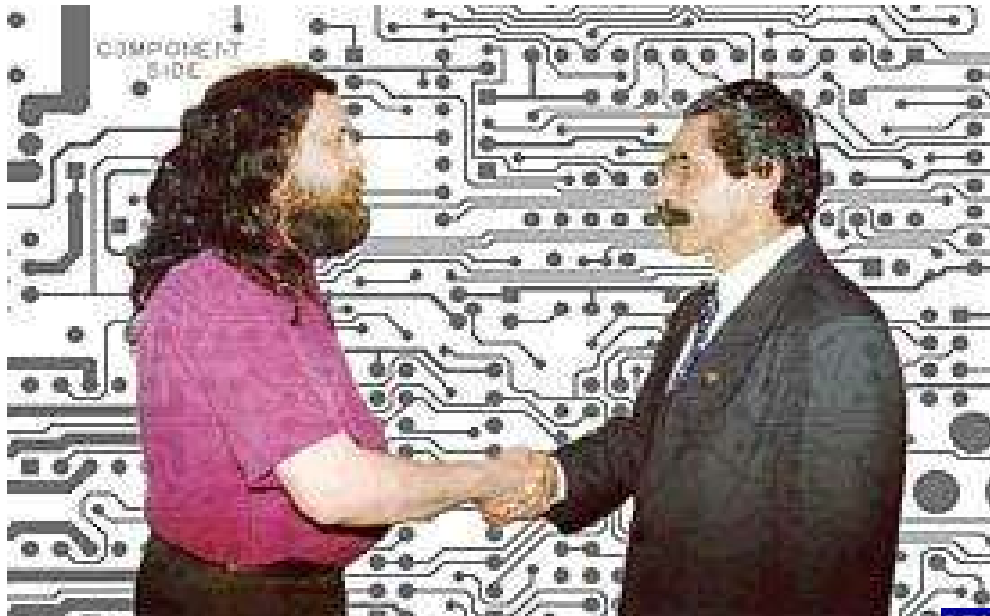


Problem: it's BIG.

So big that we begun developing "custom" versions as subsets for specific needs.



Projeto Software Livre Brasil



TelEduc Cursos Contatos Apoio

TelEduc

Ambiente de suporte para ensino-aprendizagem a distância

Clã de Processamento de Dados do Rio Grande do Sul - Procegrs
 Servidor: 200.198.128.240
 Versão 2.0.5

□ TelEduc é um ambiente de ensino a distância pelo qual se pode realizar cursos através da Internet. Está sendo desenvolvido conjuntamente pelo Núcleo de Informática Aplicada à Educação (Nied) e pelo Instituto de Computação (IC) da Universidade Estadual de Campinas (Unicamp).

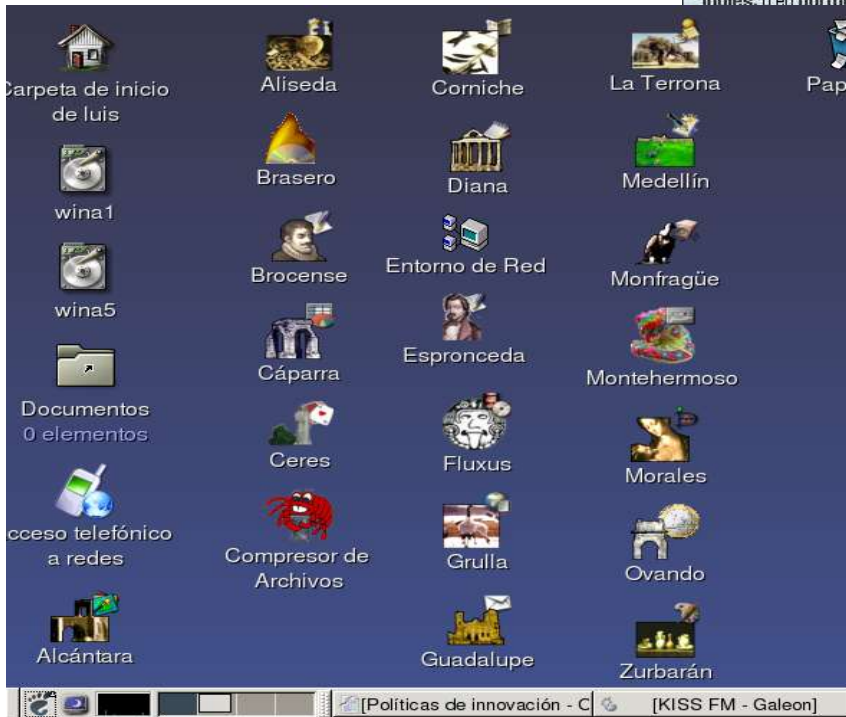
[Visita o site do projeto.](#) [Administração \(Gratuita\)](#)

nied Núcleo de Informática Aplicada à Educação

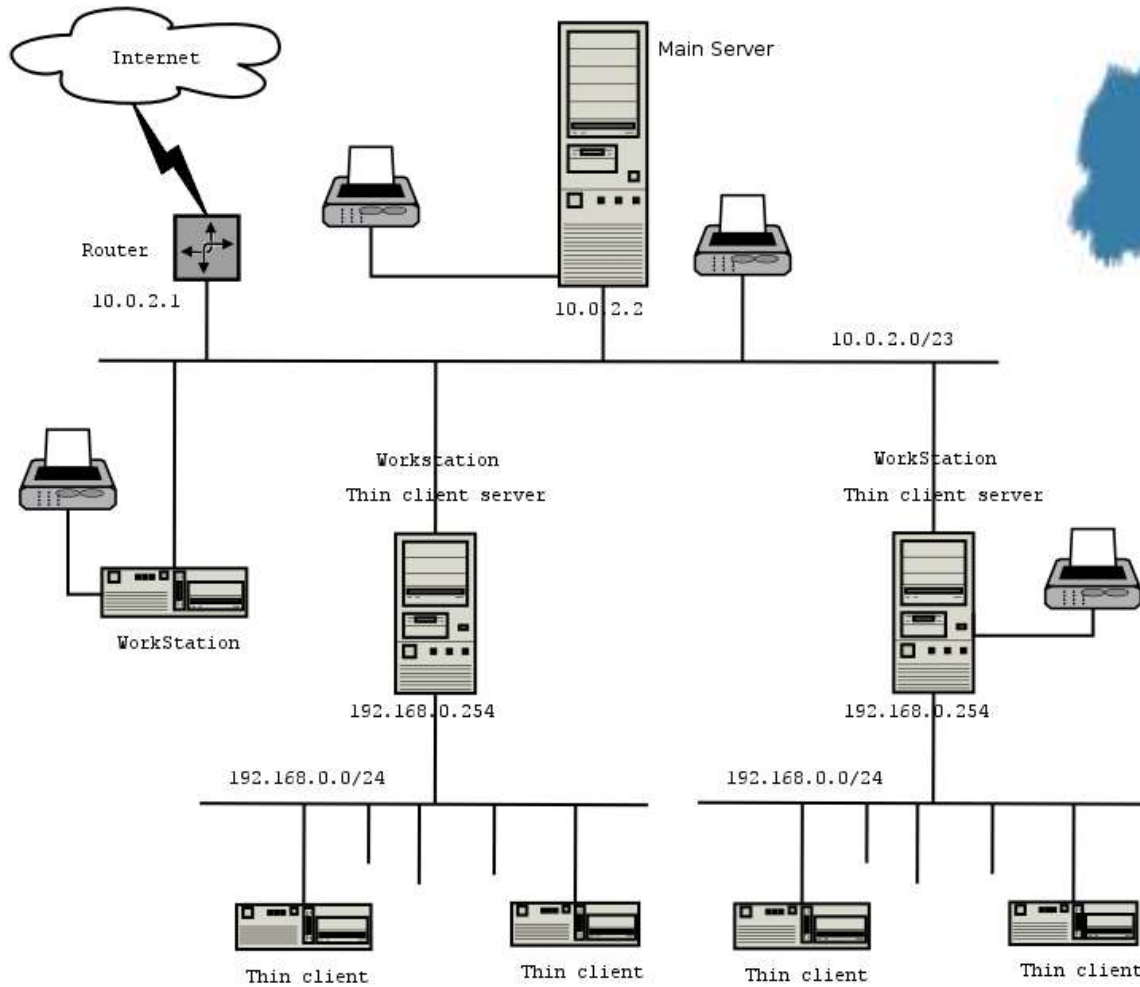
UNICAMP Instituto de Computação - Universidade Estadual de Campinas

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E-Extremadura



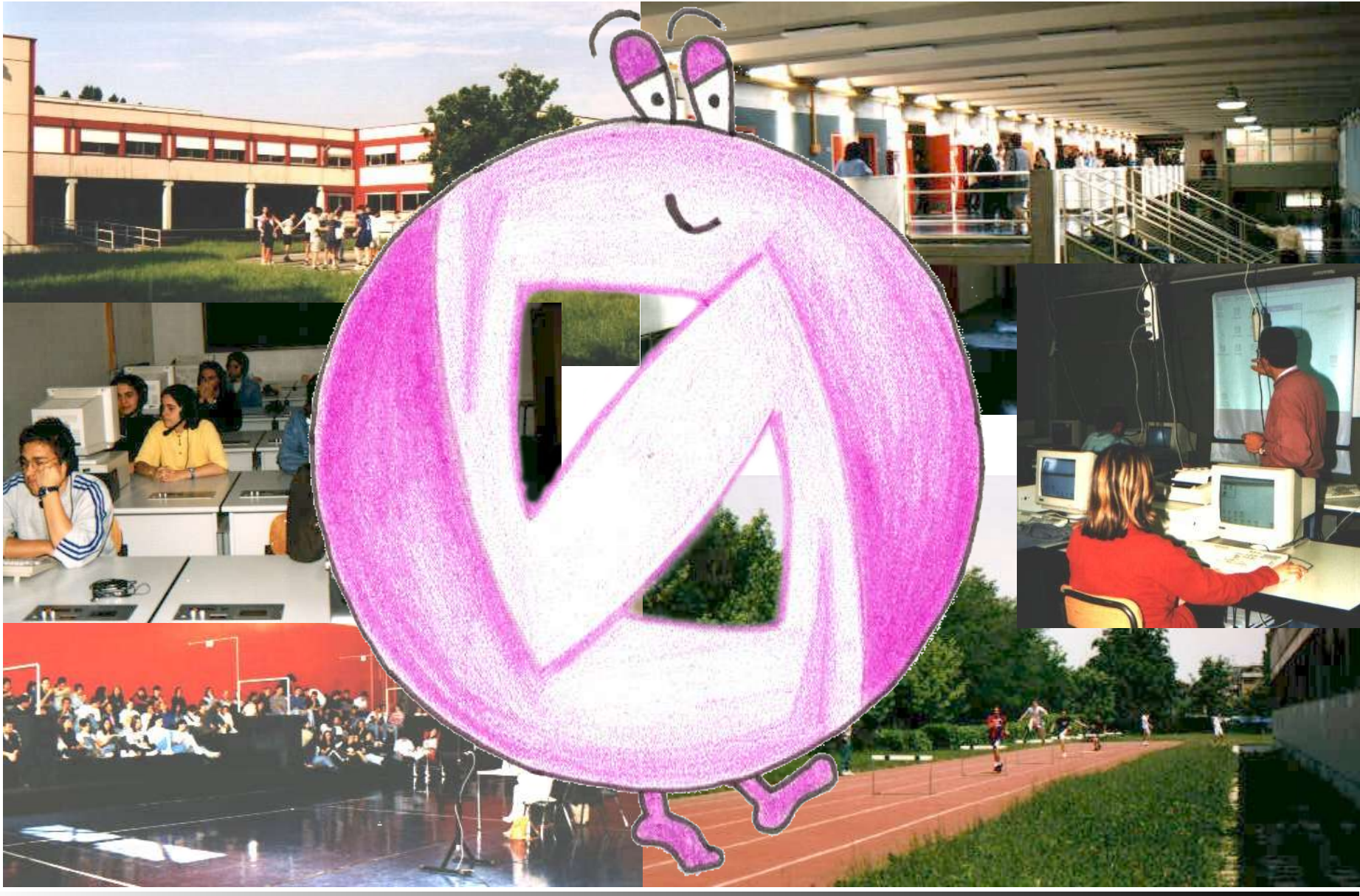
Skolelinux



Started in Norway in 2001, then merged with Debian-Edu.

3 years later, in various reports: "the only computer solution that takes the schools' needs and resources seriously" (Statskonsult report #18, Dec 2003)

The Italian OpenOffice.org Thesaurus



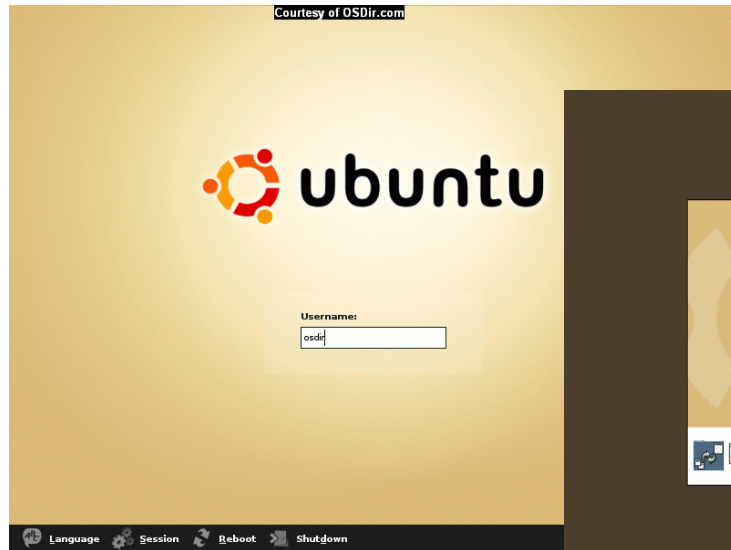
Ubuntu



ubuntu

"Ubuntu" is an ancient African word, meaning "humanity to others".
Ubuntu also means "I am what I am because of who we all are".
The Ubuntu Linux distribution brings the spirit of Ubuntu to the software world.

(from www.ubuntulinux.org)



TiVo

VCR with hard drive instead of tape.

Allows to quickly jump back and forth in movies

Allows to archive and index what you record

Allow to remove parts (like commercials) from what you record

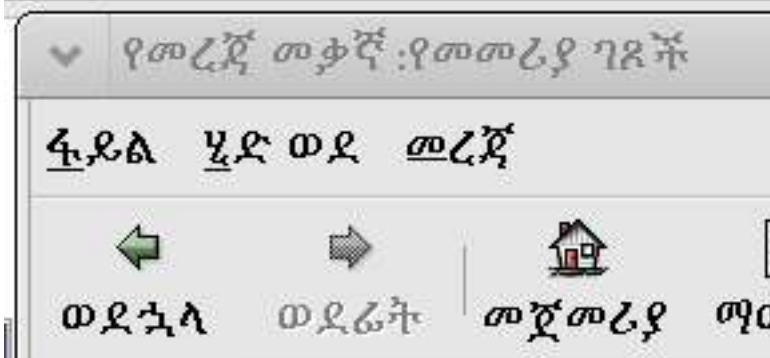
Based on Linux, modified by them.

Sources available at:

<http://www.tivo.com/linux>



Helping people



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The Simputer

"Radical simplicity for universal access".

From an idea in a seminar in Bangalore, Oct 1998.

Can be used by illiterate people.

Can be used by more people at once.

Screen 320x240, StrongArm CPU
32Mb RAM.

Based on GNU/Linux, GTK
and other free software.

Speech synthesis, handwriting.

Cost around \$200US.

<http://www.simputer.org>

<http://www.amidasimputer.com/>

<http://www.ncoretech.com/simputer/>



Infothela, pedal-powered computer

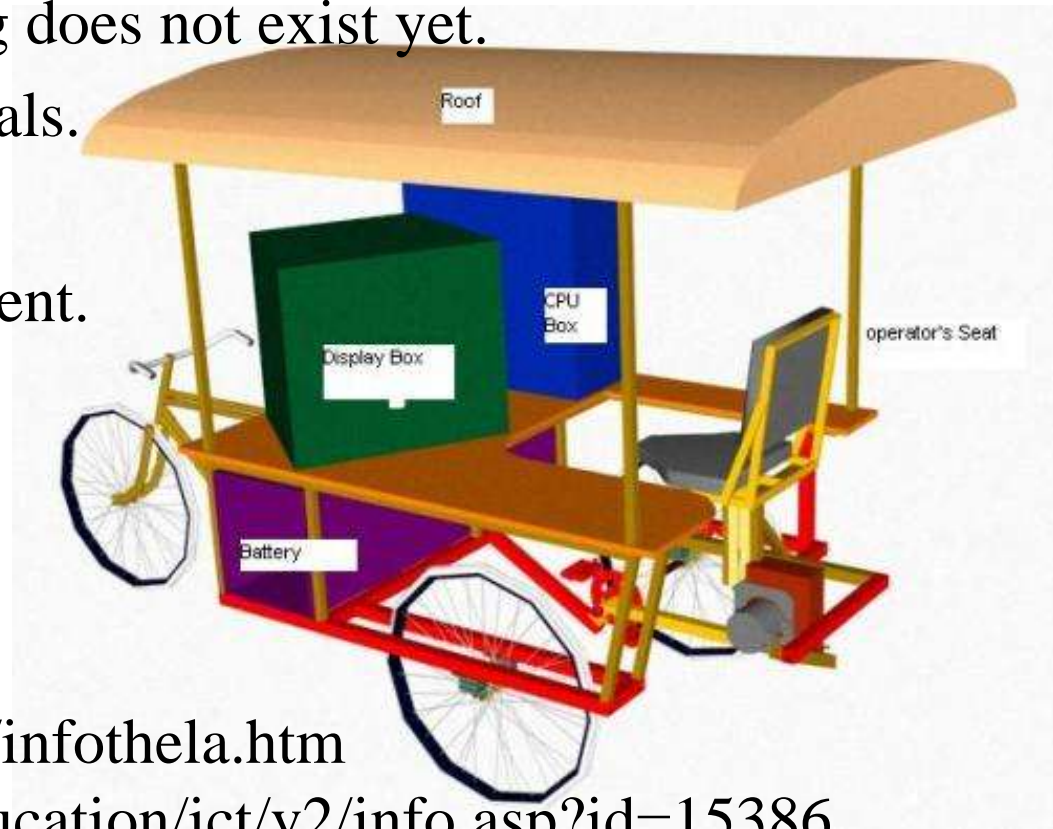
Mobile unit to provide and exchange informations using fax, internet, telephone; designed like temple carriages that bear Hindu deities during festivals.

Born to provide and exchange informations between nearby villages where traditional computing does not exist yet.

Battery rechargeable with pedals.

Weather resistant.

Can also host medical equipment.



<http://www.iitk.ac.in/MLAsia/infothela.htm>

<http://www.unescobkk.org/education/ict/v2/info.asp?id=15386>

And many, many more...

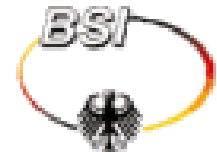


Quantian
Eduknoppix
Debian-Med

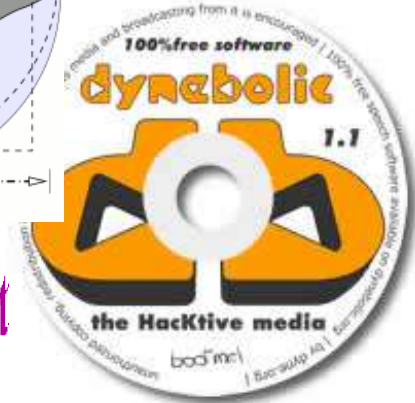
debian np



Odontolinux
Debian-Lex
Kahemba
Debian-Junior
KnopILS



ERPOSS



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Conclusion

**The world is not as bad
as they usually say.**

Conclusion

Be a part of it!