

Free / Libre and Open Source Software (FOSS)

A gentle introduction

By

Indranil Das Gupta

**Indian GNU/Linux Users Group – Kolkata
(ilug-cal)**

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Who am i?

Indranil Das Gupta

aka indradg

aka IDG

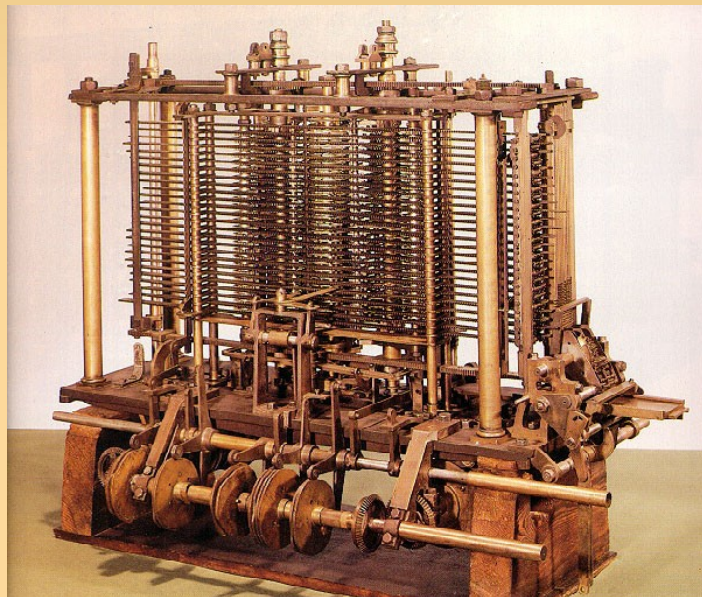
Affiliations

- FOSS user for over 15 years
- Co-founder, Indian GNU/Linux User Group - Kolkata
- Member, FSF-India
- Member, West Bengal State FOSS Working Group
- Project Lead, Bangla NLP OpenOffice.org
- Developer - AnkurBangla Group, Koha, DSpace etc.

- Founder, L2C2 Technologies

A brief history of software

- 1842 – Charles Babbage's Analytical Engine
- Ada Lovelace - The first programmer in the world



A brief history of software (cont'd)

- **1940s** – Alan Turing and Von Neumann
- **1960s** – Languages like Fortran & Lisp made writing s/w easy
- **1970s** – Expensive machines at Universities, Software comes

free.

Development of C and Unix.

- **1980s** – Personal computers, concept of “stealing software”
- **1984** – Richard Stallman and the concept of Free Software
- **1991** – Linus Torvalds announces the Linux Kernel

A brief history of software (cont'd)

Free Software ???

What is Free Software?

- The days when software was free
- The Laser Printer at MIT & Richard Stallman
- The GNU Project and the **GNU GPL**

Free Software - Concepts

Free as in Freedom

Mukt vs. Muft

So how do we care either way???

WE DO NOT!

Free Software - Concepts

Lets cook... volunteers?

Free Software - Concepts

The Four Freedoms

- ✓ freedom to use
- ✓ freedom to share
- ✓ freedom to change
- ✓ freedom to share the modifications made

Free Software is?

...a matter of liberty, not price.

To understand the concept, you should think of free as in **free speech**, not as in free lunch.

And this freedom leads to ...

CHOICE

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The problems

Resistance to change

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The problems (cont.d)

TINA

The answer

Linux

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The answer

Openoffice.org

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The answer

Firefox

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The answer

Thunderbird

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The answer

Pidgin

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The Unseen Equation

“If they can't have bread, let them eat cakes”

Mary Antoinette

- *68% of the world's web-servers runs on Apache*
- *70 – 80% of email is sent using FOSS email servers*
- *Google runs the largest GNU/Linux based clusters*
- *Yahoo! Heavily uses PHP / Java / MySQL*

Office Productivity Applications

- ✓ Word-processor
- ✓ Spreadsheet
- ✓ Presentation software
- ✓ Email
- ✓ Web Browsers

What else do we do???

- ✓ Zip / Unzip files before emailing
- ✓ Open / View Acrobat PDF files
- ✓ Check for virus
- ✓ View multimedia & graphics files
- ✓ Synchronize mobile phone address books
- ✓ Use Scanners / Printers / Digital Cameras

Some good reasons to use FOSS

- ✓ **Robust and Stable**
- ✓ **Very powerful**
- ✓ **Extremely flexible**
- ✓ **Well supported**
- ✓ **Moral and ethical**
- ✓ **Stunningly Inexpensive**

Some good reasons to use FOSS (cont'd.)

- ✓ **Vast documentation**
- ✓ **LUGs**
- ✓ **Author(s)**
- ✓ **Commercial Support**

The 500-pound Gorilla's Diet

Everyone follows suit

- ✓ Intel, AMD, Cyrix, nVidia, ASUS
- ✓ Hewlett-Packard, Samsung, Epson, Nokia, Dell

Some scanners are ***still*** a major issue

Oh Wait! What about my peripherals???

So we designed a beautiful document

- ✓ How do we print?
- ✓ How do we scan?
- ✓ <http://www.openprinting.org>
- ✓ TWAIN vs XSANE

Open Standards... Why and Hows?

A standardized way of doing things

- ✓ As accepted by the industry
- ✓ As supported by the users

Open Standards... Why and Hows?

OpenDocument Format (ODF)

- ✓ Protect your rights to your documents
- ✓ Wide-scale support
 - * AbiWord
 - * Google Docs
 - * IBM Lotus Symphony
 - * KOffice
 - * NeoOffice
 - * **OpenOffice.org**
 - * **Star Office**
 - * SoftMaker Office
 - * Corel WordPerfect Office X4.[17]
 - * Zoho

FOSS Productivity & Localization

✓ **Localization - Targets & Social Implications**

Empowerment of people

- women
- rural / semi-urban youth
- minority / backward communities
- the differently-abled
- preservation of historic and cultural artifacts

Focus on

- Education
- health-care (tele-medicine)
- e-Governance (G2C) interfaces

✓ Inclusive Development

Some benefits of FOSS - Localized Desktops



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Green Computing

Welcome to a Greener World

180 - 220W



Standard
Multi-media Desktop PC
with 17' CRT

140 - 180W



Diskless PC-based
Multimedia Thin-client
with 17' CRT

90 - 120W

Diskless PC-based
Multimedia thin-client
with 15' TFT



25 - 40W

Small Form
Factor 12V DC
Multimedia UMPC
with 15' TFT



So now what?

The Road Ahead – A few suggestions

- **Walk the Talk!!!**
- Adopt Open Standards
- Creating inclusive developmental framework
- Building Capacity, Nurturing Excellence
- Focus on Assistive / accessibility technologies
- Collaborative Effort (think local, act global)
- Socially own-ed initiatives

Adopting FOSS

দুর্গম গিরি, কান্তার মরু
দুস্তর পারাবার হে!
লঙ্ঘিতে হবে রাত্রি নিশীথে
যাত্রীরা হুঁশিয়ার !

--কাজী নজরুল ইসলাম

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CONTACT ME

Name : Indranil Das Gupta

E-Mail : indravg@l2c2.co.in / indravg@gmail.com

Phone : +91-98300-20971

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may the source be with you

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