

FOSS4G & LSI, IIIT-H

at the
Discussion meeting
Open Source GIS in India: Present Scenario

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 **OSGeo - India**
Open Source Geospatial Foundation

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The FOUR “F” of FOSS

- FOSS vs. Proprietary Software
- What is Free?
 - Price – may or maynot
 - Freedom to use, study & modify, redistribute, and release your own improvements

Study & Modify

- Important in the Education and Learning
 - No study, no learning
 - Car vs. a Software
- Modification possible – only if concepts are clear

How Concepts help improve Software Development

- All Software are not Perfect
- A Process and not ‘an end in itself’
- At Design level - Assembly line approach is not right
 - Car vs. a Software
 - Customer Requirements change over time

Knowledge & its development

- “individual” hold
 - Limits learning & understanding
 - Very little utility
- Grows with sharing / discussions

Innovation/Creativeness at the Level of Education

- Tool based teaching
 - Undermines conceptual learning
 - Limited by what is offered and not what one can do
 - Students/employees complain when asked to “think”
- Need to look beyond tools
 - Gaps in tool vs. what one needs to do
 - Solutions approach vs. technique based
 - Solutions needs Creativity and Innovation

Utility of an Idea

- Ideas can be Good or Bad
- Good ones, eventually spread
- Bad ones, disappear
- Software program's utility can EXPIRE but not IDEAS
- So, is it good to control a part of the process – natural evolution ?
- Can Recipes be patented?

Open Source Software

- Being OPEN promotes/motivates
 - to be a leader – real innovation
 - leads research based development
 - sharing raises knowledge levels – “state of the art”
 - community-level collaboration to broad base the applications
- Creativeness vs. fear of Copying – Moral issues
- Changing Business Models – important for an IT organization
- Recognition for developers

Google and Open Source

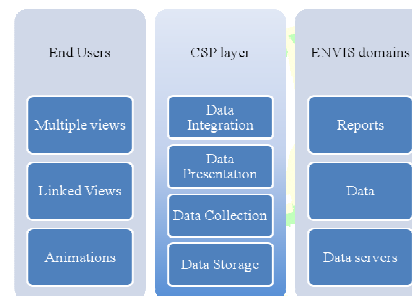
- Gartner's Special Report (2008) on Open Source Software, Brian Prentice wrote a report titled [Open Source at Google, 2008](http://blogs.gartner.com/brian_prentice/2009/08/06/google-open-source-patent-reform/)
 - Open source at Google is a key part of Google's strategy, and Gartner expects it to become one of the most significant contributors to market-disrupting open-source projects
- New projects like Google Wave and Google Chrome OS have only reinforced that view
- Google's advocacy of the Patent Reform Act of 2009.

Source: http://blogs.gartner.com/brian_prentice/2009/08/06/google-open-source-patent-reform/

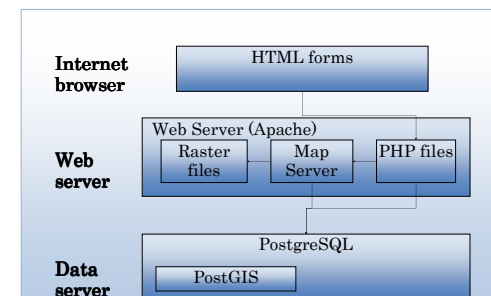
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- Why I took this route?
- Over 3 years, what have we achieved
 - MapServer
 - ENVIS Common Service Platform
 - GRASS
 - Parallelization of the code. Eg. TerraCost, MapCalc
 - OSSIM
 - Exploring to add new features – Road Extraction Algorithm; DEM processing
 - PostGIS / Java
 - Customize a Simple Mapping tool
 - Basic Prototyping for a Collaborative Mapping
- Participation in FOSS4G events
 - 2007 paper on GeoViz: Integration of CAD & GIS
 - 2009: Poster on Parallelizing GIS applications for IBM Cell Broadband engine and x86 Multicore platforms
- Focus – Exciting Students to become Developers on the Challenges that GIS/RS poses – Social; Utility Tools; Technical/Coding

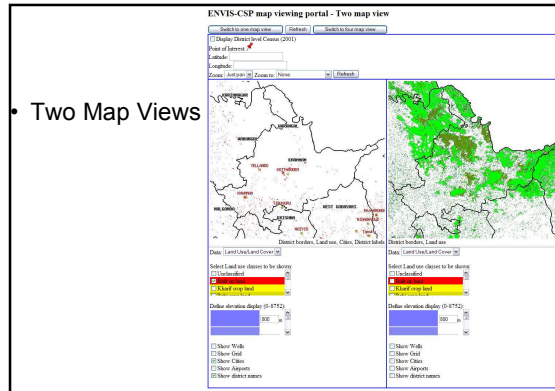
ENVIS-CSP Framework



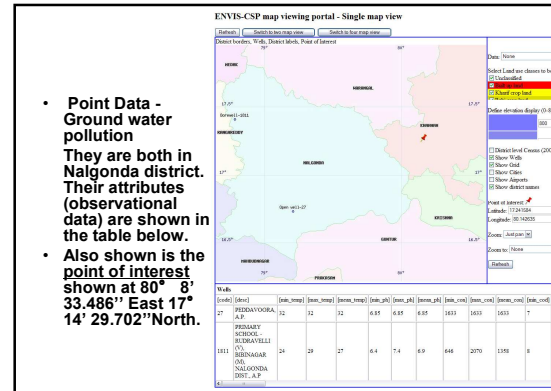
Overall Platform Architecture



Two Map Views



- **Point Data - Ground water pollution**
They are both in Nalgonda district. Their attributes (observational data) are shown in the table below.
- **Also shown is the point of interest shown at 80° 8' 33.486" East 17° 14' 29.702" North.**

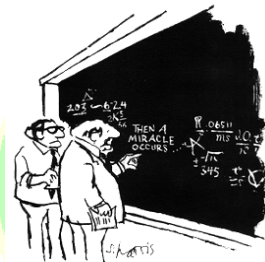


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Where do we go as a Community?

- Promote or shackle Innovation
- Spark the young minds or we just need more of “computer skilled draftsman”
- Is there a way to get out of this vicious cycle?



"I think you should be more explicit here in step two."

FOSS4G is the way



"HERE WE COME; READY OR NOT!"