

# DR. T K JAYALAKSHMI MEMORIAL LECTURE ON “REIMAGINING PROFESSIONAL DEVELOPMENT OF TEACHERS ACROSS LEVELS”.

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*IDRC Grant/ Subvention du CRDI: 107311-001-Research into Open Educational Resources for Development*

# **Reimagining Teacher Professional Development**

## **Communities of Practice**

**September 2016**

## **TKJ memorial program**

**Gurumurthy Kasinathan**

**IT for Change ([www.ItforChange.net/Education](http://www.ItforChange.net/Education)),**

**Bengaluru**

# Digital / Information Society

## BBC Study

We are in a period known as the "information revolution" as human societies transition to a digital age.

In 2000 75% of stored information was in an analogue format such as video cassettes, but that by 2007, 94% of it was digital.

"There have been other revolutions before." Dr Hilbert told the BBC's Science in Action programme. "The car changed society completely, or electricity. Every 40, 50 or 60 years something grows faster than anything else, and right now it's information."

"Basically what you can do with information is transmit it through space, and we call that communication. You can transmit it through time; we call that storage. Or you can transform it, manipulate it, change the meaning of it, and we call that computation."

# COP

- ♦ The spread of communication techniques for digital media has led to the emergence of new ways of social bonding based on gathering areas of common interests, open processes of cooperation and an exchange of knowledge

- French philosopher Pierre Levy

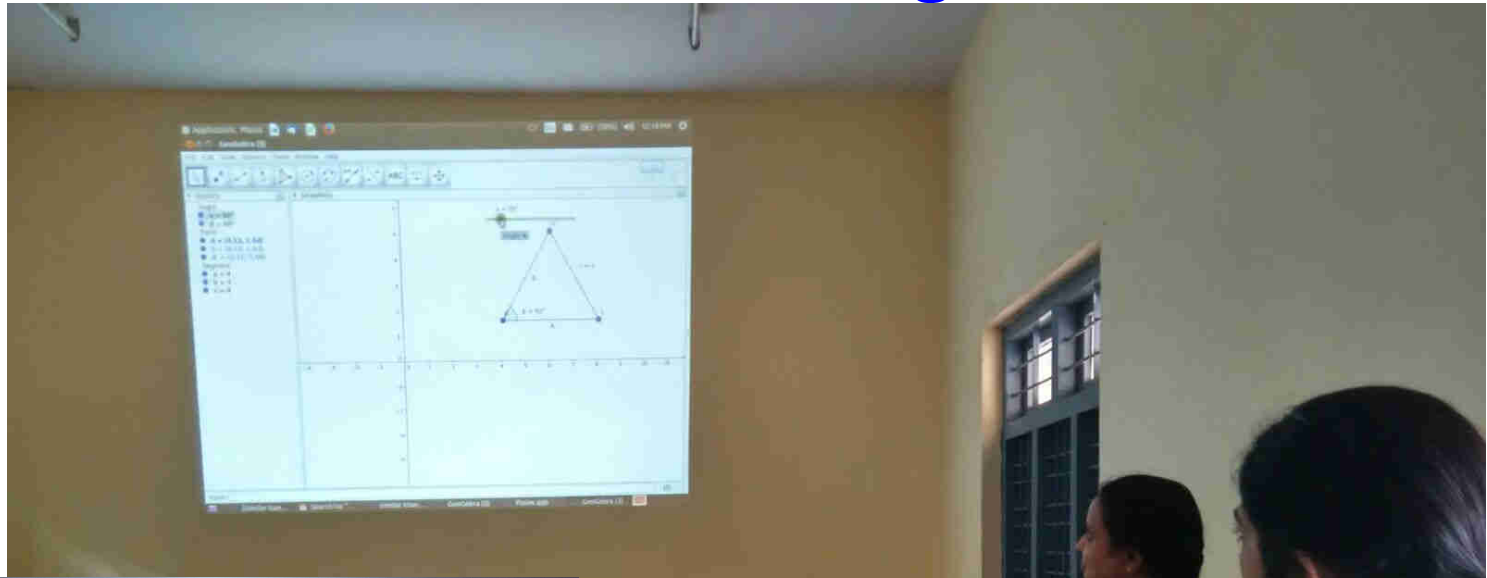
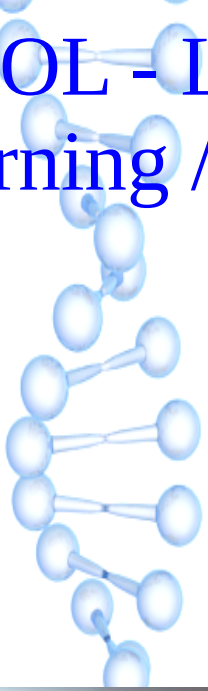
- ♦ Wenger

## What are communities of practice?

Communities of practice are formed by people who engage in a process of collective learning in a shared domain of human endeavor: a tribe learning to survive, a band of artists seeking new forms of expression, a group of engineers working on similar problems, a clique of pupils defining their identity in the school, a network of surgeons exploring novel techniques, a gathering of first-time managers helping each other cope. In a nutshell:

*Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly.*

# TCOL - Learning new methods and observing others learning / practice



# TCOL - Learning new methods together



# Subject Teacher Forum programme (STF)

- Began in 2011-12 as an in-service teacher training program
- In the workshops, teachers learn variety of Public educational software tools and web tools (maps, albums, translation) to access, create and share resources
- and to participate in the “Subject Teacher Forums” (mailing groups) by subjects
  - Over 125,000 emails exchanged in 5 years, sharing idea/ resources and seeking support on mailing lists
  - Subject Teacher Forums (mailing groups) set-up in **Mathematics, Science, Social Science, Kannada and English**
  - Over 3000 teachers have purchased personal laptops, a number increasing exponentially now
  - Around **22,000 Government High school Teachers** across all 4600 + Government High Schools across 34 districts of Karnataka use ICTs *for self learning, creating and sharing resources and transacting in their classrooms*

**Over 30 mailing groups (virtual forums) have been created in Karnataka Education**

<p><b>DIETDHARWAD</b> - manage 28 web views last week</p> <p><b>DK Maths and Science Subject Teachers Forum</b> 29 web views last week</p> <p><b>e-vidyaresourcegroup</b> - manage 29 web views last week</p> <p><b>englishstf</b> - manage 28 web views last week</p> <p><b>Gender-IS-Citizenship</b> - manage 31 web views last week</p> <p><b>Google Groups Help Forum</b> 3051 web views last week</p> <p><b>HPS Maths Science STF Karnataka</b> - manage 29 web views last week</p>	<p><b>Karnataka Education Technical Support Group</b> - manage 31 web views last week</p> <p><b>Karnataka-ICT-Curriculum</b> - manage 28 web views last week</p> <p><b>kbutturakannada</b> - manage 33 web views last week</p> <p><b>KMKN</b> - manage 28 web views last week</p> <p><b>kodagumathssciencestf</b> 28 web views last week</p> <p><b>KOER - Karnataka Open Educational Resources Team</b> - manage 28 web views last week</p> <p><b>Maths &amp; Science Secondary School Karnataka Teachers Forum</b> - manage 10 messages 3 new topics 91 web views last week</p>	<p><b>SocialSciencesstf</b> - manage 3 messages 1 new topic 39 web views last week</p> <p><b>ssbgmstf</b> - manage 28 web views last week</p> <p><b>stfenglish</b> - manage 28 web views last week</p> <p><b>surpurtic</b> - manage 28 web views last week</p> <p><b>TCOLVolunteers</b> - manage 28 web views last week</p> <p><b>tumkurmathssciencestf</b> - manage 28 web views last week</p> <p><b>UrduSTF</b> - manage 28 web views last week</p>
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**By Subject – Maths, Science, Social Science, English**

**By Geography – State, District, Taluka**

**By profile - HPS teachers, HS teachers, teacher educators, curriculum design**

**Special lists – KOER, Volunteers**



# Collaborative creation – a purpose for the community

The screenshot shows the Karnataka Open Educational Resources (KOER) website. The main heading is 'ಕರ್ನಾಟಕ ಮುಕ್ತ ಶೈಕ್ಷಣಿಕ ಸಂಪನ್ಮೂಲಗಳು' (Karnataka Open Educational Resources). Below it, there are sections for 'ಇತ್ತೀಚಿನ ಶಿಕ್ಷಕ ಶೈಕ್ಷಣಿಕ ಕಾರ್ಯಕ್ರಮಗಳು' (Recent Teacher Educational Programs), 'ಇತ್ತೀಚಿನ ಲೇಖನಗಳು' (Recent Articles), and 'ವಾರ್ತಾವತ್ತ' (News). The page is in Kannada and includes a search bar on the left and a navigation menu at the top.

Type 'KOER' in Google search to find the portal

Wiki based OER portal in English and Kannada – of, for and by Karnataka teachers and teacher educators

<b>Focus area</b>	<b>Number</b>	<b>Percentage%</b>
Count - Asking for help / seeking information or/ resources	21	4.57%
Count - Sharing resources – Reuse (including review comments)	56	12.20%
Count - Sharing resources – <b>Created</b>	102	22.22%
Count - Sharing resources – <b>Revised</b>	3	0.65%
Count - Sharing resources – <b>Remixed</b>	2	0.44%
<b>Total mails</b>	<b>184</b>	<b>42.70%</b>
Count - Others	275	59.91%
<b>Total</b>	<b>459</b>	<b>100.00%</b>

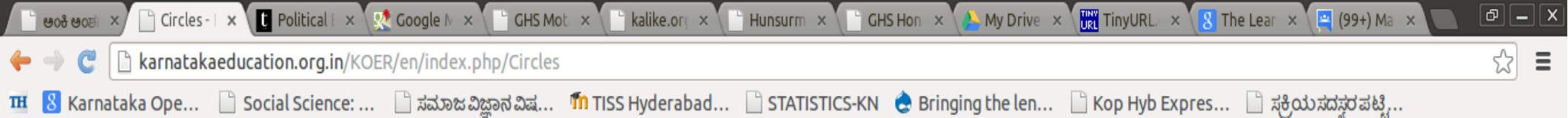
**Analyses  
by type  
of mails**

57. Table: Content shared by formats

<b>Type</b>	<b>Format (file extension)</b>	<b>Number</b>	<b>Open or / Proprietary?</b>
Text	EML	24	Open
Text	ODT	18	Open
Text	PDF	42	Open
Text	HTML	13	Open
Image	JPG	23	Open
Image	PNG	1	Open
Video	FLV	2	Proprietary
Geogebra	GGB	30	Open
Text	DOCX, DOC	8	Proprietary
Text	XLS, XLSX	7	Proprietary
Text	PMD	1	Proprietary
Text	PPT, PPTX	4	Proprietary

**File formats  
in which  
resources  
created and  
shared**

[http://karnatakaeducation.org.in/KOER/en/index.php/Main\\_Page](http://karnatakaeducation.org.in/KOER/en/index.php/Main_Page)



## Karnataka Open Educational Resources

Guru Talk Watchlist MORE Log out



Edit this page History Delete Move Protect Watch Page Discussion

### Circles

- The Story of Mathematics
- Philosophy of Mathematics
- Teaching of Mathematics
- Curriculum and Syllabus
- Topics in School Mathematics
- Textbooks
- Question Bank

While creating a resource page, please click here for a resource creation checklist.

Contents [hide]

- 1 Concept Map
- 2 Textbook
  - 2.1 ncert books
- 3 Additional Information
  - 3.1 Useful websites
  - 3.2 Reference Books
- 4 Teaching Outlines
  - 4.1 Concept #1 Circle
- 5 Notes for teachers
  - 5.1 Learning objectives
  - 5.2 Activity No # 1. A discussion on "Life without circular shaped figures."
  - 5.3 Activity No # 2.
  - 5.4 Activity No # 3. Circle of varying radius using Geogebra
  - 5.5 Activity No # 3. Is circle a Polygon ? - A debate.
- 6 Hints for difficult problems
  - 6.1 Ex 4.4.2
- 7 Project Ideas
- 8 Math Fun

**Over 7,000 web pages and 4,000 files created in mathematics, science, social science subjects and ICT education in English and Kannada**

**Over 5 million page views by teachers in around 4 years**

**Over 500 teacher contributors**

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