Teacher as a Techno Pedagogue in Copyleft Paradigm

Ambili M

Research Scholar, Department of Education,

Central University of Tamil Nadu, Thiruvarur.

ambiliadarsh9@gmail.com

Dr. Biju K

Assistant Professor, Department of Education

Central University of Tamil Nadu, Thiruvarur.

+91-8943327651,bijuk@cutn.ac.in

Abstract

In a knowledge-driven society, addressing its stakeholders with the paradigm shifts iscrucial. The resources and their utility have been controlled by various forces, which inhibited the democratization of knowledge. Access and freedom to use have been defined by socio-political-economic forces. As history repeats, the alternatives have already taken their role. The GNU and Free Software movement has transformed into a philosophical movement in knowledge management. The Creative Commons and Copyleft are its offshoots. It would be the best time to think of redefining and realigning the role of teachers and learners when we started discussing and debating new education policies. The present paper attempts to articulate the current perception of ICT, scope and potentials of FOSS tools, which need to empower teachers as techno pedagogues with the creative commons, resulting in the designer, developer and incubator of future sustainable learning and knowledge ecosystem.

Keywords: Copyleft, Democratization, Teacher, Pedagogy, FOSS, Creative Commons

Background

"Why do I need a teacher when I've got Google?" is a question Ian Gilbert has described more authentically in his book, posed by digital natives in classrooms. In this cyborg time, paradigm shifts in the role of teachers need to be addressed instead of labelling teachers as techno-pedagogues. From being consumers of technology tools, there is a shift to producers of content by the teachers in multiple formats.

Technology integration or technology enrichment in the classroom is a debatable question. Another argument is, is technology for teachers or teachers for technology? The

technology converts teachers into mere operators if it has not been treated as a pedagogy tool. 21st-centuryclassrooms become live with the digital natives as learners and teachers as digital migrants. The digital divide has become the topic for national and international recurring reports. As technology invades all walks of life, present classrooms need to address digital residents and digital visitors. Blended or infused modes of technology integration cannot be ignored, as the recent pandemic situations compelled teachers and learners to shift from traditional methods to technology-integrated modes.

Information Communication Technology (ICT) as Perceived

ICT is considered mere information communication technology, which most stakeholders still believe is a replacement for teachers instead of exploiting its potential in the education system. As our education system suffers from clichés and jargon, ICT and related competencies are still not uncovered to most of the populace. The fear towards the use of different ICT tools puts them as consumers. Capital hegemony influences society, and consumerism still has stronger roots in our education system. The more significant challenge in education is coping with accelerated developments in the field of technology, recently with artificial intelligence, which will continue.

Most of the time, locating knowledge and customizing is happening with the stakeholders rather than authoring. Plagiarism has grown like an intellectual cancer, even in academia itself, which has affected dangerously. Though cyber laws and moralities have been propagated, the results are not so appreciable today.

Products were dumped into the education sector to make their users the consumers. The readymade tools and contents were pumped such that the productivity in the education sector has been influenced drastically. Along with the other socio-political forces, access to knowledge was restricted, resulting in the divide between those who can and cannot. The corporate world has taken all its arms for entering into education and started dominating the knowledge capital- in its creation, delivery and management. This scenario necessitates the importance of alternatives for the proprietary forces and emphasises creating open access avenues.

Current Momentum

National and international attempts are giving some direction in integrating ICT tools into education. The essence that 21st-century teachers need to preside over the

democratisation of learning in a democratised knowledge society is re-emphasized now and then. Redefining the role of teachers with the meaningful and judicial integration of ICT tools has started.

Free and Open-SourceSoftware (FOSS) is opening up tremendous opportunities in the education sector, such that with no cost or low cost, teachers and students can become prosumers to begin with and producers to continue.

"Grasping the opportunity to move away from the hegemony of content to a focus on skills and competencies will contribute to increased commitment to learning if done well. 'Whatever the subject I'm in, I'm developing skills and attitudes to help me get a better job. Therefore, all lessons are important would be an important shift". (Ian Gilbert, p,20)

The opportunities are opened up because of the GNU platforms and FOSS tools.Teachers and learners have plenty of resources available and accessible easily regarding utilities and software. Open Educational Resources (OER) and Massive Open Online Courses (MOOCs) need to be leveraged in various forms. There are attempts to produceopen content and increase access among the stakeholders.

FOSS Tools for Education

The knowledge super high way unveils varieties of FOSS tools for all dimensions of education. The stakeholders are allowed to use them without any power concerns, but the condition is that users need to find them out and start using them. The hallmark of free and open-source software is reuse, remix and distribution, which is an excellent sign of the democratisation of knowledge.

"Free software" means software that respects users' freedom and community. Users**can run, copy, distribute, study, change and improve the software**. Thus, "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 beer". We sometimes call it "libre software" to show that we do not mean it is gratis (from https://www.gnu.org/philosophy/free-sw.html retrieved on 3rd Jan 2015).

A program is free software if the program's users have the four essential freedoms:
- The freedom to run the program as you wish, for any purpose (freedom 0).

- The freedom to study how the program works and change it so it does your computing as you wish (freedom 1). Access to the source code is a precondition for this.

- The freedom to redistribute copies to help your neighbour (freedom 2).

- The freedom to distribute copies of your modified versions to others (freedom 3). Doing this gives the whole community a chance to benefit from your changes. Access to the source code is a precondition for this.

The following concept map explains the different FOSS tools that could be used in education.

Figure 1: FOSS Tools in Education; Credits: Prof M U Paily.

As FOSS tools open up user opportunities to design and develop, licensing and attributions are crucial. Acknowledging the information or knowledge used as an intellectual morality is the need of the hour. This value dimension takes us to talk about the different licensing of the knowledge products.

Copy Left Paradigm

Until recently, we used copyrighted materials or resources without proper permission. This restricts the use of ICT resources since most of the resources are digitized and available on the Web. It's a kind of slavery to theft from the users' part as deliberate or by chance. Copyrights and intellectual property rights alienate the use of most tools, though they are user-friendly and attractive, as the consumer economy does. However, the GNU revolutions have become robust even to challenge the content hegemony by the corporates. Since the creative works and content creation need to be acknowledged, the GNU licensing system paved the path to the concept of Copyleft, an alternative to Copyright.

"Copyleft is a strategy of utilizing copyright law to pursue the policy goal of fostering and encouraging the equal and inalienable right to copy, share, modify and improve creative works of authorship. Copyleft (as a general term) describes any method that utilises the copyright system to achieve the goal above. Copyleft as a concept is usually implemented in the details of a specific copyright license, such as the GNU General Public License (GPL)and the Creative Commons Attribution Share-Alike License. Copyright holders of creative work can unilaterally implement these licenses for their works to build communities that collaboratively share and improve those copylefted creative works" (as seen at https://copyleft.org/)

"Copyleft is a general method for making a program (or other work) free and requiring all modified and extended versions of the program to be free. The simplest way to make a program free software is to put it in the public domain, uncopyrighted. People can share the program and their improvements if they are so minded. But it also allows uncooperative people to convert the program into proprietary software. They can make many or few changes and distribute the result as a proprietary product. People who receive the program in that modified form do not have the freedom the original author gave them; the middlemanhas stripped it away.

"Copyleft also helps programmers who want to contribute improvements to free software get permission. To Copyleft a program, we first state that it is copyrighted. We add distribution terms, a legal instrument that gives everyone the right to use, modify, and redistribute the program's code or any derived program, but only if the distribution terms are unchanged. Thus, the code and the freedoms become legally inseparable" (taken from https://www.gnu.org/copyleft/)

Creative Commons

Creative Commons (CC) is the offshoot of the GNU project and Copyleft movement. This allows for licensing the knowledge products or tools with meaningful and solid legal impacts. When teachers and learners become the producers of knowledge products and tools, with the democratisation of knowledge philosophy, it would be better to go for CC licensing, resulting in a robust learning or knowledge ecosystem that can be sustained.

Most of the time, when we deal with FOSS, the common misconception is that it is free to use. As a techno pedagogue, it's the basic morality to propagate the message of attribution and licensing to uphold civic values and morals. The following table explains the different CC licenses.

License	Details
Attribution CC BY	This license lets others distribute, remix, tweak, and build upon your work, even commercially, as long as they credit you for the original creation. This is the most accommodating of licenses offered and recommended for maximum dissemination and use of licensed materials.
Attribution-Share Alike CC BY-SA	This license lets others remix, tweak, and build upon your work, even for commercial purposes, as long as they credit you and license their new creations under identical terms. This license is often compared to "copyleft" free and open-source software licenses. All new works based on yours will carry the same rights, so any derivatives will also allow commercial use. Thisis the license used by Wikipedia and is recommended for materials that would benefit from incorporating content from Wikipedia and similarly licensed projects.
Attribution-No	This license allows for redistribution, commercial and non-commercial, as long as it is passed along

Derivatives **CC BY-ND**	unchanged and in whole, with credit to you.
Attribution-Non-Commercial **CC BY-NC**	This license lets others remix, tweak, and build upon your work non-commercially, and although their new works must also acknowledge you and be non-commercial, they don't have to license their derivative works on the same terms.
Attribution-Non-Commercial-ShareAlike **CC BY-NC-SA**	This license lets others remix, tweak, and build upon your work non-commercially as long as they credit you and license their new creations under identical terms.
Attribution-Non-Commercial-No Derivatives **CC BY-NC-ND**	This license is the most restrictive of our six central rights, only allowing others to download your works and share them with others as long as they credit you, but they can't change them in any way or use them commercially.

Table: Creative Common Licenses (Source: https://creativecommons.org/licenses/)

Conclusion

It's high time for the education stakeholders to use the opportunity to build a sustainable learning and knowledge ecosystem. The national initiatives in this line, such as e-pathshala (http://epathshala.nic.in) and NROER (http://nroer.gov.in), need focus and active participation. As a national initiative, there is an appeal to teachers, students and parents to contribute and use reuse resources. Now, we may find an answer to the question asked by Ian Gilbert, "Why do I need a teacher when I've got Google?" stating that teachers, as the designers, developers and incubators of the future, are essential pillars of education with redefined roles and responsibilities. Improving the instructional designs by infusing the FOSS tools, emphasising content creation with open licenses, sharing available resources

through institute repositories, exploring the open courseware, and collaborative course creations would be way ahead for teachers to be techno-pedagogues.

References

Gilbert Ian. (2011), *Why do I need a Teacher When I've got Google essential guide to the significant issues for every twenty-first-century teacher*, Routledge, NY.

https://creativecommons.org/licenses/

https://www.gnu.org/copyleft/

https://copyleft.org/

https://www.gnu.org/philosophy/free-sw.html