Technology and Impact on Dalit Education: An Empirical Analysis

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Abstract

The present paper is an attempt to understand the Indian system of education. What it means to the Dalits in the light of information and communication technology for educational access began to changing its phase towards market related rather than welfare mode. The term technology is being used now a day by the market forces to assess the societal relationships. In such situation how to understand Dalit situation under technology based education. At this juncture the paper focuses fourfold dimension of Dalits education and technology in terms of disparities, displacement, discrimination and distress.

Keyword: Dalits, technology, disparity, displacement, discrimination, distress.

Introduction

The term 'education' means a process of leading or bringing up enlightenment. The governments are required to regulate in the public interest. Even when development is on the agenda, new forms of regulation may be required or hard regulations may be need to be replaced, by soft regulations; this is as true of economic activity as of other areas of social life, such as health, education, and environment and so on.

It is to understand that the Indian system of education in the light of technology, education began to change the scenario of Dalits in the phase of liberalized new economic structures after 1991. This was started globally in a systematic way to exclude Dalits and marginalized sections in the society. Due to new phase of economy the socio-cultural sphere of Dalits in the light of human capital is changed enormously. Technology is the process by which humans modify nature to meet their needs and wants. Most people, however, think of technology in terms of its artifacts: computers and software, aircraft, pesticides, water-treatment plants, birth-control pills, and microwave ovens, to name a few. But technology is more than these tangible products[1].

Day to day life style of the growing children and parents are under the folding of market aspirations. The market needs are different from that of individual needs. One can easily makes out by close observation of development paradigm of Indian state. In the past two decades especially in the field of education market has brought many changes which are in a way forced the parents to buy it which neither were nor required earlier. Societal needs are basically interests of individual parents. Which were reinforced by the corporate schools upon the parents as an aspirational development of child for the sake of parental satisfaction than actual education? This ultimately leads to capital acquisition of private schools. In this process one can understand easily the gap between Dalit children education and non Dalit

children education. Majority of Dalits lives in rural area and most of their parents are either wage earners or agricultural labourers. Almost all of them are dependents on the government and semi government run educational institutions, whereas non-Dalits are able to cope up with the capital acquisition private run corporate education. It clearly demarcated the situation of Dalits and non-Dalits education is purveyor in terms of technological education.

Phase of Technology and Societal Change

Aftermath of New Economic Policies on Indian state, the situation among Dalits and their access to technology is being questioned. The whole realm of welfare activity is a myth for Dalits. The complexity of market forces in the field of education can be seen as international schools, techno schools, corporate schools, business schools. The entry of such schools restricted for Dalits due to lack of financial and information. This methodological choice does not imply that new social forms and processes emerge as a consequence of technological change. Of course, technology does not determine society[2]. In the similar way the situation of technology related education for Dalits in public schools are under great crisis situation. Our study shows that the majority of the teachers are far behind with corporate methods of teaching. Especially the usage of tools and techniques are poor when it compare to the corporate schools

IT with computer aided devices is highly useful as teaching tools in education. Teachers have to be given training to know how to use and apply computer in the classroom. It is important that teachers have a clear understanding of what technology can and can't do in the classroom. Lessons can be kept in the computer memory. Several soft wares' can be matched to get full curriculum, internet utilization like websites and email, video conferencing may also be used to get maximum benefit of Information Technology. The question is how far such technology made available to the marginalized sections like Dalits

in the society through public school education. The exited structural inequalities in education system such as 1) difference among children based on economic status, 2) Gender disparities, 3) regional imbalances, 4) psychological differences, 5) Difference at home, 6) difference between backward and advanced classes, 7) Non-availability of adequate opportunities.

Education is only an instrument to remove inequalities among the people, if we provide education to all people in turn that education will remove all inequalities in social, economical, political spheres of the society. Education and employment have a close link. Education creates job opportunities and employability. In turn that employment strength will boost education facilities of the citizens. Education will laid path way to utilize available human power and physical resources with the help of technology.

Research Questions

India claims to be the largest democracy in the world. Democracy becomes meaningless to the people if they are to remain uneducated and the numbers of illiterates remain high. Despite the commitment towards addressing the problems of caste, successive governments have completely failed to address the question of increasing Dalit access to modern education. If this is the situation in government schools what could be the situation of Dalits in private sector schools. The very entry point in to the schools is restricted economically, socially and culturally. The International Schools and Corporate Schools sets up certain social and economic norms such as high fee structure and English speaking parents will have entry into those schools.

First I ask; what is the empirical relationship between technology and education of Dalits. This question allows to test whether there is more congruence of technology for Dalits in educational institutions in rural areas. The data shows that the general presumption on the weak or negligible role of secondary and higher education in development is not valid and that post elementary education is important for reduction in poverty, in improving infant mortality and life expectancy, and for economic growth. Accordingly, it also pleads for sound and comprehensive education policies that recognize the importance of not just elementary education, but also of secondary and higher education and for integration of educational planning with development planning. I ask; has congruence between state initiated policies for technological education for the Dalits in rural area has increased over a time but the expected development has not been achieved.

Methods Adopted for the Study

For the purpose of the paper interview method is adopted to address the the problem of the study. The interviews have been conducted in two villages of Guntur district. The selection of the villages for the study is based on the educational status of Dalits in the Dodleru and Talluru villages of Guntur district. Guntur is one of the nine districts of Coastal Andhra. The district is spread

over 11391 square meters. This is 4.14 percentage of the total territory of Andhra Pradesh. The population is 6.17 percentage of the total state population that makes it the 9th largest populated district in the stage. The Scheduled Castes number at 5,73,407 in the Guntur district which is 13.96 % of the total population, and 5.41% of the entire Scheduled Caste population of Andhra Pradesh. Guntur district is thus placed fifth as far as Scheduled Caste population in each district in Andhra Pradesh is concerned. In Guntur, the Scheduled Castes are mainly engaged in daily-wage labour work. According to the 1991 Census, the population of daily-wage laborers in Guntur is 1,56,243, which is 27.25% of the total Scheduled Caste population. Of this, 1,21,410 (77.70 %) agricultural daily-wage earners household-working groups are 2015 (1.29 %). Those possessing small land holdings are 9,677 (6.19%) and other workers are 23151 (14.82%). Dodleru and Talluru fall in the Mandal Krosuru having the highest Dalit population. The first village consists of 500 Dalit families and has 3 primary schools and one high school, run by the state. Private schools also exist, but access to these is difficult due to a very high fee structure. Talluru village has of 425 Dalit families and there was two public Primary schools and one Public High school and private schools also existed in this village. However, most of the students depend on government schools due to high fee. According to the 1991 Census, the literacy rate among Dalits is very low and the dropout rates are very high. The general dropout rates in Guntur district between the age group 6-14 years is 34.66% and between the age group 11-13 years is 59.15%. The study proposes to understand the educational policies of the central government as well as the state government and enquire why the enrollment rates among the Dalit children is low and the dropout rate very high.

Analysis of the Study

Two techniques were employed for analyzing the data. Initially to understand the relationship between technology and school education of Dalits in rural areas of Andhra Pradesh in general and field villages in particular has been taken up. For better understanding of the selected villages are subdivided in to two categories. In the first village most of the Dalit families migrate for agricultural work and in the other village the Dalit families remain in their own village. The external constraints relate to problems and difficulties at the levels of Policy, Planning, Implementation and Administration. Internal constraints refer to the problems associated with the *School System, Content, Curriculum, Medium of Instruction, Pedagogy, Academic Supervision, Monitoring and Teacher-Student* Related problems. The second set of problems relates to social, economic and cultural background of Dalits and psychological problems of the first generation learners belong to the Dalit community.

In the present age the development of communication and information technology in particular, transport facilities, tourism, education, trade and so many of the factors have forced each country, however big to come into the main stream of a global village, let education for all make the whole planet a village,

where there is peace, safety, security and happiness everywhere and for everyone. In deed past failures are to be assessed and lessons learnt from this assessment in a broader perspective. The failure can, this; argue Dreze and Sen (1996), be scarcely seen simply as the result of an "overactive" government. It is good to remember what Gunnar Myrdal (1968) noted about three decades ago. He finds in the 'Asian Drama' that the "*soft state"* of this region is reluctant to cites in government, social and economic inequalities, and vested interests in the status quo. At this juncture the question of Dalit and their education can be traced in to four fold they are disparities, displacement, discrimination and distress.

Technology and Disparities

The exclusion of certain groups from meaningful participation in society and its institutions through socially constructed hierarchies of race, ethnicity, religion, caste and gender are of increasing concern today. Some of the social policies and practices are seen today systematically restricting the access of some groups to scare resources (such as education, jobs and other opportunities) and enhancing that of others. The main argument of the paper is to address the technology advancement and disparities across the educational line of Dalits. Indian government has brought forth several effective policies, but even so literacy rate among Dalits are not increasing. Here the question is why Dalits not receiving effective policies of government are proposed in public run schools and the quality of technological education in schools (both public and private) are not meeting the requirements of the market needs. The dropout rates among Dalits high? Why this is happening is the basic question raised here.

J B G Tilak, says that "opportunities offered by globalization are not extended to all evenly. Globalization is argued to be beneficial to some and bad for many……….Globalisation is bad for people with few skills and unless educated". Further, he adds that, during phases of Globalisation, soft sectors like education get neglected………the focus of attention shifts away from education to strengthening of financial institutions and market forces. As a result, public expenditures on education might decline. This indicates that on the one hand globalization brings opportunities at par for many and on the other hand, it brings market approach and private financing. It happens that people of the elite groups can avail the opportunities and equip themselves

for the competition. Private and self-financing institutions charges high levels of fees. People of the lower levels of the society cannot afford this. So in the longer run, large segment of the society gets marginalized.

The table 1 gives us a clear picture of the respondents' perception in Dolleru village. From those who said "good" the Mala community feels that the structure and environment of the school is "good". Out of 30 respondents "good" accounts for 16 (26.6%) and "No" for 14 (23.3%). In case of Madiga community "Yes" accounts for 19 (30.6%) and "No" 11 (18.3%). The other village Talluru, opinions on the issue of school structure and environment out of 30 Mala respondents "Yes" accounts for 3 (5%), 'No' accounts for 27 (45%). From 30 Madiga respondents interviewed those who expressed 'Yes' account for 8 (13%) and 'No' account for 22 (36.6%). In Talluru respondents' perception regarding the primary school structure and environment is not favorable. Most of the respondents are not favorably disposed towards the school climate. There are no toilets for the girl children in the schools which is the major gender disparity among the children of all caste categories. This is same with the private schools in the field villages.

Technology and Displacement

There is no single definition to the Technology, one way of putting it is that development of appreciation of tools, machines, materials and processes that help to solve human problems. As a human activity, technology predates both science and engineering. When it comes to most deprived sections in India (Dalits), all these factors working together have worsened seriously the socio-economic mobility among Dalits. The Caste system is an especially Indian expression of institutionalized inequality and indignity, with elevation for some and degradation for others and untouchability is a curse of the caste structure. The abolition of untouchability was a key Constitutional provision for securing human dignity for Dalits and a significant step towards equality and social justice. The Indian Constitution, as set out in the Preamble, which contains its basic philosophy could hardly be more eloquent. The pursuit of social justice is its primary objective. It is a testament to secure to all its citizens, JUSTICE, social, economic, and political; LIBERTY, of thought, expression, belief, faith and worship; EQUALITY, of status and opportunity; fraternity assuring the dignity of the individual[3]. Some of these objectives are guaranteed as Fundamental Rights.

Table-1
School structure and environment

Village	Mala			Madiga		
	Good	**Not good**	**Total**	**Good**	**Not good**	**Total**
Dodleru	16	14	30	19	11	30
	26.6%	23.3%	50%	13.6%	18.3%	50%
Talluru	3	27	30	8	22	30
	5%	45%	50%	13%	36.6%	50%

Source: 30th july, 2013 field report, Dodleru and Talluru Villages.

Legally or Constitutionally, the Dalits are no longer called as untouchables, but in practice, many of them still bear this stigma. This work is a modest attempt to understand and explain the phenomenon of educational advancement among Dalits, which is to be considered as one of the major factors in formulation of attitudes and shaping of individual personality, as well as an indicator of socio- political and economic status. Assessment of education is also important to understand the concept of social change among Dalits.

India began its endeavor to establish a system of mass education more than fifty years ago. The Constitution of the country made it obligatory for the state to provide basic education for all up to the age of 14, within a period of (1950 to 1960) ten years. While literacy rates and school enrolments continued to rise, and persistent to reach the goal of education for all seem to have began to bear some fruit. After the 86th Constitution Amendment Act in 2002, a new article 21A has been inserted. The new article deals with Right to Education and states, "The state shall provide free and compulsory education to all, from the age of six to fourteen years in such manner as the state may by law determine."

Article 51A of the Constitution deals with Fundamental Duties reads thus "It shall be the duty of every citizen of India- e) to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women[4]." Despite this, the expansion of the educational system has been uneven and inadequate. When it comes to the access of school education itself is displaced to certain Dalit communities. The distance of the school is also one of the factors for dropping out from the school particularly the Dalits girls. For children who are sent to school, the problem is that of retention. In the table 2 gives a picture on the respondent's perception on the issue of the distance of the school from the home. When asked the question "How much is the distance from home to school"? it is 2 k.m. away from the home. It is located in the outskirts of the village entrance.

Technology and Discrimination

The experience of the last 50 years has shown that placing a high priority on education in policy statements does not necessarily ensure adequate resources, nor does it ensure that national programmes cover the marginalized groups. "Literacy rates are much lower among Scheduled Castes (SCs) and Scheduled Tribes (STs) than among other castes. Wage laborers have lower literacy levels than other occupational groups. There is also a marked rural urban differential. The problems of literacy are therefore neither evenly distributed across the country, nor across social groups. Lower educational achievements can be expected among Scheduled Castes or Tribes or from a family of wage laborers and in parts of the country, where general literacy levels are very low[5]." Education is the cornerstone of socio-political and cultural advancement and it is regarded as a principal means of improving the welfare of the individuals.

Caste dynamics continues to underlie social and economic relations, especially in rural India where Dalits still occupy the lowest position in the village 'hierarchy' in terms of social and ritual status. The fact that a majority of Dalit households are economically dependent on upper and dominant castes makes them socially vulnerable. On a regular basis, they suffer discrimination from higher castes, though this is inadequately documented. It has been said, "In villages in rural Andhra, one finds that the Malas and Madigas are made to live outside the village, normally to the east…………the Malas and Madigas find their separate glasses and plates in hotels, they should buy eatables only if they are prepared to wash their own plates and glasses and keep them in a separate box meant for them…………the upper castes do not tolerate if the lower castes wear good clothes put on good chappals and continue to want them to live what is known as the 'ayya banchan' life (living at the feat of the upper castes)". Dalits still reside in segregated clusters on the periphery of villages and are not allowed access to common village wells, and are prevented from entering temples[6].

The current paper argues that the discrimination is schools are still existed in terms of usage of technology in schools. The appropriate physical structure such as school building, drinking water and toilets etc., play a role to bring child to the school especially girl child. When we ask the question to find out the response of parents on the issue of the appropriate physical structure such as school building, drinking water etc., "how do you feel about the facilities provided by the school?"

Table-2
Distance of School from home (High School)

Village	Mala			Madiga		
	Good	**Not good**	**Total**	**Good**	**Not good**	**Total**
Dodleru	17	13	30	16	14	30
	28.3%	21.6%	50%	26.7%	23.3%	50%
Talluru	14	16	30	18	12	30
	23.3%	26.7%	50%	30%	20%	50%

Source: 28th july, 2013 field report, Dodleru and Talluru villages.

Table-3
Appropriate physical structures such as buildings, drinking water facilities and toilets etc.,

Village	Mala			Madiga		
	Good	**Not good**	**Total**	**Good**	**Not good**	**Total**
Dodleru	19 31.6%	11 18.3%	30 50%	17 28.3%	13 21.6%	30 50%
Talluru	23 38.3%	7 11.6%	30 50%	18 30%	12 20%	30 50%

Source: 28th july, 2013 field report, Dodleru and Talluru villages.

The table 3 gives a picture of appropriate physical structure of the school buildings and drinking water facilities etc,. Out of 30 respondents from Mala community in Dodleru those who said good account for 19 (31.6%) and "not good" for 11 (18.3%). From Madiga community good account for 17 (28.3%) and "not good" for 13 (21.6%). Respondents from Mala community in Talluru village "good" account for 23 (38.3%) and "not good" account for 7 (11.6%). From Madiga community "good" account for 18 (30%) and "not good" for 12 (20%).

Technology and Distress

The scene of education in Andhra Pradesh is a picture of contrasts. The state is known at once for its many successful experiments in the field of education as well as for its poor literacy levels. It reveals the extent of its educational backwardness. Among the innovations introduced in the field of education are establishment in 1983 of exclusive social welfare schools for scheduled caste children, which later served as the model for Jawahar Navodaya vidyalays established by the government of India. The Andhra Pradesh Primary Education Programme (APPEP) introduced in the state in 1983, with important differences, the precursor for the District Primary Education Programme (DPEP) launched in 1994 to cover 19 states of India.

Andhra Pradesh has the dubious distinction of being ranked at the 26nd position as far as all India literacy levels are concerned. In fact, Andhra Pradesh has the lowest literacy rates among the four southern states of the country. As per the 2001 Census, there are about 71% Male literates and 51% Female literates in the state. The official figures themselves reveal that the dropout rates are very high even at present though there has been an improvement over the years. For the academic year 2003-2004, the dropout rate at primary level (I-V) is 42.42 % for boys and 42.80% for girls. If the rates are considered till the upper primary level (I-VII) they are 42.61% and 52.71% for boys and girls respectively. Schooling till the high school level shows that the corresponding figures are 65.08% and 68. 53 %. The dropout figures for the SCs and STs are much higher[6].

Within Andhra Pradesh, the concern with the low literacy rates combined with high dropout figures in schools has had a definitive impact on the policies of the state government in relation to the education sector. While the state has to sought to address this problem from the late 80s onwards, the clearest and most public articulation of a desire to change approach and policy is to be found in the 1999 document Andhra Pradesh; Vision 2020 which states that "Andhra Pradesh will just not be a literate but a knowledge society capable of meeting the challenges posed by the 21st century…..." the document goes on to state that " education is critical to building a modern, market based economy and rising living standards". The human capital model in theories of economic growth shows that arise in the level of education brings a rise in the efficiency of all factors of production. Educated people use capital more efficiently; they think up new and better forms of production and they embrace change and innovation faster and quickly learn and new skills……..the existence of such a skilled"

The crucial decade of 1990s in order to probe the developments within the education of Dalits is a problem. It seeks interventions of the state government in order to assess their impact on the field of education especially in its relation to different sections of the population that aspires for education. Government allocation of funds for the education sector as a whole is decreasing. While funded programmes in the form of loans, especially for school education, is increasing but Dalits are not in a position get those kinds of facilities. Larger sections of the people are from daily wage agricultural background. Now, basic education is still far away for Dalits communities.

It is much evidence that children of poor families often assist their parents in various household activities such as care of younger sibling, looking after cattle and poultry, collecting water ad fuel, and helping on the family farm. Dalits are perhaps the most economically deprived sections in the society. A careful look at their economic situation point this clearly. The workforce structure at home is dragging the child not to attend school. Whatever the little amount adds to the family is sufficient for the Dalit parents to run the family. All these factors culminating Dalits to go for work. The education of girl children from Dalit communities is of special concern as poverty and precarious living conditions are serious constrains in their case. Sibling care and domestic task are major responsibilities of girls, particularly in wage labour and migrant households. The question of relevance of education becomes even more pertinent for girls given that Dalit women workers primarily wage workers and cultivators. On the other hand, there is a need to focus attention to spread awareness of the education and its importance. Schooling must not be merely physically but also socially accessible to Dalit girls.

Table-4
Feminine socialization, parental attitude and role expectation early marriage in case of girl child

Village	Mala			Madiga		
	Good	Not good	Total	Good	Not good	Total
Dodleru	24 40%	6 10%	30 50%	23 38.3%	7 11.6%	30 50%
Talluru	21 35%	9 15%	30 50%	22 36.6%	8 13.3%	30 50%

Source: 28th july, 2013 field report, Dodleru and Talluru villages.

In the table 4 explains the parental attitudes and role expectation, early marriage in case of girl child. Out of 30 respondents from Mala community in the village of Dadleru those expressed "good" account for 24 (40%) and "not good" for 6 (10%). From the Madiga community respondents "good" account for 23 (33.3%) and "not good" for 7 (11.6%). From Talluru village the respondents' perception indicates that. Out of 30 respondents form Mala community "good" account for 21 (35%) and "no" for 9 (15%). From Madiga community opinions "good" account for 22 (36.6%) and "no" for 8 (3.3%).

The system of education, which is an important means for bringing about equality, is in fact replicating social hierarchies. Privatization of education at all levels seems to be aiding this process. The private educational institutions form a small part of the entire system but exert an influence that is disproportionate to their actual strength. The policies of the state address the lower class child, especially when affirming its commitment to Universal Elementary Education; in contrast, the curriculum foregrounds the middle class upper castes child. Polarisation is near complete with the poor opting either for private school education or for government schools as per the socio-economic position of the family background.

Conclusion

The technology points out that the system of school education and policy intervention in education have been largely at the level of provisioning and providing incentives to encourage schooling . While provisioning is inadequate in terms of physical access even at primary stage, the issue of how socially accessible the schools really are for Dalits has never been addressed.

This is important because the policy fails to acknowledge or confront the role of discriminatory caste relations that pervade the educational experiences of Dalit children. It is clear that caste continues to obstruct the access of Dalit children to schooling as well as the quality of education they receive. Increasing costs of education, the need for children's contribution to work for the

maintenance of family remain serious issues to be considered. Poverty continues to be a major impediment in the education of Dalit children.

As pointed out earlier, the purpose of this paper is to help in identifying the points of intervention of technological advancement in education. Many approaches to education have been adopted and experienced over the years. They include most of the government programmes. Although there is an implicit belief in the value of education through universally available schooling system, in practice the system as exists comprises of multiplicity of schooling types. These variations from the norm are a result of pragmatism and iniquitous nature of the society. For instance, the acceptance of a two-track system by the government seems to be largely the result of perceived financial shortfalls against strong political pressure for extending facilities. However, in remote rural areas with small population, permitting deviations may be one way to provide access to education.

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