

Culture into this region. But on the basis of the physical make up and some of the traditional and cultural affinities with the nearest Mongoloid ethnic groups it is not possible to explain their original homeland was somewhere in the Great Indo-Ganga valley plain or in the Southern Deccan Plateau region of India if compared with the distribution of Mongoloids in the World Racial Population Map. It is, therefore, agreed that the Koch-Rajbongshis are the descendents of one of the Chino-Tibetan Mongoloid groups and they have accepted Hindu Vedic Culture earlier than other Mongoloid groups.

Tradition and Culture:

Among various tribal groups who are migrated from the Southern Tibetan region, the Koch-Rajbongshis are settled in such a position that they become very close to the Gangetic Valley Plain, the core of the Hindu culture, and physiographically it is the continuation of the same river valley plain relief environment. This condition has permitted the diffusion of Hindu Culture and on the other hand the Koch-Rajbongshis were smaller in comparison to the larger Caucasoid group. At the same time there was also a large group of Caucasoid wave, including so many sub-groups within them, penetrated into the Brahmaputra valley from the west through the river route settled mainly in the flood plain and in the margins of the built up zones and for which there took place cultural fusion through social interaction for a very long period of time. Many scholars opined that it is the reason that the Koch-Rajbongshis have lost many of their original traditions and customs and ultimately merged with the Hindu Culture. But interestingly, in the long process of social interaction and intermingling, they still exhibit some of their originalities in many ways. In respect of their traditional dresses the ladies wear Patani and angcha or aosa and so many traditional ornaments similar to other tribal groups. They have their traditional dances like Kushan, Goalini, Bash Nritya etc. with some traditional musical instruments and so many folks. They still worship tribal deities like Masan, Bishohori and celebration of indigenous festivals like Gram Puja, Bash Puja, Kartik Puja, Dinga Puja etc. Again they have their traditional social groups or units comprising some villages as the lowest order unit and hierarchically to the higher order in order to keep, monitor and follow their traditional guidelines in all their social and traditional works and this type of traditional units are

also seen among the other tribal groups who are the nearest neighbour of the Koch-Rajbongshis.

Present Crisis:

The constitution of India listed number of different backward ethnic population groups into the reserved category and in the North-East India too there are all total 214 ethnic groups are recorded in the list of Scheduled Caste and Scheduled Tribe category in order to bring them into equal status with the High Caste general people especially in respect of social, economic, educational and political point of view. And on the basis of the general backwardness of the community, the Koch-Rajbongshis of Bengal and in Tripura are included in the Scheduled Caste category and as Scheduled Tribe in Meghalaya, whereas the same community is recorded as O B C (Other Backward Class) in Assam. Therefore, the matter is something controversial and the Koch-Rajbongshis of Assam are not satisfied with the very policy of the Government and seek a common and appropriate policy for all-round development of the community. It is, therefore, a general feeling of ethnic identity crisis has crop up among the Koch-Rajbongshis and in connection with this issue some of the socio-political organizations of the community demanded for Scheduled Tribe status or for a separate state Kamatapur time to time. It is also a matter of concern that there was a memorandum of understanding in between the then British Government and the last Koch king Jagadipendra Narayan to create a separate state Kamatapur for the Koch-Rajbongshis if their territory is included in the independent India, but the very MoU is abandoned after independence. The very incident is drastically affecting the community especially on the ground that they have to accept Bengali language in Bengal and Assamese in Assam and their own language is now lying in the status of a dialect. At present the newly organised Koch-Rajbongshi Sahitya Sabha and so many socio-cultural organisations working their best to develop their literature and culture.

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A Study On The Material Conditions of Secondary Schools in Goalpara District of Assam

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Introduction : Education is as deep as the life itself and as broad as the world of one's experience. Education is considered as the most potent process of bringing about social, political and economic development and cultural transformation of country. It helps to develop a child to be physically strong, mentally well equipped and emotionally balanced with a right attitude towards life and work. Education has an important role to play in the development of the society and schools are the place where the future of the country is shaped up. Only better schools can make better society.

Secondary education is said to be the most important period of life. It occupies an important place in the system of education of a country. The quality of secondary education depends upon the sound material conditions of the school. For better function the school is said to be organized with well-equipped materials in a systematic way. Material condition plays a prominent role for moulding the ideas, habits and attitudes of the pupils to produce physically strong, mentally alert, emotionally stable, culturally sound, socially efficient and well-balanced personality. So, the importance should be given on essential material needs for the all-round development of the stu-

dents.

Meaning of Material Condition : Material condition is very much essential in the process of teaching and learning for proper mental growth and development of the students. No system of education can function without a sound material or physical resource.

The material equipment is to the school as the human body is to the soul, machinery to the factory, land to the agricultural production, tool to the workman, plane to the pilot and the empire to the kingdom. It is only good quality material that can produce good quality performance. Material condition of an institution covers the surrounding environment of the school. Material condition of the institution constitute the basis of teaching and learning in which rest the entire structure of education. Material conditions are inclusive of the following items like-1. Location 2. School Building 3. Class Room 4. Library 5. Science Laboratory 6. Play ground 7. Museum 8. Furniture like desk, benches 9. Audio-visual aids and miscellaneous items of the whole school complex.

Significance of the Study : The material conditions have special significance for academic excellence of every institution. The well-equipped



school helps to increase the efficiency in teaching and learning. It motivates the students and the teachers to plan and teach effectively. It creates a sense and feelings of pride in the mind of every member of the institution, teachers, students and guardians.

Non attractive school building, lack of library, lack of laboratory, lack of electricity, lack of open space and play ground campus effect on education. The material resources also help the teacher to clarify and co-ordinate accurate concepts and interpretations which enable him to make learning more concrete, effective, interesting, meaningful and vivid.

The investigator has chosen the topic because Goalpara is mentioned as one of the economically backward districts of Assam by the Govt. of India in 1991. Literacy rate of Goalpara was calculated to be only 58.56% in 2001.

Delimitation of the Study : The investigator has chosen two selected blocks under the Goalpara district for the present study.

1. Kochdhuwa block 2. Rangjuli block

The study has been limited only in thirty numbers of schools under this area.

Objectives of the study :

1. To study about the material conditions of the secondary schools in Kochdhuwa and Rangjuli block.

2. To know the difference in material conditions between the privately managed schools and provincialised high schools.

3. The find out the teacher-pupil ratio and status of teacher.

Methodology :

The present study is based on the descriptive survey method to find out the existing pattern of material conditions of the secondary schools of Goalpara district.

Technique of data collection : The data gathering tools which are selected for the present study are :

1. Questionnaire 2. Interview

Sample Selection : In the first step, the investigator has selected two blocks out of eight blocks purposefully.

In the next step, a sample of 30 secondary schools and higher secondary schools have been selected by purposive sampling method for collection of various information related to the study.

The percentage of responses of the respondents against each item of the questionnaire are shown in the TABLE NO : I.

The findings of the study are :

1. Most of the secondary schools of this studied blocks have own school buildings but the class rooms are not properly arranged well-equipped, ventilated and without sufficient light. There is no well partition wall between the class rooms and no provision of cupboard in the class-room. They have no sufficient resources to build more class-rooms.

2. In the selection of the location of secondary schools in this area is healthy, quiet and free from dust and pollution but there is no good arrangement of drinking water.

3. Some privately managed schools have an attractive and beautiful school building with adequate material facilities in comparison of Govt. provincialised schools.

4. In most of the provincialised secondary schools of this area, the material conditions are not satisfactory. There are no modern teachings aids like television, radio, computer etc. for teaching in the class-room. Majority schools used traditionally general teaching aids.

5. There is no adequate facility of library room, laboratory room, electricity provision of first aids, bicycle stand etc. in the secondary schools of Goalpara district.

6. Though the Govt. secondary schools have their sufficient play ground but interest has not been given in games and sports to utilize the play ground property.

7. There is no universal climate in secondary schools in this area. The academic atmosphere of



TABLE NO : I.

Provincialised Institutions				Private Institutions	
Sl. No.	Item	% of Yes Response	% of No Response	% of Yes Response	% of No Response
1.	Location	92	8	100	.....
2.	School building	92	8	100	.....
3.	Class room	96	4	100	.....
4.	Class room equipment	80	20	80	20
5.	Library	4	96	80	20
6.	Special room	12	88	80	20
7.	Lunch room	.....	100	.....	100
8.	Store room	8	92	100	.....
9.	Office room	8	92	100	.....
10.	Teachers common room	96	4	100	.....
11.	Play ground	96	4	100	.....
12.	Assembly hall	.....	100	20	80
13.	Toilet	20	80	100	.....
14.	Medical wing	.....	100	20	80
15.	Bicycle shed	16	84	100	.....
16.	Staff quarter	8	92	40	60
17.	Hostel	.....	100	80	20
18.	Laboratory	12	88	80	20
19.	Museum	.....	100	.....	100
20.	Audio visual Aids	12	88	80	20
21.	Electricity	12	88	100	.....

N.B. The percentage is calculated on the basis of respondents out of 25 schools in case of provincialised and out of 5 schools in case of private schools.

Govt. schools is not up to the mark due to the absence of infrastructure facilities.

8. The teacher-pupil ratio and trained teacher percentage is both types of institutions are found to be unsatisfactory from this study.

Conclusion : The area is still backward in this respect in so far as majority of the elementary and secondary schools do not have adequate accommodation and equipment for the growing number of schools.

The role of the state and central Govt. is most remarkable to the development of the material equipment of the schools as well as the quality status of the teachers. There is a shortage of teachers in almost all secondary schools of this locality. Unless the Govts take adequate measures to solve these material related problems in near future, it will be futile to the hope for any renovating reformation in secondary education and subsequently in the progress of the nation.



Breaking the Fountain of Art

A Study on the Ready-mades of Marcel Duchamp

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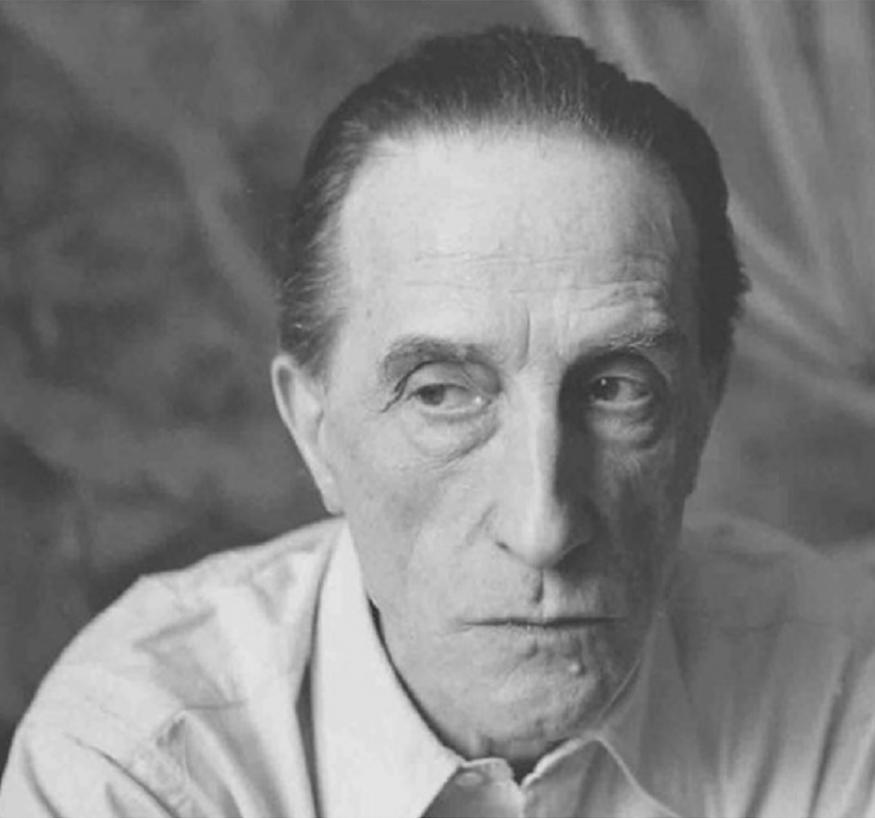
What makes an art? What are the criteria by which a checklist can be prepared of art? Is there any fixed standard to judge a work as an art? If one work qualifies as an art why is not the other? Does the unqualified work lack the strength of the qualified one? Are all works same as art? If art can be anything, it is nothing! These are the fundamental questions raised by the conceptual arts of Marcel Duchamp (1887-1968).

Marcel Duchamp is called the father of conceptual art. His art is radical as most of them are the ready-mades of the society. He has just sent them in exhibition for people's con-

templation of them as art. His chief purpose is to let the people react to them and make them think that the ready-mades can also be art. His ready-mades question the very existential nature of art itself as a medium, representation and the artistic labour. The very way people do look at the objects of the world is questioned by his ready-mades. His art points to the visual indifference of people- the way people come across so many things of the world and ignore their artistic potentialities- the elements of 'defamiliarization' or 'estrangement' in them.

It is commonly acknowledged that an artist consciously arranges the media so as to affect an 'aesthetic pleasure' to the viewer by his art. The idea of aesthetic pleasure is very subjective. What is extraordinary for one might be ordinary for the other. Therefore the appraisal of art is quite relative and dependent upon the perspective of the viewer.

In A World History of Art (Seventh Edition), Chapter-Twentieth Century Art and Beyond (pp. 800) Hugh Honour & John Fleming documented people's reaction in this way: "Duchamp's ready-mades were everyday manufactured objects converted into works of art simply by the artist's act of choosing them. He did nothing except present them for



contemplation as 'art'. They represent in many ways the most iconoclastic gesture of total rejection and revolt against accepted artistic canons. The reduction of creative act to simply 'ready-mades' discredit the 'work of art' and taste, skill, craftsmanship and the higher artistic values that it traditionally embodies. Duchamp's choice of these 'ready-mades' was never dictated by any artistic delectation. The choice was based on a reaction of visual indifference, with at the same time a total absence of good or bad taste, in fact a complete anaesthesia. However, his ready-mades do have, willy-nilly, a certain visual attraction and distinction."

Hugh Honour and John Fleming draw attention to some important facts of Duchamp's ready-mades. One is that Duchamp has done a very minimal artistic labour as an artist. Next, he reduced the creativity of art to ready-mades which was unwelcoming for the canonical art critics. The third complaint is his art discredits the traditional higher artistic values. Though ready-mades yet they have a certain visual attraction. It can be concluded therefore that Duchamp's ready-mades are subversive arts.

The most subversive ready-made of Duchamp was the Fountain(1917).

It is actually a porcelain for a public urinal, set sideways and signed "R. Mutt, 1917". It was rejected by the New York Independents in 1917. The authors



Art of Marcel Duchamp

of A World History of Art argue that the significance of Duchamp's ready-mades as art does not lie in any aesthetic qualities that may or may not be discovered in them. But it is there in the aesthetic questions that it forces one to contemplate.

In The Photography as Contemporary Art (Thames & Hudson world of art, UK, 2009 pp. 22) Charlotte Cotton draws attention to the fact that the labour on Duchamp's part as an artist is minimal. After choosing it he has simply rotated the urinal from its functional and vertical position to the horizontal position. Again he has signed it with the fictional signature 'R Mutt, 1917'. It is actually a pun on the manufacturer's name and the popular comic strip 'Mutt and Jeff'. Some critics contemplate it as the Madonna figure

or seated Buddha.

In The Readymades of Marcel Duchamp: The Ambiguities of an Aesthetic Revolution (The Journal of Aesthetics and Art Criticism, Vol. 42, No. 2 Winter, 1983) Steven Goldsmith commented, "Duchamp's ready-mades challenged the boundaries and even the foundations of art. The attempt to define anything is by nature a conservative activity. Conceptual definitions are necessarily exclusive: they focus on particular, selected characteristics at the expense of actual uniqueness and diversity. Duchamp's ready-mades assert that everything (or, of course nothing) is art. Put simply, if a toilet or a bottlerack can provide rewarding formal satisfaction, anything can. Art, as a privileged, isolated category, no longer exists."



If a viewer removes the lens of familiarity which limits our vision, he/she can realize that a urinal can become a highly polished artwork that combines masculine piping with rounded feminine curves. Goldsmith argued again that the Fountain is important not as a 'concrete object' that levels and demystifies 'aesthetic' appeal, but as a 'gesture' or 'idea'. Rather than destroying institutional art, it has fathered a long line of conceptual pieces that promote philosophical inquiry in the scholastic tradition-complex, self-explorative pieces that question the very nature of their own existence as art. He argues: Does Fountain suggest that any man can create beauty simply by cleansing his doors of perception or does it celebrate the exclusive power of the artist's penetrating creativity? Does Fountain imply that the artist can see in a urinal what will forever remain beyond the intellectual grasp of non-artistic man?

The choice of ready-mades is always based on visual indifference and, at the same time, on the total absence of good or bad taste. The viewer is expected to approach them with no aesthetic sense. Duchamp stressed that the ready-mades weren't works of art, but they are objects to which no art terms applied. Despite such claims, Duchamp claims, he certainly treated his ready-mades as artworks.

The Bride Stripped Bare by

her Bachelors, famously known as The Large Glass (1879-1953) is an insoluble enigma.

It is illusion of illusion, all the more disorienting because the changing 'real world' on the other side of the glass forms part of it, as well as the viewer, who is occasionally caught in its reflectivity. It can be deciphered only in the most general terms. In the upper half the bride is shown undressing while she both attracts and repulses her suitors, whose orgasmic frustrations are indicated diagrammatically in the bottom half. Is it simply a joke or a complicated and meaningless visual puzzle? When questioned about it, Duchamp himself said once, 'There is no solution as there is no problem'. Whatever its meanings may be and it has inspired the most varied and abstruse interpretations ranging from Hindu mysticism to medieval alchemy- it has been enormously influential. The painters and artists have recognized in it the most fully committed and radical opposition to a purely visual conception of art. It asserts the value of the work of art as a 'sign', a 'machine for producing meanings' and for compelling the active contemplation and creative participation of the viewer.

In the interview with Cabbanne, Duchamp said, "The Bride Stripped Bare by Her Bachelors, Even: Titles in general interested me a lot. At that

time, I was becoming literary. Words interested me; and the bringing together of words to which I added a comma and 'even,' an adverb which makes no sense, since it relates to nothing in the most beautiful demonstration of adverb-ness. It has no meaning.

This 'antisense' interested me a lot on the poetic level, from the point of view of the sentence....I had no idea of its value. In English, too, "even" is an absolute adverb; it has no sense. All the more possibility of stripping bare. It's a "non-sense".

Duchamp also drew a moustache in Monalisa.

It was presumably to demonstrate that academic art was not sacred at least no more sacred than a properly displayed urinal. Burnham said that Duchamp's ready-mades are somehow elevated, claims that Duchamp's cult "sought to denigrate sculpture to the status of mundane object".

In conclusion, it can be stated that Duchamp blurred the boundary between art and non-arts/ready-mades. Art can be anything and at the same time nothing.

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Gandhi on Value Education

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Value education is a method of education, a method of prompting learning. Learning is not a passive method of absorption. It includes thinking, reflecting, questioning, feeling, doing, caring, experiencing. Value education, accordingly, is not a method of dictatorial indoctrination of dogmas. Nor is it the straight inculcation of a body of pre-determined 'right' values in the learners through moralistic approaches. The aim is not to encourage passive conformity and blind agreement to whatever values are passed on, but to inspire acute and reflective thinking, rational choice and liable behaviour, valuing the independence of the learner. Value education is also education in the sense that it is education for 'becoming'. It is concerned with the growth of the entire personality of the individual- intellectual, social, emotional,



aesthetic, ethical and spiritual. It includes emerging concern to the good, the right and the beautiful, capability to choose the right values in conformity with the highest ideals of life and adopting and realising them in thought and action. In other words, to 'value educate' is to improve rational critical thinking, to educate the emotions, to cultivate the imagination, to strengthen will and to train character of the learner.

In the academic sense of the term Gandhi is not regarded as an educationist. But he was a great revolutionary person. He had deeply thought over all the aspects which are related with life. He has shown a new path for solution of problems of entire world by placing the universal human values at social and national level. Gandhi provides us with a guideline to advance in the direction of value education. Moreover, if we apply Gandhi's visions even in the current perspective, they can certainly give a new direction to our education system.

Gandhi expressed his views on the ideal system of education in his language as follows- "Education means all-round drawing out of the best in child and man- body, mind and spirit." By this Gandhi means all-inclusive improvement of personality. For itself, education becomes the foundation of personality improvement on all dimensions- ethical, psychological and physical.

While analysing Gandhi's

views regarding value education, one can observe that moral knowledge is the first point on which it is grounded. Any education system that lacks it, cannot be considered as good. Without morality no student, in the true sense, can be measured to be healthy in mental and physical terms. It is because for it self-control and noble character are important. An individual, who is not moralist and who does not distinguish between right and wrong, cannot rise to the essential level of a true student.

In order to build up morality in students, Gandhi supported the introduction of religious education. Explaining the significance and necessity of religious education, Gandhi writes in Young India of 6 December 1923: "Curriculum of religious instructions should include a study of the tenets of faiths other than one's own. For this purpose the students should be trained to cultivate the habit of understanding and appreciating the doctrine of various great religions of the world in a spirit of reverence and broadminded tolerance." This type of education carries the values of self-control, tolerance and devotion in one's character. And in order these values are an inseparable part of morality. Gandhi considered the achievement of spiritual development as an essential part of education and it can only be attained through morality.

Gandhi urged all teachers to convey appropriate education of

morality to students both at school and college levels. He thought that a teacher must lay an example before society and students. This is possible only when he himself leads his life with high standards of morality and strong character. An ideal teacher needs to be polite and must set an ideal example of 'simple living and high thinking'. Thus it is the primary duty of students as well as of teachers to make it certain that moral knowledge continues to be the essential part of the education process. By doing so, they can contribute in the expansion of value education.

Another significant point of Gandhi's value education is Buniyadi or basic or technical education. Gandhi used the word 'Buniyadi' during the 3rd and 4th century. It meant the education that could help rural people in the advancement of village handicrafts or to establish cottage industries. Actually Gandhi wants to prepare a student for technical knowledge right from the days of his primary level of education. It can prove to be a mile stone in the direction of value education.

Moreover, in basic education system it is recommended to impart education through mother tongue. Gandhi, too believed that the foundation of education should be laid through mother tongue. It helps inculcating values like love towards mother tongue and Swadeshi (native).

Again

Gandhi



definitely thought of imparting education centred on curriculum. As it is already stated, he put emphasis on moral knowledge, which helps in character building as well as physical and mental growth of a student since the very beginning of his education. He clearly understood that without a healthy body, mind could not be developed completely. But Gandhi firmly believed that education has no value until and unless it creates a young man or woman self-reliant.

This is Gandhi's view-point regarding Value Education. Its significance lies in the fact that education should certainly be helpful in employment. Moreover its foundations should be grounded on morality.

However in reality, it is found that now a days our younger generation is directionless. They are overlooking their moral values. It is a failure of our social and education system. Even after spending the golden years of one's life in achieving higher education, our youths are not self-reliant. There arises questions- how would they be able to get rid of their day to day problems? How would they contribute to their society and the nation? Hence it is a challenge before the youths of this country as well as before the educationist, scholars and persons in the government.

In order to tackle this problematic challenge, Gandhi's ideas can be of great support. He be-

lieved that each children has some distinctive potentials which can also be characterised as inherited qualities of personality. Therefore at the very primary level the quality and worth of a student should be recognized by his teacher. Besides, a student should attain education according to curriculum and moral guidance and as such also develop his physical strength.

Gandhian educational ideas as they contain certain eternal principles, will not lose their ultimate significance in the future. The planners should think



Sometimes
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seems to be
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of a self-supporting primary education, which will develop the lot of the poorest of the poor. Such education system would be grounded on action, problem-solving, and practical activity, instead of mere book learning. An integral education, which permits the entire being of a person to develop, an education which gives importance on character-building and cultural identity, is always desirable. Yet, whether such an education can be imparted only through the knowledge of a craft, and whether the potential beneficiaries or the state will admit it remains to be seen. It is to be noted here that the Gandhian ideal requires a built-in mechanism for challenging the newer and newer technologies that are emerging day by day. Sometimes Gandhian ideal seems to be somewhat planned for a static society in which steady ancestral livelihoods continue from generation to generation. However this does not mean that the perennial values that Gandhi promoted will lose their impact. It is everybody's duty to discover newer and newer techniques to interpret, understand, impart, and live them out. It can be said that Gandhi's unique and refined views about value education are not only important but are worth applying not only in India but also in the rest of the world. It can be said that Gandhi's view on value education can be helpful in eradicating value crisis among students if it is applied in the true sense.



ARTICLE

DIGITAL LIBRARY

An Overview

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Though the print information resources have been occupying a very predominant place from quite a long time in the field of education, research and developmental activities but these are becoming outdated very quickly due to the information explosion and information overload. With the development of computer, communication technology and networks technology the traditional method of expression, scholarly communication and acquiring of knowledge has also been changing drastically. Now a days, it has become a trend among intellectual circle and publishers to publish, store and communicate organized knowledge and ideas electronically through electronic systems and in networks or internet which is called digital information resources.

▲ Digital library can play a significant role in the growth and development of an educated and refined society.

These digital resources available in the web or internet, intranet etc. have changed the global trend of acquiring and sharing of knowledge and scholarly communication of information for various research and academic activities universally only through a mouse click or even with a kindle or smart phone.

Again academic libraries are facing various problems in terms of space, increase in the cost of print resources like books, periodicals etc., budget shrinkage, inability to provide multiple copies, information retrieval problems etc. Hence with the changing environment to cope up with the time and to meet the increasing demand of library users regarding information need the concept of digital library has emerged. Different phrases like 'electronic library', 'virtual library', 'library without walls' have been used to imply the same broad concept interchangeably.

Digital Library Concept:

One of the most frequently sought words by the men of letters is digital-library .A digital library is a special kind of library with a dedicated collection of digital resources of information that can include text, visual material, audio material, video material etc. which are specially stored in digital formats along with means for organizing,



storing, and retrieving the files and media contained in the library collection. Digital libraries can vary immensely in size and scope, and can be maintained by individuals, organizations, or affiliated with established physical library buildings or institutions, or with academic institutions.

The term Digital Library in broad sense is an automated system where user can search, read, download, save, and print etc. their required information in digital format via a computer network locally or remotely.

One of the most popular definitions by Marchinini (1999) which defined that the digital libraries are the logical extensions and augmentation of physical libraries, and those digital libraries are distinguished by focus on integration of services through a holistic treatment of interface location, time and language and system.

Digital Library Federation (1999) defined "digital libraries are organizations that provide the resources, including specialised staff, to select, structure, offer intellectual access to, interpret, distribute, preserve the integrity of, and ensure the persistence over time of collection of digital works so that they are readily and economically available for use by a defined community or set of communities".

According to Borgman (2000) A digital library (DL), in general, refers to a collection of digital objects (such as digital text, images, and videos) and a set of associated techniques and services that help to collect, organize, retrieve, and preserve those digital objects for a community of users.

Digital Library Features :

Digital library has some specific characteristics which are mentioned below-

- Access to the digital library is not bounded in space or time. It can be accessed from anywhere at any time.
- Contents of digital library may be in various formats like textual, image, video, sound etc.
- Usage of electronic information as a proportion of total usage will steadily increase, and usage of printed material as a proportion of total

usage will decrease.

- Digital library will increase expenditure on electronic material and relatively decrease expenditure on printed material.
- Expenditure on information has been shifted from ownership to subscription and licensing.
- Expenditure on equipment and infrastructure will increase
- Usage of buildings will shift from stockholding to places for study, animation and citizenship
- Jobs, training and recruitment in digital library will be re-profiled.

Function of Digital Library:

- Access to large amounts of information to users wherever they are and whenever they need it.
- Access to primary information sources.
- Support multimedia content along with text.
- Network accessibility on Intranet and Internet
- User-friendly interface.
- Hypertext links for navigation.
- Client-server architecture.
- Advanced search and retrieval options.
- Integration with other digital libraries worldwide with proper resource sharing and cooperation

Purpose of Digital Library:

- Expedite the systematic development of procedures to collect, store, and organize, information in digital form.
- Promote efficient delivery of information economically to all users.
- Encourage co-operative efforts in research resource, computing, and communication networks.
- Strengthen communication and collaboration between and among educational institutions.
- Take leadership role in the generation and dissemination of knowledge.

Advantages of a Digital Library:

- The advantages of digital libraries include
- Library beyond the wall.
 - Nearly unlimited storage space at a much lower cost
 - No physical boundary.
 - Round the clock availability
 - Multiple accessibility.



- Enhanced information retrieval.
- Preservation for some rare and flimsy printed material.
- Universal accessibility.

National Digital Library:

The National Digital Library (NDL) is a MHRD, Government of India project which is in its initial stage running by IIT Kharagpur. The project (Pilot Phase) is to collate large number of e-contents for school, college and higher category students with special emphasis on the e-learning, virtual library and technology enhanced learning design covering the needs of learners with differing abilities, expectations and socio cultural background. This National Digital Library will enable some key national knowledge discovery and immersive learning platforms to the nation. In its final contour the system may serve as a pan-India virtual teaching-learning-evaluation-knowledge discovery and innovation platform, a key national asset. The vision of NDL is to act as a National Knowledge Asset - the key driving force for education, research, innovation, and knowledge. NDL Support interfaces in vernacular and for differently able users. The main target users of NDL are School, College, and University Students, Research Scholars and Teachers.

NDL Features :

Following are the main features of National Digital Library-

- Educational materials are available for users ranging from primary to post -graduate levels.
- More than 40 types of learning resources are available.
- 15, 00,000+ items have been authorised by 1.5 lakh authors.
- Repository hosts contents from multiple subject domains like Technology, Science, Humanities, Agriculture and others.
- Items are available in more than 70 languages
- Repository integrates contents from different Indian Institutional Repositories.

Mission of NDL:

1. To create a 24x7-enabled integrated NDL as a ubiquitous digital knowledge source of the

Nation catering to immersive e-Learning at all level in all disciplines.

2. To initiate a movement for integrated digital learning across India.

Objectives and Scope of the NDL:

The main objectives of NDL are as follows:

1. Create a 24X7-enabled Infrastructure for NDL with single window search facility. The Infrastructure to include hardware systems, networks, software tools, applications and interoperability standards.
2. Harvest IDRs (Institutional Digital Repository) across educational institutions of the nation to provide integrated access.
3. Facilitate select institutes to disseminate existing content and create new digital content.
4. Provide support for immersive E-learning environments at multiple levels.
5. Span across
 - All academic levels - school to college to university to life-long learning.
 - All disciplines - Science, Arts, Humanities, Engineering, Medical, Law etc, and
 - All languages (vernacular) used as medium of instruction.

Contributing Institutes of NDL:

The Content Contributor and Consumer of NDL are: IITs, IISc, IIMs, NITs, Central Universities, Medical Colleges, Law Schools, IISERs, NCERT, School Boards, National Library, National Archives, ICCR, ICHR, ICAR, NMEICT, etc.

Conclusion :

Digital library can play a significant role in the growth and development of an educated and refined society. Digital library is must for every academic institution to meet the information thrust of the user community and to serve them with right information and at right time without any delay. The need of the hour is that the library and information science professionals must equip themselves with sound knowledge to design and develop digital library. It is the responsibility of the library authority of every institution to provide full-fledged support to their library staff for creation of the institute digital library.

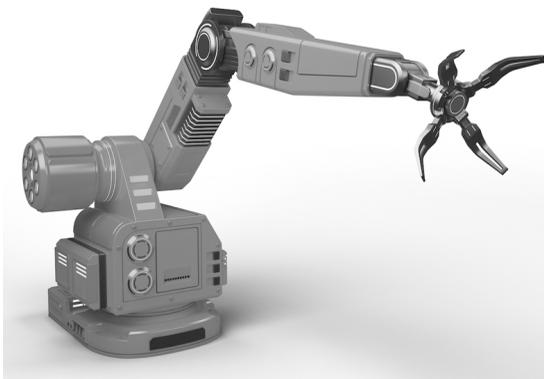




AUTOMATA AND ITS APPLICATION IN DAILY LIFE

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Automation, a system that works without the intervention of man, engages a spontaneous process where different types of inputs like energy, information, materials give way to a definite and certain output. It is a self-operating system and is synonymously used with ROBOT. In our daily life, "Automaton-system" has found so widespread applications that we can never think of a better standard of living without it. The most significant areas include communication, transportation, health care, electronic banking and so on. Automatic watch, automatic printing machine, ATM are some of the recent technologies run on this automation system.

In various ways Automation system has been applied in transportation industries. Applications include airline reservation system, automatic pilots in aircraft and locomotives, urban mass-transit system etc. The computerized reservation system of airlines gives us information regarding the availability of seats on any flight, departure and arrival timing of each flight and other relevant information within a few seconds. According to this reservation system, requests from different persons are considered automatically to address their queries; and grant seats if available. While doing all these things, it never fails to automatically update the reservation status files all the time. The urban mass-transit system known as BART (Bay Area Rapid Transit) in San Francisco; MARTA (Metropolitan Atlanta Rapid Transit Authority) in Atlanta Ga; and the metro rails in different metropolitan cities across the world are a few examples of automated rail transpor-



tation.

The BART system consists of 30 stations in a track of more than 120 kms where 100 trains run at the peak hours only with a single operator. Sometimes the train attains a speed of 130 km/hour with intervals between two trains is only 90 seconds. This is possible because of the automatic system which controls its speed and movements. As one train enters the station it automatically transmits its identification, length and destination, thus lighting up a display board. Signals are automatically returned to the train to regulate its time in the station and its running time to the next station. The entire system is controlled by the two identical computers so that if one malfunctions, the other assumes complete control.

One of the important earliest practical applications of automation was in telephone switching. The first communicating machine, invented near the end of 19th century,



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was a simple mechanical switch that was controlled by the telephone user pushing buttons or turning a dial on the phone. Modern electronic telephone switching systems are based on highly sophisticated digital computers that perform functions such as monitoring thousands of telephone lines, determining which lines require service, storing the digits of each telephone as it is being dialed, setting up the required connections, sending electrical signals to ring the receiver's phone, monitoring the call during its progress and disconnecting the phone when the call is completed. These systems also are used to time bill toll calls and to transmit billing information and other data to the business operations of the phone company. In addition to the various functions mentioned, the recent electronic systems automatically transfer calls to alternate numbers, call back the user when busy lines become free, and perform other customer services in response to dialed codes. These systems also perform tests on their own operations, diagnose problems when they arise and point out detailed instructions for repairs. Other applications of automation in communication systems include local area networks (LAN), communication satellites, and automated mail-storing machines.

In the health care sector, automation in the form of computer system has great influence in improving various parts of medical science. It make possible to use various sophisticated technology effectively in this field to improve dramatically the condition of human being.

Applying automations in service industries such as health care, banking, other financial services is a great help to whole mankind and brings a huge change to mankind with which we are enabled to explore a new world of possibilities which was undreamt of earlier.

