

Theme: Innovation and Technology

Param University: Meta University with New Education and Social Development

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ABSTRACT

Information Communication Technologies of the 21st Century have created always connected people, newer processes and mechanisms, and new ways of organizing and governing people. By using programs of literacy in information technology carried out by MKCL, which attracts large number of students yearly, school and teacher education programs have been evolved to create system of new education and structure of Param or Meta University. The university has a global-local nature, uses cyber space with virtual infrastructure, which contributes to the local development and creation of social value and wealth. The system uses course based OER, cooperative and collaborative group learning, and creation of common value and wealth.

Param University structure is developed and deployed by using consortium approach. It organizes learning communities of providers of education as well as users of education. It successfully combines cyber space based learning and real space based social development. The paper describes consortium based approach for building university structure that has vertical integration in learning levels linked with horizontal integration in social development. It enables to create mass higher education with higher quality and lower costs, and uses existing institutional resources to reconstruct new education and Param University systems.

INTRODUCTION

Internet, global networking, and processing power given to each person through access devices such as mobile cell phones, tablet pc, laptop, etc, have created global connectedness and empowerment. It has created a scenario in which any person can connect to anyone anytime anywhere (A3 connectedness). The techno-social nature of the new processes is changing all walks of life and work of human activities and interactivities. The *new processes* have been generated by the information communication technologies (ICT) and have given unique powers to everyone connected. The globalization and digitization has given rise to new forces and powers that have resulted into empowerment of people, and resulted into creation of social value and wealth for locality and humanity. The two mass movements, the Open Resource creating and Social Networking, have resulted into not only mass collaboration and cooperation processes, but are proving to be a great organisational and creative powers (Shirky, 200....)

The objectives of the paper is to inform briefly the experiments being carried out during the last ten years in Maharashtra, India, by a of group of institutions and consequent development of new education essential for A3 connected people. The paper is based on e-education system for large numbers developed by Maharashtra Knowledge Corporation Ltd, (MKCL), and structures evolved for school and

teacher education leading to a Bachelor of Education (B. Ed (e-Education)) degree program linked with continuous development of school students and teachers (www.mkcl.org; www.mkcl.org/ebed).

NETWORKED SCENARIO AND GLOBALIZATION

Cyber and Real Spaces

The information communication technologies have created new processes of digitization, virtualization, mass-personalization and self-organisation; and always connected people have created processes and mechanisms of Open Resources and Social Networking. The digitization has created power to copy and communicate globally and practically instantaneously. Virtualization has created a cyber space for all connected. Each one can add information about self, social and relevant issues and concerns to self and others; and flip between cyber and real spaces, and know from global resources accessible. The technology combines the powers of mass-communication with selective individual interaction, and creates union of two extreme processes of massification and personalization. These new processes and activities in cyber spaces have enabled people not only to communicate and express but also to self-organize and self-govern. The power of these new processes, technologies and roles individuals can play by suitably combining cyber and real space resources is great, and education system and learning could be designed suitably for global, local and self-development and creation of value. The cyber space made accessible is global and cannot be limited easily. The ICT revolution has given people instantaneous access and empowerment through cumulative knowledge and technology development.

Telecommunication, wireless and wireline, are now connecting almost all the people of the world. World penetration of telecommunication will reach to 96 % (6.8 billion) by 2013 year-end (Internet world statistics, 2012). In India, nearly a billion people are connected by telecommunication and 11.4 % (137 m) by internet (TRAI, 2012). Government of India has adopted a policy of developing economical tablet pc for educational purposes in schools and universities. The 7" tablet is likely to form an instrument of education for students in near future.

The existing campus based system of education can now be modified and reconstructed into a system of new education for always connected people by avoiding repetitive functions, giving access of best resources, static as well as dynamic, to all. The new education system needs to be added developmental functions that could create meaningful and relevant value to local and global people and places, and create social wealth and livelihood for self and society.

Mass Higher Education

The open courseware started a movement of open educational resources (OER) (WWW.ocw.mit.edu) followed by many institutions and countries. OER is becoming a part of learning and development processes of every learner, student and teachers, and is ensuring higher quality and equal access to all connected. The Open Resource movement is an expression of social generosity by each contributing individual and group for the benefit of all. India has also entered into this movement, and created its portal, *sakshat*, hosted by Indira Gandhi National Open University. The next development of Mass On-line and Open Courses (MOOC) offered freely by many leading universities of world on the platforms of Coursera, Udacity, EdX etc. Mechanism of distributed classrooms (DC), synchronous or asynchronous, and e-platform enables large number to attend the DC, and in some cases nearly 150 thousand students participate. This has created a new way of globalized mass higher education.

The new mass education mechanisms are creating new situations and problems. Some major problems are the evaluation of learner performance and its certification, role of weaker universities and colleges in the new global scenario, issues concerning nature and purpose of employment and livelihood generation, openness of open resources for free and paid use, etc. The OER based courses and MOOCs would change the higher education scenario radically. This development has just started, and has subversive potential to destroy traditional models of last two centuries, and needs values and principles for the new age of connected people. The problems posed in such situations are related to the

- New education system essential for the new era,

- Structure and nature of the new education and university system in the A3 connected world, and
- Developmental processes and models of learning appropriate when OER, MOOCs for learning and development are available freely and openly.

We attempt to propose systems and process that we are developing through IT literacy course of MKCL now attended by 1.8 million students with complete system of e-education, and outcome of the e-B Ed or B Ed (e-Education) program evolved through a pilot run, and now recast by taking into account the development in access devices, and OER and co-creativity with social networking to incorporate cooperative and collaborative learning. The e-B Ed education has already been reported by our colleagues (Deshmukh, et al, 2010 & Takwale 2012)

NEW EDUCATION

New Education is identified as that education, which is appropriate for the A3 connected people, always renewing or innovative, and is linked with self and social development. The education or learning and development is essentially process- result type with causal relationship. The new education:

- Has global –local system
- Links with Internet connectivity, high processing power and access devices. (tablet pc, laptop, etc.)
- Uses global resources for knowledge and development (OER),
- Uses cooperative learning in groups and communities, and
- Creates social value and wealth for personal and social purposes.

It is conceived as process-results based approach independent of technologies and methodologies. While deploying the education obviously uses latest technologies of mass empowerment.

New education is based on playing multiple roles in life and work situations to find out own role and unique functions, and to become a change maker. The goal is to find out life-long learning and development paths and career for creative working and earning.

The education tries to develop self and social abilities through:

- Capacity (knowledge, skills and use of tools of technologies),
- Capability (applications, and changes in attitude and social behaviour),
- Co-creativity (small, big group and wiki working), and
- Creation of personal and social wealth and value.

New Education offers high level of personalization and autonomy to learners in choosing situations and scenarios, issues and problems, outcomes and beneficiaries. As a change maker, student uses following processes:

- Education (learning) → Social development → Monetary and non-monetary value creation → Self and social transformation. (Value chain for learning and development)
- Approach → Deployment → Learning → Internalization (Learning through performance excellence)
- Education → Organisation → Creation → Preservation (Process of Social development)

The developmental process is multidimensional and is highly localized. It depends on global resources for sharing to solve situated problems. In fact the global-local scenario has given enough knowledge and developmental empowerment to every learner to find their local solutions with highest social value. The motto could be *know globally and act locally*. The global resources created by the social philanthropy and generosity are creating a new situation in which social wealth is shared by the people who created it. (Takwale, 2013)

PARAM OR META UNIVERSITY WITH CONSORTIUM APPROACH

Consortium for Teacher Education

There are nine institutions which have come together to form a Consortium, the Indian Consortium for Educational Transformation (I-CONSENT), to organize, develop and deploy the program of B Ed (e-Education). Two of its members, Yashwantrao Chavan Maharashtra Open University for academic support and MKCL for administrative and technological support, are the nodal agencies, and have signed a Memorandum of Understanding (MOU) to take the total responsibility of students right from admission and enrolment till the final evaluation and certification. I-CONSENT is having participation of all the institutions such as Pune University, SNDT Women's University, Bahai Academy, Panchgani, Indian Institute of Education, Pune, KK College, Mumbai, Network for Educational Transformation, Pune besides YCMOU and MKCL. Each member has taken some role and responsibilities in the organisation, development and deployment of the program. There are six Course Teams (CT) for delivering six courses forming e-B Ed program, and each team is having more than three members. The CTs have worked together and developed the content and delivered it to students on line and by using e-platform of ERA of MKCL. There were three Study Centers located at IIE, Pune, K K College, Mumbai and YCMOU, Nashik for the pilot program, and are being increased to ten from where programs are delivered to local students. A Study Center Team consists of a coordinator and mentors, who work in the e-B Ed program and play multiple roles such as tutors, mentors, guides, supervisors in field work done by students in local situations.

I-CONSENT has a Constitution approved by all its members. It has a President, two Secretaries and a General Body, which is a top authority, and takes all the policy decisions. All participating in e-B Ed have to agree to their roles and responsibilities by signing MOU, and are expected to carry out their roles. The Consortium works with win-win approach and every participating institution is expected to benefit out of the cooperative working and performing. I-CONSENT is a non-legal organisation and its legal status is borrowed from the member's parent institutions. The institutions have agreed to come together to work in a common free space created cooperatively wherein they can innovate and create differently. All the academic value and wealth created by the collective working of I-CONSENT belongs to all members as a shared common wealth.

The e- B Ed program has been managed by an Academic Coordination Committee (ACC), chaired by the YCMOU officer and co-chaired by MKCL. It has membership of the I-CONSENT, CTs and SC Teams, and some experts from outside. A Quality Assurance Committee appointed by ACC takes care of the quality of the program, and evaluation of the course and program-end examinations, and submits its results to the YCMOU for declaration of results and award of a degree. The e-Portfolio of a student formed during two years of study and work is a basis for performance evaluation.

Course Teams offer contact sessions by using distributed class (DC) for each course offered on-line and on-platform, ERA by MKCL. Students attend these sessions either from home or Study Centers. They participate in learning activities and situated assignment by doing self-study and forming small or big groups. SC Team gives personalized and situational guidance, and help students in carrying out their field work, practicum, lessons, etc. A major project is carried out by each student in the situations and technology setting in schools. The SC helps and CT guides students in finding their guides and supervisors to complete their projects successfully.

The e- B Ed program has evolved a Central / Global – Local situation in which quality of the CT and the OER can be made available to each student. Further the learning is associated with the situated development; and student's performance creates value and progress for the school and school students where s/he does working and learning.

This model can be generalized to any program by creating common sharable platform like ERA for many educational institutions to offer best of their courses. Here we recommend cooperative approach of Course Team evolved by many Open Universities following UK Open University practice. The Central / Global structure is entirely in the cyber space, whereas the local study center can also organize local consortium of schools / institutions involved in their self-development and are helping teacher students in their practice based working and learning. This is the Param University structure proposed on the basis of experience of working with e-B Ed program. It can combine some features of large number management of the certificate program for IT literacy of MKCL.

Param University will work as an inter-varsity platform on which many universities and colleges can come together and offer best of their courses, and also work as local study centers for offering personalized services to students in their learning and development. The essential structure will consist of faculties under the university, which participate in the Centers of Developmental Learning in the areas of applications related to one or more faculties. The development centricity can be ensured by establishing Param Schools of institutions working in some specific areas of development. For example, we propose to establish first Faculty of Education and Social Development, which offers courses at masters and bachelor levels, and creates Center for Developmental Learning for applying education to social development in the areas involving education and training for institutions like schools, colleges/university, industry, community, etc. A program of B Ed in e-education and social development in area of school education will involve schools with situations of classroom, school and community around. We may establish a Param School in cooperation with faculty and students of Education, school system with their teachers, managers and the State Government administrators. In our case the Param School will be for all schools in the State of Maharashtra, and the Study Centers at the local B. Ed Colleges can work with their teacher-students by forming consortium of local schools, and offering participative program for school teacher and student development. Such a project is already undertaken and the model used for Param University is being for Param School with specific goal of development of quality improvement of school and students.

The essential infrastructure of the Meta University consists of

1. Cyber space infrastructure that connects all functionaries, users of education, OER and support services for learning and development.
2. Central Consortium of institutions and experts for providing Course /Role based learning services. The providers consisting of all CTs and SCTs offers learning services through distributed class and course based OER, and are organized into a provider *learning community*.
3. Local Consortium of local institutions, who support learners in their practice based learning and development activities. They also include many *more knowledgeable others* (MKOs) from society and network who can participate in supporting students.
4. Quality Assurance Mechanisms and organisation of reform and research circles both for provider and user communities.
5. Partnership organisations management of providers and users of education and development to manage coop institution of Param University.

On the basis of our experience of creating consortium for educational transformation, which is still in the formative stage, we propose to form a loose consortium of universities, colleges and private providers of IT enabled services, both at the central and local levels. We are trying to establish a business model based on the principle of 'content is free, services are charges'. We believe that social and financial business models could be established by having social and the State contributions, and by charging fees for personalized services. All 'ekalavyas' or self-learners can learn almost freely or with support from society and MKO's, and by using global OER. They can apply their knowledge and skills to solve local-global problems, and create socially useful and productive work (SUPW) and common wealth.

Another major feature of this reconstruction of education is the vertical integration in learning, and horizontal integration in social development required for raising levels of performance. The development can be raised to its higher levels, by raising the levels of learning and becoming able to contribute higher knowledge, skills and technologies in the processes and results.

The Param University will have the following concerns to be addressed:

- The new education is decentralised with autonomy to learners, and has nature of bottom-up model with global-local approach. It needs similar model for social development, which is of top-down nature at present. This mismatch will always have conflicts in all developmental aspects. Possible way out is the model of development based on the Third Industrial Revolution, which will have development with decentralised and bottom-up nature (Rifkin, 2012).
- New education depends on cooperation and not on competition, social wealth creation with reduced self-centric approaches. A value system needs to be cultivated that promotes creating,

sharing and preserving common wealth with distributed production processes and generation of clean and green renewable energy.

- The existing private production or public-private partnership (PP-P) models exclude participation of common unorganised users in partnership for creating artefacts and services. It is likely to result into benefits being shared mainly by organised sectors with consumers/users being left out of partnerships. This usually results into exploitation of the disadvantaged ones. The co-creation having participation of all in wiki-like processes needs a model that will enable public-private-community partnership (PPC-P) with organised communities with increased powers and strength and having power to negotiate and set public policies for avoiding exploitation. The users should be capable to participate in creation processes with participation in up-stream and down-stream jobs.

We are incorporating this in the Param University structure by creating learning vertical consisting of a faculty, center of development learning, and a meta school for local and locality development by raising their quality and excellence. The horizontal is the social development which depends on multiple socio-economic and cultural dimensions of society-existing and emerging. Problems solved at one level can be taken to the higher levels by inducting learning of higher knowledge, skills and technologies by ensuring permanence and sustainable nature, and raising level of development higher by raising inputs of learning, culture and creativity to higher levels.

Another pilot to develop models of education and social development have recently been initiated by a group of institutions in which I-CONSENT is a partner. The purpose is to form Param School and Param University for the quality school and teacher education (www.mkf.org.in).

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