Life Long Learning through Dynamic Curriculum and its implementation in AGORA Studio at MERIT, New Delhi

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1. **Abstract:** In this era of rapid technological improvements, the time between R&D State and Maturity State has decreased considerably. Despite of having affected modern living in ways unimaginable some decades back, it has certain complexities associated with it. The chaotic state of growth in this technology has been often explained through working together of ‘Three laws of Technology’, namely, Moore’s Law Gilder’s Law and Metcalfe’s Laws. To keep with the symphony of the chaotic growth and to provide balance & counter balance serious thoughts need to be given for the development of curriculum. A dynamic curriculum that evolves as fast as technology is the need of the hour.

2. **IT Curriculum Development in the Current Chaotic State of Technology**

   IT, the 20th century boon to the humanity is growing in its application almost in an exponential acceleration.

   If one considers development in any other field of Science & Technology since the last 4-5 centuries, there is no discipline which has spread its wings anywhere comparable to IT & Computer Sciences.

   Normal Growth of any technology from laboratory (R&D Stage) to industry adaptation (Maturity Level) to obsolescence was anywhere from 15-30 years or more. This duration from laboratory to obsolescence has sharply come down to almost less than 5 years. Sometimes Industry Captains declare a new technology (Sometimes even half cooked) for competitive edge, even within a year of the new technology.

   This chaotic state of growth in this technology has been often explained through working together of three laws of Technology, namely, Moore’s Law Gilder’s Law and Metcalfe’s Laws. The convergence of these laws and general convergence of the technologies with IT working as catalytic agent has led the author to propose a 4th Law. This importance of the same is discussed in the paper.

   To keep with the symphony of the chaotic growth and to provide balance & counter balance serious thoughts need to be given for the development of curriculum.

   A Student when graduates from a University/College are expected to take up job on cutting edge technology. But with the present rate of obsolescence a student graduating with the static course could find himself ignorant of the current or developing state of IT technology. He could face a problem that most of the courses studied by him during the last 4 years are no more relevant. Thus he will find himself going into some other courses for finding his place in Industry.
So, this paper describes strategies for curriculum development to cope up with the situation, so that this agony of the students is minimized.

3. **AGORA Studio for Software Development at MERIT, New Delhi.**

We try to implement the notion of dynamic curriculum in the field of IT at MERIT.

3.1 **Vision**

Our vision is founded upon the Quality of the human spirit practiced on a continuous basis in a committed environment of teamwork, leadership, expertise and innovation through value added education.

3.2 **Mission**

- To mould our students into sound professionals and good citizens with character and integrity.

- To create environment and facilities for achieving the above.

- Blend well established traditional practices with modern teaching methodology through a judicious mix of gurukul system and state of the art learning technologies.

3.3 **Communication**

Communication is the key to the development of any organization. It is very necessary that the flow of information is efficient and there are minimum intermediates. Communication of all types is important be it upwards, downwards, horizontal, parallel, formal, informal etc. At Merit, we have an open door policy which not only guarantees transparency but also help individuals from all levels to take part in decision-making.

The various kinds of communications are:

- **Formal:** This is the mode of communication with the clients and formal communication sent within the organization like memos, notices etc.

- **Informal:** Not all communication that takes place is through formal means. Individuals talk and share ideas over lunch or tea. They are more free and spontaneous in their expression. We, at MERIT, believe that informal communication is important among peers but among the individuals of the whole organizational hierarchy.

- **Internal:** It includes both formal and informal communication as explained above. At MERIT, we have a balance between both modes of communication for better sharing of ideas. It helps not only in the development of organization but also of individuals.
External: This mode of communication is mostly of formal nature. MERIT believes in adopting a professional outlook when dealing with clients. However, informal means are allowed as long as it doesn’t compromise on the integrity of sensitive information related to organization or its clients.

3.4 Technical Issues

- Environment:
  .1 Software
  .2 Tools
  .3 User Interface

- Development
  .1 Domains (Software, web, networking/hardware)
  .2 Competency Recognition and Management
  .3 Resource Management
  .4 Project Management

- Networking
  .1 Technology
  .2 Security
  .3 Scalability

3.5 Maintenance/ Clients/Users

- Feedback: For any software that a company develops, it is very important that it keeps a track of the user requirements, market trends and any errors/bugs in the software. Feedback from users, clients and experts is very vital in this regard. At MERIT, we stay in touch with our previous students, employees; our clients, users and our intellectual capital to make sure that we are constantly evolving and developing as a better organization.

- Feed forward: Feed forward has become very crucial for success of any project these days. The conversion of output of a phase into input for another phase has become very important in modern project development. Our output is for everyone to see in the organization.
Graphical Map of Agora Studio-MERIT, New Delhi.
Community Help: An organization needs to be responsible for social causes as well. Merit, which is run by General Mohyal Sabha, is a charitable organization. It works for awareness of various social issues. Merit, along with working for these social causes, focuses on the awareness of need for computer education in modern day society.

Youth Counseling: Our task is not only to create computer literates, but we work with them to create all round professionals. We provide counseling to young individuals to make them aware of the current demands of the industry. We provide vocational training to young people prepare them for demands of the industry.

3.6 Regulation

Government Authority: At MERIT, we respect the laws and regulations laid down according to the country’s constitution. We follow strict code of conduct over implementation of these rules in organization structure and project development.

Self regulation: Though we follow strict code of conduct, we don’t believe in limiting the creativity of individuals by implementing stringent rules. The rules are flexible and they provide ample opportunities to individuals to develop and implement their skills in best possible manner. Individuals are free to carry out projects as they like in coordination with other member and keeping in mind organization goals as well. They are free to pursue a career/activity they like.

Market Regulation: Markets keep on changing. Several factors are responsible for dynamic nature of market e.g. Demand, technology, production etc. Every economy has put some regulations in place that make sure that market remains free of unethical business practices. At Merit, we give due respect to these regulations. Our organization policy is in tune with government regulations.

Co-regulation: When many people are working together, they are sharing their knowledge and applying their skills. It becomes very important that their efforts are regulated. It is achieved by having good communication at all hierarchal levels and properly directing the flow of information.

Code of conduct: The idea of studio is to give students free mind to pursue any activity they desire. This helps them to become more creative and productive. Even though we are not in favour of strict rules and regulations, we do have strict code of conduct.

Ethics and Value system: These codes of conducts are primarily concerned with ethical and moral issues.

Societal Behavior: Individuals need to follow a good social life and have good relationship, both personal and professional. It not only creates good ambiance at work place but also
helps individuals grow on personal and professional level. We encourage fluent correspondence at all levels of organization for a better social life.

### 3.7 Governance

- **Competence Recognition**: Skill analysis, Succession planning, Competence Analysis & Profiling etc. This is implemented by following a domain approach. Tasks are divided into domains and individual responsibilities are assigned on specific domains. These responsibilities are assigned based on individual’s interest, creativity and capabilities. It helps in realizing individual’s competencies. They can implement their skills in a more independent and productive way. This helps them to ensure the individual standard and regulatory compliance.

- **Rules and Regulations**: Any individual’s creativity and talent should not be limited by applying strict rules over his working methodology. It is important that a person realizes his potential and grows with it. Laws and regulations should be flexible but firm. They should not be rigid.

- **Code of Conduct**: Discussed above.

- **Structure**: Merit is an NGO, but the organization is based on a corporate model. Individuals at every level are given opportunities to enhance their skills and talents. A free and congenial atmosphere is maintained in the organization.

- **Human Resource Management**: The structured and transparent selection procedure not only ensures better recruitment but also creates goodwill and trust among people in the organization.

- **Performance Appraisal**: Very important. Performance should be carried out at every level of organization hierarchy, from the junior most employee to the senior most one.

- **Exams/Evaluation**: Evaluation of students based on yearly exams is very obsolete and inefficient method to evaluate students’ performance. Only a regular evaluation system can evaluate students’ capabilities in a more organized and structured way.

- **Communication**: See communication above

### 3.8 Budgeting

- **Time**: Time budgeting is very crucial, sometimes even more than money. Every project undertaken is divided into phases. Every phase has a specific time limit. The project must complete in the time frame decided upon. Contributions from developers are very important in deciding the time budgets.

- **Resource**: Resource Budgeting includes money, efforts, staff,
• Cost Budgeting: Concerned with making cost estimations and project proposals. Very crucial as it is a skill to make estimations. It requires a great deal of knowledge about market trends, the project itself, organization culture etc.

3.9 New Organisation

• Security: See Security
• Competence: See Competence Management
• Budgeting: See Budgeting
• Access of information: See access of information
• Vision/Objective: See Vision and Objective
• Regulation: See Regulations

3.10 Individual and Organization Interest

• Self development: No doubt, organization goals are important. But we shouldn’t forget it’s the individuals that make group or an organization. It is important that individuals get full chance to develop themselves not only as good professionals but also as good human beings. At Merit, we provide individuals an open atmosphere to enhance their skills. We also encourage ethical values for their personal development.

• Relationships: Good relationships within the organization and with clients are necessary. It not creates ambiance but also helps in professional and personal development.

• Organization Goals: See objectives

• Individual Efforts: For any project one undertakes, one has to dedicate himself for that cause. At Merit, we expect people to be fully committed to their work. Individuals are free to pursue their work in any way they want. But they must stay true to the work assigned to them. The moral code of conduct that is implemented in our organization covers this aspect.

• Team Spirit and Synergy: No doubt, Merit puts a lot of emphasis on individual growth and creativity. But team spirit is equally important. Good coordination among individuals is encouraged.

3.11 Project Management

• Quality Assurance: The present market scenario demands for the quality value of the product. A number of resources are available over the world for accessing the information but quality is lacking. Quality assurance plays an important role for sustainability of key
players in the market and helps the users to meet their demand on time thus maintaining the regulation & competency in the project management and to the organization.

- Governance: See *governance*

- Competence Management: A web based tool used to learn resources. It deals with Skill Gap analysis, Succession planning, Competency Analysis & Profiling. CAP helps to break down jobs into critical processes and perform standards in order to ensure employee safety, regulatory compliance and company productivity. The organization should be more focused on sustainable competency to define the success measures of a company identifying those processes or tasks that are critical to achieving results.

- Individual/Organisation Interest

- Security Issues: The sizzling issue of tech era moving along with advance in technology affecting the Requirement, Technical plan, Resources, Project & Product Risks. Thus necessary level of security has to be molded requiring the architecture including Perimeter defenses (Firewall), Proxies, Authentication & Access Control. The main motto is to add well defined check points and security deliverables rather than overhauling the existing system to maintain the integrity and uniformity of project.

- Budgeting: See *Budgeting*

- Regulation: See *Regulation*

3.12 Access for information

- Security: The advancement of internet technology has led to access the confidential data which is opening a way for companies to pay big for enhancing their security. Security checks & logs should be governed and implemented at various levels to ensure security. Logins & Passwords are required to maintain the integrity of public data and the confidential data.

- Governance: See *Governance*

- Quality assurance through data gathering: With the number of resources available for gathering data the quality has to be kept in mind. Quality data with latest updates will help to increase the efficiency of accessing database within time constraint. Thus the forums and blogs would help to provide the valuable information to the needy.

- Copy Rights: The information of the database should not be subjected to change as it is collection of vital information from various sources. The confidential data should not be available for the public access else it would create a havoc in database and thus integrity and uniformity would be lost. The administrator of the system is accounted with the privileges for a change in the subject thus leading to the proper governance of system.

- Limitation to Non-Public Information Access/System Logins & Passwords( or Sharing): Accounting to the breaching of the systems using various hacking tools and devices to access the confidential information may lead to the violation of the copy rights of the
information. In such a condition user should have login and passwords to ensure the integrity. Information must be shared.

- System Logs: To deal foremost with the accessing concerns of the system a log table has to be maintained to keep a security check over the users accessing the information. Thus a view of information most conceived by users can also be accounted for and updated readily. So the proper security measures can be mould accordingly.