



# Report on Capacity Enhancement Programme on Open Education Resources for BOU Policymakers

A joint initiative of  
Bangladesh Open University and  
Commonwealth Educational Media Centre for Asia (CEMCA)

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## Contents

1. Introduction .....	3
2. Objectives.....	3
3. Participants .....	3
4. CEP Machinery .....	4
5. Opening session .....	5
6. Working session .....	8
7. Plenary Session .....	9
8. Outcomes of the Day-long Workshop .....	10
9. Attachment 1: Programme Schedule.....	11
10. Attachment 2: Research on OER.....	13

## 1. Introduction

Open educational resources (OER) has been the most important topic to support equal access to knowledge, information as well as educational opportunities because these resources are generally available free of charge and distributed freely over the Internet through a variety of distributors or repositories. The powerful reason for harnessing OER is ‘that the world’s knowledge is a public good and that technology in general and the World Wide Web in particular provide an extraordinary opportunity for everyone to share, use, and reuse knowledge’ (Atkins, Brown, Hammond, 2007). The simple dominating idea is that openly licensed educational materials have tremendous potential to contribute to improving the quality and effectiveness of education. In line with this, the Bangladesh Open University adopted an OER policy; but still now, based on the policy, improvement has been very minimal. Therefore, the University aims to review the existing policy and to take OER initiatives, where necessary. As a part of this initiative, the University proposed *Commonwealth Educational Media Centre for Asia (CEMCA)* a series of capacity enhancement programmes (CEP) for necessary funding and finally, the CEMCA already allocated the budget. This CEP for Policy Makers of BOU aims to inform policy-makers how OER can be used in education specially in higher education.

## 2. Objectives

Specific objectives of the CEP are:

- i. to enlighten policy-level people on the concepts of OER and present the current issues of OER for promoting the open and distance learning in Bangladesh;
- ii. to present the review report on OER policy adopted by Bangladesh Open University;
- iii. to acquaint policy-makers with the international experiences of the OER repositories in general and OER in Asia in particular; and
- iv. To acquire some recommendation for implementing OER initiatives correctly for BOU.
- v.

## 3. Participants

### School of Education

- Prof. Sufia Begum, Dean & Professor (Zoology), [sufia@bou.edu.bd](mailto:sufia@bou.edu.bd)
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### School of Social Science, Humanities and Language

- Prof. Dr. Mamtazuddin Patwari, Dean & Professor (History), [patwari54@yahoo.com](mailto:patwari54@yahoo.com)
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### **School of Business**

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### **School of Science and Technology**

- Prof. Dr. K.M. Rezanur Rahman, Dean & Professor (Physics), [drkmrezanur@yahoo.com](mailto:drkmrezanur@yahoo.com)

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## **4. CEP Machinery**

The one day CEP programme is divided into three sessions:

Opening session – this session mainly focused on the global OER issues in general and SAARC countries in particular. This session also emphasized on status of OER at Bangladesh Open University.

Working session – in this session the Resource Person (RP) oriented the BOU policy-makers towards practical aspects of OER implementation, benefits and future directions.

Plenary session – this session was actually the feedback session in presence of Hon’ble Vice Chancellor, Bangladesh Open University – Professor Dr. M A Mannan. Detailed activities for the day-long workshop has been discussed in the following sections:

## 5. Opening session

On 29 August 2016, Commonwealth Educational Media Centre for Asia (CEMCA) and Bangladesh Open University (BOU) under their joint OER initiatives convened the one-day “Capacity Enhancement Programme (CEP) on Open Education Resources for BOU Policymakers” at BOU Campus, Gazipur Bangladesh. This activity is a part of implementation of Project entitled “OER Policy and Implementation of Blended Approach for teaching-learning at Bangladesh Open University (BOU)”.

At 9:30am, the opening session was started and Hon’ble Vice Chancellor, Professor Dr. M A Mannan chaired the session. Opening session was started with a festive manner as BOU VC put on sash to CEMCA Director and at the very outset of the session; Md. Mizanoor Rahman, the Team Leader of the CEMCA-BOU OER Project stated the objectives of the CEP to the policy-makers. Mr. Rahman and Ms. Adiba Anis jointly anchored the session. Mr. AKM Iftekhar Khalid presented to the participants the bio-note of the Resource Person, Professor Dr. Mohan Menan (see attachment 1).



In the inaugural address Professor M A Mannan, Hon’ble Vice Chancellor, BOU mentioned that the “Pedagogical transformation through open Educational resources at Bangladesh Open University is not an option, it has been imperative to incorporate in the BOU system. Open Educational Resources are valuable for BOU and students in terms of energizing teaching and learning at lowering costs and laying the groundwork for Higher Education (HE) programmes that meets employers’ needs. The BOU is in a process to use OER, so CEMCA’s initiatives will help BOU building a new dimension of our success agenda”. Professor Mannan mentioned that Professor Menon

was the instrumental to develop the Wawasan Open University (WOU) and BOU Policy Makers have many things to learn from him not only OER but also other techniques to overcome the challenges of open and distance learning institutions. Vice Chancellor also mentioned that the workshop aimed to enhance the capacities of policymakers (Deans, Professors and Directors) and practitioners on review of OER policy and effective implementation and Professor Menon was with them as a facilitator of the day-long session.

Dr. Shahid Rasool, Director, CEMCA, in his address appreciated BOU's willingness to make use of ICT-enabled learning for open and distance education. He also referred that the world leading conventional universities are now offering online courses all over the world using technology e.g. MOOCs. Therefore, because of the use of technology in education, there is a convergence between conventional and distance mode teaching. "Access to quality education today is a matter of great concern and Interactive TV together with ICT could be the supplement to the real classroom", he added. He stressed on the use of multiple media approaches e.g. video, audio, eLearning to make teaching and learning rewarding and engaging. Dr Shahid was impressed to learn about BOUTube and the digitization of BOU studios. He emphasized on web-based delivery of print as it is able to overcome the drawbacks of handling hardcopies of the print such as late delivery, cost effectiveness and less interactivity possibility etc.



The goals of the BOU-CEMCA OER Initiative are that students will complete their degrees at higher rates and at a less cost than those completing traditional degrees and BOU faculties will redesign curriculum and pedagogy to better match for students and employer's or industry need.

The opening remarks were presented by Asst. Professor Mizanoor Rahman of BOU who spoke on 'BOU OER Policy Review'. His address explored the

BOU OER Policy 2014 to the Policy Makers. According to the policy, Creative Commons (CC) open licensing can be harnessed to design and implement creative, engaging learning environments for BOU students that will contribute meaningfully to developing the '21st century skills'.

Mr. Rahman observed, in his policy research, that there is evidence of growing interest in open licensing in



Bangladesh and the establishment of supportive policy environments for open licensing. He noted that despite these tangible gains, there is still limited understanding of the concept of OER beyond its 'champions'. This inadequate understanding of the efficacy of 'open' pedagogies and systems continues to result in several institutional barriers to harnessing OER practices to support pedagogical conversion.

Professor Dr. Mohan Menon, former Deputy Vice Chancellor, Wawasan Open University, is the key resource person of the three CEPs at BOU. Professor Menon mentioned his long relationship with Vice Chancellor, Professor Mannan and observed that University does arrange training at the grassroots for academic and non-academic staff but not at the policy level and without the supports of policymakers, OER cannot be implemented in a right manner. Professor Menon believed that the use of ICT would be developed and implemented for ensuring quality higher education. Professor Khondakar Mokaddem Hossain, Pro-Vice Chancellor, BOU one of key supporters, promoters of OER and one of the initiators of BOU OER Policy also attended the programme. He has been the best patron of BOU-CEMCA OER Initiative.

The one day workshop will be followed by two more Capacity Enhancement Workshops for Academic and Non Academic staff. This will lead to implementation of OER policy and practice at BOU as per the CEMCA model.

BOU Media Department recorded the entire programme and uploaded in the YouTube channel (<https://www.youtube.com/watch?v=kKaLgHJfrOU>). Its transcribed version can be seen in the attachment 2.

Opening session was concluded with a photo session:



## 6. Working session

Professor Menon started the working session at 11:00 after the tea break and he invited Mr. Mizanoor Rahman presented a lecture on “Adoption of OER in Bangladesh: A research conducted by the Project Team”. Mr. Rahman discussed the chronology of recent technological development e.g. telephone, radio, cinema, television and computer. All the technologies contributed towards Information and Communication Technology which offers now the newest technologies for education e.g. e-Learning, eBook or eContent which are the Future of Education. He explained OER to the participants and mentioned the different OER materials e.g. audio, video and print materials. He also presented the use of OER in Literature, Mathematics, Science and course based video materials and its importance and implementation.

He handed the participants a Bangla version handouts (seeattachment -)



Then Professor Dr. Mohan Menon started his session on Current scenarios of COL-CEMCA OER initiatives in Commonwealth Asia and COL-CEMCA supports adoption and implementation of ICT/Open Educational Resources (OER) policies to improve quality of learning outcomes and fostering of innovation. Professor Menon also referred to the term, OER which was coined in 2002 at the Forum on

the Impact of Open Courseware for Higher Education in Developing Countries organized by UNESCO, and in 2012 the Commonwealth of Learning (COL) and UNESCO organized the World OER congress, which resulted in the OER Paris declaration that government to release public funded teaching and learning materials to be released with an open license. In the line, CEMCA continues its work with Commonwealth governments and institutions for OER policies and its implementation with an eye for improving the quality of systems while enhancing staff capacity in order to enhance quality learning opportunities.

Referring Vice Chancellor's speech and Mr. Rahman lecture, Professor Menon mentioned that BOU already has learning resources e.g. print, audio-video lectures and research articles; and the University has already made them available in the web as open accessed materials (OAM). Professor Menon discussed how BOU can declare make these materials as OER and join to mainstream OER. Professor defined OER that Open educational resources (OER) are educational materials (usually digital) that can be used, improved, redistributed and shared and explained that an educational resource that is free and online is not OER unless it has one of these open licenses attached. He discussed the concept of Open Content(OC), Open Courseware (OCW), eLearning and their difference with OER and their relationship between themselves. He also explained the Open Movement, Open Source Software in Open Movement, Open Licenses, Open Access, Open Society in the Open Movement. He discussed the Creative Commons and its licensing policy for OER, the use of OER in education and mentioned the global institutions and academics have rated OER highly for ensuring quality education in the universities. His presentation was participatory as the participants were also interactive during his session. Professor Mohan Menon for practical examples showed the courses of Wawasan Open University portal for academic materials and how the Open Educational policies have implemented in the academic courses and some participants also opened the website of Wawasan Open University (WOU) to see how WOU is using OER for their materials. He also referred the repository of WOU which can be used as a model OER repository for other university. The policy makers also tried to learn the implementation tips and techniques from the Resource Person for their own university. Professor Menon focused on the implementation of the OER policy of BOU as the University has already developed and approved by the relevant authorities.

## 7. Plenary Session

This session was chaired by the BOU Vice Chancellor. The Vice Chancellor actually tried to find out the feedback of the day-long session. He raised the question, "Why have we made BOU OER policy?"

Vice Chancellor hoped that the participants had enough exposures from the working sessions of Prof. Menon, who addressed the theoretical issues of OER, different aspects of Open Contents and OER implementation policies. Professor Menon was the main implementer of OER at the Wawasan Open University and he showed examples for policy makers for OER to put into practice. He also referred the presentation of Mr. Mizanoor Rahman, who had delineated the steps of OER and the status of BOU in relation to OER policy implementation.

He expected that the policymakers should support their relevant schools and departments to implement the OER policy which the University already adopted. The participants were also referring to Professor

Menon's academic portals at Wawasan Open University which were very helpful to understand how OER policy works in a practical situation.

## **8. Outcomes of the Day-long Workshop**

Participants of this Capacity Enhancement Programme are the policy-level people from Bangladesh Open University who are Deans, Directors, and Professors. After the day-long workshop, the following mentionable outcomes are achieved:

- Involving all departments /faculty in the OER process;
- Creating an urge to get the eLearning Center Operational – development of infrastructure and support;
- Alleviating people's concerns about OER and copyright implications;
- Ensuring staff to attend OER workshops/training;
- Advocacy and sensitization - understanding what OER;
- Showing the case of WOU as an example for how others have implementing OER policy;
- Visiting OER enabled programme delivery institutes;
- Including issues of OER development, policy, remuneration system in the academic orientation for new staff
- developing resources is one of the requirements for academic/lecturers' responsibility (lecturers should be encouraged to create resources and update teaching and learning resources on a regular basis and should take into account (copyright issues) – PPT can be the first drive for addressing this issue);
- Ensuring that Department/Faculty heads or Deans includes budget for creating, updating and publishing of resources for sharing.
- Ensuring consistency, uniformity and continuity of OER material production and sharing.
- Committing the institution and faculty to produce and use OER material
- To ensure quality control and review – it sets the goals, limitations and serves as a reference. Factors contributing to gap between Policy on paper and Implementation
- Proper research must be conducted before preparing policy documents

## 9. Attachment 1: Programme Schedule

### Programme Schedule

Capacity Enhancement Programme (CEP) on Open Education Resources for BOU Policymakers  
(August 29, 2016) Gazipur, Bangladesh

Day, Date & Time	Topic	Objectives	Strategy	Resources
<b>Monday, Aug. 29, 2016</b>				
<b>Registration:</b> 0900 - 1030 hrs.				
0930 - 1030 hrs.	Introductory-cum-Inaugural Session	To establish rapport and set the tone, clarify the objectives, negotiate the workshop structure	Reciting bio-note Felicitation Speeches	Address by: Prof. Dr. MA Mannan Prof. Dr. MokaddemHossain DrShahidRasool Prof. Dr. Mohan B. Menon  Anchored by: Md. MizanoorRahman AdibaAnis
<b>1100 - 1115 hrs. TEA BREAK</b>				
1115 - 1145 hrs.	Adoption of OER in Bangladesh: A research conducted by the Project Team <b>Md. MizanoorRahman</b>	To describe and discuss the OER scenario in Bangladesh and in other countries, and the new trends vis-à-vis blended learning	Presentation with the help of LCD by R.P followed by discussion	Bangla handouts – <b>gy<sup>3</sup> wkLbmvgwMÖ</b> COL: An Introduction to OER
1145 – 1215 hrs.	Understanding of OER with special reference to Online OER course by the COL Prof. Dr. Mohan B. Menon	To describe OER certification	Work on computer to get online certificate	<a href="http://tell.colvee.org/">http://tell.colvee.org/</a> Soft copy of the following: Understanding of OER TIPS Guidelines for creation of OER and OER quality

<b>1300 - 1400 hrs. LUNCH BREAK</b>				
1400 - 1500 hrs.	Current scenarios of COL-CEMCA OER initiatives in Commonwealth Asia  Prof. Dr. Mohan B. Menon	To explain various issues involved in the development of OER	Presentation with the help of LCD by R.P followed by discussion	<ul style="list-style-type: none"> <li>• COL Knowledge Resource on OER</li> <li>• Handout of Menon (2016)</li> </ul> I. OER Policy Assumptions II. OER Policy Components III. OER Policy Resources
<b>1500 - 1515 hrs. TEA BREAK</b>				
1515 - 1630 hrs.	Strategies for implementation of BOU OER Policy and Practice  Prof. Dr. Mohan B. Menon Md. MizanoorRahman	To identify the characteristics and major features of OER at the BOU	Presentation by R.P followed by discussion, followed by one-to-one interaction for topic identification  BOU VC to address the OER Policy	<ul style="list-style-type: none"> <li>• OER Policy (Mizan, 2016)</li> <li>• OER Handbook</li> <li>• Activity : Identification of Course unit for OER</li> </ul>

## 10. Attachment 2: Research on OER

# Open Educational Resources (OER) Policy of Bangladesh Open University (BOU): an Evaluation

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### Abstract:

Bangladesh government implements textbook policy quoted in the National Education Policy 2010 that is the creation and distribution of school texts to the students at a free of cost. Due to influx of information and information technology (ICT) the policy has further been extended and that is to make the books available in the website as open accessed materials (OAM) – some people in Bangladesh viewed this as OER. Bangladesh Open University – a public university and only provider of distance education in the country – do support the government policy and in line with this, the University made all texts available as OAM. This article reviews the existing OAM policies of the county in general and BOU in particular. Finally, it evaluates critically the existing OER policy of the University and draws conclusion on OER issues. This article aims to put these OER policies in context, discussing their focus and scope and highlighting challenges and bottlenecks. On the basis of the analysis of the current state of the art, one of main barriers to gaining the benefits of OER is that the state-owned publishing houses – namely National Curriculum & Textbook Board (NCTB) and BOU are less compliance of the copyright. The recent OER initiative is presented as a technique to overcome these barriers by dictating the existing materials.

### Introduction

Use of technology at the Bangladesh Open University (BOU) is not the option but obligatory as the Section 5 of the BOU Act 1992 states as under:

.....the purpose of the University shall be to spread multimedia instruction of every standard, and knowledge, both general and scientific, by means of any kind of communications technology, to raise the standard of education and to give the people educational opportunities by democratizing education and to create a class of competent people by raising the standard of education of the people generally [Section 5, BOU Act 1992] (MoE, 1992).

As per the provision of this section, BOU needs to cater to all levels of education and in order to do that it implements multimedia instructions using communication technologies assuring the quality. No organization can violate its objectives stated in the statute. In line with this, BOU uses multimedia for its programme delivery. They are – self-learning materials (SLMs) as print media using in-house style; radio-TV broadcasts (RTBs) as electronic media using national chunk and tutorial support services (TSSs) as human media using the infrastructure of the formal system (Rahman and Panda, 2015; Mannan, 2016). Therefore, technology has been the part of the BOU system and due to influx of computer technology – known as Information & Communication Technology (ICT) – BOU introduces learning management system (LMS), web2 technology, webTV, webRadio, eBooks, mobile apps, interactive virtual class room (IVCR), ELT curriculum-linked videos (CLVs) and BOUTubeetc (BOU Showcase Report 2016). All texts have been made available in the web as open accessed materials (OAM) for free use which do not protect the copyright. In 2014, the University adopted the OER Policy; but the implementation of the policy has been much slowed. Therefore, this desktop research reviews the existing

OAM policies of the county in general and BOU in particular. Finally, it evaluates critically the existing OER policy and draws conclusion on OER issues.

### Objectives

This desktop research achieves the following specific objectives:

- i. to review the OAM policies of the country;
- ii. to review the OAM policies of the BOU;
- iii. to review the OER policy of the BOU for ascertaining the foundations of implementing the OER repositories;
- iv. to suggest, based on i – iii), for implementing OER at the BOU through CC licensing.

### Methodology

The research tools for this study included desktop analysis, content analysis and document analysis. Desk research included the analysis of several research reports published in the context of OAM and OER over the years and websites of different international (such as UNESCO, OECD and COL) and Bangladeshi organizations (such as, BOU, MoE, and NCTB) have been analyzed. As a lot of technology deployments happened in the last couple of years at the BOU and accordingly, policy responses have been developed. Relevant literature relating to textbook and ICT which has been considered but not directly quoted in this paper. Another information source was the wikieducator, which is a compilation of responses from national and institutional frameworks, policies and other knowledge based evidence.

### OER defined

At the very outset, UNESCO talked about the copyright issues because of huge emergence of technology just after the millennium and came out with the new idea open educational resources (OER) and, in 2002, it defined OER as:

...teaching, learning or research materials that are in the public domain or released with an intellectual property license that allows for free use, adaptation, and distribution ([UNESCO, 2002].

Hylen, et al (2012) find that this definition does not refer OER as digital resources although the concept is usually restricted to ICT materials. Subsequently, UNESCO, in 2012, redefined the OER as:

...OERs are teaching, learning or research materials that are in the public domain or released with an open license that allows for free use, adaptation, and distribution [UNESCO, 2012].

In the same year, The Organization for Economic Co-operation and Development (OECD) defines OER as:

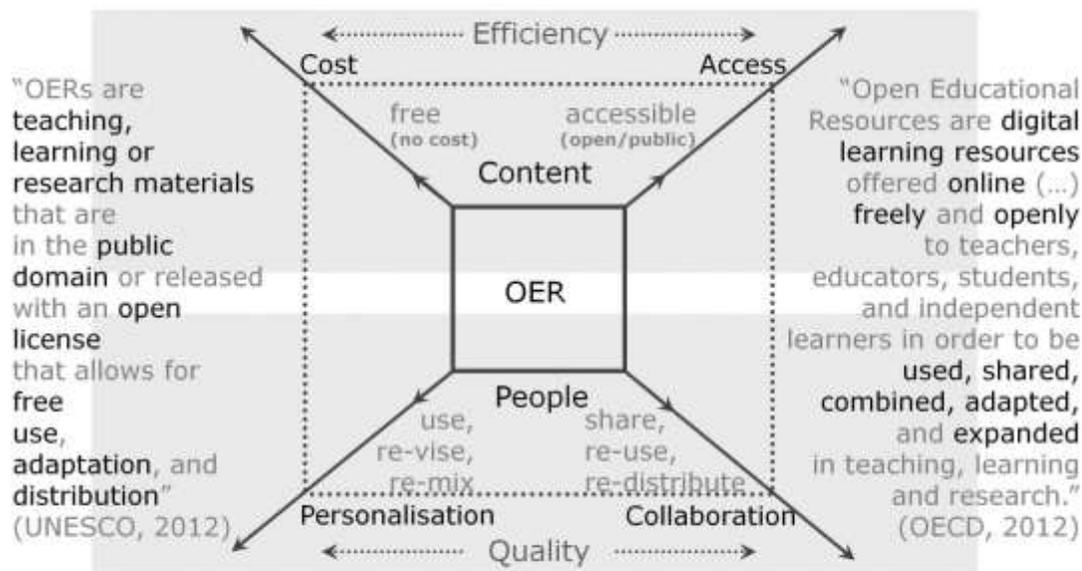
.....digitized materials offered freely and openly for educators, students, and self-learners to use and reuse for teaching, learning, and research. OER includes learning content, software tools to develop, use, and distribute content, and implementation resources such as open licenses (OECD, 2012).

These two commonly-used definitions provides two domains, they are: content and people. These definitions also denote four different characteristic dimensions. Figure 1 illustrates them. OER are digital learning-teaching and research materials that are:

- (1) free (as in "gratis");
- (2) open (i.e. freely accessible, publicly licensed, in the public domain);
- (3) they can be shared and re-distributed; and
- (4) they can be freely (or liberally) re-used, adapted and mixed for individual learners' and teachers' purposes.

The first two dimensions concern the content domain of OER. The latter two dimensions, also referred to as the 4Rs of Open Content [2] (i.e. the right to reuse, revise, remix and redistribute content), point to the use of content through personalization and association. This is what we call the "people" domain of OER. It is imperative to bear in mind, however, that not all educational materials usually considered as OER actually satisfy all four conditions.

Fig 1: The IPTS OER Square



Source: Sabadie et al (2014)

By way of comparison, the Commonwealth of Learning has adopted the widest definition of Open Educational Resources (OER) as:

...materials offered freely and openly to use and adapt for teaching, learning, development and research (COL, 2014).

But, in Bangladesh, OER is meant as OAM which is emphasized on freely accessible and usable particularly the NCTB and BOU materials where copyright is not yet protected what open licensing platforms do.

### **Digital Bangladesh promise**

Vision 2021 and the promise of establishing a digital Bangladesh drew immense support from the people and that created positive grounds for the realization of power of ICT to achieve the sustainable development. In line, the country has been implementing ICT establishment projects such as A2i (access to information) through the Ministry of ICT which created an environment to implement the OER repositories in Bangladesh.

### **Education Policy and BOU**

Government implements the National Education Policy 2010 and this policy states that ‘Bangladesh Open University will be built up as a true digital university enriched by facilities of IT’. Through the one sentence policy has conferred huge tasks on BOU and in line with this BOU has been deploying technologies in the delivery of the programme. In addition, the education policy also puts emphasis on operationalizing the libraries through ICT by phases and thus opens up ways to access global knowledge (SoE, 2016). The policy has clear direction on OER and can be explored from the following statement cited in the Policy:

....enriched libraries will be set up in every college and university. All research journals will be collected through electronic subscription. All libraries of the country will be connected through networking so that any student can have access to the resources of other libraries. By phases, digital edition of books and journals will be made available. Recognizing the importance of the institutions, the structural format of the national library and archives will be reorganized and they will be brought under the digital system (SoE, 2016, p, 15).

Therefore, OER has been imperative for BOU and as well for the nation.

### **Textbook policy**

#### ***NCTB texts***

The National Curriculum and Textbook Board (NCTB), in the light of the set objectives of the primary education, will prepare subject-based textbooks, supplementary text materials, exercise books and teaching aids (books with analyses, exercises and examples) with a view to meeting the marginal requirements of every subject and class (MoE, 2010; p.7). Free textbooks are being provided to primary and secondary schools. This system will continue. The existing policies of preparing, printing, publication and free distribution of subject based textbooks at primary and secondary levels will continue. NCTB made all texts available as open accessed materials (see fig 2).

BOU texts

Textbook is the heart of the BOU course delivery. The text development at the BOU passes a process for assuring quality. In addition, the University has the textbook policy as under:

- texts to be structured using the in-house style (Jahan, et al, 2015);
- texts to be authored, edited and reviewed by the reputed teachers;
- texts to be written as self-learning materials;
- texts to be distributed among the students; and
- texts to be made available in the web for free use as open accessed materials;

Making BOU SLMs as OAM is the latest policy response and made all the materials are available in the web for free use (see fig 2). Initially, it was predicted that there will be least use of the OAMs by the learners.

Rahman& Panda (2015) find that BOU Open School learners are extensively using the OAM in the tutorial centres in the smartphone and tabs rather carrying the hard copies of the SLMs.

### NGO texts

NGOs in Bangladesh are very active in imparting literacy programme for disadvantaged people through face-to-face mode and after that they run CE (continuing education) programmes coupled with vocational courses under open and distance learning (ODL) mode using texts and animated learning CDs. In addition, DNFE (Directorate of Non-formal Education) also do the same programmes using the NGO model partnering with NGOs. NGO and DNFE have huge literacy and CE materials what is an important source of open educational resources which is now limited in hardcopy only.

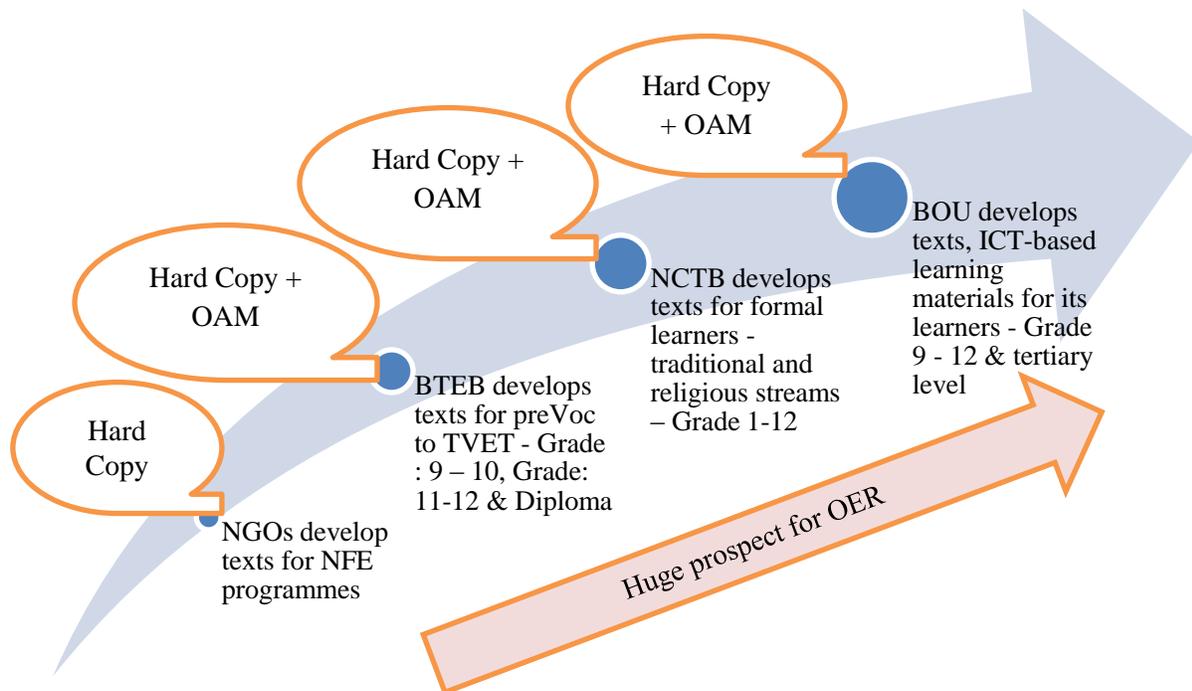


Fig 2: OER prospect in Bangladesh

BTEB texts

Bangladesh Technical Education Board (BTEB) runs TVET – preVoc, SSC Vocational (Grade: 9-10), HSC Vocational (Grade: 11-12); and Diploma Programmes in different trades. All programmes are supported by the texts books (see fig 2) of which some are already made available as open accessed materials.

Above publishing houses are of use in open accessed materials through their texts and that can be treated as huge potentials for open educational resources (OER) in Bangladesh.

### ***BOU OER Policy challenges***

Implementation of OER initiatives always has challenges and Sabadie et al (2014) find that in Europe although OER are high on the policy agenda and supported by many education and training actors, their use at schools, universities and adult education institutions has not reached a critical threshold. Likewise, Commonwealth of Learning (COL) initiated to implement OER at BOU and accordingly, the University drafted a ‘BOU OER Policy’ which, subsequently, Academic Council (AC) adopted on 2014 and no progress has been made on the policy agenda. Following bottlenecks have been identified:

#### ***Content***

In Bangladesh, there are two big publishing houses. They are: National Curriculum and Textbook Board (NCTB) and Bangladesh Open University (BOU). As mentioned earlier that as per the education policy NCTB is responsible for producing and distributing primary and secondary (including the equivalent vocational and religious stream) textbooks free of charge. Every year, on January 1, the Board distributes 3.5 billion books and make them available in the web for downloading free of charges (NCTB, 2016). As a matter of fact, there is least use of this OAM as the students already have the hardcopies of the books. National Textbook Policy has been one of the bottlenecks to mainstream the OER. On the other hand, BOU develops SLMs for its learners and supplies hard copies to them. Sometimes, these have already been made available in the web to make up the delay, in some cases, in distributing the books. Therefore, supply policies towards OAM; not to be OER. In spite of that, there are some a number of educational resources and OER platforms on the Internet what are, actually, used by the students of English medium.

#### ***Language***

Bangladesh is a uni-lingual country where about 99% people speak Bengali. Both NCTB and BOU develop texts in Bangla putting emphasis on local context where there are reflections of cultural richness. But, people in the diversified nation like India and EU countries do have different languages and there is a high demand for OER. Therefore, language has been one of the problems of not expanding the OER; at the same, time it can be a grace for OER.

#### ***Quality***

In practice, quality assurance is the responsibility of each institution, teacher or learner who uses OER (Kanwar&Uvalic-Trumbi, 2011). Both the organizations are public entities where production of materials passes a process and there are quality audits in every step. Ministry of ICT has prepared a repository using the NCTB books and fewer hits are found as they learners have the same hard copies with them.

Bangladesh has tremendous opportunities for open educational resources (OERs) as its contents are curriculum-linked and prepared in Bangla - language of majority people – and all the materials are of high quality as it passes through a comprehensive review and audit process (see fig 3).

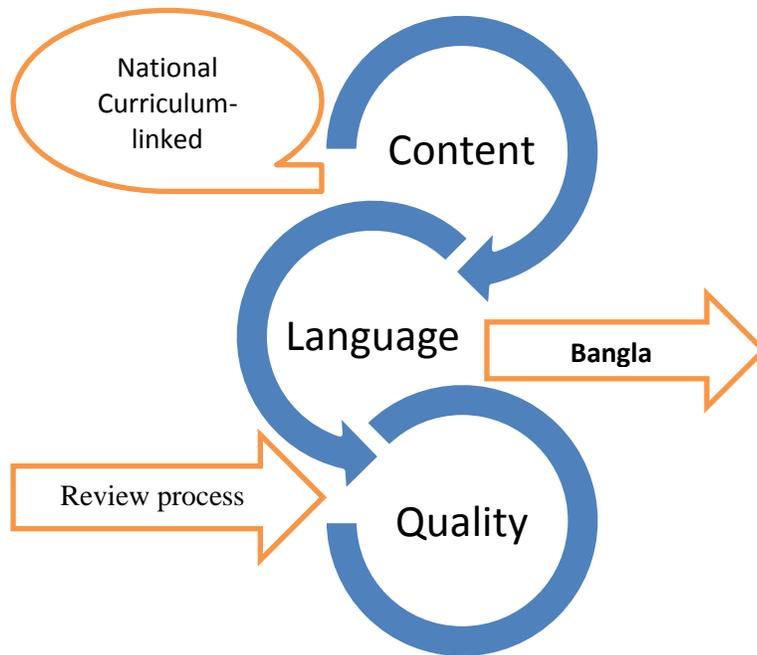


Fig 3: Quality of OER in Bangladesh

#### BOU OER Policy 2014

BOU OER Policy 2014 has been formulated in accordance with the provisions of the copyright act of the country what is the central to the open educational resources. Therefore, there will have no conflict in publication, use, reuse and distribution of the materials – print: self-instructional materials (SLMs) and radioTV broadcasts (RTBs): audio-video lectures. These materials are now being made available in the web as open accessed materials. Now question – does the copyright act allow to do that? If the answer is no, how the policy can protect BOU at the time of litigation, if happens? In addition to copyright act ethical issues in this regards have been crucial as the teachers, tutors and students are only allowed to use the materials. But because of making materials available in the web, anyone can use, reuse and distribute at a free of charge. In connection to these questions, BOU OER Policy 2014 clearly recommends as under:

.....BOU supports the principles of open education and as a default position recommends that the created materials should be open to public for the benefit of the society. BOU Copyright Policy is aligned with the requirements of the Copyright Act 2000 (and periodic amendments) [BOU OER Policy 2014; p. 1].

The policy also very clear about the ethical consideration and states as under:

.....Intellectual property (IP) refers to the exclusive rights including economic and moral rights arising from creative works developed to support teaching and learning [BOU OER Policy 2014; p. 1].

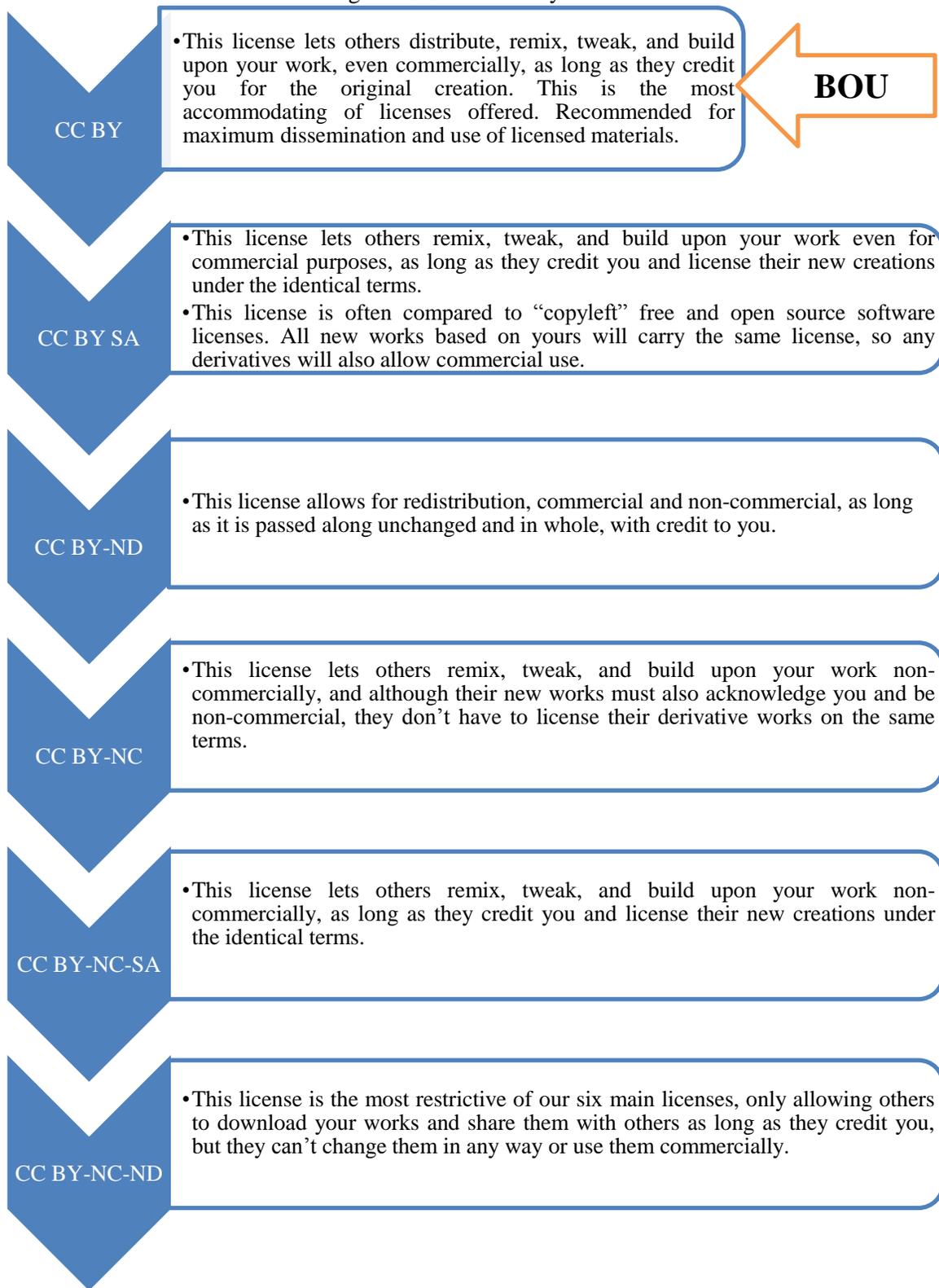
The policy customized the two well-known OER definitions given by UNESCO and OECD and the BOU definition is as under:

Open Educational Resources (OER) are resources and materials used to support education that may be freely accessed, reused, modified and shared by anyone under some specified provisions [BOU OER Policy 2014; p. 1].

BOU definitions did not refer any digital matters. Therefore, BOU's current drive towards shifting from traditional ODL to ICT-enabled ODL through learning management system (LMS), web2 technology, webTV, webRadio, eBooks, mobile apps, interactive virtual class room (IVCR), and BOUTubeetc has been less emphasized in the Policy.

In relation to the actors of OER, the Policy only refers to Creative Commons (CC) licensing for implementing OER at the BOU. This maybe for the popularity of the CC; but in Bangladesh other actors also playing vital role in implementing OER. In connection to the referring CC, BOU policy also describes the CC's characteristics and recommended only two attributions - CC BY and CC BY-SA and in relation to compliances of the copyright act 2000, the Policy recommends attribution 4.0 (CC – BY) for default position (see fig 4).

Fig 4: BOU OER Policy Focus



One of the beauties of this policy is that it recommends publications students created works as well what is likely to have a positive impact on the student's learning through creating motivation in them.

The BOU OER Policy suggests thorough examinations of the copyright issues before implementation of the OER and recommended a Committee headed by the Vice Chancellor of the University consists of members of copyright experts including the policy level people.

## Conclusions

In line with the implementation of the digital-Bangladesh, as BOU shifts to digital learning environments gradually teachers and tutors are leveraging digital instructional materials including open accessed materials (OAM) to provide more diversified and personalized instruction to improve teaching and learning. Adoption of OER Policy has been a dynamic drive towards implementation of OER at the BOU and as a part of the movement to digital learning; the implementation of open educational resources is climbing. Educational institutes are modifying their current policies for approving curricula to include OER materials, encouraging the use of OER at the private universities and in some cases providing OER materials. These trends provide faculties the opportunity to fully utilize digital instructional materials, including OER, to improve teaching and learning at the BOU. Policymakers needs to take appropriate actions for mainstreaming OER throughout the University and be champion in using, reusing and remixing learning materials for the students and for other users. In addition, Bangladesh also needs the National OER Policy.

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