

# National Open University of Nigeria

Case studies on African OER initiatives in  
higher education



# Introduction

With the revival of open and distance learning (ODL) programmes and the development of the National Open University of Nigeria (NOUN) in 2002, the concept of open educational resources (OER) gained traction in Nigeria. As part of the staff development process for NOUN, OER became one of the areas where critical capacity building activities were undertaken.<sup>1</sup> In response to the 2012 UNESCO/Commonwealth of Learning (COL) Paris Declaration on OER, NOUN initiated an OER project in 2014, which involved all faculties at the institution. The aim of the ongoing project was to integrate OER at all levels of teaching and learning at the institution to enhance the quality of and access to higher education.<sup>2</sup>

Figure 1 National Open University of Nigeria in Lagos, *Elohothedon* (CC BY)



NOUN is an ODL institution with more than 180,000 students.<sup>3</sup> It is Nigeria's largest tertiary institution in terms of student numbers and runs 103 study centres across the country.<sup>4</sup> The institution's [OER portal](#) offers access to a wide range of courses and downloadable material for educational purposes and an integrated search engine that provides multiple filters for maximum efficiency.

This case study is based on desktop research, an online survey response, an interview with Prof. Jane-Frances Obiageli Agbu who has been instrumental in promoting OER at the institution, and additional documents about the initiative provided by Prof. Agbu.

## Description of the initiative

In 2013, NOUN participated in sub-regional training on OER in Abuja Nigeria, organized by COL, UNESCO, and the Economic Communities of West African States. This training was timed to coincide with COL's seventh Pan-African Forum.<sup>5</sup> From the outset, NOUN sought to ensure effective implementation of OER practices and awareness at the institution and more broadly in Nigeria. It set up a special OER unit in August 2014, reporting directly to the vice chancellor.

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<sup>1</sup> Hoosen, S. and Butcher, N. (2019). Understanding the Impact of OER: Achievements and Challenges. UNESCO Institute for Information Technologies in Education.

<sup>2</sup> International Council for Open and Distance Education. (nd). National Open University of Nigeria commissions a unit for Open Educational Resources. Retrieved from <https://www.icde.org/knowledge-hub/national-open-university-of-nigeria-commissions-a-unit-for-open-educational-resources>

<sup>3</sup> McGreal, R. (2018). OER and MOOCs at the National Open University of Nigeria. Contact North. Retrieved from <https://teachonline.ca/tools-trends/oer-and-moocs-national-open-university-nigeria>

<sup>4</sup> OER World Map. (2021). National Open University of Nigeria. Retrieved from <https://oerworldmap.org/resource/urn:uuid:706a40cc-77eb-11e5-9f9f-c48e8ff4ea31>

<sup>5</sup> Hoosen, S. and Butcher, N. (2019). Understanding the Impact of OER: Achievements and Challenges. UNESCO Institute for Information Technologies in Education.

Focusing on OER policy, practice and research, the unit is tasked with 'leading awareness seminars, technical training, and capacity-building workshops, as well as transforming NOUN courses into open-licensed OER'.<sup>6</sup> At the time of writing, the implementation status of this process was unknown.

The directorate steers OER-related activities at the institution, which have included the following:

- Capacity building for several stakeholders at the university. Staff received training on OER creation, assembly, use and reuse, as well as on how to improve accessibility and usability of OER.<sup>7</sup> Workshops included:
  - *embracing the OER project at the National Open University of Nigeria* (for dean and directors in September 2014),
  - *embracing the Philosophy of Open Educational Resources* (for NOUN senior staff in February 2015), and
  - *enhancing OER at NOUN* (for course writers in July 2015).<sup>8</sup>
- Collaborations with the COL Regional Training and Research Institute for Distance and Open Learning (RETRIDOL), focused on capacity building in OER. During these interactions, Prof. Agbu shared NOUN's experiences, recommendations, and requirements for faculty members to embrace OER.
- A national workshop in December 2015 allowed NOUN to move from institution-based capacity building to national capacity building. The objective was to introduce OER to the National University Commission (NUC) and educational institutions in Nigeria, as well as to share NOUN's experience and its journey. As the interviewee noted:

*Quite a lot of institutions were really interested in OER after those workshops. We were able to reach out to a good number of the faculty who write course material, which increased awareness in OER. Management was able to key into OER.*<sup>9</sup>

The unit was geared towards sensitization and capacity building in OER, as well as popularisation of OER materials at the national level. With support from UNESCO, RETRIDOL and COL, the OER unit collaborated with universities in Nigeria, other West African countries, and beyond in the area of OER development. NOUN also participated in the UNESCO/African Council for Distance Education (ACDE) high-level Executive Workshop on OER and massive open online courses (MOOCs) with the sole aim of sensitizing institutions in Africa on the need to embrace OER.<sup>10</sup>

- In 2015, the institution launched the [NOUN OER portal](#) with the assistance of the UNESCO OER Programme, supported by the European Union and the Hewlett Foundation.<sup>11</sup> The online repository provides over 40 NOUN courses, all of which are openly licensed. NOUN set a goal

<sup>6</sup> McGreal, R. (2018). OER and MOOCs at the National Open University of Nigeria. Contact North. Retrieved from <https://teachonline.ca/tools-trends/oer-and-moocs-national-open-university-nigeria>

<sup>7</sup> McGreal, R. (2018). OER and MOOCs at the National Open University of Nigeria. Contact North. Retrieved from <https://teachonline.ca/tools-trends/oer-and-moocs-national-open-university-nigeria>

<sup>8</sup> International Council for Open and Distance Education. (nd). National Open University of Nigeria commissions a unit for Open Educational Resources. Retrieved from <https://www.icde.org/knowledge-hub/national-open-university-of-nigeria-commissions-a-unit-for-open-educational-resources>

<sup>9</sup> Interview with Jane-Frances Obiageli Agbu, NOUN, 9 April 2020

<sup>10</sup> Obiageli Agbu, J., Mulder, F., de Vries, F. Tenebe, V. and Caine, A. (2016). The Best of Two Open Worlds at the National Open University of Nigeria. Open Praxis. Retrieved from <https://www.openpraxis.org/index.php/OpenPraxis/article/view/279/208>

<sup>11</sup> Forward, M. (2015). National Open University of Nigeria Launches OER Portal. Open Education Consortium. Retrieved from <https://www.oeconsortium.org/2015/12/national-open-university-of-nigeria-launches-oer-portal/>

to release 50% of its materials (over 800 courses) as OER by 2017. At the time of writing, some of the links to courses for the Faculty of Education on the OER portal were broken and progress in achieving the goal was unknown. The NOUN OER portal indicated that courses from the Faculty of Science and Technology; Faculty of Arts and Social Sciences; and Faculty of Law were 'coming soon.' NOUN also developed an [OER repository](#), though it was unclear how many OER are currently housed on the website.

- With support from senior administration, NOUN technical training staff worked with UNESCO in developing a framework for efficient OER conversion. As many NOUN course materials were in PDF format, they needed to be converted to Microsoft Word for editing. During the format conversion process, editors copy edited course content, added interactive elements where applicable, and updated it to ensure that it was relevant. This process guaranteed marked quality improvements in the OER. Instructional designers led the process in collaboration with technical and library staff. The OER courses are based on an open-source master (XML) template with embedded metadata, machine-readable code, and open-source fonts. Once the process was complete, the OER were released on the [NOUN website in three formats](#): ePUB, Open Document Text, and PDF with a Creative Commons-Attribution-Share Alike (CC-BY-SA) licence.<sup>12</sup>
- Following its inroads into OER capacity building, NOUN indicated that it would build at least 20 OER-based MOOCs to assist students countrywide. The institution released the first three courses in 2016, namely *History and Philosophy of Science*; *Information Literacy*; and *Study Skills*. These were aimed at the more than one million Nigerian students annually who pass their university entrance examinations but do not get placed.<sup>13</sup> These three courses were not available on the NOUN OER portal at the time of writing.
- On the international stage, NOUN was the first West African university to join the [OERu](#),<sup>14</sup> a non-profit organization that facilitates a network of over 30 institutions and offers free online courses for students worldwide.

NOUN has collaborated with several partners through its OER activities. In addition to those mentioned above, other partners include the European Association of Distance Teaching Universities, National Universities Commission (Nigeria), OER Africa, SAIDE, and OERu.<sup>15</sup> NOUN collaborated with OER Africa through RETRIDOL in capacity building in ODL, OER and leadership training, and also interfaced with OERu in open content design. NOUN was made an associate member of the European Association of Distance Teaching Universities, in addition to working closely with the NUC in the areas of ODL, OER, and quality assurance.

NOUN's approach to OER and MOOCs entails several activities, including awareness-raising around OER, technical training, converting existing course materials into OER, and collaborating with institutions and organizations in OER and MOOCs. Through these activities, NOUN aims to address the teaching and learning needs of two key groups: students and academics.<sup>16</sup>

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<sup>12</sup> McGreal, R. (2018). OER and MOOCs at the National Open University of Nigeria. Contact North. Retrieved from <https://teachonline.ca/tools-trends/oer-and-moocs-national-open-university-nigeria>

<sup>13</sup> McGreal, R. (2018). OER and MOOCs at the National Open University of Nigeria. Contact North. Retrieved from <https://teachonline.ca/tools-trends/oer-and-moocs-national-open-university-nigeria>

<sup>14</sup> McGreal, R. (2018). OER and MOOCs at the National Open University of Nigeria. Contact North. Retrieved from <https://teachonline.ca/tools-trends/oer-and-moocs-national-open-university-nigeria>

<sup>15</sup> Survey response from Jane-Frances Obiageli Agbu, NOUN, 19 February 2020

<sup>16</sup> McGreal, R. (2018). OER and MOOCs at the National Open University of Nigeria. Contact North. Retrieved from <https://teachonline.ca/tools-trends/oer-and-moocs-national-open-university-nigeria>

For OER developers and creators (academics), NOUN has focused mainly on capacity building through the abovementioned workshops. Through these workshops, the institution has provided training on:

- an overview of OER and open licensing,
- choosing an open license and the rationale behind open licencing,
- course material development in open and distance learning,
- search tools for selecting OER,
- how to design inclusive OER,
- key issues in re-using and repurposing OER,
- designing an institutional template for OER,
- OER policy,
- research in OER, and
- designing OER-MOOCs.<sup>17</sup>

For OER users (academics and students), NOUN has provided training on:

- an overview of OER,
- an overview of open licence,
- key issues in re-using and re-purposing OER,
- search tools for selecting OERs, and
- OER-quality assurance.<sup>18</sup>

## Impact on teaching and learning

Current and prospective students can access the latest course materials through online services, which is reportedly highly beneficial for them as they 'are less dependent on the official printed course materials that are available in the NOUN study centres or on the existing illegal distribution channels with scans of printed course materials'.<sup>19</sup> This increased accessibility is key to improving teaching and learning at the institution.

## Capacity building

In further attempts to improve teaching and learning and promote open practices, NOUN's academic staff are trained to write course materials that use existing OER. At the national level, leadership and academic staff from other institutions are invited to join NOUN's OER initiatives with a view to building a Nigerian Open Education ecosystem. This ecosystem is characterised by collaboration on university course development and sharing resources that are continuously improved based on teaching and learning praxis.<sup>20</sup> Through RETRIDOL and COL, NOUN has been able to train and collaborate with institutions in Nigeria and Africa where, for example, capacity building was carried out with Federal University Oye Ekiti in February, 2020.

Drawing from the above, NOUN's impact on teaching and learning extends beyond the institution, as the institution has also sought to share OER-related experiences, skills and stories with other institutions in Nigeria and beyond. Apart from the workshops that the NOUN OER team conducts, it is also part of the ACDE and participated in the ACDE pre-conference workshop in 2017.

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<sup>17</sup> Survey response from Jane-Frances Obiageli Agbu, NOUN, 19 February 2020

<sup>18</sup> Survey response from Jane-Frances Obiageli Agbu, NOUN, 19 February 2020

<sup>19</sup> McGreal, R. (2018). OER and MOOCs at the National Open University of Nigeria. Contact North. Retrieved from <https://teachonline.ca/tools-trends/oer-and-moocs-national-open-university-nigeria>

<sup>20</sup> McGreal, R. (2018). OER and MOOCs at the National Open University of Nigeria. Contact North. Retrieved from <https://teachonline.ca/tools-trends/oer-and-moocs-national-open-university-nigeria>

## Policy

Prof. Jane-Frances Agbu, a staff member at NOUN authored a validated draft national OER policy for higher education in Nigeria, in collaboration with COL and NUC. In September 2017, the National Universities Commission of Nigeria presented the [OER policy for higher education in Nigeria](#) to stakeholders. This was subsequently approved on 2 August 2018 by the Nigerian Minister of Education.

The national OER policy seeks to reposition higher education institutions in Nigeria as major production and distribution hubs of OER in Africa by providing guidelines on the use, creation, and review of OER. The specific objectives of this policy are to:

- guide the use, creation, and review of OER materials prior to sharing them globally, and
- clarify licensing issues and publication rights for OER.

The policy encourages institutions with publicly-funded materials to openly license them as OER. Institutions in Nigeria are progressively starting to understand the benefits of OER. However, OER Africa is unaware of the implementation status.

## Strength and achievements

Since NOUN focuses on the higher education and lifelong learning sectors, most of the information sharing and professional development have been in the areas of further education, higher education, and lifelong learning. Limited attention has been given to OER for basic and secondary education.<sup>21</sup>

The institution uses a microsite within the university's portal. The materials are made available for sharing and reuse by students of NOUN, students of other institutions, and academics from other institutions. For example, Modibbo Adamawa University has requested permission from NOUN's management to reuse NOUN-OER.<sup>22</sup>

The initiative has created approximately 200 OER to date, made up of full courses in different disciplines, as well as creating a comprehensive OER policy for the institution.<sup>23</sup>

NOUN's key strength is that it has had OER champions who draw on their context and networks to propagate OER activity at the institution and beyond, as evidenced by the interviewee's description of how she promoted OER at the institution:

*Coming from an ODL institution, I thought my institution was better suited to learn about OER because we have materials online and are funded by government. So I wrote a proposal and submitted it to the VC. Before then, we had brief workshops in that area (2013). Attended a workshop in 2013, Economic Committee of West Africa States. If we were able to get our institutions to buy-in, they would support us with capacity building. I reached out to UNESCO, the then- coordinator came to Lagos to talk to the senate*

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<sup>21</sup> Hoosen, S. and Butcher, N. (2019). Understanding the Impact of OER: Achievements and Challenges. UNESCO Institute for Information Technologies in Education.

<sup>22</sup> Hoosen, S. and Butcher, N. (2019). Understanding the Impact of OER: Achievements and Challenges. UNESCO Institute for Information Technologies in Education.

<sup>23</sup> Survey response from Jane-Frances Obiageli Agbu, Director NOUN-OER Unit, 19 February 2020

*members- they educated us about OER, the ability of OER and why my university should buy into it.<sup>24</sup>*

As OER have gained popularity, some institutions in Nigeria have approached NOUN to use its educational materials. This improved the institution's standing in the national and international OER community and propagated a spirit of sharing among NOUN staff. The interviewee adds:

*We would try to see if the [materials] they are asking for are OER. If they were not, we were able to develop an institution licence template, so we had the OER staff work on the material, then add the OER licence statement so another institution would be able to develop it.<sup>25</sup>*

NOUN also encourages other institutions to openly license their materials, which has – according to anecdotal evidence – improved OER awareness and use amongst these institutions. Whilst it has trained other institutions to adopt open licences, it does not have cumulative statistics available regarding adoption.<sup>26</sup>

## Challenges

NOUN has faced several challenges in its efforts to institutionalise OER, including the following:

- **Staff reluctance:** Although some faculty embraced the concept of OER, others were hesitant. Initial efforts were sometimes greeted with suspicion, as staff did not understand open licensing or OER, particularly when asked to share their courses with other instructors in the institution or externally. As the initiative gained traction, faculty embraced OER more, particularly as a democratising force.<sup>27,28</sup> The shift was most palpable when staff began finding relevant and high quality OERs from other organizations and institutions, which supported their teaching, research, and instructional design activities. For example, staff derived value from using open access journals for their research. Using OER also made staff more amenable to sharing their own content.<sup>29</sup> The interviewee developed creative incentives to promote OER, such as coffee mugs with the definition of OER, key rings, and stickers. This sparked faculty members' interest in OER.<sup>30</sup>
- **Misunderstanding open licences:** Initial hesitation from faculty was compounded by a lack of understanding of open licensing, as some (particularly those new to creating or reusing OER) found Creative Commons licences confusing. Many faculty were also unsure about how to attribute content that they had edited.<sup>31</sup> This is being resolved by periodic capacity training workshops in these topics.
- **Budget constraints:** At NOUN, provisions are made for OER within the university's course materials development budget, rather than a separate budget item. This funding arrangement

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<sup>24</sup> Interview with Jane-Frances Obiageli Agbu, NOUN, 9 April 2020

<sup>25</sup> Interview with Jane-Frances Obiageli Agbu, NOUN, 9 April 2020

<sup>26</sup> Interview with Jane-Frances Obiageli Agbu, NOUN, 9 April 2020

<sup>27</sup> McGreal, R. (2018). OER and MOOCs at the National Open University of Nigeria. Contact North. Retrieved from <https://teachonline.ca/tools-trends/oer-and-moocs-national-open-university-nigeria>

<sup>28</sup> Hoosen, S. and Butcher, N. (2019). Understanding the Impact of OER: Achievements and Challenges. UNESCO Institute for Information Technologies in Education.

<sup>29</sup> McGreal, R. (2018). OER and MOOCs at the National Open University of Nigeria. Contact North. Retrieved from <https://teachonline.ca/tools-trends/oer-and-moocs-national-open-university-nigeria>

<sup>30</sup> Interview with Jane-Frances Obiageli Agbu, NOUN, 9 April 2020

<sup>31</sup> McGreal, R. (2018). OER and MOOCs at the National Open University of Nigeria. Contact North. Retrieved from <https://teachonline.ca/tools-trends/oer-and-moocs-national-open-university-nigeria>

means that there are insufficient funds available to implement OER optimally. A separate budget would assist OER development and adaptation, as converting existing government-funded course materials into OER requires dedicated time and resources. With the national OER policy, it is likely that the issue of financial commitment to OER will be given greater attention.<sup>32</sup>

- **Effort and time for OER champions:** For some champions at the institution, embracing OER has often been a solitary journey and it takes a lot of effort and time for people to see the merit of OER. This was particularly the case when NOUN's OER efforts began in 2014. Subsequently however, OER have gained traction and have become more popular at the institution, particularly with the implementation of widespread lockdowns in Nigeria and the rest of the region.<sup>33</sup>
- **Low quality of OER:** Some faculty found that accessing and evaluating OER was a challenge due to a lack of quality assurance of many OER available online.<sup>34</sup>

## Sustainability

The NOUN OER unit is small and consists of a head, information and communication technology staff, and an instructional designer. In carrying out its mandate, members of the unit reach out to staff to assist with training. The unit does not have all the capacity that it requires in-house, so it collaborates with other faculties and units in the institution to pool human resources and materials. The unit also has partners around the world who are willing to respond to questions or points of clarification, so they draw on these resources when needed.

A key consideration has been sustaining the management structure. The interviewee notes that, because heads of institutions are transitory, there should be a firm institutional commitment to OER-related activities that are independent of management changes, together with accompanying budgets to aid activities. She adds that this might be achieved by situating an OER unit under a statutory directorate to ensure continuity in activities.<sup>35</sup>

NOUN has also sought to promote sustainable OER practices by working with the national government to promote OER as well as requesting that government-funded educational materials are released using open licences.<sup>36</sup>

## Lessons learnt

Reflecting on the lessons learnt from implementing the OER initiative at NOUN, the interviewee notes that because all of the materials that the institution develops are publicly-funded, the copyright is held by the institution. This is why it was relatively straightforward to embrace OER as an institutional mandate, as NOUN could channel its efforts into converting copyrighted materials

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<sup>32</sup> Hoosen, S. and Butcher, N. (2019). Understanding the Impact of OER: Achievements and Challenges. UNESCO Institute for Information Technologies in Education.

<sup>33</sup> Interview with Jane-Frances Obiageli Agbu, NOUN, 9 April 2020

<sup>34</sup> McGreal, R. (2018). OER and MOOCs at the National Open University of Nigeria. Contact North. Retrieved from <https://teachonline.ca/tools-trends/oer-and-moocs-national-open-university-nigeria>

<sup>35</sup> McGreal, R. (2018). OER and MOOCs at the National Open University of Nigeria. Contact North. Retrieved from <https://teachonline.ca/tools-trends/oer-and-moocs-national-open-university-nigeria>

<sup>36</sup> McGreal, R. (2018). OER and MOOCs at the National Open University of Nigeria. Contact North. Retrieved from <https://teachonline.ca/tools-trends/oer-and-moocs-national-open-university-nigeria>

that it already owned into OER, without any protracted processes of seeking permission from individuals to do so.

The unit has found great value in capacity building and bringing OER into staffs' teaching repertoire. However, the interviewee notes that emerging skills related to OER are still needed, as is retraining. This entails embracing best practices and emerging technologies (such as artificial intelligence), that aids the practice and understanding of OER. Collaboration is also key to promoting and entrenching OER in a sustainable manner. Pooling resources and sharing knowledge assists in OER activities.

Another dimension of OER adoption and accessibility is the format in which resources are published:

*Interestingly, although there were always three versions of the courses available, the ePUB version was found to be the most interesting by staff and students, because it is the most portable. The ePUB format can be navigated using a wide variety of mobile devices. The podcasts that came with many OER packages made listening to courses while on the move very interesting and convenient. Students responded positively to this.<sup>37</sup>*

This suggests that the format of OER matters; key to ensuring that OER are widely used is to think about the target audience and devices that are most popular amongst that group. Catering to these varying requirements 'democratises access to OER for academic reuse (odt), self-print (PDF), and for mobile devices (ePUB)'.<sup>38</sup>

Strategic partnerships have played a crucial role in NOUN's OER unit. Partners have included COL, OER Africa, UNESCO, and NUC. The interviewee explains that these partnerships have reinforced the spirit of sharing:

*The beauty is the uniqueness of the collaboration. When those organizations embrace OER and help you out, they go all out, they always try to prompt you, they are so genuine and selfless about that.<sup>39</sup>*

In considering capacity building needs for OER at NOUN, the interviewee stresses how important sensitization efforts are, particularly in materials-writing workshops. She adds:

*People still need to know how to write course materials. There's a need for them to learn how to find OER.*

Furthermore, people need to understand licensing issues relating to OER and related innovations, for example how artificial intelligence can be used in OER.<sup>40</sup>

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<sup>37</sup> McGreal, R. (2018). OER and MOOCs at the National Open University of Nigeria. Contact North. Retrieved from <https://teachonline.ca/tools-trends/oer-and-moocs-national-open-university-nigeria>

<sup>38</sup> Hoosen, S. and Butcher, N. (2019). Understanding the Impact of OER: Achievements and Challenges. UNESCO Institute for Information Technologies in Education.

<sup>39</sup> Interview with Jane-Frances Obiageli Agbu, NOUN, 9 April 2020

<sup>40</sup> Interview with Jane-Frances Obiageli Agbu, NOUN, 9 April 2020

## Conclusion

The interviewee concludes that the OER sensitization project has been successful and that its effect has been felt within and outside NOUN.<sup>41</sup> NOUN plans to share its OER and its implementation experience with other institutions from Africa and around the world, with experience already shared within the ACDE conference for Institutions in Africa, in Nigeria and West Africa, through RETRIDOL and NUC and globally through conference presentations; while policymakers at NOUN continue to promote OER and sustainable practices.

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<sup>41</sup> McGreal, R. (2018). OER and MOOCs at the National Open University of Nigeria. Contact North. Retrieved from <https://teachonline.ca/tools-trends/oer-and-moocs-national-open-university-nigeria>



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