



Open textbook authorship, quality assurance and publishing: Social justice models of participatory design, engagement, co-creation and partnership

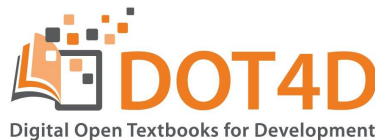
By Glenda Cox & Bianca Masuku

Digital Open Textbooks for Development, Centre for Innovation in Learning and Teaching,
University of Cape Town

June 2022



Centre for
Innovation in
Learning and
Teaching



UNESCO CHAIR
IN OPEN EDUCATION
AND SOCIAL JUSTICE



Digital Open Textbooks for Development

Initiated as a three-year (2018–2021) research, advocacy and implementation project funded by the Canadian IDRC, following in wake of Research on Open Educational Resources for Development (ROER4D) and other CILT open education initiatives (since 2007). Now an institutionally funded initiative.



Dr Glenda Cox
Principal Investigator



Bianca Masuku
Researcher



Michelle Willmers
Publishing &
Implementation Manager

**Open at UCT:
The UNESCO Chair in Open
Education and Social Justice**

UNITWIN/UNESCO Chairs Programme

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UNESCO
United Nations
Educational, Scientific and
Cultural Organization

"Building peace in the minds of men and women"

IN BRIEF WHAT WE DO WHERE WE WORK PARTNERS JOIN US RESOURCES

Home > UNITWIN/UNESCO Chairs Programme

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- Launched in 1992
 - 877 across the world
 - 14 Chairs in South Africa
- > Aims to build networks across institutions and countries
- > Research to inform policy and generate innovation

**Open is based on the philosophical view of
“knowledge as a collective social product and the
desirability of making it a social property”**

(Prasad & Ambedkar in Downes, 2007:1)



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Open Education (OE)

Open Education is an international movement to make education **accessible** to all
(Cape Town Open Education Declaration)

Broad view of education, beyond institutions

Collective term used to refer to practices & activities that have both openness & education at their core





Covid-19, a catalyst for greater OER⁷ use worldwide?

📅 30/09/2021

🕒 2 min

AFRICA-GLOBAL

Open education resources to shape post-pandemic world



Curt Newton and Krishna Rajagopal 29 April 2021



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For the past two decades, the world has been building open knowledge on a massive scale, with open educational resources as a cornerstone. The 2001 launches of MIT OpenCourseWare and Creative Commons formed a solid foundation of this global open educational resource movement, which now supports many millions of learners from all walks of life.

Now, as we begin to grapple with the long-term impacts and changes in education brought on by the pandemic year, it's crucial to assess how open educational resource (OER) tools and resources are reaching those who need and use them most. In this article, we'll focus on students in Africa.

The current issue and full text archive of this journal is available on Emerald Insight at:
<https://www.emerald.com/insight/2053-535X.htm>

Teaching with OER during pandemics and beyond

Jennifer Van Allen

*Department of Counseling, Leadership, Literacy and Special Education,
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Teaching with
OER during
pandemics

209

Received 20 April 2020
Revised 8 May 2020
Accepted 19 May 2020

Abstract

Purpose – Open Educational Resources (OER) are learning materials openly licensed so that others may retain, reuse, revise, remix or redistribute (the 5Rs) these materials. This paper aims to raise awareness of OER by providing a rationale for using these learning materials and a strategy for educators to get started with OER during the collective crisis and beyond.

Design/methodology/approach – Using a broad research base and anecdotes from personal experience, the authors make the case that OER improves student access to learning materials and improves the learning experience in both PK-12 and higher education contexts.

Findings – The authors define and describe the benefits of OER to provide practical suggestions educators can implement during the pandemic and beyond.

Practical implications – To support educators in finding and using OER, this paper highlights repositories that include a breadth of various learning materials across subject areas and educational

Why Open Education matters

- > There is a need for **accessible** and **FREE** resources
- > There is a need for **localised** materials, transforming the curriculum and addressing relevance **created collaboratively**
- > Lecturers can re-use materials (more efficient use of time)
- > Open education encourages lecturers to reconsider their teaching and learning approaches
- > Colleagues and students can become co-creators





JOURNAL OF INTERACTIVE
MEDIA IN EDUCATION

A Case Study in Mitigating COVID-19 Inequities through Free Textbook Implementation in the U.S.

KATHERINE WILLIAMS 

ERIC WERTH 

**Author affiliations can be found in the back matter of this article*

SPECIAL COLLECTION:
LEARNING FROM
LOCKDOWN

ARTICLE

]u[ubiquity press

Widening structural inequality

- > The high cost of textbooks is not only detrimental to students economically but is also a social justice issue.
- > In both the US and in other countries (e.g. Canada and New Zealand) it has been observed that **“those most economically harmed by the COVID-19 pandemic were populations already frequently considered disenfranchised”** (Williams & Worth 2020)
- > The authors call for **“intentional disruption on the part of the institution”**



Social Justice

- Economic equity
- Cultural diversity
- Political inclusion



Open Education

- Open/free
- Transformative
- Collaborative
- Multiple voices/power dynamics

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DOT4D objective

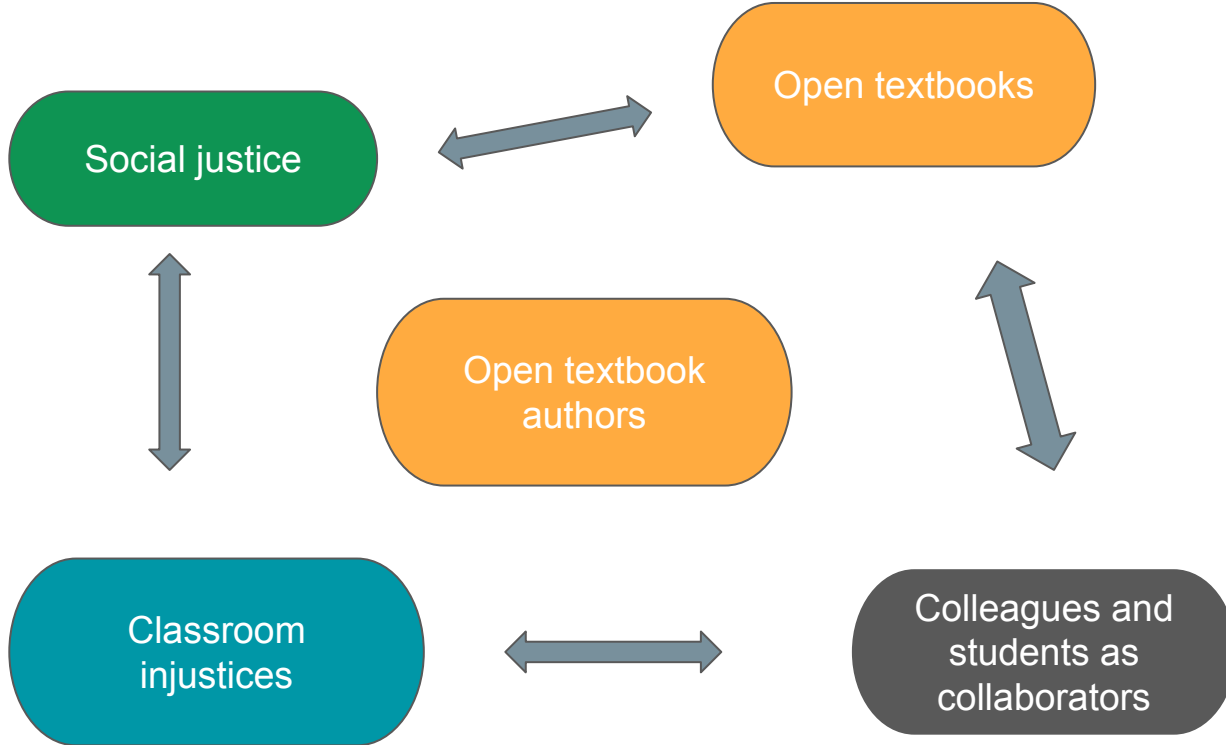
To contribute to improving *inclusion* in South African higher education by addressing equitable access to relevant learning resources.

> Backdrop of widening equity, exacerbating crisis in access and representation

Key features of open textbooks for social justice

- Digital, freely available collections of scaffolded teaching and learning content
- published under an open licence
- with affordances for integrated multimedia and third-party content
- published via platforms and in formats that provide affordances for content delivery on a range of devices, print and low bandwidth access strategies
- through **collaborative, inclusive authorship, quality assurance and publishing approaches**
- that can be leveraged in **sustainable models of open textbook production for social justice and transformation.**

**Parity of Participation > Collaboration > Inclusion >
Social justice > Sustainability**



Social justice drivers for open textbook production at UCT



Unpacking social justice

Social justice is a concept that requires the organisation of social arrangements that make it possible for **everyone to participate equally in society**.

Fraser (2005) considers social justice as “**participatory parity**” in **economic**, **cultural** and **political** dimension

(Cox, Masuku & Willmers, 2020)



Social Justice as participatory parity (Fraser)

Economic

- Material resources
- Maldistribution and redistribution

Cultural

- Cultural attributes
- Misrecognition and recognition

Political

- Political voice
- Mis/representation mis/framing

- > **Participatory parity looks at the *what*, *who* and *how* of social justice**
- > Justice in each dimension can be remedied through **affirmative** or **transformative** responses.

(Thanks to Susan Gredley)

Overcoming injustices: Affirmative or transformative

Fraser identifies two types of strategies to overcome injustice: *affirmative* strategies, which include activities aimed at ameliorating the scope or intensity of a particular injustice; and *transformative* strategies, which seek to address the root cause of an injustice.

Social justice strives for

- Economic equity
- Cultural diversity
- Political inclusion

an **outcome** where all the relevant social actors [can] participate as peers in social life (Fraser 2005:87)

and

and a **process** in which procedural standards are followed in fair and open processes of deliberation (Fraser 2005:87)

Drivers/motivation

Social Justice dimension (Fraser, 2005)

The role of the Open Textbook: Affirmative and transformative responses

Affordable access

**Economic
(maldistribution of
resources)**

Saving students money

Multilingualism

**Cultural
(misrecognition)**

**Terminology in Chemistry and
Statistics translated into local
languages with the help of students**

Curriculum
transformation

**Cultural (misrecognition
of culture and identities)
&
Political
(misrepresentation or
exclusion of voice)**

**Inclusion of local cases and examples,
making textbooks relevant**

**Collaboration with colleagues and
students (empowering and giving voice)**

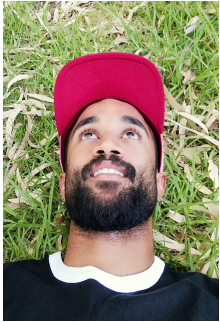
Pedagogical
innovation

**Political
(misrepresentation or
exclusion of voice)**

***Two examples of changing
'classroom' practice to deliberately
include students as content creators***

Method and collaboration framework

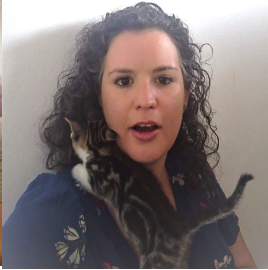
UCT open textbook authors in the DOT4D study



[Kensleyrao Apajee](#)
Mechanical Engineering



[Chris Barnett](#) & [Cesarina Edmonds-Smith](#)
Chemistry



[Stella Papanicolaou](#)
Architecture



[Dr Juan Klopper](#)
Surgery



[A/Prof. Abimbola Windapo](#)



[A/Prof Maria Keet](#),
Computer Science



[Jonathan Shock](#),
Mathematics



[Dr James Lappeman](#),
Marketing



[Tim Low](#),
Statistics

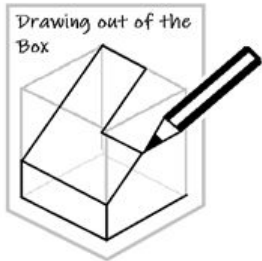


[Dr Michael Held](#),
Orthopaedic Surgery

[Dr Claire Blackman](#)
Mathematics

DOT4D grantees

Engineering and the Built Environment

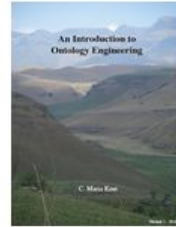


First-Year
Mechanical
Engineering Drawing



Architecture of the
Modern Movement
in the Global South

Science



Computer
Science



Mathematics
Textbooks for South
Africa



First-year Chemistry
in South African
context

Health Sciences



Learning Innovation
through Orthopaedic
Network



THE
OPEN
SURGERY
TEXTBOOK

Centre for Higher Education Development



Statistics: Introduction to
Probability in isiXhosa

Commerce



Method

11 UCT open textbook initiatives > content (co-)creation > social justice (Fraser, 2005) > classroom contexts > open textbooks development

DOT4D mixed-method approach

Identified key production activities (authorship, quality assurance and publishing)



Defined different forms of collaborative approaches with colleagues and students

Main focus: **Which open textbook production activities were colleagues and students involved in and how / to what degree were they being brought into these processes?**

Utilised Bovill (2020) framework of inclusion as analytical tool

Identified collaborative open textbook production models

Bovill terms of inclusion (cont.)

| | |
|-----------------------|---|
| Co-creation | Contribute new pedagogical ideas; empowerment; meaningful engagement; students construct understanding and learning resources |
| Representative | Elected role, small group representing whole group |
| Consultant | Students selected and paid to collaborate |
| Co-researcher | Collaborating meaningfully on teaching and learning research or subject based research |
| Co-designer | Sharing responsibility for designing learning, teaching and assessment |

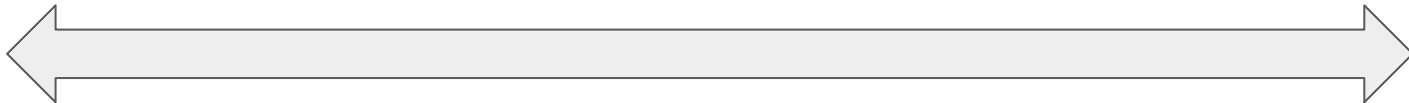
Bovill (2020) terms of inclusion

(adapted by DOT4D)

| | |
|-----------------------------|--|
| Participatory design | Stakeholders contribute to the design and development of initiatives, including curriculum; students are “testers or informants” and don’t have a high level of agency |
| Engagement | Activities to motivate and interest students; can include engagement in teaching and learning |
| Partnership | Collaborative; contribute equally; some pedagogical conceptualisation and decision-making; implementation and analysis |

Social justice remedy continuum

| | AFFIRMATIVE REMEDY | | TRANSFORMATIVE REMEDY | |
|-------------|-----------------------------|-------------------|-----------------------|--------------------|
| None | Participatory design | Engagement | Co-creation | Partnership |



Heat map ranking initiatives in terms of degree of social justice remedy (least to most, colleague and student)

| | Terms of inclusion: Colleagues | | | Terms of inclusion: Students | | | <i>Model</i> |
|--------------------------------|--------------------------------|----------------------|----------------------|------------------------------|----------------------|------------|---|
| | Authorship | Quality assurance | Publishing | Authorship | Quality assurance | Publishing | |
| Mechanical engineering | Engagement | Participatory design | None | Engagement | Participatory design | None | <i>Participatory Design/Engagement Model</i> |
| General surgery | Participatory design | Participatory design | None | Participatory design | Participatory design | None | |
| Abstract algebra | None | Engagement | None | Engagement | Engagement | None | |
| Construction management | None | Participatory design | Participatory design | Engagement: | Participatory design | None | |

| | Terms of inclusion: Colleagues | | | Terms of inclusion: Students | | | <i>Model</i> |
|----------------------------|--|--|-------------------------|--|--|------------|---|
| | Authorship | Quality assurance | Publishing | Authorship | Quality assurance | Publishing | |
| Marketing | Co-creation: co-design | Participatory design | Participatory design | Co-creation: co-design | [Ongoing: Engagement] | None | <i>Participatory / Engagement and Co-Creation Model</i> |
| Orthopaedic surgery | Co-creation: co-design | Engagement | Engagement/ Co-creation | Co-creation: co-designer/ representative | Engagement | None | |
| Architecture | None | Co-creation: consultant | Participatory design | Co-creation: co-researcher | [Ongoing: Engagement] | None | |
| Statistics | Co-creation: consultant/ co-researcher | Co-creation: consultant/ co-researcher | None | Co-creation: consultant/ co-researcher | Co-creation: consultant/ co-researcher | None | <i>Co-Creation Model</i> |
| Complex numbers | Partnership | Partnership | Participatory design | Co-creation: co-researcher Co-designer, representative, consultant | Participatory design | None | <i>Co-Creation/ Partnership Model</i> |
| Computer science | Partnership | Partnership | Participatory design | Engagement Co-creation: consultant | [Ongoing engagement] | None | |
| Chemistry | Partnership | Partnership | Participatory design | Co-creation: co-researcher | Co-creation: representative | None | |

Production models and student co-creation

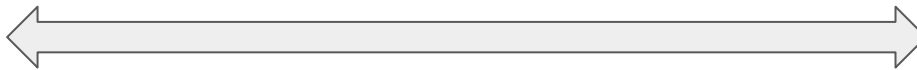
Collaborative open textbook production models

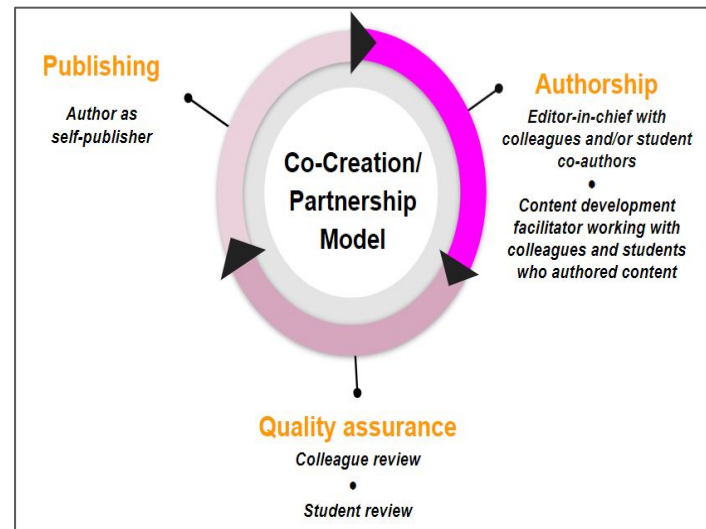
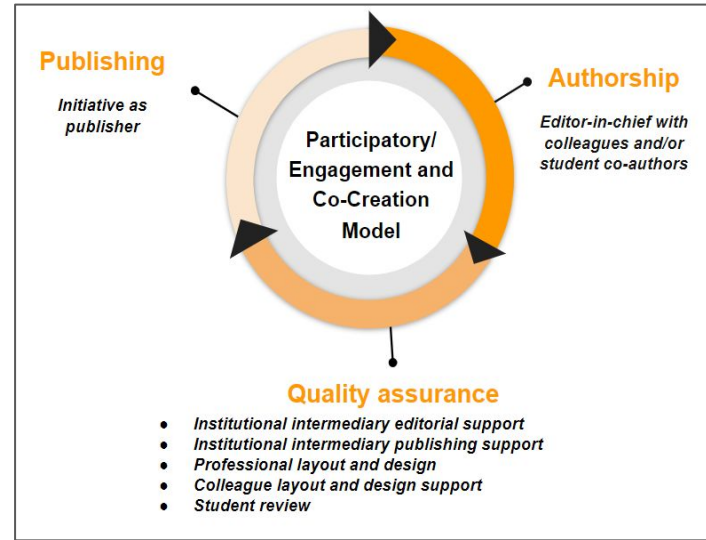
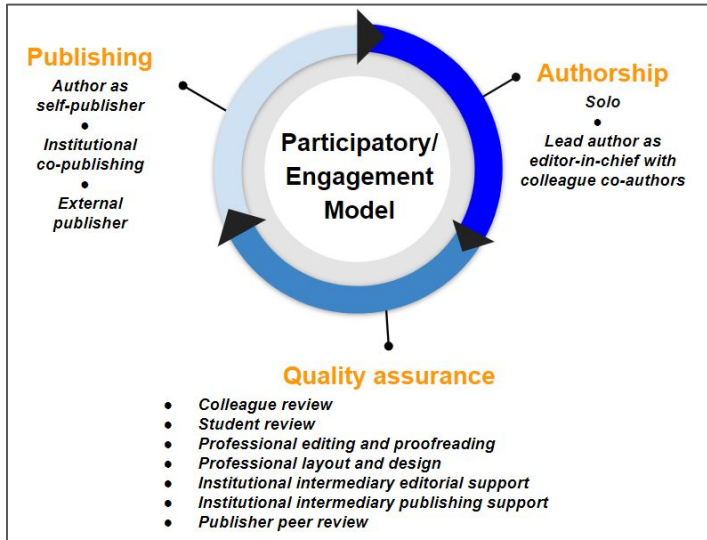
Aim: Provide open textbook creators with sustainable models of production that manifest “parity of participation” as the just end point of social justice

DOT4D context: Four models of open textbook production reflecting varying levels of students and colleague collaboration

- **Participatory/Engagement Model**
- **Participatory/Engagement and Co-Creation Model**
- **Co-Creation Model**
- **Co-Creation/Partnership Model**

| | AFFIRMATIVE REMEDY | | TRANSFORMATIVE REMEDY | |
|------|----------------------|------------|-----------------------|-------------|
| None | Participatory design | Engagement | Co-creation | Partnership |





Student co-creation highlights (and lowlights)

- In 6 initiatives, students took on various co-creation roles in authorship.
- In 2 initiatives, students were co-creators in quality assurance processes.
- Authors found ways in which to not only capture students' lived realities in the authorship process, but also to include their feedback in quality assurance.
- However, students were not involved in any of the publishing processes.
- Student participation is a critical aspect of the institutional transformation agenda, in that it addresses social justice and inequity in the classroom.



The UCT Open Textbook Award

Recognising teaching innovation that promotes social justice and transformation

Symbol of institutional commitment to supporting teaching and learning initiatives producing textbook content that promotes:

- Curriculum transformation / decolonisation
- Pedagogical innovation
- Inclusion of students and marginalised voices
- Disability access
- Relevance to local context
- Multilingualism
- Technical innovation



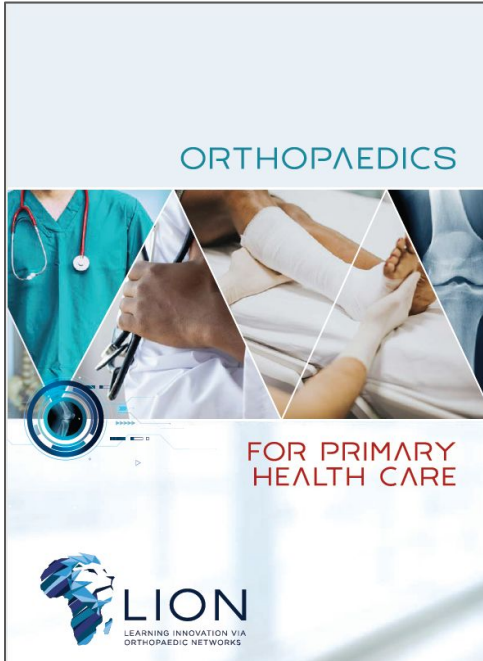
Award details

<http://www.cilt.uct.ac.za/cilt/open/otaward>

- Value of R30 000 and may be shared between more than one recipient.
- Single or multiple-authored textbooks may be nominated (at least one of the primary authors or editors must be based at UCT).
- Content must be published under a Creative Commons or other open licence.
- No restriction is placed on disciplinary orientation, language or format in which the book is written.
- There is no time limit in terms of publication date.
- Prior award recipients are asked to observe a two-year waiting period before submitting nominations for subsequently published works.

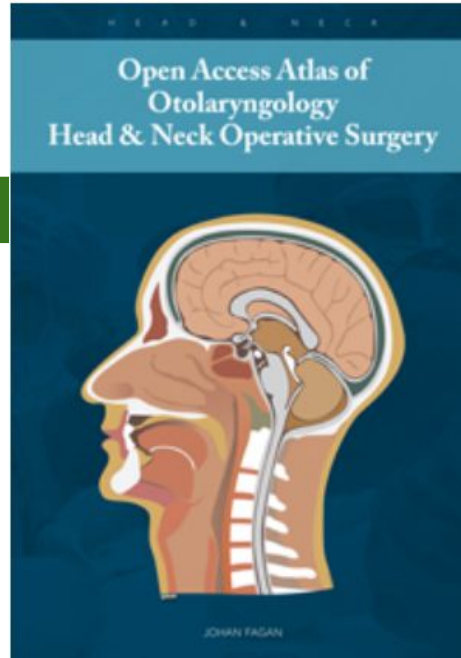


2021

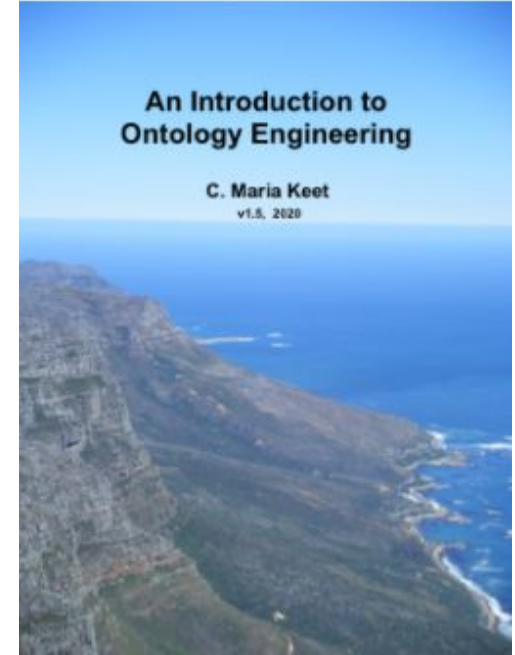


<https://openbooks.uct.ac.za/uct/catalog/book/36>

2022



<https://openbooks.uct.ac.za/uct/catalog/book/1>



<https://people.cs.uct.ac.za/~mkeet/OEbook/>

Deadline for nominations is **15 August 2022**.

Review and selection process

Proposals will be screened for eligibility

Eligible proposals will be evaluated

The award committee and/or invited subject experts will review the nominated open textbooks

Successful applicant/s will be notified by **31 October 2022**.

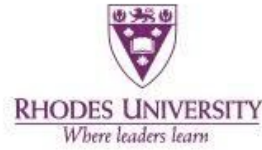
**What's next for open textbooks at
UCT and beyond?**



The Recommendation is structured around five actions areas

1. Building capacity of stakeholders to create, access, re-use, adapt and redistribute OER
2. Developing supportive policy
3. Encouraging effective, inclusive and equitable access to quality OER
4. Nurturing the creation of sustainability models for OER
5. Promoting and reinforcing international cooperation





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100
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WESTERN CAPE



How would you approach your open textbook authoring, quality assurance and publishing and which model would you use?

All models move towards social justice (affirmative to transformative)

Next steps: researching the co-creation experience from authors and importantly student perspectives.

Thank you

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