



Centre for  
Innovation in  
Learning and  
Teaching



# Digital Open Textbooks for Development

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by

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# Definition

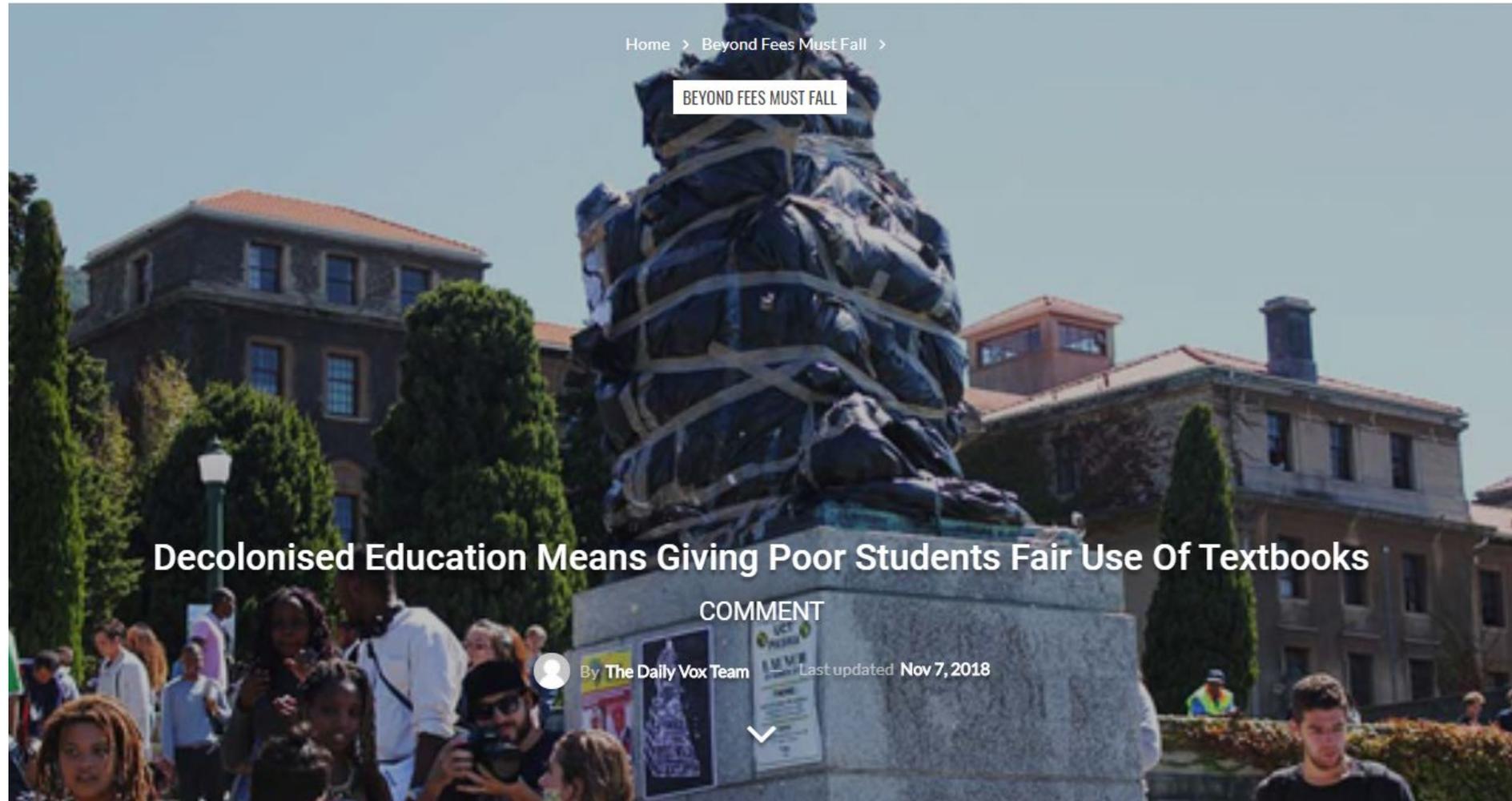
[Open textbooks at the University of Cape Town appear to be] ... digital collections of

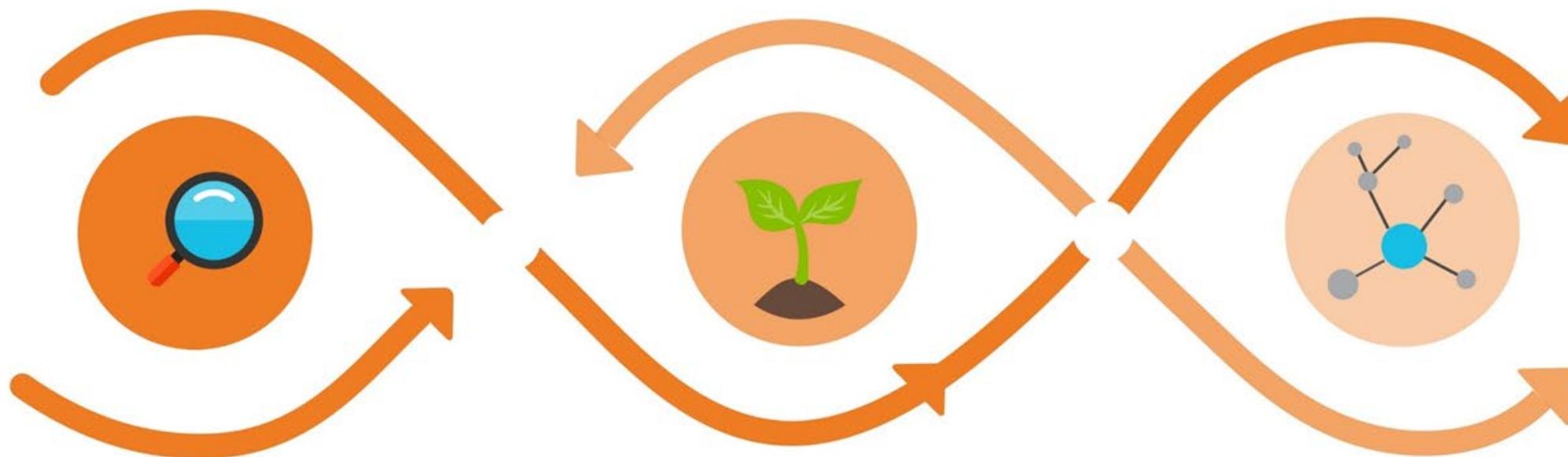
- ❑ scaffolded teaching and learning content
- ❑ published under an open license or in the public domain
- ❑ on platforms and in formats that provide affordances for
- ❑ content delivery on a range of devices, the integration of multimedia and incorporation of content from varying sources through collaborative authorship models.

## Primary objective of the DOT4D initiative:

To contribute to a broader social justice agenda in the South African higher education system by improving equitable access to appropriate and relevant learning resources.

# Textbooks as a social justice issue in the South African higher education context: challenges of access and representation





### Research

Identify optimal approaches to open textbook design and publishing.

### Grants

Support open textbook publishing at UCT that prioritises strategies for integrating student perspective, curriculum transformation and sustainability.

### Advocacy

Inform current open education policy initiatives at institutional and national levels.

DOT4D Objectives	Social Realism (Margaret Archer, 2003)	Social Justice (Nancy Fraser, 2005)				
			Categories of injustice	Injustice in context	Affirmative response <i>Addresses injustice with ameliorative reforms</i>	Transformative response <i>Addresses the root causes of inequality</i>
Description of models of textbook provision	<b>Structure</b> Policies, systems and infrastructure	<b>Economic</b>	<b>Maldistribution</b> <i>of resources: economic inequality</i>			
Increased access to textbooks with Intersectional approach	<b>Culture</b> beliefs, theories, value systems, norms	<b>Cultural</b>	<b>Misrecognition</b> <i>Attributes of people &amp; practices accorded less respect, status inequality</i>			
Curriculum transformation	<b>Culture</b> beliefs, theories, value systems, norms	<b>Political</b>	<b>Misrepresentation</b> <i>Lacking right to frame discourse, lacking power to make decisions</i>			
	<b>Agency</b> individuals, institutions, government agencies					

**Structure** (policies, systems and infrastructure,  
economic inequality)



**Digital Open Textbooks for Development (DOT4D) University of Cape Town open textbook landscape survey**  
[www.dot4d.uct.ac.za](http://www.dot4d.uct.ac.za)

Type of resource	Author(s)	Author affiliation	Compiled by	Year	Findability (first page of Google search)	(Peer) review/ Acknowledgements/ quality assurance	Multimedia
Textbook	Jean-Paul Van Belle, Jane Nash & Mike Eccles	UCT	Jean-Paul Van Belle, Jane Nash & Mike Eccles	2010	Yes	No	No (the resource is mostly text & contains labelled diagrams/ illustrations and tables)
Book	Rob Stokes	UCT	Sarah Blyth and Quirk Education	2010	Yes	Yes (resource states that, "We brought out the first edition of eMarketing in 2008, and now just three years later we are already...")	No (the resource is mostly text & contains photographs, images & illustrations)



# Open textbook grants at the University of Cape Town

Criteria:

## **Curriculum transformation:**

Localisation of an existing textbook

Writing a new textbook for our context

**Multilingualism:** translation of text or use of local language examples

**Inclusion of student voices:** as authors and/or as editors

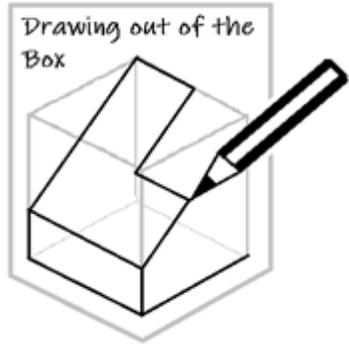
**Technological innovation**

**Pedagogical innovation**

Collaboration with multiple authors, Sustainability: a plan for versions and multiple authors,  
Range of disciplines

# DOT4D grantees

## Engineering and the Built Environment

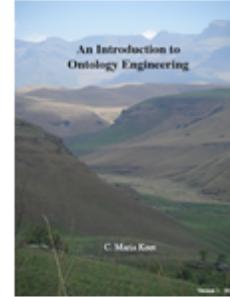


First-Year  
Mechanical  
Engineering Drawing



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

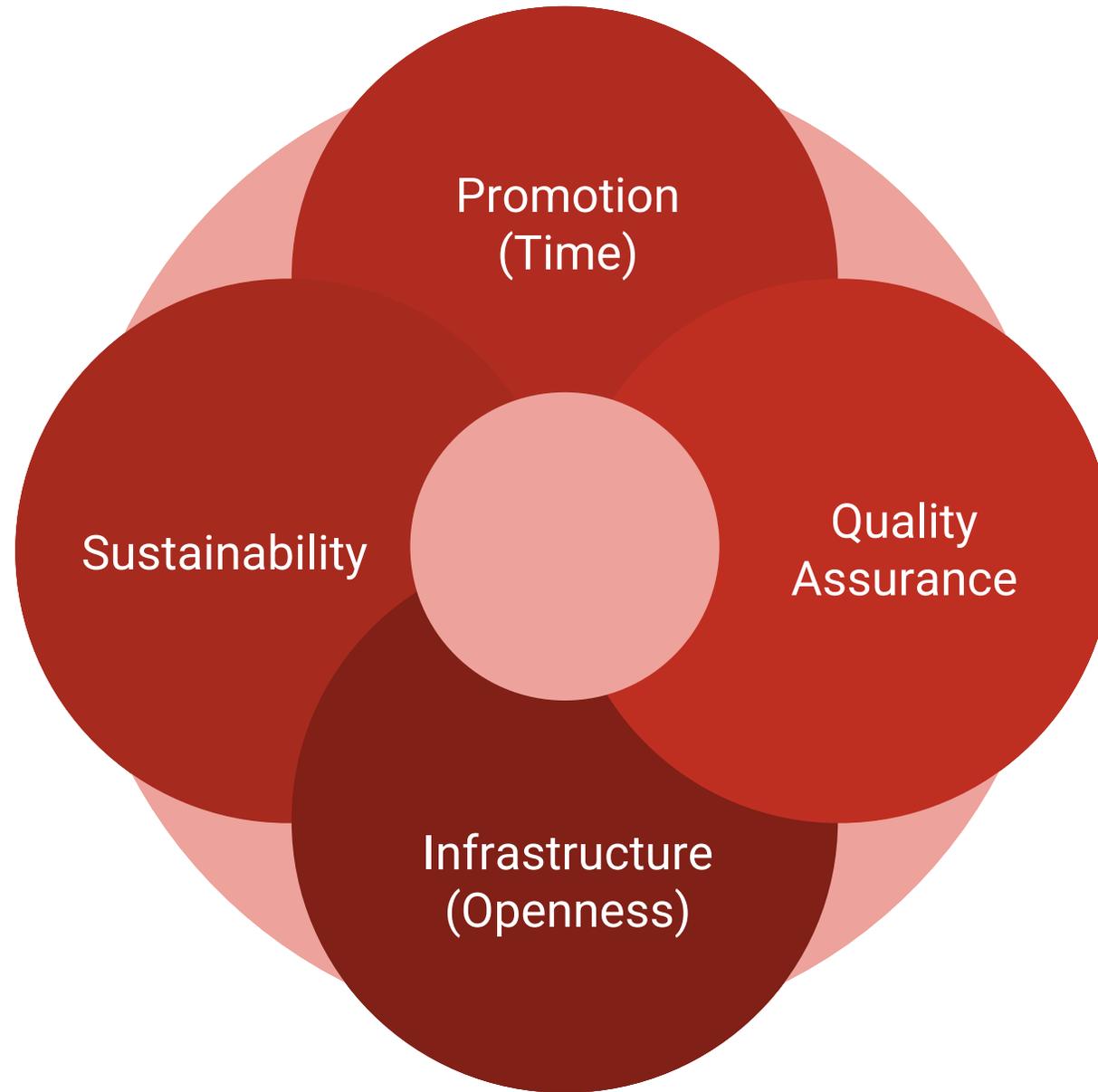
## Commerce



Marketing to the  
South African  
Consumer



# DOT4D advocacy



# Cultural and political dimensions

(beliefs, theories, value systems and norms, status inequality and misrepresented discourses)

# Two examples of open textbook initiatives at UCT

## (Grant holders and Case study participants)

	<b>Curriculum transformation</b>	<b>Multilingualism/ translation</b>	<b>Student authoring</b>	<b><i>Technology innovation</i></b>	<b><i>Pedagogy design and innovation</i></b>
 <p><b>Mathematics Textbooks for South Africa</b> (Claire Blackman &amp; Jonathan Shock)</p>	<p>...which will be openly licensed, culturally and linguistically inclusive and tailored for the South African school-leaver.</p> <p>...will include techniques for thinking about and writing mathematics, with a particular focus on making the language of mathematics more accessible.</p>				
 <p><b>The Open Surgery Textbook</b> (Juan klopper)</p>	<p>....will engage young doctors and domain experts..., while fifth- and sixth-year medical students will evaluate the content and suggest changes required in order to make the resource fit for purpose in a local context</p> <p>...content will be converted into video tutorial format and delivered through the Instagram social media platform, making it low-bandwidth friendly and available wherever medical service delivery is required</p>				

**Agency** (power of individuals, institutions and government agencies to take action)

## Agents (open textbook authors)

- What motivates them?
- What drives them despite no recognition or encouragement?
- How can we support these champions?

## DOT4D response

- Marketing authors and showcasing excellence
- Advocate towards recognition of open textbook creation in Ad hominem criteria



**DOT4D  
collaborators  
and  
stakeholders**

**Boundary Partners**

- UCT academics
- UCT institutional managers
- UCT library

**Stakeholders**

- Academics at UCT and SA HE institutions
- Students at UCT and SA HE
- Managers SA HE institutions
- Government bodies
- Transnational bodies (UNESCO, COL)
- Open Textbook publishers

**Beneficiaries**

- Students
- Academics
- UCT and SA HE institutions



# References

- Archer, M. S. (2003). *Structure, agency and the internal conversation*. Cambridge: Cambridge University Press.

Fraser, N. (2005). Reframing justice in a globalizing world. *New Left Review*, 36, 69–88. Retrieved from <https://newleftreview.org/II/36/nancy-fraser-reframing-justice-in-a-globalizing-world>



# What is 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' economically, culturally and politically.*



# What is intersectionality?

“

*The interconnected nature of social categorizations such as race, class, and gender as they apply to a given individual or group, regarded as creating overlapping and interdependent systems of discrimination or disadvantage (Crenshaw, 1989)*

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