

# Reading list 2021

This handout provides some helpful resources to support yours or your students understanding of globally responsible engineering.

To read:

Document	URL
Creating systems that work (Royal Academy of Engineering)	<a href="#">URL</a>
The Global Engineer (Engineers Against Poverty)	<a href="#">URL</a>
There Is No Planet B: A Handbook for the Make or Break Years, <a href="#">Mike Berners-Lee</a>	<a href="#">URL</a>
<a href="#">RAEng Engineering for Sustainable Development: Guiding Principles</a>	<a href="#">URL</a>
Donut Economics, Kate Raworth	<a href="#">URL</a>
Global State of the Art in Engineering Education - MIT 2018	<a href="#">URL</a>
RAEng report Global Engineering capability review	<a href="#">URL</a>
RAEng Experience-led learning for Engineers	<a href="#">URL</a>

About the development sector:

Document	URL
Institution of Structural Engineers article providing a realistic overview (for type of engineers) of the practical and ethical considerations when seeking to work in the humanitarian or development sector.	<a href="#">URL</a>
<a href="#">The Sphere Handbook: Humanitarian Charter and Minimum Standards in Human Response</a>	<a href="#">URL</a>
Written in 2014, 'Engineering in Development: Pre-departure' draws on much of the material delivered to Engineers Without Borders UK volunteers at the pre-departure course prior to them departing on their international placements.	<a href="#">URL</a>
Written in 2014, 'Engineering in Development: Transport' focuses on how to improve transport systems from an engineering perspective. A wide range of appropriate technologies – from bicycle trailer ambulances to culverts – help provide important ideas and guidance for development engineers working in the sector.	<a href="#">URL</a>

The Foundry, 17 Oval Way  
London, SE11 5RR

t: +44 (0)203 752 5820  
f: +44 (0)870 123 1905

[www.ewb-uk.org](http://www.ewb-uk.org)

Written in 2014, 'Engineering in Development: Energy' goes beyond the technical details required for successful installation of energy infrastructure and draws attention, through useful case studies, to the wider issues of social acceptability, potential for future expansion and development, and environmental consequences. As such it provides an important prompt for any professionals involved in the contemporary energy for development sector.	<a href="#">URL</a>
News article on available humanitarian engineering courses at universities	<a href="#">URL</a>
News article entitled Western do-gooders need to resist the allure of 'exotic problems'	<a href="#">URL</a>
News article on the World Bank eliminating the term "developing country"	<a href="#">URL</a>
News article on 'decommissioning the beneficiary lens' and the huge potential to improve all of our lives by embracing diversity and meaningful co-design. The article notes we need to pivot from approaching people as beneficiaries to working with humans that have agency.	<a href="#">URL</a>

To watch:

Videos	<a href="#">URL</a>
Engineers Without Borders UK Change Makers	<a href="#">URL</a>
Jo Da Silva's talk at the Institution of Structural Engineers on "Design, Disasters and Development" discusses how buildings and bridges define our physical environment, and play a critical role in meeting our most basic needs for safety, services and connectivity.	<a href="#">URL</a>
University of Cambridge, Centre for Geopolitics webinars. This centre is an interdisciplinary space created by leading academics to consider the world's most pressing current geopolitical questions.	<a href="#">URL</a>

To watch:

Recordings of the IStructE Academic conference 2020	<a href="#">URL</a>
Developing syllabuses and learning outcomes based on industry needs (featuring Scott Strachan who runs the Efficiency for Access Design Challenge at Strathclyde University)	<a href="#">URL</a>
Effective teaching methods (featuring a talk from Engineers Without Borders UK and also one from our training partner Constructivist)	<a href="#">URL</a>
Teaching new skills within the core subjects	<a href="#">URL</a>
The conference also covered digital educational delivery and learning in a digital environment which may be of interest.	<a href="#">URL</a> <a href="#">URL</a>

The Foundry, 17 Oval Way  
London, SE11 5RR

t: +44 (0)203 752 5820  
f: +44 (0)870 123 1905

[www.ewb-uk.org](http://www.ewb-uk.org)

	<a href="#">URL</a>
--	---------------------

To watch or listen:

TED Talks	URL
Engineers Without Borders Canada in 2011 David Damberger discusses "Learning From Failure" at TEDxYYC 2011.	<a href="#">URL</a>
Kate Raworth is an economist focused on the rewriting of economics to make it fit for addressing this century's realities and challenges. She is the creator of the doughnut of social and planetary boundaries which, since being first published by Oxfam in 2012, has gained widespread international recognition and influence in reframing sustainable development, including shaping the United Nations' post-2015 Sustainable Development Goals.	<a href="#">URL</a>
Novelist Chimamanda Adichie tells the story of how she found her authentic cultural voice -- and warns that if we hear only a single story about another person or country, we risk a critical misunderstanding.	<a href="#">URL</a>
Instead of trying to right what's wrong within a community Cormac argues we need to start with what's strong. We need to help people discover what gifts they have and to use those gifts to enrich those around them.	<a href="#">URL</a>
Kakenya Ntaiya turned her dream of getting an education into a movement to empower vulnerable girls and bring an end to harmful traditional practices in Kenya. Meet two students at the Kakenya Center for Excellence, a school where girls can live and study safely -- and uplift their community along the way. "When you empower a girl, you transform a community," Ntaiya says.	<a href="#">URL</a>
To address the problem of counterfeit goods, African entrepreneurs like Bright Simons have come up with innovative and effective ways to confirm products are genuine. Now he asks: Why aren't these solutions everywhere?	<a href="#">URL</a>

The Foundry, 17 Oval Way  
London, SE11 5RR

t: +44 (0)203 752 5820  
f: +44 (0)870 123 1905

[www.ewb-uk.org](http://www.ewb-uk.org)