Higher Education in a Sustainable Society: A Case for Mutual Competence Building. Edited by Hans Christian Garmann Johnsen, Stina Torjesen, Richard Ennals, Springer International Publishing, Switzerland, 2015, 301 pp., [price], ISBN978-3-319-15918-8, (ebook) 978-3-319-15919-5, DOI: 10.1007/978-3-319-15919-5.

Higher Education in a Sustainable Society is a volume as part of Springer's CSR, Sustainability, Ethics & Governance series. It aims to provide a perspective on sustainability, (possibly the greatest challenge of the modern era) by the higher education sector (as one charged with the responsibility to create, critique and disseminate new knowledge). It joins the ranks of much scholarship in this area, but this volume provides a distinctive perspective that could appeal to multiple reader typologies. Although an edited work, it has two common threads running through it: that of place/institution and, secondly, the opportunities presented by mutual competence building.

In what is potentially an overwhelming challenge, this volume has focussed its enquiry on how sustainability is perceived and operationalised across (largely) one institution, the University of Adger in Norway. In addition, the book is composed of a series of responses by disciplinary area from academics at (or aligned to) the university, to what seems broad questions of 'what does sustainability mean in your discipline?' and 'how is it operationalised?', with the hope that a discussion on mutual competence building emerges within this. Definitions of mutual competence are provided early on and, within this context, refers to communication between disciplines; research and teaching; university in the community; and the university as a community.

The first chapter provides context-setting, and an overarching introduction to the many definitions of sustainability, and the case for the university faculty and scholarship to lead on action. It recognises that the sector is faced with challenges in its identity, but calls for academia to debate, influence and collaborate with regards to sustainability. After this first chapter, most of the book considers sustainability from particular disciplinary stances at the University of Adger, in three parts: Part I, sustainability in a humanistic and cultural perspective; Part II, sustainability in life science; part III sustainability in technology and planning studies; and Part IV sustainability and the teaching of business development. The final part, the sustainable university (Part V) looks at institutional strategy, the societal and policy landscape, before the editors' concluding chapter in Part VI.

In Part I there are three chapters which discuss sustainability and its education from the perspective of personal attitude and behaviour, with a focus on personal values and social norms, but how these are co-existent and operate with respect to historical and cultural influence. From a disciplinary perspective, the first contribution in this part relates to philosophy (Chapter 2 – 'Sustainability and Care: On a Philosophical Contribution to the Project of Sustainability'), where it is argued that 'care' as an inherent part of our lifeworld perspective implies responsibility. Chapter 3, 'Education and Social Structure', takes a regional-cultural analytical view, and discusses the role and effect of education, its integration with social and cultural structures and how new initiatives should be discussed in relation to the historical and social environment they are part of. Chapter 4, 'Toward a More Sustainable Pre-service Teacher Education', considers the importance of developing the ability of pre-service teachers to look critically and self-critically at theory and practice

with the aim of pupils gaining meaningful understanding of a subject matter. Sustainability is seen through the core objective in teacher education being that of developing values, first of teacher, then pupil.

Part II focuses on the life sciences, in this case from the perspective of the role of education in enhancing welfare/health services in society, interpreting mutual capacity building in the relationship between the university and community. Chapter 5, *'Sustainability in Nursing Education'* takes a pragmatic approach in describing how sustainability (including environmental sustainability) can be integrated into nurse training and education. This is achieved by taking an holistic perspective, including ensuring the students understand the wide-ranging definitions and impact of sustainability and their responsibilities as nurses to seek sustainable choices. In Chapter 6, *'Sustainable Diets'* provides a factual piece about the role of food production and nutrition choices humans make, and their impact on environment, health and welfare. The chapter completes with a synopsis of how Agder University applies this knowledge in nutrition research, particularly for epidemiological studies in the region.

In Part III the discourse moves to technology and planning studies, the commonality between them being system and process-orientated approaches. In Chapter 7, 'Sustainability and Teaching in Higher Technological Education', the authors call for an interdisciplinary appreciation in teaching, particularly engineering, whereby the student (and engineer) looks to societal and environmental impact of a technical solution, taking a multi-faceted criteria approach. Suggestions for curricula developments to reflect this include systems theory and transformative approaches where multiple disciplinary perspectives are sought, whether politics, economics or theology and ethics. Chapter 8 considers the proposition of 'Sustainable Manufacturing as Mutual Competence Building'. Approaches to sustainable work systems are sought through combining the traditional manufacturing management perspective (e.g. Taylorism), with organisational development and wider stakeholder participation techniques. This approach provides parallels with the exposition of wide-scale participation in decision making with Chapter 7. Chapter 9 moves to consider planning through 'Planning for Sustainability: Between Risks and Lifeworlds'. 'Planning' in this context is in the context of regional studies, planning policy and law, and environmental impact of development. The Chapter provides a factual piece on challenges in planning and calls for a participatory process with multiple stakeholder engagement. By providing a regional example it demonstrates how academe and community can interact in this context.

Part IV presents perspectives on sustainability within business education from the stance of the need for businesses to take responsibility for their actions. The first of three Chapters in this Part, Chapter 10 ('*Teaching the Sensitive Stuff: Does Industry Matter? Issues in Corporate Social Responsibility and Sustainability'*) calls for business education to provide a critical perspective to students on sustainability, focusing on understanding the 'hidden business model' observed through corporate behaviour, rather than relying on the conventional approach of analysing how theory is evidenced. The author also discusses how sustainability can be incorporated into the curriculum, through individual modules; opportunities for business students to undertake study in other disciplines (e.g. politics, philosophy); but that for it to become a priority (and a brand-marker) is likely to require

cultural change and strong leadership in faculty. Chapter 11, 'Management as Intervention' calls for a radical change in how management is taught in higher education. It seeks a move from the current capitalist perspective (aka 'competitive advantage') with CSR often seen as an add-on, to models of participation, wider engagement and responsibility (described as 'collaborative advantage'). As with the previous chapter, the author is calling for business and management education to become more critical, questioning and rejecting of current capitalist models and systems, calling for business schools in higher education to lead the way as businesses in their own right. Chapter 12, 'Agder as Mutual Competence Builders: Developing Sustainability as a Competitive Advantage' focuses on describing the development of the 'Eyde cluster', a group of process industries in the region, and their collaboration with each other and the university with the aim of becoming "the world leading knowledge hub on sustainable production" (p.203). Even though the authors are integral to this mutual competence building they present objectively, particularly in relation to the limitations of the university's contribution and capacity to challenge.

Part V is entitled 'The Sustainable University' and seeks to explore sustainability at a structural and strategic level in the sector. Chapter 13 'Translating the Global Script of the Sustainable University: The Case of the University of Oslo' presents a critique of the university's 'green initiative', exploring the rationale for this, and applying Sterling's (2004) schema describing the operational dimensions of sustainability in higher education. Oslo sought to prioritise sustainability across the institution (governance, curriculum, research and knowledge exchange, operations), and its performance is explored since 2010. The activities and challenges provide an interesting case study, with parallels with many UK universities engaging in sustainability on a cross-institutional way. Chapter 14, 'Rhetoric About Sustainability in Education: The Presence of Words Not Spoken' explores communication and messaging about sustainability as part of engineering programmes, structured through the Rhetorical Pentagram (Kjeldsen 2009), considering source, message, style, audience and circumstance. It recognises the tension for universities as independent, open institutions as arenas for informed, open and critical debates to operate with deterministic messaging on sustainability. Chapter 15, 'Higher Education in a Knowledge Society: how to close the knowledge divide' discusses the divergent policy environments and consequences for Norwegian and UK universities, noting a concern about the implications of the newly emerging market for higher education in the UK channelling specific research and teaching behaviours, and the demise of the sector as a public good. Alternative models of inclusion and collaboration, such as a Penny University are explored, as means of furthering debate, discussion and innovation towards social and environmental welfare.

The final Part, Conclusion, comprises a single Chapter on '*The Challenge of Mutual Competence Building*' from the editors. This seeks to draw together themes arising within the book and to sense-make the role of the university in sustainability. It considers the role of education, particularly higher education, as an important component for students as future citizens to understand, and then act, sustainably. The means to do this is through academic discourse, exploring knowledge, limits to knowledge, cause-effect mechanisms, but also the wider implications and dependencies of any action across a wide disciplinary net. The authors identify the mutiple mechanisms through which sustainability can be explored and embedded in academia, synthesised from the disciplinary responses. They include: sustainability as a personal concern; sustainability as an holistic perspective; the

cross disciplinary insight; learning from practice; addressing the knowledge gap; and 'beyond care'. They reiterate and justify the value of mutual competence building from (i) mutual reflections; (ii) holism and learning across disciplines; (iii) learning through engagement with different institutions e.g. business, professions, government, international institutions, using the examples throughout the book to call for engagement, collaboration and mutuality to further the sustainability agenda for the benefit of society and environment.

The book provides a useful addition to the literature on sustainability in higher education. Its distinctiveness lies in its focus on sustainability from the perspective of multiple disciplinary perspectives largely within one institution. For anyone exploring education for sustainability within one or more of the disciplines covered, specific chapters will be of interest. The book also illustrates the diversity of academic writing styles and interpretation of the question asked between and across disciplines, as well as differing definitions of sustainability. In some ways, this could be frustrating for a reader seeking to explore how sustainability can be integrated across an institution, but does illustrate the diversity of means through which sustainability can be incorporated into academe, and provides a necessary example to help understand why sustainability needs to be developed from 'grass roots' initiatives not through institutionally standard approaches. I would have liked the book to build on this by providing a more extensive debate on these disparate discourses, beyond that offered through a summarising conclusion from the editors synthesising how sustainability is framed and the value of mutual competence building. This could have been achieved by seeking views from the chapter contributors to their peers' perspectives and views as an exercise in mutual competence building for sustainability. Hopefully the book has catalysed this to happen at Agder. Whilst most of the book's contributions relate to Agder University, it was a shame that the chapter on institutional strategy and response to sustainability was presented about Oslo University instead. This created somewhat of a disjuncture in the mutual competence building case between academia at Agder and its governance and operations, which I would have expected to be presented as part of the case for development of a sustainable university. Notwithstanding this, the book was highly thought provoking, informative, distinctive and should be of interest to a wide range of readership, whether academics, researchers, professionals, students or academic management.

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