ENVISIONING FUTURES FOR ENVIRONMENTAL AND SUSTAINABILITY
EDUCATION

CALL FOR CHAPTERS

Decade of Education for Sustainable Development – and beyond – book series co-editors
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Concept
This edited collection invites educational practitioners and theorists to speculate on – and craft visions for – the future of environmental and sustainability education. We wish to explore what educational methods and practices might exist on the horizon, waiting for discovery and implementation. How might the collective project of imagining alternative futures help us rethink environmental and sustainability education institutionally, intellectually, and pedagogically? How might we use emerging modes of critical speculation as a means to map and (re)design the future of environmental and sustainability education today?

The future of environmental education is an urgent question in the larger context of the Anthropocene, the geological epoch in which human activities have become the dominant driver in the ongoing evolution of Earth's biosphere. Our contemporary ecological moment is characterized by complexity, uncertainty, and "accelerating change" (Wals and Corcoran 2012). While the global impact of anthropogenic climate change is undeniable, the pace of temperature and sea-level rise depends on ecological feedback loops that are not fully understood – and which may be increasing the rate of biosphere destabilization (Hansen et al. 2015). From a social perspective, the Anthropocene is an age of what humanities scholar Rob Nixon (2011) terms "slow violence," or ecological violence and environmental injustice that occurs on spatial and temporal scales that are hard to understand or represent, most often against the world's poorest peoples. In light of such developments, educators need strategies for anticipatory engagement with changing socio-ecological realities – both in the present and future – in order to be effective within their various embodied contexts. This volume explores how environmental educators can engage in imaginative mapping concerning large scale, global processes, as well as create useful, situated knowledge for dissemination within their respective socio-ecological contexts.

We seek contributions that leverage speculative inquiry to imagine how nascent scientific, technological, social, and ecological developments might perturb, disrupt, and/or transform the field of environmental education. Likewise, we also seek contributions that mobilize such

thinking to extend earlier lines of related inquiry within the field, such as "backcasting" (Holmberg 2000), or that chart points of contact between emerging modes of speculative thought and the field's own longstanding concern with ecological futurity. In asking these questions we are inspired by thinkers within fields such as design, architecture, and computer science. These disciplines have recently initiated discussions concerning how critical speculation might help practitioners challenge ingrained disciplinary assumptions. For example, speculative design (Dunne and Raby 2013), architecture fiction (Gadanho 2009; Lally 2014), and science fiction prototyping (Johnson 2011) harness science fiction's capacity to explore possible futures through extrapolating elements of our contemporary moment into imaginary worlds.

Previous volumes within the United Nations Decade of Education for Sustainable Development (UNDESD) series have responded to the complexity of environmental education in our contemporary moment with concepts such as social learning, intergenerational learning, and transformative leadership for sustainable futures. *Envisioning Futures for Environmental and Sustainability Education* builds on this earlier work – as well as the work of others. It seeks to foster modes of intellectual engagement with ecological futures in the Anthropocene; to develop resilient, adaptable pedagogies as a hedge against future ecological uncertainties; and to spark discussion concerning how futures thinking can generate theoretical and applied innovations within the field.

Context
Environmental education is at a critical moment. The field marks 40 years since its official launch at Tbilisi, Georgia, in 1997. The UNDESD has ended in 2015, as did the UN Millennium Development Goals. The UN has launched the Sustainable Development Goals (SDGs) with extraordinary international agreement on the need to create a just, peaceful, and sustainable future. In late September 2015, the UN adopted 17 SDGs intended to "end poverty, protect the planet, and ensure prosperity for all," with specific benchmarks to be achieved over the next 15 years.[1] Further, the United Nationals Global Action Programme on Sustainable Development "seeks to generate and scale-up concrete actions in ESD" and contribute to the post-2015 agenda.[2]

As we've said previously in the series, the working of creating the future is being done now – and much of it is unsustainable in terms of natural and cultural resources. Can we imagine sustainable futures, and can we enable transformative leadership to help us realize them? Can we envision futures for the field of environmental and sustainability education capable of helping us achieve the transition to sustainability?

At a time of increasing local and global challenges and complexity, we seek to explore the intersection of education, sustainability, and emerging modes of speculative inquiry concerning alternative futures to our current unsustainable trajectory. This book will likewise share the creative and innovative contributions that academic centers, networks, and programs are making to advance strong sustainability in education, especially in higher education. It will be the fifth in a series on the United Nations Decade of Education for Sustainable Development (2005-2014)

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[1] See UN (2015), "Sustainable Development Goals," http://www.un.org/sustainabledevelopment/sustainable-devel-opment-goals/
[2] See UNESCO (2015), "Global Action Programme on ESD," https://en.unesco.org/gap

published by Wageningen Academic Publishers. Previous volumes in the series have addressed social learning, young people's participation in sustainable development, learning for sustainability in times of accelerating change, and intergenerational learning and transformative leadership for sustainable futures. Each of these efforts have explored educational theories and practices necessary to construct a sustainable future. This volume builds on the topics of previous books by placing the concept of the *future* itself under critical investigation, asking questions such as "whose future?" and "through what intellectual and embodied processes can we create useful knowledge about likely, possible, and desirable futures?" Specifically, *Envisioning Futures for Environmental and Sustainability Education* explores how imagining, writing, designing, and building alternative futures might propel environmental education in new directions.

Our understanding of "strong sustainability" and education for sustainable development in education emerges from declarations and initiatives of the United Nations, such as the UN Decade of Education for Sustainable Development and Agenda 21; civil society initiatives such as the Earth Charter; and the particular cultural, environmental, philosophical, and historical conditions of our communities and our universities. Embedded within this concept of strong sustainability is an intergenerational ethic expressed in care for the long term flourishing of Earth's human and ecological communities.

As human and natural environments change, institutions of tertiary education must provide curriculum, research, and service opportunities that equip students to respond to the challenges and complexities of our time. We believe that university centers in environmental and sustainability education have been particularly successful in promoting the mainstreaming of sustainability in home institutions, in academe, and in the larger culture and society. Centers are able to develop programs for and with students, connect the university to other communities, work with government, involve industry, and encourage scholars to explore intergenerational learning and transformative leadership for sustainability. They are a platform for interdisciplinary knowledge creation. Centers feed sustainability ideas into universities and other societal educational institutions that they are not able to produce on their own. We particularly welcome chapters from such centers.

Critical questions, themes, and topics of interest
This volume seeks contributions that investigate the role of speculative inquiry into alternative futures in helping us respond to several critical developments in environmental and sustainability education and the larger socio-ecological context to which it responds. Even while we envision the future, we also welcome contributions that analyze what we might learn from the past. We are guided by several questions:

1. How far have environmental educators and policy makers come in generating useful methods for creating situated, socio-ecological knowledge about alternative, sustainable futures? How much further can we go? How can environmental educators engage multiple constituencies in processes of social learning geared toward adapting to and mitigating the worst effects of continued biosphere destabilization? What epistemologies and/or methodologies can we learn and build on?

2. The future has always been central to environmental and sustainability education, as evidenced by the Brundtland Commission's[3] definition of sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." But is the *future* more than an empirical placeholder or vague rhetorical symbol? Are there strategies available to environmental educators for generating knowledge about possible futures in order to challenge, disrupt, or alter behaviors in the present, and/or to engage in collective, social processes of learning in order to actualize sustainable alternative futures? What are the implications for practice?

3. How can university centers specializing in environmental and sustainability education contribute to such inquiry? How can they assist in situating academic knowledge within regional socio-ecological contexts, bridging disciplinary divides, nurturing interdisciplinarity, facilitating interdisciplinary scholarship, and challenging the compartmentalizing of knowledge and engrained professional/disciplinary structures which limit what can be known about alternative sustainable futures?

Specific topics of interest might include but are not limited to the following:
the role of academic centers in education for sustainability;
education and the United Nations Sustainable Development Goals;
environmental education, climate change education;
global citizenship;
environmental education past, present, and future;
learning about the future through critical analysis of the past;
post-UNDESD 2015 era;
forecasting, backcasting, future studies;
critical speculation, science fiction prototyping;
big data, data mining, data analytics, predictive algorithms;
indigenous futurism, afrofuturism;
the Earth Charter;
epistemological uncertainty, "wicked problems," feedback loops, accelerating change;
religion, eschatology;
virtual environments, gaming, digital spaces;
transhumanism, posthumanism, animality;
extinction, Anthropocene, geoengineering;
social implications of demographic shifts, population increase and decline;
social innovation for a green economy;
the economy of aging;
slow violence, intergenerational justice;
transformative leadership for sustainable futures;
and social learning.

These provide the broader context in which education for sustainability develops transformative responses through social and inter-generational learning processes, support for transformative

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[3] The World Commission on Environment and Development (1984), also known as the Brundtland Commission, advanced this influential definition of sustainability in its report, *Our Common Future*.

leadership practices, and active reimagining of alternative human-Earth futures. The book is particularly interested in these kinds of education for sustainability practices, programmes, and processes.

Contributors and chapters
Contributions to the book will be solicited through open call and invitation. Please feel free to suggest authors you'd like us to invite. Because we seek to research the role that centers play in universities in transition to sustainability, we will invite partners in the International Intergenerational Network of Centers to contribute to this volume. We strive to include a diversity of genders, geographical locations, and generations.

Following the structure of other books in the Wageningen Academic Publishers DESD series, this volume will have three sections on Principles, Perspectives, and Praxis. Please select the part of the book in which you think your contribution fits.

> Part One: Principles provides a rationale for the book, an historical review, and forward-looking conceptual discussion of the book's key themes. Part One asks for inter-, trans-, post- and anti-disciplinary engagement with the accelerating pace of climatic change and ecological destabilization (including recently discovered feedback loops and the epistemological uncertainty they represent), the transformative impact of emerging technologies at small scales (i.e., energy efficiency, recycling, 3D printing) and large scales (i.e., smart cities, social media, geoengineering), and social developments (i.e., Twitter activism, intergenerationality, religious fundamentalism, behavioral change). This part of the book invites contributors to chart theories of environmental education at networked global, local, and molecular scales, to develop proactive forms of anticipatory engagement with socio-ecological change, and to facilitate collective dialogue concerning alternative human-Earth futures. Perspectives chapters are ten to twelve pages, or between 3000 and 3600 words, inclusive of bibliography.

> Part Two: Perspectives includes contributions from applied research, policy analysis, and reviews. Authors critique both the strengths and weaknesses of existing knowledge within their respective fields vis-à-vis sustainable development and education for sustainable development, and offer new and innovative suggestions across geographic and thematic issues. Specifically, Part Two invites policy makers to speculate as to environmental educational policy in light of a future of continued accelerating socio-ecological change. How do emerging forms of data analytics contribute to policy development in EE and ESD? How can institutions and organizations chart sustainable futures in uncertain times, and how can they assist in the collective project of reimagining futures for environmental and sustainability education? Perspectives chapters are eight to ten pages, or between 2400 and 3000 words, inclusive of bibliography.

> Part Three: Praxis contains specific examples of projects, institutions, and processes of education. These examples anchor the theory and perspectives articulated in the first two parts of the book. Specifically, Part Three presents examples of educational practice that leverage futures thinking in environmental and sustainability education practice. We are interested in concrete examples of engaging multiple stakeholders in envisioning, charting,

and actualizing alternative human-Earth futures, as well as arriving at consensus and articulating shared principles to animate action on behalf of sustainable futures. Examples come from across the spectrum of education, both inside and outside of formal institutions and from across disciplinary boundaries. The examples range from global to local initiatives and encompass the three dimensions of sustainable development: environment; economy; and society, including culture. Praxis chapters are six to eight pages, or between 1800 and 2400 words, inclusive of bibliography.

We are especially interested in chapters that describe processes and methodologies to guide future research, pedagogy, and practice. We encourage intergenerational and interdisciplinary collaboration in authorship and innovative approaches, if possible, such as the dialogical development of chapters with students.

Audience

The intended audience for the book is primarily scholars and students in environmental and sustainability education. Secondary audiences include educational policy makers in the area of environment and sustainability, as well as scholars and graduate student researchers in sustainability studies, environmental studies, educational studies, and future studies. Further, given that every field has a connection to education, and that every field has a role to play within the context of higher education for sustainability, we believe *Envisioning Futures for Environmental and Sustainability Education* would be relevant to educators across disciplines and contexts interested in the transition to a sustainable future.

International Intergenerational Network of Centers

University centers in environmental and sustainability education have long promoted the mainstreaming of sustainability in home institutions, in higher education, and in the larger culture of our time. One purpose of International Intergenerational Network of Centers is to document and report how individual centers operate at the leading edge of sustainability—to showcase how centers practice sustainability in their home institutions and communities. Centers are able to develop programs for students, connect the university to other institutions, work with government, and involve industry. They are a platform for interdisciplinary knowledge creation. They feed ideas into a university that it may not able to produce on its own. Though centers do not replace traditional academic departments, they can move departments and disciplines in new directions.

The goals of the International Intergenerational Network of Centers are:
1. To research the cultural transformation role of centers in mainstreaming sustainability in higher education institutions;
2. To institutionalize strong sustainability in home institutions;
3. To empower intergenerational collaboration with students and young scholars in scholarship, service, and teaching;
4. To connect innovation hubs on campuses; and
5. To share a collective voice for sustainability.

The first research project of the Network was the launch of *Intergenerational Learning and Transformative Leadership for Sustainable Futures*, edited by Brandon Hollingshead and Peter

Blaze Corcoran. Corcoran launched the book at the United Nations World Conference on Education for Sustainable Development and hosted a network meeting at University of Nagoya in November 2014. *Envisioning Futures for Environmental and Sustainability Education* will be the second major project, to be launched in 2017 in honor of Tbilisi +40, the 40th anniversary of the United Nations Tbilisi Declaration.

The Center for Environmental and Sustainability Education at Florida Gulf Coast University serves as Secretariat for the IINC. The manuscript will be prepared and edited at the Center.

Publisher
Wageningen Academic Publishers, in Wageningen, the Netherlands, has accepted the book as the fifth volume in a series on education for sustainable development. Prior volumes in the series are *Social Learning: Towards a Sustainable World* (2007) edited by Arjen Wals, *Young People, Education, and Sustainable Development: Exploring Principles, Perspectives, and Praxis* (2009) edited by Peter Blaze Corcoran and Philip M. Osano, *Learning for Sustainability in Times of Accelerating Change* (2012) edited by Arjen Wals and Peter Blaze Corcoran, and *Intergenerational Learning and Transformative Leadership for Sustainable Futures* (2014), edited by Peter Blaze Corcoran and Brandon Hollingshead.

"Book +"
We plan that this will be "more than a book." We see this book as an initiative of a new network of university centers researching the role of charting speculative futures in education for sustainable development. We hope the book and network will be connected to additional resources on a companion website. These might include blogging the editorial process, social networking around the theme of (re)imagining futures, collaboration between centers, augmented reality/QR codes, and open source/downloadable chapters.

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Publication Timeline

The book will be published in 2017 as a Dutch national contribution to the Tbilisi +40 commemorations. Because of the tight publication timeline, we must adhere to the following firm deadlines for chapter contributions.

November 13, 2015:	Abstracts due to editors
November 27, 2015:	Editors invite authors to contribute chapters for consideration
January 7, 2015:	First draft chapters due to editors
Friday, March 14, 2016:	Chapters returned to authors with editorial suggestions
May 1, 2016:	Final chapter manuscripts due to editors
May-September, 2016:	Final editing and manuscript preparation by editorial team
Mid-October, 2016:	Final book manuscript delivered to publisher
November 4-8, 2017:	Launch of book at Tbilisi +40

Abstract submission instructions

In order for your chapter to be considered, please submit an abstract and complete the author demographic information sheet at the Google Drive link listed below no later than November 12, 2015. Abstracts should be approximately 300 words. Please include 2-5 key references in your

abstract; these will not count towards your word limit. Please identify the part of the book in which you'd like your chapter to be considered. Also include a short professional biography for all co-authors.

Link:
https://drive.google.com/folderview?id=0B6xlnv1mUkV9fk0tSmZUTzV3UTkxUXY2N FdCT21wWjBMMWg4anJxcDVkQkpIcXNraUdSOGc&usp=sharing

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