

# Sustainability Education Beyond the Classroom:

## How the “exploding university” nurtures collective intelligence across local and global communities

Forthcoming in: Meletiadou, E. (Ed.), *Implications of sustainable development in higher education: Teaching, learning and assessment*. London: IGI.

Author team: Helen Wadham\*, Clare Hart\*, Anita Hashmi\*, Helena Kettleborough\*, Roz Marron\*, Sally Randles\*, Konstantina Skritsovali\*\*, Megan Tucker\*

\*Manchester Metropolitan University, UK

\*\* Liverpool John Moores University, UK

### ABSTRACT

This chapter explores how we expanded our teaching and learning beyond the classroom at Manchester Metropolitan University in the UK. It puts forward the theoretical concept of the “exploding university” as a way to help develop a critical yet hopeful understanding of our collective problems at local and global scales. This helps us explore three interrelated initiatives that brought teachers, students and communities together; namely a sustainability festival, research project on animal rehoming, and community tree-planting drive. The chapter illuminates how exploding our work beyond the classroom enabled everyone involved to take action on the challenges that matter to them, while also developing a “collective intelligence” about their underlying causes. The exploding university thus emerges as a theoretical and practical model, which we can use to inspire students to actively critique, reimagine and reconstruct the world around them. We conclude by encouraging and supporting others who might wish to embark on similar journeys themselves.

**Keywords:** Action Research, Collaborative Approaches, Ecological University, Education for Sustainable Development (ESD), Participatory Research, Slow Science, Systemic Change, Transformative Learning

### INTRODUCTION

How can we enable our students to engage critically with the thorny and contradictory concept of sustainability, while actively imagining a more liveable future at both local and global scales? Our chapter explores this question by sharing the experiences of a group of academics, support staff and students based at Manchester Metropolitan University Business School in the UK. Our focus is on how we experimented with and learnt from three interrelated initiatives that enabled us to “explode” our sustainability teaching and learning beyond the classroom.

Inspired by a critical approach to the United Nations’ Sustainable Development Goals (SDGs), our chapter has three aims. First, it develops a theoretical

contribution to the ESD literature by developing the concept of the “exploding university,” which might help students and communities alike develop a critical yet hopeful understanding of our collective problems at local and global scales. Second, it provides three empirical examples of how this shared action can help students, communities and others address those challenges and - as importantly - build a shared understanding of (or “collective intelligence” about) their underlying causes. Third, by way of a reflection on our theoretical and empirical analysis, we consider how we might encourage and support others wishing to embark on similar journeys themselves.

## **Context**

A focus on teaching and learning about sustainability seems more necessary than ever. Alongside existing and deepening concerns about climate change, the Covid-19 pandemic has brought other global challenges into sharp relief. Its deeply negative impact on health and well-being, unemployment and social inequality threatens the achievement of the United Nations’ Sustainable Development Goals more broadly (UN, 2021). However, the pandemic also demonstrated the power of collaboration, as the drive to develop and roll out coronavirus vaccines led to unprecedented levels of local, national and international collaboration between government, industry and civil society actors (Guimon & Narula, 2020).

These contemporary global challenges thus offer us an opportunity to redefine our future and develop a more “meaningful” understanding of sustainability (Tsing, 2017, p. 51). As teachers and learners, we seek to explore how we might balance economic wellbeing, social justice and environmental stewardship now and in the future. But the sheer number of underlying challenges - climate change, protecting biodiversity, addressing socioeconomic inequity - makes it hard to prioritise among them (Washington, 2015). Such challenges are highly complex, deeply uncertain and the subject of significant conflict among diverse stakeholders (Sediri et al., 2020). Thus, the very notion of sustainability can give rise to a paralysing sense of helplessness (Murphy, 2012).

The starting point for our chapter, then, is to ask how we – as teachers, learners and citizens – might recognise the complex, system-level challenges to which we are all subject, while also acknowledging and leveraging our individual and collective agency to bring about some kind of change. We are aware of how threatened the natural-social world is and we seek to discuss this with our students and coursemates in ways that are meaningful for them. For example, we all engage in first-person practice of finding news stories each week and finding out what is happening – bearing witness – so that together we can reflect on the challenges and begin to imagine potential solutions (Kettleborough, 2019). All the authors are committed to teaching and learning about these issues to the very best of our ability, seeking at the same time to encourage ourselves and others to reflect on our own behaviour and professional/personal lives.

Our institutional home, Manchester Metropolitan University, has a long history of engaging with sustainability issues. We are all based or engaged with the Faculty of Business and Law (FoBL), specifically the Department of Strategy, Enterprise and Sustainability (SES). There have been two main phases in the Business

School's own sustainability journey. From around 1992-2011, the roots of sustainability teaching and learning were established, led by impassioned but lone champions (Christian & Walley, 2016). Then, starting in 2012, we became part of a critical mass of people - researchers, teachers, professionals and students - who are motivated by a wide range of sustainability cares and concerns. Together we have supported the university-wide embedding of sustainability into the curricular and extra-curricular experiences of students (Randles et al., forthcoming).

Today, Manchester Met in general – and our faculty and department specifically – are widely recognised as particularly active with regards to the sustainability agenda. The university has ranked in the top three of the People and Planet University League for its environmental and ethical performance since 2013. The Business School has been a signatory to the United Nations' Principles of Responsible Management Education (PRME) since 2012. Our department (SES) has been key to university and faculty efforts to develop sustainability teaching and strategy throughout that time. For example, its Young Enterprise programme was recognised in 2020 with a Green Gown Award by the UK and Ireland Environmental Association of Universities and Colleges (EAUC). Likewise, in 2018 the authors and others piloted a scheme with the Carbon Literacy Project to enable students to measure and reduce their environmental footprint. This has now been rolled out to all first-year undergraduates in the Business School and will be extended across the university over the next three years.

### **Our Aspirations for this Chapter**

Our contribution is concerned with several overlapping themes that arise throughout the book, particularly those of global citizenship and sustainability, reflective practices in education for sustainable development (ESD) and the possibilities of management and business education for a sustainable world. The purpose of our chapter is to explore how we can help our students to engage critically with the multiple often terrifying challenges we face, while (more positively) imagining a more liveable future. We agree that sustainability can potentially be a limiting concept, authored and defined by those who have power and privilege, while excluding the voices of those on the margins (Barnett, 2018; Kayumova & Tippins, 2021). Thus, we focus on the value of taking our teaching and learning activities beyond the confines of the university, in order to relocate them within the communities that surround us locally and beyond. In so doing, our chapter theoretically extends Colin Ward's notion of the "exploding school" into the higher education (HE) context (Ward & Fyson, 1973).

Our chapter proceeds as follows. We will begin by reviewing the existing literature on sustainability as collective intelligence, and explore how we might build that intelligence through transformative learning and effectively rethinking the role of the university itself. We will then set out our theoretical framework, namely the "exploding university." We then briefly introduce our methodology, before turning to our findings and discussion. These centre on how our three chosen examples enabled us to "explode" our sustainability teaching into the local community, and the consequences of this for our students and the communities themselves. Finally, we offer up some tentative conclusions, along with concrete suggestions for action that may prove helpful to other teachers and learners.

## BACKGROUND

Our introduction above indicates that we might usefully describe sustainability as a “wicked problem,” namely one that appears intractable because the interdependencies between different actors and systems make it hard to articulate goals and manage potential solutions (Rittel & Webber, 1973). It is difficult to apportion responsibility, for example, when the respective causes and consequences of unsustainable practices may be geographically distant (Murphy, 2012). Likewise, temporal complexities arise, as the changes required – to cultural, physical and social structures – are urgent yet simultaneously slow-moving (Wadham, 2020). Our understanding of sustainability, then, is necessarily incomplete, fragmented and contradictory: This can lead to a reluctance to engage with the concept altogether (Longo et al., 2016).

The particular contradiction that concerns us in this chapter is the dichotomy between what might be called top-down and bottom-up approaches. The SDGs reveal sustainability as a global process, leading to a focus on universal and top-down approaches (Dymitrow & Halfacree, 2018). For example, Murphy (2012) suggests that it is “wishful thinking” to hope that systemic challenges might be addressed via small-scale, organic solutions. Yet exogenous, large-scale initiatives are more likely to render individuals and communities mere passive receptors of change, rather than active agents (Mazon et al., 2020). If the future is to be more liveable, then, we must combine top-down leadership with bottom-up participatory approaches. Ravetz suggests this requires us to develop our “collective intelligence,” via a step-change that draws on both “collaborative ‘know-how’ and ‘know-why’” (Ravetz, 2020, pp. 3 – our emphasis).

Universities – and perhaps business schools in particular – can play a key role in helping us develop this collective intelligence: They can effectively serve as catalysts and agents of social and economic transformation (Akrivou & Bradbury-Huang, 2015). The origins of this idea date back more than 80 years, when Whitehead pointed out that the “task of a university is the creation of the future...[which is] big with every possibility of achievement and of tragedy” (Whitehead, 1938, p. 171).

Stengers (2018, p.110) finds it particularly compelling that Whitehead associates the future “neither with the advancement of knowledge nor with progress, but rather with radical uncertainty.” However, she suggests that the longstanding purpose of universities is being compromised by “fast science.” That is, just as we should be seeking out ever more opportunities to articulate and engage with complex challenges in the world around us in meaningful and thoughtful ways, our ability to do so is constrained by the same forces that exacerbate the economic, social and environmental crises discussed above. Market-driven values like economic rationalism, massification and internationalisation have radically reconstituted the HE sector in the UK and elsewhere, reaching into our teaching and research (Sandel, 2012). Universities have been transformed into corporate enterprises characterised by conformism, competitiveness, and opportunism (Lewis & Shore, 2019; Whelan et al., 2013). Yet, even as we acknowledge the challenges within our

education system and beyond, we remain hopeful for the future. The remainder of this section will give some insight into our reasons for optimism.

### **Sustainability as a Form of Collective Intelligence**

As outlined above, the coronavirus pandemic disrupted life as usual on a global scale that we are yet to fully comprehend. This leads Roy (2020) to reflect that this shared global experience represents “a portal, a gateway between one world and the next.” That is, it offers an opportunity to leave behind dead ideas and a chance to redefine our future and develop a more meaningful understanding of sustainability (Tsing, 2017). As we have explained above, imagining this more liveable future will require a more active, bottom-up approach that will develop our “collective intelligence” and make us wiser in all possible ways (Black et al, 2017).

Collective intelligence across communities and societies comprises both shared know-how and - more importantly - shared “*know-why*.” Yet, when it comes to sustainability teaching and practice, what Ravetz (2020, pp. 3) calls the “human dimension” is often overlooked in favour of clever technological solutions. A more bottom-up approach, by contrast, acknowledges that our understandings of sustainability and its possibilities are inherently and necessarily grounded in our own everyday experiences. We therefore find it helpful to reflect on Sayer’s (2011) work on “why things matter” to people. Humans are sentient beings whose relation to the world is one of concern, which is experienced through practical everyday events, acts and moments of care and caring (Sayer, 2011; Nilsson, 2015). With this in mind, students, teachers and communities are all embedded within a host of different time/place-situated cares and concerns. Sustainability education thereby represents an opportunity to understand what matters to us, what changes we might like to see in the world, and how we might come together to help bring them about. That is, ESD becomes a means to social change through community engagement, an encounter that is at once practical, aspirational and playfully subversive.

### **Building Collective Intelligence through Transformative Learning**

Our own previous research suggests that the kind of transformative learning that is required to build collective intelligence overlaps with and reinforces related notions of “transformative communities” and “transformative leadership,” which are traditionally explored within the literature as separate concepts (Randles et al., forthcoming). We will briefly discuss each before illustrating how they are indeed better understood as co-constitutive and mutually reinforcing. According to Southern (2007), *transformative learning* is always *for* something, such as learning for community and sense of place, for communities of practice, for civic culture, or for the biosphere and biocentric diversity. As such, transformative learning appreciates universal needs of subsistence, protection, affection, understanding, participation, idleness, creation, identity and freedom (Taylor, 2008). In addition, transformative learning always invites us to consider who we are in relation to others (Southern, 2007, p. 334). It engages us in shared efforts at both sense-making and practical action, and thus requires us to cultivate relations of trust, truth, shared values and shared understanding. Southern (2007) therefore suggests that transformative learning passes through various steps, namely invitation, participation, engagement, commitment and collaboration.

This in turn highlights the link between transformative learning and *transformative communities*. The latter unfold when transformative learning moves beyond the classroom and into community engagement via an organised, systematic and problem-centred teleological process (Souza et al., 2019). Blay-Palmer et al. (2013) suggest that bringing communities together around a common interest/concern could foster the formation of democratic learning communities of inquiry and practice. And through social discourse, these communities of interest in turn themselves generate new knowledge, while at the same time critically examining this knowledge in relation to existing social practices.

Finally, there is a smaller yet not less important stream of literature that explores the intersections between transformative learning and *transformative leadership* (e.g. Astin and Astin, 2000; Shields, 2011; 2017; 2020; Haddock-Fraser et al., 2018). Taking a critical and normative approach, transformative leadership aims to bring about social change, and asks questions about social justice and democracy (Shields, 2011). The above writers and others explore what kind of approaches and actions are most likely to nurture collaboration, capitalise on members' diverse talents and support a shared purpose.

Our own research (Randles et al., forthcoming) explored theoretically the intersections between these three concepts. Co-authored between staff and students, our paper reflected on how our bottom-up approach to sustainability teaching and learning enabled us all to learn from each other, build communities of trust with others beyond the university and share leadership across a wide and diverse group. We thereby showed how transformative learning, communities and leadership overlap and function as a single composite, integrated and mutually reinforcing model for change. This in turn requires that we rethink the social and institutional purpose of the university.

### **Reimagining the Role of the University**

Our previous research (Randles et al., forthcoming) indicated the usefulness of Barnett's (2011; 2018) model of the "ecological university." According to his definition, the ecological university uses its resources to create a more sustainable future that is structured around interconnectedness and a critique of the world order. Its aim is to play an active role in making the world – in which it is organically embedded itself – a better place. The ecological university is a "feasible utopia," which he believes could "just about" be realised. However, he goes on to suggest that this model of HE is most needed at the precise moment when it is most in peril. Stengers (2018) agrees, suggesting that - despite the constraints to which they are subject - academics need to engage and negotiate with the broader public and appreciate their questions: To refer back to the earlier discussion, we could say that academics need to respect and attend to people's own "matters of concern" as well as their own. As Stengers (2018) suggests, this more relational approach requires us all to slow down, in order to become capable of learning again, to reacquaint ourselves with things again, and to recognise our interdependence with other people, beings and places:

It means thinking and imagining, and in the process creating relationships with others that are not those of capture. (Stengers, 2018, p. 82)

For theoretical inspiration about how we might go about doing this, we turn to an provocative yet overlooked book by the British anarchist writer Colin Ward.

### **Our Theoretical Framework: Introducing the “Exploding University”**

Ward is perhaps best known for documenting the history of peculiarly English institutions like holiday camps and allotments. Citing anarchist predecessors such as Kropotkin and Bakunin, he highlights that people are fundamentally cooperative (Ward, 1973). A humane and forward-thinking society will enable people and communities to discover – *for themselves* – interim-if-imperfect solutions to the challenges they face (Ward, 1997). Ward’s geographically specific interests, together with an unassuming and pragmatic writing style, mean his work is often overlooked (Wilbert & White, 2011). Yet his emphasis on self-help in everyday life has a powerful contemporary resonance for our exploration of how we might encourage our students to engage critically, actively and (often) prosaically with the “wicked” problems that we face as a society.

“Streetwork: The exploding school” (Ward & Fyson, 1973) is a kind of manifesto for environmental education, written while the authors were education officers at the UK’s Town and Country Planning Association. They advocated taking children out of the classroom in order to learn about the world around them. That is, teachers should take an issue of importance to the local community – such as traffic congestion, antisocial behaviour, or consumerism (to add a more recent example) – and tackle it from “whatever angle strikes some response from the class” (Ward & Fyson 1973, p. 12). Exchanging the constraints of the classroom for streets and public spaces, the child becomes purposeful and energetic, and understands and takes part willingly in processes of community decision-making and development

This is not just about increasing the amount of local study or formalising what is already part of the child’s experience. Rather it demands a fundamentally different (less top-down) approach to education altogether. For example, returning to the issue of traffic congestion mentioned just now, an “exploding” approach would require pupils to engage with the challenge first-hand. As a starting point they might undertake a survey of traffic blackspots and try to devise solutions. Next, they could consider if sufficient weight is being given to interests that conflicted with the prevailing “traffic-centric/efficiency” standpoint. Third, they could consider how they and the public at large should act in order that their views be noticed.

By developing young people’s habits of evaluating and questioning, so we can effectively give them the tools to actively reshape their world, rather than consigning them to “a lifetime of resigned indifference” (Ward & Fyson, 1973, p. 32). This kind of approach requires careful and meticulous planning, but will reward children, teachers and society alike.

Even as the book prefigures current theories and practices around pupil participation, consultation and place-based education, it is consistently more radical

in its agenda. In particular, it imagines school communities as resources for bringing about social change:

It offers a view of the natural inclination of children and young people to not only have a view and a voice when adults deem to consult them, but also to *critique, re-imagine and reconstruct their world for themselves with and for the communities* [to which they belong.] (Burke, 2014, p. 437 - our emphasis)

Streetwork thus envisaged children and young people as positive resources of and for their communities. Understood as relational sites of interaction between people, places and things, these communities are in turn acknowledged as inherently subject to continual negotiation and change. Children are freed up to determine their own learning path (literally) through peripatetic wandering, but always within what Burke (2014, p. 440) calls a “purposeful and structured framing of pedagogic intent.”

Our findings show how this model can effectively be expanded from schools into universities, while our discussion considers some of the consequences and implications of doing so. Before introducing our own experiences, however, it is useful to reflect briefly on three key characteristics of Ward and Fyson’s (1973) work that we found particularly useful.

First, the model is built on the assumption that effective learning requires that people take action themselves. There is no substitute for experiencing an environment at first hand: As young people encounter life beyond the classroom, they learn to both observe and interpret what they encounter, and the immediacy of this experience deepens their understanding of it. Yet, just as 50 years ago Ward and Fyson (1977, p. 6) were responding to complaints that children were leaving school “unprepared for any kind of useful role in society,” so contemporary employers suggest that today’s young graduates lack critical thinking, creativity and problem-solving skills (ISE, 2022). We suggest that the “exploding university” offers a way to better prepare students for the life they will build for themselves and others, by offering them deeper insight and multiple perspectives into the challenges they (and future generations) are likely to encounter.

Second, the model recognises and embraces diversity and disorder. It underlines that concern for the wellbeing of society (and nature) does not and should not be equated with a search for universal agreement: “Consensus is not something to be invoked like a spiritual cement to stick something together that would otherwise be broken apart” (Ward & Fyson, 1973, p.14). Rather, seeking out the dissenting group and examining the validity of their views can be a profoundly insightful experience.

Again, this is of particular relevance in the context of ESD. For example, Ravetz (2020) suggests that large-scale challenges like climate change and rising inequality demand us to think synergistically: Such is their complexity that any consensus around how to understand and act on them will always be temporary and fragile. Rather, we should aim at wider and deeper forms of decision-making. The exploding university would enable students and communities to take part in these kinds of deliberative and reflexive experiments.

Third, the goal of the model is to create both community feeling and global awareness. This is achieved through an emphasis on “unofficial” culture, which is concerned with what actually happens, and what people really do or enjoy doing, rather than the “official” culture of what ought to be happening or what “top” people think:

Irreverent, boisterous and subversive as it usually is... it is *this* culture which binds us to a place, which gives us those subtle ties of concern for [the world around us.] (Ward & Fyson, 1973, p. 28)

This perspective is helpful in the context of ESD. By exploding our work beyond the classroom, we are effectively asking our students to shift their focus: Rather than concentrate on general or abstract “principles” (such as those that lie behind the SDGs, for example), we suggest they take the time to open their imagination and consider this particular occasion with these people, in this place (Stengers, 2018; Taylor, 2020). This represents a normative as well as a tactical choice. That is, by exposing students to “other” ways of knowing, we are effectively encouraging them to challenge (perhaps fundamentally) their understanding of what sustainability “is” and what it could be.

As well as expanding into the HE context, we seek to make our own theoretical contribution to Ward’s work by bringing his ideas into conversation with those of James Lovelock, namely his “Gaia hypothesis.” This suggests that the earth and its biological systems interact and co-evolve as a single, synergistic and self-regulating entity (Lovelock, 1995). Lovelock brings to our attention that exploding processes are a fundamental part not only of education but of life itself, enabling us to more fully recognise how our efforts as individuals and communities are in turn embedded and interconnected with the natural-social world around us. Indeed, Ward himself uses the term “seeds beneath the snow” to describe the myriad everyday but often unseen acts of solidarity and inventiveness through which people try to find new ways of living differently. Thus, it is not only people who explode out into the world. Even plants like dandelions and bulrushes are simultaneously settled and itinerant beings. Their seeds need to travel. For example, as David Attenborough explains in his enchanting Plant World documentary (2021), the “squirting cucumber” (echallium elaterium) store its seeds in a pod and - when the pod is ripe – they explode into the air and get carried miles away. By bringing Ward’s ideas into conversation with those of Lovelock and other ecological thinkers, then, we hope to bring added nuance and significance to his underlying metaphor: Our students are themselves seeds beneath the snow, who explode out into the community while they are with us but more importantly will continue to do so long after graduation, in ways that will help our society and the planet.

## **METHODOLOGY: AN APPROACH INSPIRED BY ACTION RESEARCH**

First-person action research develops practical knowing and pursues workable solutions to issues of pressing concern to people (Reason & Bradbury, 2001). It is a dynamic and evolving form of reflective practice. The specific form of action research adopted is that of co-operative inquiry, which invites groups of people to use the full range of their sensibilities to inquire together into any aspect of the human condition, with the aim of both reframing our understanding of the world and

transforming practice within it. Co-operative inquiry appealed to us because of its humanistic beginnings, and its variety of forms and potential participants (Bradbury, 2015). It has been used all across the world, by students to explore ideas of deep ecology (Maughan & Reason, 2001), by social workers to learn together about tensions between reflection and following policy (Baldwin, 2001) and by leaders of social justice-based organisations exploring issues of leadership and empowerment (Duncan, 2015; Yorks et al., 2008).

Key to co-operative inquiry is its focus on extended ways of knowing. These include experiential (lived) knowing, presentational knowing, the knowing of art, story, music and expression, propositional knowing, the knowing of science, academia and policy and finally practical knowing that is the sum of all of the others and takes place out in the world. The method has been explored with great value and enthusiasm in Columbia for example (Fals Borda, 2006; Rappaport, 2020). During the pandemic, co-operative inquiry has gone virtual. For example, the Schumacher College Living Waters course has used online meetings as a way to undertake two such inquiries into how we might acknowledge and respond to rivers as sentient beings (Kurio & Reason, 2021).

Our own earlier work was based on an online experiment in co-operative inquiry (Randles et al, forthcoming). Through a series of nine online meetings involving the present authors and others, we together developed a composite model of transformative learning, communities and leadership (mentioned above). But, as significant, we also resolved to continue working together in order to take practical steps towards addressing our own matters of concern: Three of the initiatives that resulted are documented in the present chapter. Our original experiment was just one example of a wider effort to bring action research into the work of our own institution, as a way of creating a sense of agency and engagement among staff and students within what is a large and busy metropolitan university. Action research is now integrated into the training for our faculty's PhD students, and on the MBA programme, as well as within a reflective postgraduate unit on professional practice.

In collecting and analysing the data for this chapter, we have used elements of both co-operative inquiry and first-person practice. The data comes from our shared reflections of our experiences on three projects, namely the Action for Sustainability Festival, a research project on animal rehoming, and tree-planting in south Manchester. Along with members of the local community, we and dozens of other colleagues and students worked together under the auspices of the Staff Student Sustainability Group to shape, organise and implement these initiatives. This organic approach enabled us to co-develop them through action and inquiry, aiming for equality between all members, whether from staff, student or community. Our data comprised the field notes, posters and questionnaires produced as part of the initiatives themselves. We also drew on notes from research and working meetings we held online and in person before and after the events, and our research diaries and email exchanges.

Table 1 provides more information, after which we will introduce our findings and discussion. In summary, we are excited by the possibilities of continuing to grow

action research within our institution and have many plans for the future, to which we will return in the conclusion.

[Insert Table 1 about here]

*Table 1. Summary of pilot ESD initiatives and data collected*

<b>Initiative</b>	<b>Participants</b>	<b>Data collected</b>
1 Action for Sustainability Festival (June 2022)	5 academic/ professional staff & 12 students co-developed the event Total of 180 staff, students & community members attended the event	Participant observation at event  Questionnaires completed by organisers & participants (N=18)  Notes from 20 research & working meetings  Academic posters prepared by participants  Email exchanges between the organisers
2 Animal rehoming in a post-pandemic world (research project) (March-July 2022)	1 academic led the project. 1 member of professional staff & 7 students acted as research assistants, engaging with staff/ volunteers from 6 nonprofit organisations	6 research visits to participating organisations & subsequent fieldnotes/research diaries  Notes from 6 research & working meetings  Academic posters/conference abstracts prepared by participants  Email exchanges between the organisers
3 Tree-planting in south Manchester (March 2022-)	1 academic led the project, in consultation with 4 members of local community groups. Planting sessions attended by 9 staff, 7 students & 15 members	Participant observation at event  Questionnaires completed by organisers & participants (N=12)

	of local communities	Notes from 5 research & working meetings  Conference abstracts prepared by participants  Email exchanges between the organisers
--	----------------------	---

## FINDINGS

### Initiative 1: Action for Sustainability Festival

Held in the atrium of Manchester Met Business School, this mid-summer event brought students and staff together with communities and organisations from the local, national and international community in which the university is embedded. The aim was to provide a platform for students to connect and exchange ideas with other people who were also passionate about creating positive change. It would also enable them to make sense of their cares, concerns, stories and experiences, build their knowledge of underlying sustainability challenges, and identify ways they might help contribute to ongoing efforts to overcome them. As one of the students said:

“Planning this has made me think more about everything...if my generation can see what I can see and appreciate [our world]...we could create possibilities to act.”

Speakers included writer and broadcaster Jonathon Porritt, and representatives from Greenpeace and Steady State Manchester, as well as Manchester Met students. The atrium was packed with 24 stands from organisations like Amnesty International, Slave Free Alliance and Friends of the Earth, along with a wide variety of ethical businesses. Huge colourful posters enabled students, academics and organisations to share their research and their ideas and concerns for living on a healthy and just planet. Other participants included children from two local primary schools and a golden retriever, who was co-hosting the animal rehoming stand. In total, over 180 people joined in with the event, with plans underway to make it into an annual fixture on the university calendar.

#### *Connecting and Galvanising People*

“What has been most striking about the whole day,” reflected one of the organisers as she tucked questionnaires, cables and reusable coffee mugs into an already overflowing cardboard box, “are all the elements of interconnectedness.”

The festival was an opportunity to build a community of people between seemingly disparate groups and initiatives, to engage in meaningful conversations, to celebrate many small (but not insignificant successes) and to plan how to move to a life-enhancing flourishing future. As one of the students later commented, this required some determination on their part:

“[Although] my nerves were in overdrive...I made the decision to meet some of the different organisations...I was glad I did, as I would not normally interact with these organisations and I learnt so much about them. Later, I exchanged contact details with the representative from Amnesty UK who would like me to be involved in some of their work.”

It was also a day to meet old and new friends. As the self-organised Staff Student Sustainability Group, we had been working together for over a year, first on our previous book chapter and more recently on organising this event. But many of us had never met in person:

“Woooah – your beard is so long in real life!” exclaimed one of the students as another walked in.

It was immediately clear that regular online meetings were no replacement for the sheer pleasure of seeing each other face-to-face. Throughout the morning as people arrived to set up, there were waves, hugs and laughter around the venue.

The festival represented a defining moment for the organisers, a way for like-minded and passionate individuals to act upon their commitment to sustainability in a visible and holistic way. The event provided an emotional and immersive bookend to our theoretical and online efforts to date. As the day went on, there was an almost overwhelming sense of pride and accomplishment that a small group of students and staff had managed to pull off such an inspirational event, especially at the tail-end of the academic year when many students were heading off for the summer and staff were buried in marking.

“The event was amazing,” reflected one participant afterwards. “Full of encouragement and ideas.”

From invitations to join a student-led sustainability consultancy, a hands-on demonstration of 3D printing, to enthusiastic debates around fast fashion and the future of food, the festival was intended to galvanise people into action. Participants commented on the mixture of emotions they experienced throughout. This was reflected too in the keynote session with Jonathon Porritt, in which he expressed admiration for young climate strikers while voicing impatience at current political developments. One of the students later reflected:

“He provided a perfect example of accepting that it is okay to feel frustrated but be happy at the same time.”

### *The Joys and Risks of an Organic Approach*

Students found that by engaging with diverse people, experiences and views, they were able to complement the more mainstream and business-focused approaches to sustainability they had encountered in their studies to date:

“I learnt so much throughout my [course],” reflected one undergraduate. “But having personal conversations and learning everyone’s stories has inspired me more to make a pledge towards making a difference [to climate change].”

Over lunch, the visiting children were given a platform to tell us about their school and community environmental projects. They brought their learning to life as they explained to this large group of largely unfamiliar adults how and why they work together to minimise waste, grow their own food and so on. This was what Lawson et al. (2018) call “intergenerational learning” at its best! At the end of the day, one of the teachers quietly commented on the impact this had on the children themselves:

“The pupils felt they were listened to and made a contribution to the day - for them that is a big thing!”

In another corner of the atrium, a local artist was recreating an existing artwork of endangered macaws. The picture had been cut up into dozens of pieces, which participants then reimagined on their own paper-covered tiles. Throughout the day, even those initially reluctant to pick up a paintbrush were unable to resist joining in – with skill, enthusiasm and occasionally both – as the Andy Warhol-esque mosaic gradually took shape. This collaborative activity was a particular hit with the children, who had joined us midmorning and brought a new energy to the atrium:

“I want to come here when I’m older!” one of them enthused.

While the plan had been to walk them around the poster displays, they were waylaid by Chata, the rescue dog. Their teachers found it impossible to round them up off the floor as several of them had never stroked a dog before and were keen to make the most of the experience. They never got to see the posters, but did join us for the keynote presentation with Jonathon Porritt. After sitting patiently for 45 minutes, they were rewarded with an invitation to ask the first questions. Many participants commented delightedly on how Jonathon had clearly adapted the content and tone of his presentation to enable the children to follow along. A relaxed approach thus demands that you cede an element of control over events: It is never quite clear who will arrive and when, and what they might do when they get there.

### *Taking Up Space*

“It really looks like a sustainable building now!” said one of the students, waving towards the multicolour bunting, stands of recycled books, and trays of vegan food on offer.

The organisers had created a diverse and inspiring programme of talks, and despite all the distractions on offer, the lecture theatre remained well-populated all day. Yet many students commented on the learning that was going on “around the edges,” enabling them to make meaningful connections:

“Actually speaking to some of the speakers in the atrium allowed a more in-depth look into their particular work and created a deeper understanding.”

The posters provided a range of great talking points too. Most reflected initiatives in progress at the university or within the local community. However, one display board highlighted sustainability efforts underway by staff and students at a partner institution, the Autonomous University of Mexico State. Interestingly, the projects featured showed a remarkable symmetry with those outlined here, including a focus on tree-planting and community enterprise.

## **Initiative 2: Animal Rehoming in a Post-Pandemic World**

This co-created research project aimed to empower small organisations to respond more effectively to the reported “perfect storm” of increased demand versus decreased funding for their services (BBC, 2021). Seven students and two staff undertook pilot research to explore how these changing patterns of dog ownership/relinquishment and fundraising have impacted upon six local rescue/rehoming organisations and the communities of which they are part. Our starting point was that society extends beyond the human world. By exploring our relations with other species, we might help students adopt a more critical approach to sustainability, while also enabling them to use their developing consultancy skills to benefit the organisations and the people/animals they work with.

The project explored the underlying challenges from three different perspectives. First, we focused on the social and economic sustainability of the “business” of animal rescue through interviews with staff and volunteers. Second, through a range of innovative and collaborative research methods, we wanted to help students apply what they have learnt in the classroom to better understand and address organisations’ actual sustainability challenges. Finally, we tried to consider those same challenges from an animal perspective, by focusing on welfare and caseloads.

### *The Pandemic and Organisational Sustainability*

Our literature review led us to anticipate that the pandemic and its aftermath would represent a major (possibly existential) threat to already overstretched animal welfare organisations. Our interviews revealed there had indeed been disruption. Lockdown restrictions prevented volunteers coming to clean kennels and walk the dogs, for example. There were also concerns about staff welfare and its impact on operations:

“We were worried that...we’ve not got many staff. If two or three were knocked out with Covid we would have been in a mess.”

But we found surprisingly little impact on the financial bottom line, despite the inherently precarious economic situation of the organisations:

“We’re quite lucky in that we have a committee that keeps a firm eye on the finances,” said one participant.

This particular organisation (and others) noted that they kept afloat during and after Covid – as at other times – thanks to stable income from legacies. Thus, despite losing two income streams when its town centre charity shop and onsite café were forced to close for several months, the organisation itself continued to function.

Non-financial donations also play a key role in keeping expenditure under control. And here, by contrast, it is the emerging cost-of-living crisis that is having a negative effect:

“We’ve noticed...that we’ve been receiving less donations of animal food,” observed one participant.

We were quickly realising that the very premise of our project needed to be revisited: If we wanted to help these organisations, we needed to recognise that the threat to their continued survival was not being caused by Covid and its aftermath, so much as the cost-of-living crisis that – ominously – had barely begun.

### *Learning on the Ground and at the Kennels*

With regards to pedagogy, students were able to try out and refine their practical research and consulting skills, bringing benefits to themselves and the participating organisations. Going out into the local community allowed students to gain valuable experience and witness the direct impact of their work. Importantly, they were paid for taking part: This enabled a wider range of students to participate, enabled them to dedicate more time to the project, but also unequivocally signalled that their involvement was valued:

“It gave the project credibility...It felt like real paid work and not an academic exercise.”

This helped the project subvert traditional academic hierarchies:

“We were all researchers, we weren’t lecturers and students,” said one member of the team. “We were doing stuff that we loved so we were able to connect on that level...around our common values and interests.”

We posted links on WhatsApp to useful research and supported each other as we secured, carried out and wrote up field visits. But we also shared weekend plans, new-to-us memes and homemade videos of impossibly tiny terriers.

### *A Dog-centred View of Sustainability*

Our assumptions were quickly challenged again. We expected that animal welfare would be compromised by Covid and its aftermath. Certainly some dogs spent more time in kennels when adoptions ground to an abrupt halt. But many found themselves better off when people on furlough stepped in as temporary fosterers. In an unexpected but delightful turn of events, some of those dogs are still there, having now become part of the family.

Similarly, once kerbside and appointment-only visits enabled rehoming to open up, it became apparent that the dogs liked this model better. At one centre, a poster in reception explains to any disappointed visitors why animals were no longer on view:

“We have noticed a marked improvement on our animals’ stress levels...the animals are calmer...and get more quality time [with staff and volunteers]”

Students realised that for this and other organisations, the animals always come first. Research visits took place in cramped kitchens as kibble was being measured out, or in the open air where we were handed a brush and invited to make ourselves useful. Some visits were cancelled as people just didn’t have time to meet with us.

In terms of caseload more broadly, bigger rescues are experiencing (or anticipating) a sizable increase in relinquishment: The “new normal” is driving people back into offices and the rising cost of living means they have less money for pet food and vets’ bills (Dogs Trust 2022). But, with their long experience of achieving so much with so little, our participants are quietly prepared for what the future may bring:

“There’s just an unrelenting flow of animals,” said one. “There always has been.”

### **Initiative 3: Tree Planting in South Manchester**

This brought together staff, students, their friends and families, along with Friends of Platt Fields and communities in south Manchester. Starting in the spring, about 40 people came along to community planting and watering days, in a shared effort to enhance the biodiversity of the local area and encourage students and others to spend more time outdoors. The initial project (2017-2021) was to plant 47 trees in honour of the late MP, Sir Gerald Kaufman, at different sites all around his constituency. The next stage of the tree planting initiative saw 73 trees – yew, beech and fruit trees – planted in Platt Fields, a 15-acre park close to the university campus, which provides valuable breathing space in the heart of Manchester’s urban landscape. Now seeking funding for additional trees, the Staff Student Sustainability Group plans to run events at the start of each academic year to encourage future generations of students to get involved. We will briefly reflect on three key aspects of our shared experience, namely the way it brought people together, facilitated practical and higher order learning, and illuminated the challenges inherent to leading this kind of co-created initiative.

#### *Bringing Communities and Generations Together through Shared Purpose*

The first tree-planting session took place on a clear and crisp Saturday morning in March. Everyone met in the outdoor cafe at Platt Fields Market Garden. People wandered in, uncertainly at first, looking around for familiar faces:

“I didn’t recognise you with a pram in tow!” said one academic happily flopping down next to a colleague.

“I thought I must be in the wrong place,” the other answered. “I wasn’t expecting so many people!”

The clusters of staff, students and neighbours gradually intermingled, especially when the tools were handed out and we were invited to choose which of the hessian-overcoated saplings we would like to plant.

The event had gradually taken form in our collective minds during the isolation of the pandemic (Randles et al., forthcoming). But it built on relationships that were established long before. Sustainability-related efforts within the local community started 15 years ago, while those involving Manchester Met staff and students date back even further, perhaps 20 years (Christian & Walley, 2016; Kettleborough et al., 2018).

Three staff members brought their children with them, a neighbour brought her son, and a grandmother and granddaughter were among those excitedly choosing the best spot for their chosen tree. For the children, this was an opportunity to run around and get dirty. It was also a chance to do something practical to make their world a better place, rather than just listening to older people lamenting how badly things are going. With four generations gathered together, so we inched our way towards the “seventh generation principle” of the Haudenosaunee First Nation, which urges us to think of the future beyond even our great great grandchildren (Lyons, 2004). It was also a time to remember people who are no longer with us, or living in distant places: We dedicated yew trees to the people of Afghanistan, communities in Ukraine and to a colleague who had died very recently.

#### *Transformational Learning at Multiple Levels*

This was practical learning in action. Students had been introduced to the United Nations SDGs in the classroom. Now they were being asked to combine their learning from academic journal articles with the learning of stories and the learning of simply living, in order to bring it altogether and put it into practice in everyday life. As we planted, people reflected on how trees provide a focal point for everyone using the park, not only the people but also birds, insects and other plants and shrubs, for whom the trees offer up shade in the summer and their leaves in the winter.

“Have you heard of the Green Belt Movement?” one of the academics asks as we walk back towards the café.

She tells us about Kenyan activist Wangari Maathai, who effectively pioneered the idea that we might make improve our world through the simple action of planting trees. This leads to an animated discussion of all the other tree-planting projects going on around the world at this very moment - in Pakistan, Saudi Arabia and elsewhere - and how they help us on our journey towards meeting the SDGs. Here in the UK, we have much to learn from initiatives all around the planet.

The trees also help us learn about place. Most of our students’ learning happens within the sterile environment of the business school. Today they are outside. They have to consider where to plant the trees so they won’t be accidentally crushed by council mowers. They have to work out how best to dig a hole in long grass, gently putting the sapling in, filling with soil and stamping down. Then we must cover them with bark chippings to retain moisture for the roots. The chippings are fetched in from some distance away, balanced precariously on a hefty wheelbarrow.

#### *Transformative Leadership Requires Time and Attention to Detail*

The success of the event demanded leadership and negotiation on all sides. The Friends of Platt Fields is a totally voluntary organisation, and its members had to source the trees (70 plus on this particular day) and bring spades and wheelbarrows to the event. The volunteers and staff members worked together on the health and safety audit for the event. So many people gave freely of their time, in effect reciprocating what Irish theologian Anne Primavesi (2013) describes as “Gaia’s Gifts” to humanity.

Within Manchester Met, the initiative was led by a group of female staff. With its emphasis on mutual support and engaging students and communities, this represented an important and visible model of collaborative leadership. It was an example of the kind of solidarity needed to genuinely address our multidisciplinary challenges together (UNDP, 2022).

In our euphoria, we did not pay sufficient attention to the effects of climate change. That summer saw the hottest temperatures ever recorded in the UK (Booth & Abdul, 2022). It was a month later that we came together again, trudging across the park with bottles and makeshift containers. Members of the local community continue to water the trees as often as they can during dry spells. We will plant more later in the year when we hope to have children from our local school with us. And this time we will plant the trees in the autumn: Our hope is that Gaia herself will keep them safe and watered, watching over them for future generations both human and more-than-human.

Table 2 summarises our findings, in order to set the scene for the discussion that follows below.

[Insert Table 2 about here]

*Table 2. Summary of findings*

<b>Initiatives &amp; their value from an ESD perspective</b>	<b>Key themes identified within the data</b>
<p>1 Action for Sustainability Festival</p> <p>Platform for students &amp; others to build shared knowledge of underlying sustainability challenges, and identify ways they might help contribute to ongoing efforts to overcome them</p>	<p>Connecting &amp; galvanising people</p> <ul style="list-style-type: none"> <li>• Interconnectedness of diverse groups &amp; initiatives</li> <li>• Focus on celebrating small but important successes</li> <li>• Emotional &amp; immersive complement to theoretical &amp; online efforts</li> </ul> <p>Organic approaches bring joys &amp; risks</p> <ul style="list-style-type: none"> <li>• Diversity of views &amp; experiences complements classroom learning</li> <li>• Intergenerational learning reverses hierarchies</li> <li>• Presence of artists &amp; animals encourages spontaneity</li> </ul> <p>Taking up space</p> <ul style="list-style-type: none"> <li>• Learning takes places in formal spaces &amp; “around the edges”</li> </ul>

	<ul style="list-style-type: none"> <li>• Posters enable distant people to participate also</li> </ul>
<p>2 Animal Rehoming in a Post-Pandemic World</p> <p>Consultancy with rehoming organisations opens up a critical &amp; more-than-human understanding of sustainability. Also enables students to play practical role in supporting charities &amp; people/animals they work with.</p>	<p>Pandemic reveals organisational vulnerability but also resilience</p> <ul style="list-style-type: none"> <li>• Lockdown disrupted care of animals but less impact than expected on financial bottom-line</li> <li>• Greater threat to organisations comes from cost-of-living crisis</li> </ul> <p>Learning on the ground &amp; in the kennels</p> <ul style="list-style-type: none"> <li>• Paying students enabled wider participation &amp; signalled that their role was valued</li> <li>• Unconventional approach subverted academic hierarchies &amp; built warmer relationships</li> </ul> <p>A dog-centred view of sustainability</p> <ul style="list-style-type: none"> <li>• Students saw animals being prioritised within organisations &amp; research process</li> </ul>
<p>3 Tree Planting in South Manchester</p> <p>Staff, students, friends, families, &amp; local communities came together to plant &amp; water trees in Platt Fields park. Focus on enhancing biodiversity &amp; spending time together outdoors.</p>	<p>Communities &amp; generations brought together through shared purpose</p> <ul style="list-style-type: none"> <li>• People arrived separately but join together on practical tasks</li> <li>• Event was more than a year in the making, but also depended on relationships established over many years</li> <li>• Wide range of ages &amp; backgrounds gathered together</li> </ul> <p>Learning takes place at multiple levels</p> <ul style="list-style-type: none"> <li>• Practical learning focuses on the trees in front of us but ties us in to wider global conversation</li> <li>• Trees also help us learn about place &amp; biodiversity</li> </ul> <p>Transformative leadership requires time &amp; attention to detail</p> <ul style="list-style-type: none"> <li>• Even a comparatively small event requires tools &amp; extensive paperwork</li> <li>• Female staff team offered an important &amp; visible model of collaborative leadership in action for our students &amp; others</li> </ul>

## DISCUSSION

How did the three initiatives outlined above enable our students to engage critically with the contested concept of sustainability? And, perhaps more positively, how did these initiatives enable them to come together with others to actively imagine a more liveable future at both local and global scales? In the following discussion, we will address these questions by drawing on the theoretical framework developed earlier

in the chapter. That is, we will consider how the Action for Sustainability Festival, research project on animal rehoming, and community tree-planting enabled us to “explode” our sustainability teaching into the local community. We will also reflect on some of the consequences for staff, students and communities, and our collective understanding of ESD more broadly. We do so via a focus on three themes that emerged throughout, namely relationality, hierarchy, and scaling up.

### **Sustainability is about Everyday Relationality as much as Extraordinary Technological Solutions**

The scale of the challenges that confront us lead to a tendency to focus on sustainability as a series of technical fixes, big dreams and grand schemes (Longo et al., 2016; Taylor, 2021) Yet, as Moore (2015, p. 899) reminds us, “the substance of the ordinary and everyday” is as useful to our analysis as “the epic, the extraordinary or the catastrophic.” The “fresh educational techniques” that we adopted (Ward & Fyson, 1973) centred these matters of concern and encouraged us to engage with others. Even fifty years ago, the use of simulations, off-site work, playful engagement and so on were often neither technologically innovative nor complex. Rather, they are simple (if time-consuming) approaches. However, by enabling us to build our relationships to each other and the world around us, such techniques can effectively change our perceptions of both.

Unlike the abstract thinking that is the privilege of academic practice, then, the concrete things about which people care are situated in the day-to-day (Sayer, 2011). Thus the three initiatives outlined in our findings captured the imagination of our students and others precisely because they resonated with their own everyday matters of concern. They thereby galvanised the students into action and enabled them to deepen their understanding of the SDGs and associated academic concepts in a way that was meaningful to them.

The exploding university effectively foregrounds these matters of concern, whether that is supporting a friend under threat of eviction, caring for a family member who is taken ill, or seeing trees being cut down to make way for new buildings or a cycle way. It thus helps build our relationships and networks with others who share our interests (Blay-Palmer et al., 2013). Crucially, by serving as an intermediary in bringing us together over what really matters to us, the exploding university helps us maintain these relations over time. For example, Johnathon Porritt’s relationship with Manchester Met goes back to 2014, when he officially launched our Social and Ethical Enterprise Group. The legacy of that visit has continued: Jonathon’s work is required reading for final-year Business Management undergraduates and a shelf in the west wing of the library is turned bright yellow by a dozen copies of his inspirational but out-of-print book “The world we made.”

Through such relationships, we can effectively shift our understanding of many different challenges. In turn, from the perspective of the exploding university itself, its ties to communities and other actors become part - over time - of what the organisation does but also what it *is*. Our focus on the exploding university thus indicates that Manchester Met can be a flourishing institution, a true community of peoples rather than a closed system. As Capra and Luisi (2016) and Sterling (2021) argue, the role of the institution needs to be an open system where “co-evolutionary

interactions” and “living networks” can thrive, enabling us to address the system failures and wicked problems discussed earlier in the chapter.

### **The Exploding University Collapses Hierarchies and Barriers**

We began our chapter by highlighting that sustainability tends to privilege top-down approaches (Dymitrow & Halfacree, 2018; Kayumova & Tippins, 2021). That is, as a universalising concept, it disallows for differences in culture, geography and socioeconomic circumstances (Chassagne, 2018). Similarly, ESD – like any institutionalised form of education – is infused with power relations that tend to reproduce hegemonic and often problematic values, such as prioritising human needs above all else, or emphasising individual over collective responsibility (Kopnina, 2015). This feels uncomfortably close to Ward and Fyson’s (1973) long-ago critique that curriculum-based approaches can effectively discourage people from educating themselves. Similarly, schools (or in our case universities) are imagined as expensive structures for containing these sanctioned forms of education, which are in turn delivered by special people licensed to accomplish this process.

In contrast, by exploding beyond the classroom, whether we mean to or not, we collapse the academic hierarchy in all its forms. Student, teacher and local resident alike come together, joyfully recreating a colourful painting, sharing thoughts about how dogs experience life on the streets, or wheeling a squeaky barrow across the park. We are learning together sometimes without realising. This is education as a meaningful disturbance (Wahl, 2017). The lecturer herself can no longer hold tight to her specialist knowledge as though it represents an objective consensus view (Ward & Fyson, 1973). Rather, all participants share an “emotional contact” with our subject matter: Our understanding of the SDGs is brought to life as we make our first attempt at visible mending, or listen to a poem written just for us. Together, we are helping each other build the shared “know-how” and “know-why” that will be fundamental to our collective flourishing in future (Ravetz, 2020).

As regards where all this might unfold, Ward and Fyson (1973) suggest fieldwork should take place away from the school (university). We are sympathetic to their concern that we can be intimidated by these costly installations, in turn constraining our collective imaginings. Manchester Met’s buildings dominate the local skyline, communicating our socio-cultural authority like the cathedrals of old (Campbell, 1988). However, things are of course more complex than this. Our Business School, for example, has won multiple awards for its sustainable design. Yet even our own students are sometimes unaware of this, confounded by its austere grey walls and lack of greenery. By working with people who might otherwise take our imposing demeanour at face value, or who have perhaps never set foot in a university at all, we might bring the institution – and what it represents – down to a more human scale. In other words, we can help revise our mental maps of who we are and create a transformative process that really enables people to shift the way that they see their role and their future, both inside and outside of the institution (Wahl, 2017). The festival in particular demonstrated that an effective way of breaking down barriers is not just to go *out* (as Ward and Fyson suggest), but to invite people *in*, bringing the institution alive through living, dynamic networks and communities of practice (Capra & Luisi, 2016).

## The Exploding University Embeds the Local in the Global

By exploding ESD beyond the university, staff, students and communities worked together to effectively explore the relationship between the “personal troubles of the milieu” and the “public issues of social structure,” which lie at the heart of all social research (Wright Mills, 1959, p. 8). Through our action research-inspired approach, our students were invited to place their own matters of concern within a wider context, and take practical steps to articulate and address them. First, in class, we introduced students to the SDGs and the global policy framework for sustainability. Then we explored their own matters of concern through our initial project to develop a theoretical model of transformative learning, communities and leadership (Randles et al., forthcoming). From this, we developed the three projects outlined here (and others), which the students played a key role in shaping and implementing. Finally, back in the classroom – and in the writing of this chapter and other outputs – we reflected together on the wider significance of our collective endeavours. Across this process, then, we enable students to effectively track back and forth between the global and the local.

In so doing, according to Ward and Fyson (1973), we enable students to absorb from the experience the things that are meaningful and interesting to *them*. This in turn awakens participants to alternative possibilities and enables them to communicate those alternatives. We can only imagine what we have seen, so this concrete action and modelling is important for students and communities alike, as it enables people to reimagine and articulate what a more liveable future might look like (Tsing, 2017). By basing our interventions around what matters to the students and communities themselves, we are effectively heeding Ward and Fyson’s invocation that we plan *for* not *against*. By bringing people together to take practical action on things about which they care, our approach is thus based on an appreciation of the positive core of what works (Cooperrider & Godwin, 2022). This perhaps contrasts with a prevailing (and less galvanising) focus on deficiency, which can often characterise our collective discussions about sustainability.

We started our chapter by stating that, like many in this field, we have a particular interest in the dichotomy between top-down and bottom-up approaches. Like Murphy (2012) quoted above, Monbiot (2022) is doubtful about the power of this kind of small-scale action for change:

Incrementalism is too small an ask...to drive transformation...Only a demand for system change, directly confronting the power driving us to planetary destruction, has the potential to match the scale of the problem and to inspire and mobilise the millions of people required to generate effective action.

Monbiot is right that small changes alone won’t save the world. And, of course, we are not denying the need for structural, system-level change. But we take comfort from Ward’s anarchism, which suggests that the prevailing global order that is ravaging our natural and social worlds is not a “thing” to be overthrown. Rather, it is a “condition,” a particular relationship between human beings: We destroy it by behaving differently, by reinventing daily life in the here and now (Ward, 2004). Teachers and learners have to believe that we can help bring about that change

because hopelessness is not an acceptable academic position: As Deutsch (2011, p. 446) eloquently reminds us “no one is creative in fields in which they are pessimistic.” Rather, as students and academics, we believe that are working for a new form of action that will transform learning, communities and leadership alike.

## **TENTATIVE CONCLUSIONS AND AN INVITATION TO ACTION**

Inspired by a critical approach to the UN SDGs, our chapter has developed the theoretical concept of the “exploding university,” reflecting on how such an approach might enrich the understanding and practice of sustainability for students, staff and communities. Through a focus on three related initiatives, we have reflected on our own experience, and how it built our collective intelligence, enabling us to become capable of deeper learning and address our varied matters of concern. Collective intelligence encourages us to consciously reflect, care-for, nurture and put into practice through positive action our relationships with each other and - by extension – with all of these communities. It is a slow and purposeful process because it takes time to nourish these relationships, and fully experience and care for them. They unfold across multiple sites and in multiple individual moments, combining the urgency of the present with the imperative of the long-term time horizons, and guardianship across and within each of our cases. In these and other multiple examples across the world, we see people coming together, transforming their communities by putting sustainability into action. In this final section, we will first reflect on our contribution to theory. We will then share some practical lessons that may help others explode their own organic, non-hierarchical and enduring approaches beyond the classroom.

### **Contribution to Knowledge**

Ward and Fyson’s (1973) book proposes that we can empower the next generation to become agents for change within the community by taking them outside the classroom and giving them concrete opportunities to actively critique, re-imagine and reconstruct the world around them. We have expanded the reach of this work by illuminating its usefulness within the higher education context, specifically within the framework of ESD. In so doing, we have also demonstrated the value of recognising that the “exploding” metaphor is found well beyond the confines of the human world within nature itself: By bringing Ward’s ideas into conversation with those of Lovelock and other ecological thinkers, we have demonstrated that our efforts as students, staff and communities are in turn embedded and interconnected with the natural-social world around us. In so doing, we have also provided an empirical extension of our own theoretical ideas about the integrated nature of transformative learning, communities and leadership (Randles et al., forthcoming): Our chapter demonstrates that hope work and the exploding university depend in turn upon commitment and relationships of trust.

Our chapter has also illuminated how the success and reach of important top-down initiatives such as the Principles for Responsible Management Education (UN PRME) and the Civic University Network depends crucially upon our ability to effectively ground them within the everyday cares and concerns of students, staff and communities. As our analysis has ranged back and forth across global and local levels, so we have foregrounded the relationships that are crucial to developing

collective intelligence, and reflected on how these might be reconfigured in ways that subvert prevailing power relationships within and beyond the classroom. These three themes also inform our practical suggestions below.

## **Practical Lessons that Might be Useful to Others**

### *1 Relationality takes time: Embrace it*

Exploding our teaching beyond the classroom requires time and effort. Rooted in care and caring, the temporal scales involved in our relational, reflective and experiential approach clearly contrast with the ever-faster pace of university life (Stengers, 2018; Taylor, 2020). We do not wish to downplay the extraordinary pressures that we are all under. And we agree with Barnett (2018) that the “feasible utopia” of a more embedded and forward-thinking university is needed most urgently at the precise moment when it is most in peril. Yet we take heart from Ward’s (2004, p. 8) idea that change depends – somewhat prosaically – on “contracting other relationships [and] behaving differently.” We are *already* making a difference just by doing what we do. So, our advice to others is simply to keep the faith: Even if the gains seem small now, over time they will add up.

### *2 Ceding control leads to unpredicted (and sometimes useful) outcomes: Be ready*

We acknowledge that our approach can be risky: By exploding outwards, we engage with a range of people and issues, and effectively cede our control of both the wider agenda and how specific encounters might unfold. At the festival, for example, a representative of Extinction Rebellion joined in a session about greenwashing, and asked some uncomfortable questions about how the university aligned its own messaging and actions. But if we play it safe, we risk meeting with what Ward and Fyson (1973, pp. 22) call the “same boredom and indifference that [we hope] to overcome.” Their suggestion is that – before embarking on this approach – we should find allies among our colleagues. We would add that some of these should include people with leadership roles across the organisation: The risks of discomfort and censure will diminish considerably if there is high-level buy-in to the countervailing and longer-term benefits.

### *3 Global ambition through local action: Think big and small at once*

Ward and Fyson (1973, p. 11) suggest that educators (and others) worry that a focus on local issues may be considered parochial, in that “this particular sample of reality may [be seen to] lack any general significance.” At the same time, they highlight that people – of whatever age – find it hard to engage with big issues that are presented to them at an “inhuman” scale. This is reminiscent of Taylor’s (2020, p. 255) emphasis on the “slow singularities” that underpin “collective mattering.” Ward and Fyson (1973, p. 11) recommend that we counter potential parochialism by developing “carefully balanced courses [and] syllabuses.” The key here is making a clear and explicit link between our on-the-ground work with students and communities, the wider global sustainability agenda (SDGs, PRME) and our own institution’s strategic efforts to deliver on them. Our recommendation to others, then, is that you consider how to “plan *for* not *against*” within your own institution: How can you frame what you are doing within these university-level and global

frameworks? In so doing, the matters of concern arising within informal and participatory processes can be brought into conversation with – and potentially help shape – more formal, objectives within your own institution and far beyond.

To conclude, this chapter has offered up and developed the concept of the exploding university as a way to build the collective intelligence that might help us understand and tackle contemporary wicked problems. We recognise that such challenges – social injustice, migration, biodiversity loss and the climate emergency – require structural and system changes. But, in the meantime, we can build mutual understanding of their myriad iterations and seek out interim-if-imperfect solutions. Imagined as seeds of constructive action and dedicated work, impelled by an outpouring of energy, care and positive ideas, students, staff and communities themselves can begin to take our own small and tentative steps towards imagining and building a better world in the future but also in the here and now.

### **ACKNOWLEDGMENT**

We would like to thank all the people who took part in the initiatives on which this research is based, and who generously shared their time, energy and ideas with us.

## REFERENCES

- Akrivou, K., & Bradbury-Huang, H. (2015). Educating integrated catalysts: transforming business schools toward ethics and sustainability. *Academy of Management Learning and Education*, 14, 222–240.
- Astin, A.W., & Astin, H.S. (2000). *Leadership reconsidered: Engaging higher education in social change*. Michigan: The Kellogg Foundation.
- Baldwin, M. (2001). Working together, learning together, co-operative inquiry in the development of complex practice by teams of social workers. In P. Reason & H. Bradbury (Eds.), *The Sage handbook of action research* (pp. 287-293). London: Sage.
- Barnett, R. (2011). The coming of the ecological university. *Oxford Review of Education*, 37(4), pp. 439–455.
- Barnett, R. (2018). *The ecological university. A feasible utopia*. Oxon: Routledge.
- British Broadcasting Corporation (BBC). (2021, September 10). More people trying to give up their lockdown dogs, says charity. <https://www.bbc.co.uk/news/uk-58518892>
- Black, A.L., Crimmins, G., & Jones, J.K. (2017). Reducing the drag: Creating v formations through slow scholarship and story in S. Riddle, M. Harmes & P.A. Danaher (Eds.), *Producing pleasure in the contemporary university*. Rotterdam: Sense.
- Black, A.L. (2018). Responding to longings for slow scholarship: Writing ourselves into being. In A. Black & S. Garvis (Eds.), *Women activating agency in academia: Metaphors, manifestos and memoir* (pp. 23-34). London: Routledge.
- Blay-Palmer, A., Landman, K., Knezevic, I., & Hayhurst, R. (2013). Constructing resilient transformative communities through sustainable food hubs. *Local Environment*, 18(5), 521-528.
- Booth, R., & Abdul, G. (2022, July 19). UK reaches hottest ever temperature as 40.2C recorded at Heathrow. *The Guardian*. <https://www.theguardian.com/uk-news/2022/jul/19/uk-weather-record-hottest-day-ever-heatwave>
- Burke, C. (2014). Fleeting pockets of anarchy. *Streetwork. The exploding school. Pedagogica Historica*, 50(4), 433-442.
- Campbell, J. (1988). *The power of myth*. London: Random House.
- Capra, F., & Luisi, P.L. (2016). *A systems view of life: A unifying vision*. Cambridge: Cambridge University Press.
- Chassagne, N. (2018). Sustaining the good life: Buen vivir as an alternative to sustainable development. *Community Development Journal*, 54(3), 482–500.

- Christian, J., & Walley, L. (2016). Termite tales: Organisational change – A personal view of sustainable development in a university – As seen from the “tunnels.” In W. Leal Filho, L. Brandli, O. Kuznetsova & A. Paco (Eds), *Integrative approaches to sustainable development at university level*. (pp. 525-538). New York: Springer.
- Cooperrider, D., & Godwin, L. (2022). Strengths-based megacommunities and the appreciative inquiry's complete convention: Creating wholepower, willpower and waypower for our world's Earthshot moment. *AI Practitioner*, 24(1), 94-106.
- Dogs Trust. (2022, July 14) Cost-of-living crisis starts to bite dog owners, shows new poll. <https://www.dogstrust.org.uk/latest/2022/dogs-trust-cost-of-living>
- Duncan, G. (2015). Innovations in appreciative inquiry: Critical appreciative inquiry with excluded Pakistani women. In P. Reason, & H. Bradbury (Eds.), *The Sage handbook of action research* (pp. 107-123). London: Sage.
- Dymitrow, M., & Halfacree, K. (2018). Sustainability – differently. *Bulletin of Geography. Socioeconomic Series*, 40, 7–16.
- Guimon, J. & Narula, R. (2020, April 22) A happy exception: The pandemic is driving global scientific collaboration. *Issues in Science and Technology*. <https://ingsa.org/covidtag/covid-19-commentary/guimon-collaboration/>
- Haddock-Fraser, J., Rands, P., & Scoffham, S. (2018). *Leadership for sustainability in higher education*. London: Bloomsbury Publishing
- Institute of Student Employers (ISE). (2022). ISE Development Survey. <https://ise.org.uk/page/ise-development-survey-22>
- Kayumova, S., & Tippins, D.J. (2021) The quest for sustainable futures: Designing transformative learning spaces with multilingual black, brown, and Latinx young people through critical response-ability. *Cultural Studies of Scientific Education*, 16, 821-839.
- Kettleborough, H. (2019). Gaia's graveyards: Bearing witness as first-person inquiry. *Action Research Journal*, 17(3:), 292–322.
- Kopnina, H. (2015). Neoliberalism, pluralism and environmental education: The call for radical re-orientation. *Environmental Development*, 15, 120-130.
- Kurio, J., & Reason, P. (2021). Voicing rivers through onto-poetics: A co-operative inquiry. *River Research and Applications*, 38, 376-384.
- Lawson, D., Stevenson, K.T., Peterson, M.M., Carrier, S.J., Strnad, R. & Seekampa, E. (2018). Intergenerational learning: Are children key in spurring climate action? *Global Environmental Change*, 53, 204-208.

- Lewis, N., & Shore, C. (2019). From unbundling to market making: Reimagining, reassembling and reinventing the public university. *Globalisation, Societies and Education*, 17(1), 11-27.
- Longo, S., B. Clark., & Shriver, T. (2016). Sustainability and environmental sociology: Putting the economy in its place and moving toward an integrative socio-ecology. *Journal of Sustainability* 8(5), 437-454.
- Lovelock, J. (1995). *The ages of Gaia: A biography of our living earth*. New York: Norton.
- Lyons, O. (2004). *The ice is melting*. [Paper presentation]. 24<sup>th</sup> Annual E. F. Schumacher lectures. <https://centerforneweconomics.org/publications/the-ice-is-melting/>
- Maughan, E. & Reason, P. (2001). A co-operative inquiry into deep ecology. *ReVision*, 23(4): 18-24.
- Mazon, G., Pereira Ribeiro, J.M., Montenegro de Lima, C.R., Castro, B.C.G., & Guerra J.B. (2020). The promotion of sustainable development in higher education institutions: top-down bottom-up or neither? *International Journal of Sustainability in Higher Education*, 21(7), 1429-1450.
- Monbiot, G. (2022, July 18). Heatwave extreme weather climate crisis. *The Guardian*. <https://www.theguardian.com/commentisfree/2022/jul/18/heatwave-extreme-weather-uk-climate-crisis>
- Moore, L. (2015). A day at the beach: Rising sea levels, horseshoe crabs, and traffic jams. *Sociology*, 49(5), 886-902.
- Murphy, R. (2012). Sustainability: A wicked problem. *Sociologica*, 2, 1-23.
- Nilsson, W. (2015). Positive institutional work: Exploring institutional work through the lens of positive organizational scholarship. *Academy of Management Review*, 40(3), 370-398.
- Primavesi, A. (2013). *Exploring earthiness*. New Jersey: Cascade Books.
- Randles S., Wadham H., Skritsovali K., Hart C., Hoque S., Kettleborough H., Klapper R, Marron R., Taylor T. & Walley L. With Clovis A., Derbyshire M., Devaney M., Doig G., Jones D., Leigh S., Louis R., Margetson M., Protopsaltis T., Tucker M., Twitchett L., Whiteley C. (forthcoming). Leveraging hope & experience: Towards an integrated model of transformative learning, community & leadership for sustainability action & change. In W. Purcell & J. Haddock-Fraser (Eds.), *The Bloomsbury handbook of sustainability in higher education*. London: Bloomsbury.
- Rappaport, J. (2020). *Cowards don't make history: Orlando Fals Borda and the origins of participatory action research*. Durham, North Carolina: Duke University Press.

- Ravetz J. (2020). *Deeper city: Collective intelligence and the pathways from smart to wise*. Abingdon: Routledge.
- Reason, P. & Bradbury H. (Eds.). (2001). *The Sage handbook of action research*. London: Sage.
- Rittel, H., & Webber, M. (1973). Dilemmas in a general theory of planning. *Policy Science* 2, 155-169.
- Roy A. (2020, April 3). The pandemic is a portal. *Financial Times*. <https://www.ft.com/content/10d8f5e8-74eb-11ea-95fe-fcd274e920ca>
- Sandel, M. (2012). *What money can't buy: The moral limits of markets*. London: Allen Lane.
- Sayer, A. (2011). *Why things matter to people: Social sciences, values and ethical life*. Cambridge: Cambridge University Press.
- Sediri, S., Trommetter M., Frascaria-Lacoste N., & Fernandez-Manjarrés J. (2020). Transformability as a wicked problem: A cautionary tale? *Sustainability*, 12(15), 5895.
- Shields, C. M. (2011). Transformative leadership: An introduction. In C.M. Shields (Ed.), *Transformative leadership: A reader*. New York: Peter Lang.
- Shields, C. M. (2017). *Transformative leadership in education: Equitable and socially just change in an uncertain and complex world*. New York: Routledge.
- Shields, C. (2020). Transformative leadership. *Oxford research encyclopedia of education*. <https://oxfordre.com/education/view/10.1093/acrefore/9780190264093.001.0001/acrefore-9780190264093-e-632>.
- Simon, E., Dormer, K., & Hartshorne. J. (1971). *Lowson's textbook of botany*. Cambridge: University Tutorial Press
- Stengers, I. (2018). *Another science is possible: A manifesto for slow science*. Cambridge: Polity.
- Sterling, S. (2021). Concern, conception, and consequence: Re-thinking the paradigm of higher education in dangerous times. *Frontiers in Sustainability*, 2: 743806.
- Southern, N. (2007). Mentoring for transformative learning: The importance of relationship in creating learning communities of care. *Journal of Transformative Education*, 5(4), 329-338.

- Souza, D.T., Jacobi, P.R., & Wal, A.E.J. (2019). Learning based transformations towards sustainability: A relational approach based on Humberto Maturana and Paulo Freire. *Environmental Education Research*, 25(11), 1605-1619.
- Taylor, E.W. (2008). Transformative learning theory. *New Directions for Adult and Continuing Education*: 5-15.
- Taylor, C. (2020). Slow singularities for collective mattering: new material feminist praxis in the accelerated academy. *Irish Educational Studies*, 39(2), 255-272.
- Taylor, D. (2021). On damaged and regenerating life: Spinoza and mentalities of climate catastrophe. *Crisis & Critique*, 8(1), 476–501.
- Tsing, A. (2017). A threat to holocene resurgence is a threat to liveability. In M. Brightman & J. Lewis (Eds.), *The anthropology of sustainability* (pp. 51-65). London: Palgrave.
- United Nations (UN). (2021, July 15). Deeply negative impact of COVID pandemic, reverses SDG progress. <https://news.un.org/en/story/2021/07/1095942>
- Wadham, H. (2020). Horse matters: Re-examining sustainability through human-domestic animal relationships. *Sociologia Ruralis*, 60, 530-550.
- Wahl, D. C. (2017). Regeneration: A webinar with Fritjof Capra, Simon Robinson and Daniel Christian Wahl. [https://www.youtube.com/watch?v=DU699CwJiv4&ab\\_channel=SimonRobins](https://www.youtube.com/watch?v=DU699CwJiv4&ab_channel=SimonRobins)
- Ward, C., & Fyson, A. (1973). *Streetwork: The exploding school*. London: Routledge.
- Ward, C. (1973). *Anarchy in action*. London: Freedom Press.
- Ward, C. (2004). *Anarchism: A very short introduction*. Oxford: Oxford University Press.
- Washington, H. (2015). *Demystifying sustainability: Towards real solutions*. London: Routledge.
- Wegener, D. T., & Petty, R. E. (1994). Mood management across affective states: The hedonic contingency hypothesis. *Journal of Personality & Social Psychology*, 66, 1034-1048.
- Whelan, A., Walker, R., & Moore, C. (2013). *Zombies in the academy: Living death in higher education*. Bristol: Intellect Books.
- Wilbert, C & White D. (2011). *Autonomy solidarity possibility: The Colin Ward reader*. Edinburgh: AK Press.
- Wright Mills, C. (1959/2000). *The sociological imagination*. Oxford: Oxford University Press.

Whitehead, A.N. (1938/1968). *Modes of thought*. New York: Free Press.

Yorks, L., Arnold, A., James, L., Rees, A., Hoffman-Pinilla, H., & Ospina, S. (2008). The tapestry of leadership: lessons from six co-operative inquiry groups of social justice leaders. In P. Reason, & H. Bradbury (Eds.), *The Sage handbook of action research* (pp. 487-496). London: Sage.

## **ADDITIONAL READING**

Barnett, R. (2011). The coming of the ecological university. *Oxford Review of Education*, 37(4), pp. 439–455.

Black, A.L. (2018). Responding to longings for slow scholarship: Writing ourselves into being. In A. Black & S. Garvis (Eds.), *Women activating agency in academia: Metaphors, manifestos and memoir* (pp. 23-34). London: Routledge.

Haddock-Fraser, J., Rands, P., & Scoffham, S. (2018). *Leadership for sustainability in higher education*. London: Bloomsbury Publishing

Kettleborough, H. (2019). Gaia's graveyards: Bearing witness as first-person inquiry. *Action Research Journal*, 17(3:), 292–322.

Lovelock, J. (1995). *The ages of Gaia: A biography of our living earth*. New York: Norton.

Randles S., Wadham H., Skritsovali K., Hart C., Hoque S., Kettleborough H., Klapper R, Marron R., Taylor T. & Walley L. With Clovis A., Derbyshire M., Devaney M., Doig G., Jones D., Leigh S., Louis R., Margetson M., Protopsaltis T., Tucker M., Twitchett L., Whiteley C. (forthcoming). Leveraging hope & experience: Towards an integrated model of transformative learning, community & leadership for sustainability action & change. In W. Purcell & J. Haddock-Fraser (Eds.), *The Bloomsbury handbook of sustainability in higher education*. London: Bloomsbury.

Ravetz J. (2020). *Deeper city: Collective intelligence and the pathways from smart to wise*. Abingdon: Routledge.

Sayer, A. (2011). *Why things matter to people: Social sciences, values and ethical life*. Cambridge: Cambridge University Press.

## KEY TERMS AND DEFINITIONS

**Action Research:** A dynamic, evolving and reflective research methodology that develops practical knowing and pursues solutions to issues that matter to people.

**Collaborative Approaches:** A diversity of actions and techniques that enable people to work together, by capitalising on their diverse talents and supporting a shared purpose.

**Ecological University:** A higher education institution that aims to make the world a better place by recognising its interconnectedness with the outside world and using its resources to create a more sustainable future. The concept was developed by Ronald Barnett.

**Education for Sustainable Development (ESD):** An approach to education that focuses on bringing global challenges such as climate change, economic inequality and biodiversity decline into teaching and learning. It requires participatory approaches and far-reaching changes to the curriculum.

**Participatory Research:** Research strategies that explicitly and actively aim to include local communities and others within the research process. Such approaches subvert the power relations that are inherent to the experience and practice of research.

**Slow Science:** Like other manifestations of the broader slow movement, this advocates a steady, thoughtful and more measured approach to academic research. Proponents are critical of the encroachment of neoliberal practices and values within academia, such as performance and funding targets.

**Systemic Change:** Global or societal transformation that demands far-reaching changes to policies, practices, power relations and social norms. This in turn depends upon collaboration between a wide range of local, national and international stakeholders.

**Transformative Learning:** An approach to education that invites us to consider who we are in relation to others and to pursue positive change on behalf of these known and unknown others. Focused on shared sense-making and practical action, it requires us to build relations of mutual trust, truth, values and understanding.

## **AUTHOR BIOGRAPHIES**

Dr. Helen Wadham is a Senior Lecturer at Manchester Metropolitan University, UK. Her research explores sustainability via collaborative approaches across sectors and species. Current projects include off-grid living and how domestic animals influence the understanding and practice of sustainability in rural areas and organisations. She is a fellow of the Royal Anthropological Institute. <https://orcid.org/0000-0002-9980-4409>.

Clare Hart is a Student Experience Officer and sustainability tutor in the Department of Strategy, Enterprise and Sustainability at Manchester Metropolitan University, UK. She holds an MSc in Psychology. Clare encourages students to take their passion and enthusiasm out into the wider world, and helps to coordinate the support network to do this.

Anita Hashmi is a PhD researcher at Manchester Metropolitan University. She uses applied genetics to assess the impact of an integrated conservation approach in black and white rhinos, Grevy's zebra, giraffe and mountain bongo. She is also working as a research assistant on the Business School's project on "Animal rescue and rehoming in a post-pandemic world."

Dr. Helena Mary Kettleborough is a Lecturer at Manchester Metropolitan University Business School. Her research interests centre on using first- and second-person action research, incorporating social justice. Researching currently on community/student/staff collaborations around sustainability and on creating wider Gaian and cosmological paradigms for hopeful futures: [www.linkedin.com/in/helena.kettleborough](http://www.linkedin.com/in/helena.kettleborough).

Dr. Roz Marron is a Senior Lecturer at Manchester Metropolitan University Business School, UK. She has been teaching in HE for over 17 years and has a PhD in English literature. She is interested in pedagogical approaches to teaching sustainability literacy. Current research focuses on transformative learning, identity and communities.

Professor Sally Randles is Chair of Sustainability and Innovation at Manchester Metropolitan University's Faculty of Business and Law, UK and is Faculty Lead for Sustainability. Sally's research investigates how organisations enact de-facto responsible innovation. She is engaged in EU-funded projects bringing together circular economy, social value innovation, and local policy.

Dr. Konstantina Skritsovali is a Senior Lecturer at Liverpool Business School, UK. Her research interests revolve around sustainable business models, collaborative approaches across sectors and responsible management education. She is one of the PRME coordinators for the Liverpool Business School.

Megan Tucker is a recent Masters in Business (MBus) graduate of Manchester Metropolitan University. She is also a Carbon Literacy trainer and worked with Greater Manchester Poverty Action to generate the 2022 Poverty Monitor. Advocating sustainability, social justice and seeking a sense of community is the foundation of Megan's core values with additional hobbies in cooking and outside

exploration of which stems from a childhood within the Shropshire hills.  
<https://www.linkedin.com/in/meganrtucker109/>