Chapter 17

How Can We Green Our Learning?

Fred Garnett

In 2019, Greta Thunberg became globally famous demanding that climate change be taken seriously with her #FridaysforFuture school strike. As a green activist, I welcomed her call, choosing to make World Heutagogy Day 2019 about "How Do We Green Our Learning?" I ran a series of weekly green learning workshops at New Cross Learning. With my heutagogy hat on, I saw Ms Thunberg's demand as a wish that her chosen path of self-determined learning should be around climate change. I knew that schools, institutions of compulsory education acting in loco parentis, would not voluntarily change so I decided to review how we might green the provision of mainstream education. This chapter draws together reflections from my green blog (Garnett, 2019a) concerning how this might be addressed. Progressively we need to "green" many aspects of education such as reading, libraries, curricula, research and, crucially for compulsory education, and governance. My wish was to provide Greta Thunberg with a route map that enabled educational institutions to design learning agency into their offer. My view was that if I could discover how we might "green our learning" that would also provide a guide whereby we could design in learning agency and heutagogy across the curriculum.

Greening our Learning

For World Heutagogy Day in 2019, a day chosen to celebrate the publication of self-determined learning (Hase & Kenyon, 2013), I decided to pose the question, "How Can We Green Our Learning?" (Garnett, 2019c). This was a direct response to Greta Thunberg's School Climate Strike and the almost universal pick-up by school children around the world around the concept of Fridays for Future. I saw this as expressing not only as protest but also as a desire for self-determined learning agency around climate change, a critical subject that was not on the school curriculum but which many schoolchildren found the most pressing issue of their times – as do I.

As protest, Greta Thunberg was articulating the desire that national politicians follow the international scientific consensus, repeatedly expressed at the Conference of the Parties (COP) of the UN Framework for Climate Change Convention and formally agreed at the Paris COP in 2015. The desire was that we slow down global warming by acting on agreed policy protocols, which could easily have been adopted by national governments, but which have mostly been ignored by them in practice. I personally worked on a number of green projects as part of Local Agenda 21 with the London Borough of Lewisham over twenty years ago, such as computer recycling, waste reduction, green management, affordable warmth, urban ecology and environmental education, and the green

practices we introduced then have largely been forgotten. No British government has ever seriously used its power to prioritise green issues, nor have local authorities retained memories of their own green practice. Being green is mostly seen as an optional "fun" pastime, or perhaps a lifestyle choice affecting the odd consumer purchase, but not a critical political issue. Green practices are most certainly not seen as an educational issue.

Having been ignored, like all greens, for over thirty years, I thought there was suddenly more potential for real change in 2019 coming from our schoolchildrens' implicit call for agency in their learning concerning green issues. So, I started looking at how self-determined learning about the environment could be supported on Friday afternoons, along with two green friends and fellow educators: Tony Wheeler, formerly a director of research at Goldsmiths College who has built a green zero-waste home, and Bridget McKenzie who set up both the Learning Planet and Climate Museum UK projects. I was convinced that schools would NOT change their curricula to meet the interests of their learners or, more precisely, their subject pupils. Indeed, the then British education secretary of state Damian Hinds said, in 2019, that climate change had been addressed, so there was no need for any change in education (DfE, 2019). As current education secretary Gavin Williamson also said in *The Guardian* in 2020, there is no need to change educational practice in the UK following the Coronavirus pandemic, it would seem that UK educational policy, in light of pressing and critical global issues, remains the big "institutional no" as Jeff Bezos described typical organisational responses to necessary change (Stone, 2013).

Seven problems to address if we want to "Green Our Learning"

Setting up an impromptu project to help support learner agency around "how do we green our learning?", slowly revealed to me, over the summer of 2019, several underlying problems with educational provision. These are problems which we will need to address if we are to make heutagogy part of core educational practice.

These issues can be listed as:

1. Green My Library
2. Green My Reading
3. Green My Curriculum (or teaching green)
4. Green My Institution
5. Green My Governance;
6. Green My Research

I didn't initially realise that addressing how we might green our learning raised all these issues. They incrementally revealed themselves over the summer of 2019, whilst I was running the weekly Green My Learning workshops with New Cross Learning. This is a volunteer-run library which had been closed by the UK government when they withdrew from supporting public libraries in the UK. I've blogged about each issue more fully on my green blog Third Placed (Garnett, 2019a). However, I've subsequently realised that the very same set of issues, or barriers, also need to be overcome if we are to introduce heutagogy into formal educational practice in the compulsory education sector. So, I'm writing this with the double perspective of how we green our learning and how we can systemically introduce heutagogy into education.

How do we green our learning?

When the education system itself is not green, it is not a simple matter to solve the problem of how to green our learning. I'm writing this because I spent many years both lecturing at Lewisham College and greening education practically. I assumed that I had enough practical teaching experience to draw upon because I had taught a course on the Social Impact of Technology, which included the Environmental Impact of Technology. So, I thought that creating a fresh opportunity to learn about environmental issues would be relatively simple. However, in order to be free to teach about the environment within the formal education system I had to solve a number of practical educational problems including:

1. writing a curriculum proposal to allow the study of green issues,
2. developing a process of teaching about green issues,
3. creating, recommending and buying green learning resources, and
4. making a green topic both interesting to study and interesting to write up as a research assignment.

However, the earlier experience of setting up green learning opportunities within the formal education system didn't automatically translate into knowledge about how to create a voluntary, informal learning process in 2019. We don't learn in a vacuum. As Luckin (2010) has shown in *Re-designing Learning Contexts*, we need a relevant "ecology of resources" as part of any learning environment. I quickly discovered that the everyday ecology of resources that we might draw upon first, our local libraries, are themselves shaped by formal curriculum-driven education; New Cross Learning had no green books.

Informal green learning (Green my library)

I decided to examine how Bridget, Tony, and myself could support the Friday afternoon climate strikes by offering to be available at various locations to help green the learning of any school child on strike (subject to various safeguarding issues). As a consequence, I personally decided to work both with New Cross Learning, a local library in New Cross, as well as the nearby community coffee shop The Hill Station at the top of Telegraph Hill, both in London, which helps organise and host an annual community festival.

Every Thursday morning during the summer of 2019, I ran a green learning drop-in session with David Holloway, who has a WikiQuals open learning project called "Learning Without Barriers" (Holloway, 2018). I also started to look at how to provide a support centre for school children on climate strike. Trying to create a neighbourhood support centre for green learning revealed not only the critical set of issues that I will discuss here, but also revealed just how far away our education system is from having any green consciousness about itself, and how hard it is to identify what "green learning" is in practice.

Since there were few green books, I decided to act to green New Cross Learning by donating books every week I was there, such as *Autogeddon* by Heathcote Williams (1991) and *The Revenge of Gaia* by James Lovelock (2006). I also bought and donated two copies of Greta Thunberg's book, *No One Is Too Small to Make a Difference* (Thunberg, 2019), one of which was then stolen (perhaps due to the lack of access to any green resources). It also turned out that you couldn't simply donate books to a library in London but they had to go to a central library first to be recorded and perhaps approved.

This was parallel to what Bridget McKenzie (2019) was curating with her Climate Museum UK, where she was collecting objects related to the climate emergency, which then became a green resources hub. I was also hoping that a green book club could meet regularly in order to discuss green ideas further. These resource-based initiatives at the local library were not too successful. Social media was full of hashtags proclaiming a variety of green interests and much righteous anger, such as the spectacular Extinction Rebellion, but the real world was lacking practical initiatives on the ground that might help green our learning. Some young people did run an alternative COP26 online, the Mock COP (2020), during the Covid-19 pandemic, whose motto is "we spoke, now you act".

Green my reading

It was the lack of response in 2019 that caused me to reflect on how I had personally begun to green my learning. Unsurprisingly, because I had initially discovered agency as a learner by voraciously reading books that I chose for myself (see my other chapter), greening my own learning came from first discovering my own learning agency. I had learnt to follow my interests and so create my own folksonomy of learning by letting my curiosity reveal what I was interested in. Agency also requires choice, but more than that, agency further requires a wide range of possibilities to help broaden those possible choices. As I saw at the small local library that I had based myself in, choosing to read green books was not an option. However, despite failing to #GreenMyLibrary I did manage to #GreenMyBookshelf as one bookshelf was opened up to store the green resources I had donated.

Whilst the content with which I personally managed to "green my learning" mostly came from books, there was also the contextual factor of nature itself, which I describe as being that "there's a lightness on the edge of town, just walk into it" – as Peter Wohlleben (2016) reveals in *The Hidden Life of Trees*, nature is always talking amongst itself

Learning beyond the classroom

Most of my adolescent self-determined learning came from listening to music, choosing to watch films at the cinema (we had no TV), chatting with friends and, most importantly, "going to play outside" with no pre-determined agenda or rules, unless we made them up ourselves. I grew up in the 1950s and 1960s, which was an age of relatively few cars and not much television, from which my untrammeled curiosity benefitted massively. Perhaps not as much as the nature poet John Clare (2020), writing just before the Individual Revolution in the UK, but I was learning from Nature.

Green my resources

As a developing green, I learnt early on that I had to buy additional resources that fed my interests and thereby broaden my learning, unlike in the taxonomically-limited education system which is concerned to keep our interests constrained by the subject-curriculum and relevant resources are located in the library. Luckin (2010), however, defines resources as "the cognitive, affective and physical capacities and capabilities of a learner" (p 117), arguably describing how we learn "beyond the classroom" or in the "surrounding environment" of learning as she puts it. My understanding as a green learner was broadened and deepened by the resources I discovered by following where my interests took me, not because a forthcoming exam demanded it. In the case of exams, the cramming of information to be regurgitated under pressure shortly afterwards is probably the best way to make sure that you will forget it by the following year.

Green my institution

In 1990, I completed a Masters degree at City University with a research thesis on the Environmental Impact of Computing, which was framed by the question "Is there a Green IT strategy?". I researched how to both green technology use and also how to green the institution. I introduced what my research had taught me, namely eco-management, recycling, and green awareness through an annual "Green Week" through the development of green policies at Lewisham College where I worked, and where I was chair of the Green Committee, alongside developing various green partnerships with the London Borough of Lewisham. This resulted in a New Deal for the Environment grant from the UK government for the Borough of Lewisham in 1998 and the creation of the Creekside Environmental Education Centre, which was the only building in London that met IOC Sustainable Development standards at the time and so was included in the successful London 2012 Olympic bid.

Green my governance.

These local successes apart, the single most important factor in Greening My Learning was to introduce a Green Governor at Lewisham College: certainly a first in the FE College sector in the UK. This meant that ALL college policies were reviewed by an environmental expert, Professor Shirley Ali Khan, co-founder of Forum for the Future. Without top-level strategic review of all college policies, everything else is piecemeal and ad-hoc. Adopting an eco-management quality standards approach also meant that the college had to publish its environmental performance every year for public scrutiny.

Green my curriculum or teaching green

I did this for many years, is not easy however. Currently, the teacher has to write the course submission and take it through a curriculum approval process first. Most teachers can't be bothered, or perhaps find the overhead to getting this done too onerous, with too many inspection and quality assurance barriers in the way. Luckily, I had started teaching in the USA where curriculum development is a rigorous, quality-controlled, but universal process undertaken every semester, so I was used to writing my own curriculum.

As I developed my approach to teaching, which I called "brokering learning" (Jennings, 2010), I wrote the environmental impact of technology into my Social Impact of Computing course – and so I learnt how to teach green. I eventually found that you only needed to teach about the Product Lifecycle Analysis of any product to understand its environmental impact. Doing this with plastic would solve the current single-use plastic problem, but this is not talked about. As I suggest in the Learning is Changing video (Garnett, 2011a) we must also learn to recognise the original thinking of learners and their heutagogical practices, so that they feel free to pursue their interests.

Green my research

Greta Thunberg has called for schools to change their curriculum, that we should listen to the science and that environmental scientists will tell us how to save the world – like green superheroes perhaps? Whilst I agree that governments should accept the IPCC report and act on Climate Change (United Nations, 2016), I don't think that "green research" should solely be the province of "environmental scientists", as we need a more holistic approach.

CoPIRGis one of the greenest research organisations in the world, in that environmental issues are on their research agenda, and it is a Public Interest Research Group not an academic research group, with a subject-discipline interest. It is also based in Boulder, Colorado, which boasts that it is the world's greenest town. Certainly, this is true in terms of by-laws and its self-imposed rules it is (City of Boulder, 2013). I was a Governor at CoPIRG, and I think we need to develop a new socially accountable form of research group (like the PIRGs). As we say in the learner-generated contexts research group, with whom I have made the most use of heutagogy, "context is queen" a theme I have used throughout my work since 2002. We don't think that "content is king," and this tension between the framing importance to our thinking of context and the didactic limitations of educational content reflect a critical issue here to me. I would argue that we learn from context above all, but undoubtably, we learn best about nature by being in nature rather than in institutions. Going inside to learn about what is outside is drastically limiting to the range of ways in which we might learn. Going outside into nature, like the Outdoor Owls do, is the best way to learn about nature. By learning about nature within the context of nature we also might gain the deeper understanding that "context is queen".

Designing agency into green learning

The separate issues addressed here were the detailed practical issues I discovered that we needed to address last year if we were to green our learning institutionally. However, on reflection, I now think that the two critical issues in creating a Green Heutagogy are to be able to "Green My Thinking" and to "Green My Institution" so that green learning has a supportive green frame. If the educational institution you are trapped in is only concerned with high-stakes assessment successes, then you will be tested on a core checklist of facts from an exceptionally narrow range of acceptable subjects: the canonical core curriculum of compulsory education. At the moment, we don't think green, and we don't study in green institutions.

However, this isn't the place to discuss the deeper question of the nature of knowledge and how we validate and substantiate the epistemologies by which we think. That is a broader issue I looked at in "Putting Context into Knowledge" (Garnett, 2011b). However there is a substantive issue to discuss about "How Do We Green Our Thinking" which I did look at for World Heutagogy Day. If you follow the chronology of my deepening awareness concerning green issues as indicated in the Green My Learning post (Garnett, 2019b), then I didn't start to "think green" until after I left school. This was because my pedagogically-driven schooldays filled up my thinking time, and I spent my "free time" finding joyful release from the mental RSI of repetitive school injuries, in the playful forms of popular culture, mostly pop music, football, and cricket.

As a town dweller, my context was urban, and my thoughts remained within my city boundaries. However, precisely because I lived on the edge of town – Harrogate in Yorkshire by the River Nidd – I realised that "there's a lightness on the edge of town," and I walked into it. From then on, I also began to learn from the natural context in which I was living, not just the urban offerings, and the educational slops I had been force-fed with. I had not worked out how to think for myself aged 18 but somehow, I did discover in 1969, that half the world away in Utah there was a Native American magazine called Many Smokes (which ran from 1969 to 1984) and so I subscribed to it by post. Maybe, because George Harrison had promoted meditation and the values of Indian culture, I had become intrigued by cosmologies beyond the subject orrery of my grammar school. It seemed to me that Many Smokes was largely about cosmologies, and I realised that I had no idea what I personally believed in, as opposed to what I had been told to believe in.

It seemed that The Beatles had gone through a similar process after the death of their manager in 1967. Following the unprecedented global success of their album Sgt. Peppers, they seemed to realise that they had been working to satisfy the values of others whilst not having a clue of their own values. Their trip to Rishikesh India in 1968 (they also considered buying a Greek island and living as a commune) meant that they abandoned their work commitments, whilst various companies tried to dictate what work they should be doing. Their next album, the so-called White Album was actually entitled, quite simply, The Beatles, which I've long taken to mean that they had finally come to know who they were; they chose to define themselves. For a short time in 1968, The Beatles had stepped out of the endlessly repeating structures of the music industry, namely, record, produce, sell, and tour. Instead, for a short time, they choose to do what they were interested in. They expressed their personal agency. Similarly, my green learning occurred when I could step outside of the endlessly repeating examination structures of formal education.

Many Smokes introduced me to the notion of green thinking by way of various cosmologies that inculcated both an ecological spirituality and planet-centric thinking. We get neither of these from the current scientific notion of environmental sustainability that COP and their advisory scientists, and even Greta Thunberg, are currently pursuing. They still seem to believe that we can have our planet and eat it. Once I'd started to think green, by reading "green," engaging with nature, and moving beyond solely rational thinking, I became capable of pursuing green actions in the everyday world.

At the moment, Fridays for Future is asking that others act green on their behalf. Given that the COP policy process promises exactly that, namely to create a green world for us, then perhaps it is a reasonable demand from young people – still trapped in compulsory education and lacking positive agency in their learning (just the negative agency of refusing to accept the norms imposed on them) – to ask politicians to solve the problems of the Anthropocene just by listening to scientists.

Developing positive green agency in oneself is perhaps harder than developing a learning agency, as we spend most of our childhood in schools and are intimately connected to the educational places that tempt us to learn as we are directed to, whilst restricting our agency. We are framed educationally in such a way that it is possible to glimpse what learning could be if really diverse choices were offered to us, rather than the occasional optional choice between which topic to study whilst on a pre-determined course (as it is in the UK).

Green my agency

So, on reflection, in trying to develop informal green learning opportunities for young school children to engage with on Friday afternoons, I also slowly discovered the multiple institutional barriers that exist to block any broader curriculum changes within the compulsory education system. We can't green our learning because the education system is constitutionally opposed to the concept of "my learning", that is the self-determined learning agency that we call heutagogy.

The several barriers described here are essentially the same barriers we need to traverse in order to "green learning" and introduce heutagogy as mainstream educational practice. These are, to highlight three critical points, firstly the "green governance" of educational institutions; secondly a greening of learning resources (which are shockingly and surprisingly missing from local libraries); and perhaps most significantly, the co-creation of learning processes as a shared endeavour both within and beyond the classroom by both teachers and learners. Similarly, for heutagogy to be

adopted in education, institutional governance needs to be concerned with developing learning agency, and a broad ecology of resources needs to be available that are not just exam-related textbooks. Perhaps, most significantly, a school-level co-creation of learning processes is necessary, such as those adopted by Vijaya Bhanu Kote in her "heutagogy for primary children" (whom she calls "heutagogs") project in Andhara Pradesh (Kote, 2020) – and needs to introduced and celebrated.

References

City of Boulder. (2013). *Green building and green points guideline booklet.* https://www-static.bouldercolorado.gov/docs/green-points-guideline-booklet-1- https://www-static.bouldercolorado.gov/docs/green-points-guideline-booklet-1-201306271201.pdf ?

Colorado Public Interest Research Group. (2021). https://copirg.org/

DfE. (2019). *How we are educating the next generation about the battle on climate change.* https://edtechbooks.org/-XxPM

Garnett, F. (2011a). *Learning is changing* https://edtechbooks.org/-CrxP

Garnett, F. (2011b). *Putting context into knowledge.* https://edtechbooks.org/-abFS

Garnett, F. (2019a). *Green my learning* (weblog). https://edtechbooks.org/-ytiH (Accessed: 19 January 2021).

Garnett, F. (2019b). *Green my learning* (weblog). https://edtechbooks.org/-kyqI

Garnett, F. (2019c). *How do we green our learning?* https://edtechbooks.org/-Ndae

Hase, S. & Kenyon, C. (Eds.) (2013). *Self-determined learning: Heutagogy in action.* Bloomsbury.

Holloway, D. (2018). *Learning without barriers*, WikiQuals project. https://edtechbooks.org/-ZHjy

In Our Time. (2020). *John Clare* [Podcast]. 7 May. https://edtechbooks.org/-oYyJ

Jennings, D. (2010). *Fred Garnett on how to create new contexts for your own learning.* https://edtechbooks.org/-CkK

Kote, V. (2019). *Heutagogy for primary school children.* Slideshare. https://edtechbooks.org/-AQiV

Lovelock, J. (2006). *The revenge of Gaia.* Basic Books

Luckin, R. (2010). *Re-designing learning contexts*. Routledge.

Many Smokes magazine archive. (no date). https://edtechbooks.org/-rvwh

McKenzie, B. (2019). *Climate Museum UK.* https://edtechbooks.org/-DBBj

Mock COP. (2020). https://www.mockcop.org/

Outdoor Owls UK. (no date). https://edtechbooks.org/-mUJ (Accessed: 19 January 2021).

Stone, B. (2013). *The everything store: Jeff Bezos and the age of Amazon*. Little, Brown and Company.

The Guardian. (2020). *Little evidence Covid spreads in schools says Gavin Williamson* https://edtechbooks.org/-ijJI (Accessed: 19 January 2021).

Thunberg, G. (2019). *No one is too small to make a difference*. Penguin Books.

United Nations. (2016). *Paris Agreement*. United Nations, pp.1-2

Williams, H. (1991). *Autogeddon*. Vintage Publishing.

Wohlleben, P. (2016). *The hidden life of trees: What they feel, how they communicate.* HarperCollins Publishers
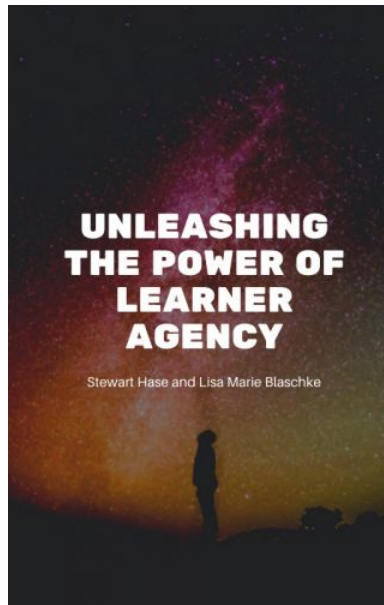
Garnett, F. (2021). How Can We Green Our Learning? In S. Hase & L. M. Blaschke (Eds.), *Unleashing the Power of Learner Agency*. EdTech Books. https://edtechbooks.org/up/GL