

Developing future facing graduates through innovative and challenging real world live projects

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ABSTRACT

This paper will convey the iteration and student-centred impact of the 'Real World Project', a final year interdisciplinary live project undertaken by students from the BA Graphic communication programme within Cardiff School of Art and Design. 'Real World' provides students with opportunities to creatively respond to a real world brief and to engage directly with clients. In 2015, Real World challenged the students to communicate issues emerging from the Future Generations Act through involvement with the Cynnal Cymru – Sustain Wales organisation. They worked in teams that included design industry mentors and undertook responsibility for project management through time critical milestones and deliverables.

We use the example of Real World to provoke a wider discussion about the role of live projects within evolving political, social and pedagogical contexts. Whereas the typical live project is intended to afford students the opportunities to solve problems through an experience that simulates the creative industry, here we offer a viewpoint that considers the agency of the student in shaping the future sustainability of the design profession.

Introduction

From the outset, the BAGC programme acknowledges that being a designer carries with it a commitment to social responsibility; our students are expected to have enquiring minds, and to approach problems as opportunities. It is our ambition to provide a studio environment that invites students to generate ideas, develop skills and understand contexts, so when they graduate they are equipped to bring something of themselves to a super-complex discipline. In this context the Real World project has had to adapt to the subtle shifts in design practice, and to grapple with the tensions between social and economic drivers alongside increasing technocratic governance. Whereas the project began as an alternative to work experience, by connecting students to a client and inviting design industry professionals to critique the work, this has evolved. The focus is now on creative agency, equipping students with the resources to become proactive rather than reactive, responsible rather than responsive.

As educators we must demonstrate how we value process and thinking. So that designing is perceived as an active experience that shapes the way in which issues of global concern can be addressed.

Before we provide detail on the Real World project itself – particularly the process – and address the changes we have introduced that aim to position issues and values as drivers for design, the following sections we draw on theoretical underpinnings that position learning within a wider political, social and pedagogical context.

Overview of Real World

The Real World project is a Level 6 BA Graphic Communication (BAGC) project designed to provide students with a supportive environment for developing the creative agency needed to address the intellectual and vocational challenges of designing in the *real world*. The live brief is set by a client in discussion with BAGC staff. In 2015 we worked with Cynnal Cymru – Sustain Wales (Cynnal Cymru, 2015) and invited students to address the communication challenges emerging from the Well-being of Future Generations (Wales) Act (Welsh Government, 2016).

Academic delivery is managed through lectures, tutorials and workshops. The workshops focused on novel human-centred design techniques, for example using role-play to step inside the audience shoes, imagining situations that might present ethical challenges, and pitching ideas through paper prototyping.

The design proposition emerges through delivering tangible ideas at weekly milestones, which map directly onto corresponding assessment points (Skills, Context and Ideas). These milestones mirror the professional design research process; described within the themes of Inspiration, Ideation and Implementation. These deliverables must be signed off by a tutor, client or mentor, and would thus coincide with a tutorial or “pitch”. Typical deliverables are:

1. Creative Brief
2. Promising Ideas
3. Concepts and Prototype
4. Pitch to Client, including sustainability plan.

Students collaborate within a team of four; each team must deliver individual ideas that address the challenge. As each challenge requires a number of designed elements, ideas should, through experimentation and negotiation, contribute to a group proposition.

The lead representative from Cynnal Cymru provided the overarching mission: to build a sustainable Wales: Safe, Prosperous, Healthy. From this “key message”, six communication challenges emerged through consultation with six partnership organisations. Each partner took on the role of direct client for each student team.

How has the Real World project evolved in the past 5 years?

In this section we describe the main changes to the design of project, to draw attention to our shifting emphasis toward values rather than outputs. These changes can be summarised as follows:

1. The content of the brief
 2. The composition of student teams
 3. The role of the client
 4. The studio culture and the role of the mentor
 5. The design proposition
1. Within the Real World project students are expected to test out the notion of social responsibility through the infrastructure of a challenging design brief. The brief is set by a real client whose goal is to find a means of communicating complex issues around sustainability to specific audiences. The focus on sustainability as an issue is one of the ways in which the project has evolved, more recently we have used this as an opportunity to open up questions on sustainability of design as a discipline, as well as *the* design as an output. We have also moved away from one client-set brief and instead we invite clients to consider an overarching mission, which we work with them to divide into mini-challenges, where possible the mini-challenge may have a stakeholder who can also play a client role. Each challenge is allocated to a team of four students. This supports the idea of addressing a global issue through taking local actions, with each student, in each group, empowered to make a difference.
 2. Team-work has also evolved, with varying degrees of success. We have explored skill assessment, self-perception inventories, and randomised allocation. The most recent method of team organisation has been to consider the student self reflection on a cross-disciplinary project taken at Level 5, and to allocate teams of four a specific challenge set by the client on day one of the project.

This challenge has the same structure as the big project, but is undertaken within a strict deadline to deliver a proposition to the client at the end of the day. The students are then asked to rate the success of teamwork and given the option to reform if necessary.

3. The client is provided with a timetable at the start of the project, asking them to commit to attending sessions that can help direct ideas. They are asked to participate in ways that may challenge the orthodoxy of client student knowledge exchange and to consider how they might reduce the perception of organisational hierarchy. They are invited to attend an interim critique that is designed to make any barriers to the progress of ideas clear. They are not expected to judge the quality of the design; rather we ask them to be open to a range of ideas not to discount weird and wonderful opportunities as bad ideas.
4. Each team works with a design industry mentor, these mentors volunteer their time, roughly one – two hours per week. The students are advised to organise meetings to coincide with critical milestones. Recently we have encouraged students to use mentoring as a test-bed for pitching ideas. They are expected to create their own mini design studio within the larger studios and to invite mentors into their space. The purpose of this has been to shift the mind-set of both student and design professional away from the idea that mentoring is a one-way activity in which the mentor solves the design problem.
5. Finally, we have moved away from the idea of a final formal presentation of work to the client. Our ultimate goal is to support creative agency. Whilst we require our students to present work has the qualities needed to authoritatively gain the confidence of the client, we also want them to pitch their ideas in such a way that they build narratives around the future of the design. For example, what does success look like as a result of my design? To support this we have instigated the idea of the bazaar, whereby the students initially pitch their design propositions to the client in the formal arrangement of a 5 minute presentation, then the invite the client back to their mini-studio space where they can sample the design in a variety of prototype situations. For example they make rudimentary mock-ups of specific scenarios, they may role-play the design in action. This affords the opportunity to be discursive with the client in a more relaxed and playful setting.

Pedagogy for future facing graduates – Underpinning the Real World project

“Even if it is granted that a higher education curriculum should pay attention to the three moments as they are unfolding here – of understanding (knowledge), acting (skills) and being (self) - it may be asked: what has all this to do with learning for an unknown future? The answer is that matters of will, energy and being come into view in learning for an unknown future because the value of knowledge and skills recede in this milieu. If, in different ways (as the outcome of both complexity and supercomplexity), the world is radically unknowable, then knowledge and skills can no longer provide a platform for going on with assuredness...Under those conditions, one goes forward not because one has either knowledge or skills but because one has a self that is adequate to such an uncertain world. One’s being has a will to go on...what is at issue here is a self that is capable of having some security in the world, even as buffeted by the world.” (Barnett, 2004, 254)

The Real World project utilises a range of pedagogies rooted in the constructivist tradition of teaching and learning and thus seek to stimulate a deep level learning via actively, creatively and socially structured knowledge acquisition and perhaps more profoundly experiential activity – that is, the process of knowing. (Perkins, 1999). Primary among these is the notion of transformative learning by which the Real World project seeks to encourage a sense of ‘meta-learning’ among students through which they begin to question their own sense of learning within their discipline and in doing so develop a broader construction of their own personal and professional identities in order to better understand their own agency within a professional context. Entwistle (2008, 27) has stated *“as people begin to see learning as involving the effort to make sense of ideas for themselves by relating it to their previous knowledge and experience,*

information becomes transformed into personal meaning. Beyond that, learning involves seeing things in an importantly different light, and so becomes fully transformative of understanding. Finally, people may begin to experience learning as transformative in a broader sense, namely changing them as a person". Real World aims to achieve this by prompting an emotional engagement in the design process through which students consider their own self-awareness, self-autonomy and self-articulation in the context of their professional aims, with a view to empowering them in achieving these through the realisation of a *professional* self-actualisation (Maslow, 1971). Real World is a form of authentic learning: learners engage in real world professional processes but with a 'security blanket' enabling them to experiment, push the boundaries of their own experience, discover aspects of their own skill set (often personally reflective and/or interpersonal in nature), make mistakes, and of key importance, recognise and reflect upon mistakes and learning from them – learners are free to fail as long as they are successful in internalising such failure and demonstrating how it might contribute to their own development. By being asked to undertake real challenges within the real world of industry with an opportunity to make a real impact via their own individual creative agency, the learner is experiencing the bridging of theoretical underpinnings and their personal application of those within their own professional practice.

In attempting to develop future facing graduates better able to proactively contribute and stimulate change through focus upon possibility (rather than always solution) within a fast changing industry setting that is necessarily itself wrestling with the problem of how to become more future facing, a pedagogical context for learning for an uncertain future is helpful. This is provided by key scholar in the field Ron Barnett through his notion of 'supercomplexity'. Barnett rejects the practice of generically or even disciplinarily 'upskilling' students in order to cope with such a future stating: *"In contrast [to a focus on skills], the way forward lies in construing and enacting a pedagogy for human being. In other words, learning for an unknown future has to be learning understood neither in terms of knowledge or skills but of human qualities and disposition. Learning for an unknown future calls, in short, for an ontological turn."* (2004, 247). In juxtaposing the notion of complexity (which for Barnett is fundamentally 'solvable') with his notion of supercomplexity he states *"The challenges of supercomplexity, in contrast, could never be resolved. They are the challenges that arise from the question: what is university? Or: what is a teacher? Or: what is a doctor? ... For such questions, in principle, yield a multiplication of answers and further questions"* (2004, 249).

Thus it is that through the Real World project and its wider discursive philosophical context we are asking students: What is a graphic designer?; What are the social and cultural responsibilities of a graphic designer?; What is graphic design and how does it delineate from graphic communication?; What is sustainable design and what impact can it have on our world?; Who are you as a designer? Real World (and more broadly the BAGC programme) are then (attempting to) prompt transformative learning within students by asking them to consider their personal 'frames of reference' (Mezirow, 2000) through consideration of central value propositions relating to: their own self-perception as individuals, designers and professionals; the changing perception of the role of the creative industries; how they as individuals might fit within this 'supercomplex' landscape?

Learners are being challenged to begin the process of forming their own conceptions of relevant values by considering how these might fit: within a formative sense of professional identity; within an industry that is no longer always 'traditional' or 'orthodox' in its conduct; within their agency to prompt action, outcomes and products among target audiences. Barnett states "what we are witnessing is a new kind of world order in which the changes are characteristically internal. They are primarily to do with how individuals understand themselves, with their sense of identity (or lack of it), with their *being* in the world; this is a world order which is characterised by ontological dispositions." (2004, 248) We are then asking students to not only produce designs, but rather focus upon and indeed place intellectual worth on their own sense-making of the design process – we are challenging them to produce their own ontology of the action of designing. This is indeed demanding for learners, as Barnett has unmitigatingly asserted: there are no certainties, there are no definitive answers, often there are only more questions. As will be familiar to many, this is something undergraduate students struggle with since they are engaged in, what is for them at least, fundamentally a process of assessment driven learning. We are then in many ways pulling the rug of conceptual security from underneath the feet of learners who have often arrived in higher education ill-prepared (by secondary education) for such challenges leaving them uncomfortable in grappling with such

problems, particularly when they are to be assessed by their response. We are asking them to step into a fragile and ill-defined world characterised by supercomplexities, individual and collective ontologies and hierarchies of philosophical assertions all addressing the process of *designing* and the designer's place within the dynamic of *designing*. We are asking students to move away from a 'traditional' or 'learnt' focus on the output or product, that is the finished design itself, but rather to engage in a critique of person and process, that is to say *their* role in *designing*. We are attempting to empower learners by asking them to consider what it means to them to *be* designers who are *designing* designs in and for a future facing context in which their own agency has the potential to bring about change (behavioural and cognitive) to both the creative industries and the audiences their creative outputs address.

An alternative form of knowledge (and an accompanying pedagogy) is then proposed in which the act of knowing produces further uncertainty rather than security. Nevertheless this still results in a form of knowledge, Barnett terms and describes it as a "*knowing-in-and-with-uncertainty... a form of knowledge, albeit a knowledge which is itself a complex of personal, tacit, experiential and propositional knowledges*" (2004, 252). Barnett continues by proposing that the pedagogical task at stake is the need to equip and empower learners to prosper within a volatile world where assuredness, stability and uncontested conceptual certainty no longer hold authority. This is then a task of transforming the individual self of the learner to become more resilient to the challenges of supercomplexity for "*if the world is radically unknowable then, by extension, 'I' am radically unknowable. Especially, for our concerns here, as we saw earlier, what I am as a doctor, student or professor is itself unclear, contested, destabilized.*" (Barnett 2004, 252) For disciplinary specialists engaged in developing learning the creation of this transformative journey is itself conceptually and practically challenging prompting philosophical questioning of their own role. Those delivering Real World have had to consider: What is my role as a creative industry professional who also teaches?; What conflicts arise in terms of power differentials from this position?; How can I prompt student freedom to interpret what it is to take part in the designing process from a hierarchical position that inadvertently propagates the 'traditional' status quo? Barnett has asserted that such pedagogical development is characterised by the encounter of disturbances and strangeness and the resultant formation of one's own response to it – for Barnett "a pedagogy of uncertainty gains its ultimate achievement when the self is engaged." (2004, 257) Thus for Barnett a different kind of language of learning is required, a language which is itself imaginative and creative in output, a language that prods and pokes the learner's and necessarily the academic's very self. It is then a language and a journey that requires discomfort, introspection and personal re-evaluation, for Barnett "*It may be a poetic language, a language that speaks to human being. It might be a language of love, of becoming, of disturbance, or of inspiration. What is it for human beings to be encouraged, to be brought forth out of themselves? Smiles, space, unease, frisson, humanity, empathy, care and engagement may be helpful as descriptors; but each pedagogical situation sets up its own educational challenges and the imagined possibilities will be sensitive to each setting.*" (Barnett, 2004, 258)

Changing creative professions

"...Before the Industrial Revolution... art and life were unified into a cohesive whole. The din and thunder of the Industrial Revolution turned the world upside down in a process of upheaval and technological progress that continues to accelerate at an ever-quickenning pace. By jolting the arts and crafts from their social and economic roles, the machine age created a gulf between people's material life and their sensory and spiritual needs. Just as voices call for a restoration of humanity's unity with the natural environment, there is a growing awareness of the need to restore human and aesthetic values to the man-made environment and mass communications." (Meggs, 1983)

Meggs' quotation above concurs with our recognition that the creative professions – notably advertising, branding, design, entertainment, marketing, UX, UI, media, etc... have developed economic legacy relationships – post-industrial 'components' as it were – amongst business interests which govern manufacturing, commerce, transport, retail, leisure, banking, government, health, education, etc... We have

also come to observe that such legacy business objectives are increasingly in conflict with what we call 'natural orthodoxy'.

We define natural orthodoxy as a universal symbiotic, interactive-interdependent coherence. Further, it is a cosmological governance, which exists irrespective of 'understanding' (i.e. irrespective of any biodiverse or human-intellectual 'awareness'). Yet, it is continually encountered, perceived and also described through human sciences, philosophies, arts and religions. It forms an absolute benchmark for sustainable mutually-benefitting compatibility with universal principles which govern cosmological ecosystems – for example, the planet's capacity to continually sustain and replenish its mineral, ecological and biodiverse species provision, etc... This natural orthodoxy consequently applies to one species which has a unique capability and influence to live and behave in conflict with such orthodoxy – humanity. Yet, whether or not human behaviour is in conflict or in compatibility, as verified and observed by science-disciplines, natural orthodoxy principles persist, consequently retaining their impact and effects upon human health and wellbeing – for example, our species' capability to sustain supportive family units, mutually-cohesive intra-community and inter-societal relationships, managing essential sustenance for healthy human life, etc...

Derived from our own experiences and encounters, we have come to acknowledge that legacy industrial production and economic distribution growth have contributed to improvements in human living standards. But we also now acknowledge that a persistent presumption of perpetual growth – focused upon objectives defined by the maximisation of financial profits – promotes an unsustainable illusion which conflicts against natural orthodoxy, and consequently precipitates problematic uncertainties. Because of their established legacy relationships with businesses, and because of well-documented and widely reported conflicting effects against natural orthodoxy – such as species extinction, decreasing planetary carrying-capacity, ecological and mineral decline, pollution, climate-change, economic inequality, human-condition degradation, food-production and water-distribution challenges, etc... it is becoming acknowledged within our own professional educational and business relationships that creative professions are increasingly compelled to reconsider the effects of upholding a legacy-influenced status-quo (e.g. Angove, 2014, and Bellandi, 2015, Nwokorie, 2016 and Reed, 2015). Increasing evidence for conflicts against natural orthodoxy appeals to businesses of all kinds to expedite profound sustainable changes to their purposes and processes. We're concluding, consequently, that persisting with a status-quo risks precipitating problematic uncertainties, and the appeal from grass-roots sources (Hawken, 2007 and 2010, and Kendall, 2016) for re-alignment with natural orthodoxy is likely to form 'conceptual uncertainties'. Yet, it is now our opinion that businesses and their attendant creative professions, which intend to be defined as 'future-facing', have an imperative to embrace these 'conceptual uncertainties' – and that they may benefit from becoming 'agencies', or 'precipitants', instead, which induce processes towards sustainable natural orthodoxy (e.g. Berman, 2008, and Kolko, 2012).

Why is the student?

A phenomenon which is becoming increasingly evident to us, sets the scene. *At the beginning of a graphic communication project, undergraduates were being taught that they were people with capability, power and influence. As creative people, they would affect our world more profoundly than they, perhaps, realised. Higher education could teach them how to practise their creative skills with beneficial, sustainable responsibility in their respective professions. This seemed to surprise many of those students. When asked why they had come to university and what unique contributions might they offer to their world upon graduation – all were bemused and initially dumbfounded. When responses were given, eventually, none was coherent about what each had to offer – some were distressingly self-deprecating. It was as though these students had entered university education with little, or no, awareness of why they were here, their own human value, nor a certainty of 'self'.*

This ontological uncertainty has since become evident within other undergraduate students during taught and tutorial sessions. Other conversations with creative-professional practitioners, have revealed that the 'self' (where it had been considered) was defined variously by cultural (macro and peer-social), economic,

political, spontaneous circumstantial or mid- to long-term aspirational influences and ambitions. Yet an inherent, persistent appeal for human 'certainty' appeared to render such definitions of human 'being' vulnerable to these persuasive 'external influences'. These findings have since raised questions about the effects of such 'external influences' upon ontological uncertainties, and consequently upon personal perceptions of 'self'.

Conversations with secondary-education teaching colleagues have considered a concept of 'authentic humanity'. Authentic humanity presumes that every person is born with inherent needs which, when satisfied, establish a profound, secure sense of 'self' within a child. This concept, to which we refer as the 'authentic human needs' of every human being, is consistent with psychology's social- and behavioural-sciences' research-findings and practises – most notably and influentially those of Abraham Maslow. An established secure sense of 'self', becomes a foundation to explore and discover an expanded definition of self – ultimately into 'self-transcendence' (Maslow, 1971). But these conversations have revealed a phenomenon consistent with that noted above, where school pupils appear to have developed a discrepancy between 'who' they are, with respect to their inherent authentic human 'self' from birth, and, having encountered 'external influences', 'why' they are. As stated by one secondary-school teaching colleague, *It appears that the pupils' sense of capability, their creative capacity, has been diminished. They just want to be told what to do, and won't do anything until they are directed.*

Here, we consider a vulnerability, and hypothesise a developmental scenario. Every person is born with authentic human needs (Maslow, 1969 and 1971), and we assume has an inherent latent capability to explore *extra-utero* the inevitable uncertainties of unknown external environments. It seems reasonable to consider that *extra-utero* encounters to which that person is exposed have ontological influence. These encounters may offer 'certainties', which could erode that person's inherent capability to explore 'uncertainties'. If these encounters, these 'external influences', offer 'proxies' as 'certainties' to satisfy authentic human needs, then what might be the effects upon that person's ontology? For example that person's 'self' might be persuaded to satisfy an authentic desire for 'belonging' through the acquisition of proxies for authentic relationships – 'certainties' such as products, experiences or status – "*You 'belong' because you have the same stuff, do the same things, gain social acceptance...*"

Consider this finding:

"...as a people have become steadily less concerned about the primary needs – food, clothing, and shelter ...we now demand a broad list of goods which come under the category of 'optional purchases'...there are new wants which will make way endlessly for newer wants, as fast as they are satisfied. By advertising and promotional devices, by scientific fact finding, by carefully pre-developed consumption ...convincing people to buy goods for which they are unaware of any need until the need is forcibly brought to their attention by the mass media." (Committee on recent economic changes, 1929).

As Christopher Lasch explains:

"In a simpler time, advertising merely called attention to the product and extolled its advantages. Now it manufactures a product of its own: the consumer, eternally unsatisfied, restless and bored. Advertising serves not so much to advertise products as to promote consumption as a way of life. It manipulates the masses into an insatiable appetite not only for goods but for new experiences and personal fulfilment, it promotes consumption as the answer to the age old problems of loneliness, illness, weariness, and lack of sexual satisfaction... It addresses itself to the spiritual desolation of modern life and proposes consumption as the cure." (Lasch, 1979).

That vulnerability to 'proxy-certainties', could erode a person's inherent inquisitiveness to explore 'uncertainties' – "*Because, as a 'consumer' I've found what I'm looking for (until the next 'must-have' comes along).*" This erosion of inherent inquisitiveness may render a person's sense of 'self' subject to whatever or whoever determines how their authentic human needs may be (allegedly) satisfied. This consequently renders the 'self' vulnerable to 'proxy exploitation', where external influences, – for example, 'manufactured objectives and agendas' – appeal persuasively to a 'redefined ontology'. Who might such a 'self' think they

are? Why might they make decisions? Perhaps this explains the phenomenon above, where students variously attempt to answer in bemusement, “*I dunno*”. “*I haven’t thought about it.*” “*I don’t think I have anything of value to offer*”.

Who is the future-facing student?

I have value, I belong, because I am born.

The Real World project offers a ‘safe’ learning and teaching environment – a ‘restorative proxy’ for *extra-utero*-type inquisitiveness. Here, we – staff and students, as co-learners alike (‘re-learners’, perhaps?) – encounter ‘uncertainties’ in scenarios which promote, perhaps provoke, what we call ‘un-remembered’ ontologies. ‘Un-remembered’ can be described as a hint-like feeling – a vaguely-distant, yet somehow-familiar ‘re-call’ to our ‘authentic’ latent creativity. An *extra-utero* ‘safe’ external environment – for example parental welcome, acceptance, love – we assume would affirm a person’s internal environment. This would then help to form a personal belief (a unique ontology) of ‘being safe’. It would confirm that, “*I belong and am loved*”. This can be described as an ontology of personal ‘resilience’. This ‘resilience’, if present and embedded profoundly within a person’s sense of human ‘being’, consequently could render a person free to extend personal boundaries and expand a definition of the ‘self’ (Maslow, 1971). This activity of ‘self-expansion’, consequently could encourage a person’s appetite for ‘uncertainty’ – because ‘certainty’ would not be dependent (entirely) upon external environmental influences, but would instead be based upon that person’s fundamental, embedded ‘resilience’.

The Real World project’s pedagogy encourages a process of ‘re-remembering’. We can define ‘re-remembering’ as a restoration of *extra-utero* resilience. Because a student is, presumably, already informed by ‘external influences’, re-remembering is precipitated by opportunities at the beginning of the project to ‘dump preconceptions’. It is reasonable to assume that the capability of a given student to be able, indeed be willing, to dump preconceptions would be commensurate with the degree to which that student has ontological resilience embedded within their sense of ‘self’. Yet it is the presence of this resilience which is assumed to determine their appetite for ‘uncertainties’. Here, an additional feature of the Real World project facilitates personal resilience. This feature is a ‘restorative proxy’ for a welcoming family. It invites the student as an equal human-being – where tutors, mentors and fellow students are ‘models’ for ‘acceptance’. This is a ‘safe’ external environment, where creative experimentation and exploration of uncertainties is encouraged. It is ‘safe’ to make mistakes and try again, because ‘success’ is not measured by pre-determined expectations of prescribed outcomes. Instead it is a recognition of ‘appetite’ for risk – a celebration of initiative, boundary-pushing, active engagement and persistent participation.

Re-remembered resilience... Here are the qualities of the future-facing student.

It is this restoration of resilience, this consequent appetite for uncertainty, which facilitates hope that the human species might re-remember the inherent safety of sustainable symbiotic natural orthodoxy.

Conclusion

The Real World live project seeks to provide a safe, yet ontologically challenging environment which engages learners in the process of transformative personal awareness and professional development. This approach is reflective of the contemporary paradigm shifts identified as occurring in the creative industries and indeed the modern globalised world at large. At the same time the project aims to create future facing graduates that are able to proactively contribute to the changes such paradigm shifts demand of those entering and able to shape professional environments and the impact they have on the wider world. The pedagogical context provided seeks to prompt the learner to address questions of self-identity and in doing so enter into a wider conversation regarding an individual’s creative and professional agency. It is then the responsibility of academia to challenge rather than perpetuate the current status quo, to empower graduates to not only be resilient but to be capable and confident in addressing the many conflicts arising

from the 'supercomplex' world Barnett speaks of. Future facing education should not be considered a mere niche, rather it is the fundamental imperative that underpins the real world impacts that higher education seeks to engender through its production of graduates. We argue that to be understanding of the demands of what it means to be future facing within the real world is indeed to be educated of both the personal self and one's role in contributing to responsible change within the modern world – to achieve this among our graduates is then the challenge faced by higher education today.

References and citations

Angove, N. (2014). *We are not consumers, nor target audiences*. LinkedIn Pulse blog. (Internet). Available from <https://www.linkedin.com/pulse/20141210162317-369978556-we-are-not-consumers-nor-target-audiences?trk=mp-reader-card> (Accessed 10 December 2014).

Barnett, R. (2004). Learning for an unknown future. *Higher Education Research & Development*, 23(3), 247-260.

Bellandi, A. (2015). *Reclaiming our branded humanity*. LinkedIn Pulse blog. (Internet). Available from <https://www.linkedin.com/pulse/reclaiming-our-branded-humanity-angelo-bellandi?trk=prof-post> (Accessed 9 July 2015).

Bellandi, A. (2015). *Re-design our world...* LinkedIn Pulse blog. (Internet). Available from <https://www.linkedin.com/pulse/design-world-you-want-see-angelo-bellandi?trk=prof-post> (Accessed 23 July 2015).

Berman, D. (2008). *Do Good Design: How Design Can Change Our World: How Visual Communicators Can Save the World*. Berkley: Peachpit New Riders.

Committee on recent economic changes (1929). *Recent Economic Changes in the United States: Report of the Committee on Recent Economic Changes of the President's Conference on Unemployment; Including the reports of a special staff of the National Bureau of Economic Research, Inc. – Volume 1*. New York: McGraw-Hill Inc. (Internet). Available from [http://memory.loc.gov/cgi-bin/query/r?ammem/cool:@field\(DOCID+@lit\(lg38T000\)\)::bibLink=r?ammem/coolbib%3A@field\(NUMBER+@band\(amrlq+lg38\)\)](http://memory.loc.gov/cgi-bin/query/r?ammem/cool:@field(DOCID+@lit(lg38T000))::bibLink=r?ammem/coolbib%3A@field(NUMBER+@band(amrlq+lg38))) . (Accessed 11 December 2014).

Cynnal Cymru (2015) *Homepage* (Internet). Available from <http://www.cynnalcymru.com/> (Accessed 30 June 2016)

Entwistle, N. (2008). Threshold concepts and transformative ways of thinking within research into higher education. *Threshold concepts within the disciplines*, 21-35.

Hawken, P. (2007). *Blessed Unrest: How the Largest Movement in the World Came Into Being and Why No One Saw It Coming*. New York (etc): Viking Penguin.

Hawken, P. (2010). *The Ecology of Commerce: A Declaration of Sustainability*. New York (etc): HarperCollins.

Kendall, B. (2016). The Forum. *Consumption and Our Identity – How what we consume shapes and defines our identity*. (Internet). BBC World Service broadcast, available from: <http://www.bbc.co.uk/programmes/p03f3wfp> (Accessed 25 January 2016).

Kendall, B. (2016). The Forum. *Grass Roots: How 'people's' movements are changing*. (Internet). BBC World Service broadcast, available from: <http://www.bbc.co.uk/programmes/p03chc1k> (Accessed 25 January 2016).

Kolko, J. (2012). *Wicked Problems: Problems Worth Solving*. (Internet). Available from <https://www.wickedproblems.com> (Accessed 25 February 2016). Austin Centre for Design (AC4D).

Lasch, C. (1979). *The Culture of Narcissism: American life in an age of diminishing expectations*. New York, NY: W.W. Norton & Company, Inc. Cited in Emerald, N.D. (2004). *Consumerism, Nature, and the Human Spirit*. Paper submitted to the faculty of the Virginia Polytechnic Institute and State University. (Internet). Available from <http://scholar.lib.vt.edu/theses/available/etd-12272004-133514/unrestricted/capstonefinal11-29-04.pdf>. (Accessed 08 December 2014).

Maslow, A.H. (1969). The farther reaches of human nature. *Journal of Transpersonal Psychology*. 1 (1), 1–9.

Maslow, A.H. (1971). *The farther reaches of human nature*. New York: Viking.

Nwokorie, I. (2016). *How we'll respond to Brexit*. LinkedIn Pulse blog. (Internet). Available from <https://www.linkedin.com/pulse/how-well-respond-brexit-ije-nwokorie?trk=hp-feed-article-title-comment> (Accessed 29 June 2016).

Perkins, D. (1999). The many faces of constructivism. *Educational leadership*, 57(3), 6-11.

Reed, B. (2015). *Designers of the future: Seven ways to make the best even better*. Design Council news and opinion. (Internet). Available from http://www.designcouncil.org.uk/news-opinion/designers-future-seven-ways-make-best-even-better?utm_source=Design%20Council%20Newsletter&utm_campaign=f4ca852be6-Newsletter_151223&utm_medium=email&utm_term=0_a2748d9827-f4ca852be6-67130033 (Accessed 29 June 2016).

Welsh Government (2016) *Well-being of Future Generations (Wales) Act 2015*. (Internet). Available from <http://gov.wales/topics/people-and-communities/people/future-generations-act/?lang=en> (Accessed 30 June 2016).