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Making Room for 21st Century Musicianship in Higher Education

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Having been asked to respond to Action Ideal VIII by the Mayday Group, concerning technology and its impacts on music education, what follows are some observations and reflections from my experiences teaching undergraduate music and music technology degrees in the UK. I put forward the idea that Post-Digital music aesthetics reflect an emergent sensibility in contemporary music cultures, and this represents an opportunity for music educators to reconfigure and strengthen their pedagogical approaches. By recognizing the legitimacy of new and varied forms of musicianship, and acknowledging the ways in which our subject area continues to grow in its range of practices and necessary literacies, strategies can be developed to support a music student experience that is cohesive, inclusive, hybridized, meaningful and useful.

Keywords: *higher music education, music technology, contemporary musicianship, post-digital aesthetics.*

Young musicians applying for places on undergraduate music courses in 2017 have most likely grown up with information technology: its frameworks are embedded within their everyday activities, impacting and facilitating relationships with others and engagement with cultures, information and media. Across generations, technology has transformed personal, professional and creative practices, leading to the emergence of new communication styles and vocabulary, industries, learning styles, working philosophies, and aesthetics (ideas explored and articulated in detail by Greenfield 2004; Prensky 2002; Castells 2014; Landy and Conte 2016; Henriksen, Mishra, and Fisser 2016, among others).

Even though I'm a little older and remember what life was like before the development of Internet communications and the proliferation of smart devices, *digitality* (a term coined by Nicholas Negroponte 1996) characterizes many aspects of my everyday life. It aids my research in that it allows me to travel to new places with less worry of possibly getting lost, to easily translate text between languages, to access an abundance of information and media instantly, and to engage with communities and individuals located almost anywhere. As a musician my creative practices have been transformed through the use of a diverse range of often inexpensive (sometimes free) music technology applications that have allowed me to seize artistic and professional opportunities that I would simply not have been equipped to tackle 15 years ago.

The impact of technology on teaching and learning has been observed and explored by scholars over recent decades (see Wilson 2004, Edwards and Usher 2007, Garrison 2011, Facer 2011, Beetham and Sharpe 2013), and the specific relationship between creativity, technology and pedagogy in music educational contexts (driven by swift developments and evolutions of music practices) has led some to call for change in established music pedagogical theories, practices and attitudes (Burnard 2007, Webster 2012, Ruthmann et al. 2015, Himonides 2016). Computers have become an increasingly commonplace feature in music classrooms since the digital revolution in the mid 1990s (a source of anxiety for music teachers forced to undertake emergency retraining—see Merrick 1995, Walls 2000, and Lin 2004 for a taste), and these days many students may have powerful computation devices in their pockets—prompting debate about the usefulness and relevance of smart phone technology to teaching and learning in the 21st century (Kearney et al. 2012, Wilcock 2016.)

Constant connectivity can be a positive classroom feature, affording an exploratory, flexible dynamic to lectures, collaborative learning experiences, and mutual discovery. On the other hand, are we right to be worried about the ways in which constant connection to the internet and social networks might be negatively impacting students' abilities to pay attention and/or retain information (Mercier-Laurent 2015; Lee, Cheng, Lin, and Chang 2014)? In a related way, the affordances of music technology on practice and creativity in the classroom can be a mixed bag: on one side offering us access to exciting new worlds of musical and sonic expression, and on the other perhaps limiting depth of engagement by design. Digital Audio Workstations and sound designing softwares often come pre-loaded with simplified musical templates and inflexible tonal, metric, and

rhythmic options that potentially short-circuit complex creative processes with features such as loop libraries, presets, and algorithms that sound great out of the box. Sequencing grids (Logic Pro, Ableton Live) and the emergence of iPad/touchscreen music applications (for example, Brian Eno's generative music iPad app *Bloom*) sometimes have the look and feel of computer games rather than sophisticated music making tools suitable for higher education contexts.

The unease felt by Martin Boere (2012) and his fears for a technologically instigated 'de-humanization of knowledge' can be soothed by looking at the stunning diversity of music making that has occurred off the back of the digital revolution. While music educators have been scrambling to catch up (with academics such as Kusek and Leonard 2005, Tanaka 2006, and Harper 2011, projecting possible implications that digital music making might have on the future of our field), this unfettered access to information, culture, music making tools, and a superabundance (Bucy and Newhagen 2004) of media has hastened the development and refinement of diverse music practices and creativities (Burnard 2012).

This diversity of musicianship has prompted my own institution (Kingston University London) to reconsider the entry requirements for our music courses, for example: is a requirement for score-based literacy fair and practical? What standard should be set for auditions that are performed using interfaces such as iPads and laptops? Can a prospective student with a background in self-taught technology-based vernacular musicianship make use of what our courses have to offer, and could they succeed? For all the questions and anxieties we might have concerning the opportunities and threats afforded by music technology in higher education, the music being made using these methods is no less magical or potentially transformative as a result. Studying the expressive and communicative powers of music and sound remains a noble and rewarding pursuit. The experiences and practices of musical study have not suffered from the influence of technology, but they have become broader and more diverse, occupying new interdisciplinary territories (fields such as computer science, software design, electronics, audiology, and many more). In the 21st century we require curriculum that can cover more ground, that can reach between and connect traditions of the past to contemporary music cultures in the present tense, and, through creative practice research, forge pathways to the future.

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Post-Digital

Post-Digital describes our evolving relationships with technology and creativity post 'digital revolution,' pointing towards an aesthetic[1] position that is concerned with prioritizing the *human* element over the digital. The term was first used by Kim Cascone in 2000, to describe emergent "aesthetics of failure" in digital music practices (i.e. malfunctions, data-bending, glitches, etc.). In that article, Cascone declared the digital revolution to be over, citing the fact that electronic communication and commerce had become such an everyday part of life that "the medium of digital technology holds less fascination for composers in and of itself" (Cascone 2000, 12). Since the coining of this phrase, the Post-Digital aesthetic has been written about and expanded on as an idea specific to technologically aided music creativity, most notably by composers disseminating their practice research. A search on Google Scholar for the keywords "Post-Digital composition PhD" will reveal many composers and sound artists identifying with and exploring the affordances of this concept. As the 21st century marches through its second decade, the term has also come to describe a broader cultural shift—one that seems to be in reaction to the general pervasiveness of digital technology in everyday life.

In 2015, Florian Cramer invokes the term to describe "either a contemporary disenchantment with digital information systems and media gadgets, or a period in which our fascination with these systems and gadgets has become historical" (Cramer 2015, 12–13), observing that this disenchantment has quickly grown from a niche hipster phenomenon to a mainstream position—one which is likely to have "serious impact on all cultural and business practices based on networked electronic devices and internet services." Cramer goes on to cite the revival of old media (vinyl, cassette culture), analogue practices, and technologies as pointing to a wider mainstream acceptance of the Post-Digital aesthetic. In the same year—this time specifically addressing music cultures—Rasmus Fleischer (2015) declared "music should not be taught as a thing or as digital 'content,' but as something which must *take place* and *take time* in order to matter," hypothesizing that "the everyday experience of a digital superabundance has contributed to a recent interest in forms of music which are not available to any individual, anytime and everywhere" (256). That is to say, in a world where one can access so much content at any time, it is the special, rare, unique personal experiences that have more value. When surveying the music cultural landscape in 2017, there is

evidence that the pendulum is swinging back towards the *human*, away from the purely digital, where we can witness technology being more the servant to human expressive intent than defining it.

Examples of such practices can be found in the stylistic pluralism of new music scenes that freely mix popular, classical, and experimental forms (Davidson 2016): New York City's New Amsterdam label, London's Bigo and Twigetti and Non-Classical collectives, ensembles such as Alarm Will Sound, Room Full of Teeth, NOW Ensemble, Newspeak, Juice Vocal, and so many others, not mentioning the countless composers developing music for these players that readily integrate beats, drones, samples, autotune, distortion with acoustic instrumentation, contemporary composition techniques, and various combinations of old, new, familiar, and strange. Mainstream pop music has also seen a resurgence in virtuosity, notably in the fusion of live-played jazz, funk, and hip-hop elements in the work of producer Flying Lotus, bassist-composer Thundercat, jazz saxophonist Kamasi Washington, all of whom made contributions to Kendrick Lamar's Grammy-Award winning 2015 album *To Pimp a Butterfly*. David Bowie's final album *Blackstar* (2016), which reached the number 1 chart position in several countries simultaneously, is also marked by virtuosic jazz-influenced performances and a lack of digital programming or heavy-handed post production. Resurgence in analogue recording practices is exemplified in the outputs of popular music artists such as Tame Impala, Jack White, Radiohead, the whole roster of artists featured on the *Daptone Records* label, Mark Ronson, and many others.

The Post-Digital aesthetic landscape is style-inclusive, and even though these works often depend on digital tools, if not for production then for distribution, social contextualization, marketing and consumption, the focus is often not on the technology itself but the communicative potential of the material. Corrective digital tools such as autotune and quantization have entered the cultural language as signifiers, and artists are now using them to make deeper statements and not just to correct imperfections. Back in 2010, Sufjan Stevens painted a picture of a transformed/purified man through the use of the autotune effect in "Impossible Soul" (from 2010's *The Age of Adz*); in 2016 artists as mainstream and dominating as Beyoncé are exploring similar kinds of expression (see "6 Inch" from 2016's *Lemonade*). Hybridity of approach is perhaps best exemplified by the work of young composers seen to be working simultaneously in a range of contexts, styles and formats. Nico Muhly's outputs include concert works, operas, electronica, film scores, and arrangements for pop/indie recording artists; Anna Meredith is

writing and self-producing electronica albums at the same time as writing BBC Proms commissions and acting as composer in-residence for prestigious ensembles such as the BBC Scottish Symphony Orchestra and Sinfonia ViVA.

These examples all share a preference for culturally and technologically literate, sophisticated musicianship. For young musicians wishing to take part and contribute to these exciting music cultures, it is clear that a diverse collection of skills is required in order to be effective and successful. Digital music competencies are vital; the ability to self-produce in addition to an understanding of 21st century internet-based music business, marketing, and fan-engagement practices. Traditional music skills are still vital: critical listening, understanding complex harmonic, and tonal frameworks, voice leading, the ability to arrange and orchestrate. Music notation literacy is also still important, though the application of it as an analogue pen(cil) and paper activity has been practically superseded by digital type-setting (with software packages such as *Sibelius* or *Finale*) and as in-line MIDI functionality/visualization functions housed inside DAW software.

For balance, it must be noted that certain elements of the emergent Post-Digital aesthetic have been associated with contemporary hipster culture (concerned with nostalgic trends and practices such as "mimeograph printmaking, audio cassette production, mechanical typewriter experimentation and vinyl DJing" (Cramer 2015)), easily subjected to derision or dismissal as shallow non-conformism. In recording and production scenes there has been long running discussion over the value of analogue media and practices, if it is an artistically worthwhile ideal and pursuit or merely misguided vintage fetishism (Barlindhaug 2007, Bennett 2012, Stuhl 2014).

In *Retromania* (2011) Simon Reynolds makes a compelling case for 21st century music practices that look "forward to the past," seemingly obsessed with analogue nostalgia. However, based on my experience and observations teaching undergraduate music courses over the past 12 years, I believe what we are seeing and experiencing now in 2017 goes beyond a quaint preference for "warm analogue," expensive equipment, or a nostalgic sound. The superabundance of media means that the pool of references, vernacular, and signifiers that exist in the global musical/audio subconscious (Harrison 2014) has expanded, and by extension, the creative musician's expressive palette has too. This naturally leads to a desire to master various kinds of processes, to develop multi-modal music proficiencies. While I have been aware of the internet and Post-Digital's influence on student musical tastes (increasingly wildly divergent and multi-purpose, see

Kassabian 2016), it is only recently that I have noticed the students working hard, in a self-directed way, to be multi-disciplined: pop music students sharing Terry Riley and Weather Report LPs amongst themselves and hearing echoes of those polyrhythms and modal improvisations reverberating from rehearsal rooms shortly after; classical music majors flocking to observe improvised jazz performances; production students choosing to work inside the limitations of tape, away from any computer and engaging in experimentation with composition and sonic arts majors. It is as though what they are looking for from their university experience are the things that the internet and technology alone cannot give them: a space to develop as a human musician, as an active member of a creative community; guidance, resources, time and room to grow.

Making Room

As the Mayday Group's first action ideal states, music education provides important contributions to musical cultures. This connection should be easily observable, obvious, and explicit and yet when we examine many course curriculums, particularly in the slow-moving world of higher music education, it is sometimes difficult to see the manifest link between the music research and learning taking place in educational institutions and that which is occurring in contemporary music cultures elsewhere. Undergraduate music programmes are often structured into specialist streams (such as music technology, jazz, performance, composition, sonic arts, etc.), running against the emergent, inclusive, interdisciplinary aesthetic trends discussed in this piece. Beyond issues of vocational viability of graduates, such specializations can foster potentially crippling literacy issues (music performance graduates who cannot operate technology, music technologists who cannot read music, etc.). This style of curriculum creates boundaries between practices, which in the real world are becoming increasingly blurred and/or irrelevant. Yet, across a three or four year enrolment period, how could everything be covered sufficiently?

"Teaching the technology" is a redundant approach; many software applications can be learned intuitively (increasingly so, by design) or via the web (tutorials on YouTube for example). Digital Audio Workstations, where once they possessed vastly different design architecture, programming language and shortcuts, these days have evolved towards a common operational language. The Internet has changed how we teach "information" and capital K "Knowledge"—it is now a

question of "know where" and "know why" rather than "know how" (Siemens 2005). The lesson question has changed from "how do I operate Pro Tools" to "how can I use Pro Tools to effectively realize my musical ideas"—and it is through making music that we discover the creative, performative, communicative and/or social function of the technology. With a planet's worth of information and media at our fingertips we can chart new pedagogic pathways for technologists, improvisers, and autodidacts to access the keys to developing a broader range of skills and fluency in music languages. As institutions begin to recognize and legitimize these diverse kinds of musicianship, resources are appearing that are specifically designed to allow such musicians to engage and develop. NYU Music Experience Design Lab's *Theory for Producers*[2] course is a positive step in this direction.

Artists and practitioners generating influence and esteem in contemporary music scenes might not look or sound like our students do, and the natural latency between curriculum development and the speed of life means higher music education programmes that seek to reflect trends in contemporary cultures will always lag behind. In many music departments, pressures to remain engaged with research projects (and seek out grant money) can leave some teaching academics less focused on the classroom, let alone with any time to spend keeping up and staying sharp with the cutting edge. But what if, instead of trying to chase culture down to embed within programmes, educational institutions created the environment and conditions for students to create and engage with cultures in meaningful ways for themselves? What does a truly inclusive music curriculum, one that explicitly promotes accessible, cross-stylistic, interdisciplinary collaborations for any body from any music/cultural background, look like? Can universities develop durable resources, able to help students bridge the practical, conceptual and philosophical gaps between imagination, creativity and practice; literacy, competency and mastery; identity, tradition, community, and culture?

Inclusivity is not an issue that is simply dealt with at applications and enrolment stage. Removing standardised music theoretical perquisites in favour for interviews and portfolio-based auditions will help talented self-taught musicians and technologists get through the door, but if the programme makes no efforts to bridge the gaps to grant access and a way of engaging and understanding that programme's content, that student's growth within the discipline is effectively unsupported. There are tools available that can help developing-music-students achieve a more informed, proficient, and flexible musicianship. Like those already mentioned previously in this piece, some of these tools are technological,

for example the MIDI programming features of Logic Pro X, doubling as music notation typesetting software, or the special tools developed by NYU's Music Experience Design Lab. Some tools might be of an academic nature, allowing diverse music making to join intellectual discourse, for example the music-theoretical framework put forward by Mark Butler in *Playing with Something That Runs* (2014) that seeks to locate and conceptualise DJ creativities in the creation of Electronic Dance Music. Others could be philosophical and/or transdisciplinary: critical listening that engages with concepts relating to traditional forms of musical analysis, acoustics, neurology, semiotics, cultural theory, and so on. Then of course there's the tried and tested method of learning by *making and doing*.

The Case for Inquiry Based Learning

Gragerman, Lerner, von Hipple, Jonides, and Nagda (1998) suggest that when university programmes introduce research-based projects (of the type usually reserved for post graduate students and research faculty, tasks such as literature reviews, textual analyses, conducting research study and experiments, sharing new knowledge with peers, etc.) to undergraduates, the result is an increase in student engagement and retention on the course. Including and making room for research and research-led projects in undergraduate curricula can enhance and support Experiential Learning (Tsang and Park 2016). Experiential Learning is an educational pedagogy that, in its simplest form, refers to *learning by doing*, and the contextualisation of knowledge in theory through reflection. It is part of a cluster of student-centred pedagogical approaches and terminologies that also include Project Based Learning and Problem Based Learning, under the heading of Inquiry Based Learning—an umbrella term for teaching and learning which occurs through the processes of inquiry in pursuit of new knowledge and understanding (Clarke 1995).

These pedagogies are suitable for creative, practical and technical music education contexts since they all share the central notion that learning is most effective when students put theory into practice. Such learning is situated in contexts that require the application of critical thinking, which is appropriate for higher music education learning objectives. The introduction of research methodologies in undergraduate music curriculum can provide apparatus for theoretical and intellectual engagement with practice-based and practice-led inquiry. It can also open opportunities for joint discovery with teaching and research staff,

the formation of student-staff co-learning communities, and allow emergent, local music cultures to grow. Such approaches can also helpfully deconstruct the perceived boundaries between passive spaces of learning, and active spaces of practice. New students can be tasked with making and doing from their first day: learning outcomes can be approached from many angles, aiming towards new discovery, fresh application and/or deeper meaning each time. Knowledge gained can be shared, revised, improved upon, assessed formatively or summatively. We can build curriculum around Inquiry Based and Experiential Learning pedagogies that, by design, is able to regularly renew itself, remaining relevant, flexible, inclusive, and future proof.

Another benefit of this approach is the lecturer no longer represents the primary source on content knowledge and expertise, but rather acts as a guide to the learning experience: pointing to possibilities, identifying moments of criticality, sharing information relating to theory, coaching students in reflective, autoethnographic/evaluative practices. Here, staff and students engage in a valuable exchange: they share with us their discoveries and we are enriched; we show them how to learn effectively, leading them to intellectual growth and a pathway to continual self-development within the discipline. They get the opportunity to achieve their subject specific learning outcomes while applying their new skills to the creation of music, sound, ideas and art, giving the course content practical relevance and personal resonance.

Conclusion: A Personal Reflection

As I write this piece, my teaching philosophy is oriented towards a *re-humanization* of knowledge; a sharing and exchange of experience and perspectives between peers, staff and students; an emphasis on learning and self/skills development via creative practice research. It is a work in progress. As a teacher and musician, *I am a work in progress*. In facilitating music-making experiences for my students, I am attempting to make room—spaces, opportunities, and reasons—for these musicians to create, collaborate, develop and discover. Of course, my own research, personal perspectives, discoveries, and experiences filter into my teaching—whatever I am excited about tends to flavor the resources I devise and the delivery of my lessons. The knowledge that my students discover through the outcomes of their practice and research in turn influences, inspires, and enlivens

others: I am part of this experience, exposed to these new ideas and fresh perspectives if I allow it. This symbiotic dynamic keeps me plugged in and curious, I do not need to chase the zeitgeist and constantly rewrite my course content. As we explore the potentials of music and sound, using whatever tools we have at our disposal, we take part in the development and evolution of music cultures together. We can make our classrooms, seminars, workshops and lecture halls into spaces where innovation and originality can flow, be observed and shared. We can view our music schools as the new cultural frontier.

About the Author

Leah Kardos is a senior lecturer in music at Kingston University. She is the course leader of the BA(Hons) in Music Technology, and the Project Leader of the Visconti Studio, a recording/research facility at Kingston. Her research focuses on interdisciplinary creative practice, music technologies, studio craft and music research where recording is treated as the primary text. She enjoys creative practice research and exploring related ways of making music creation, education, and discourse inclusive and accessible to people from various backgrounds.

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Notes

[1] The term 'aesthetic' is used here to refer to the principles underlying an artistic movement.

[2] https://wp.nyu.edu/musedlab/2016/02/17/theory-for-producers/