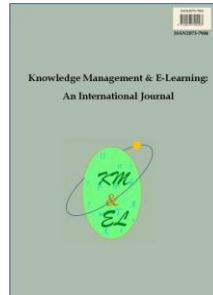

Knowledge Management & E-Learning



ISSN 2073-7904

Press learning: The potential of podcasting through pause, record, play and stop

Tara Brabazon

Flinders University, Adelaide, SA, Australia

Recommended citation:

Brabazon, T. (2016). Press learning: The potential of podcasting through pause, record, play and stop. *Knowledge Management & E-Learning*, 8(3), 430–443.

Press learning: The potential of podcasting through pause, record, play and stop

Tara Brabazon*

Dean of Graduate Research
Flinders University, Adelaide, SA, Australia
E-mail: tara.brabazon@flinders.edu.au

*Corresponding author

Abstract: Podcasts are entering their second decade. However, this article does not present a chronological narrative of this history or focus groups exploring their effectiveness. Instead, this paper probes the enlivening capacity of podcasting when inserted into the much wider discourse of sonic media. My research probes the impact on teaching and learning when cutting away four of our five senses to focus on auditory culture, sonic media, hearing and listening. This research shows the value of 'blind listening,' cutting away the eyes and visual literacy, to activate more complex modes of learning.

Keywords: Sonic media; Podcasting; Podcasts; Media literacy; Sonic literacy; John Cage; Soundscapes; iTunes; Digitization; User-generated content; Interface culture; Sound

Biographical notes: Tara Brabazon is the Dean of Graduate Research and Professor of Cultural Studies at Flinders University (Australia), Fellow of the Royal Society for the encouragement of Arts, Manufactures & Commerce (RSA) and Director of the Popular Culture Collective. Tara has worked in nine universities in four countries. She has won six teaching awards, including the National Teaching Award for the Humanities, and has published 17 books and 200 refereed articles and book chapters. Her more recent books are titled *Digital Dieting: From Information Obesity to Intellectual Fitness* (Ashgate, 2013), *City Imaging: Regeneration, Renewal, Decline* (Springer, 2013), *Unique Urbanity* (Springer, 2014) and *Enabling University: Impairment, (Dis)ability and Social Justice* (Springer, 2015). For further information about Tara, please refer to www.brabazon.net.

1. Introduction

Please follow my instructions as they appear on your screen. My aim is to summon silence. After the industrial revolution, silence was rare. It must be created, constructed, built and recognized. Because sound leaks from cars, mobile phones, buildings, offices and headphones, silence must be sought and made.

Sit comfortably. Relax. Centre and calm your body. Focus. Concentrate.

Move beyond comfort. Move into disquiet. Seek the unusual. Find sound. Remember what you hear. At the end of this sentence, close your eyes and listen to your body's position in the world.

You have just attempted ‘blind listening.’ It is an important technique to remember, learn, mobilize and interpret. Because we do not have ear lids, sounds attend our daily life. The unwanted sounds that enter our bodies are often described as noise (Attali, 2004). Actually, noise is instructive, stretching, poking and probing the limits of our literacies. John Cage (Cage, 2011, p. 229) stated that, “in the past, the point of disagreement has been between dissonance and consonance; it will be, in the immediate future, between noise and so-called musical sounds”. To avoid this discomfort, artificial ear lids are created, including cars, mobile phones and earphones. Such strategies fail. Our bodies are relentlessly invaded by unwelcome sounds. Yet the desire for sonic satiation and safety continues.

When silence is acknowledged for its specialness, sound can be deployed to change our mood, build new literacies, and understand other people and communities. Through this process, sound becomes much more useful to education. This article probes the impact on teaching and learning when cutting away four of our five senses to focus on auditory culture, sonic media, hearing and listening. This is a multi-disciplinary study, activating auditory art, aural architecture, sonic media studies, cultural studies, sensory anthropology, history and education. I summon the specificity and distinctiveness of sound for teaching and learning when a teacher or student presses play and record. The subtitles and sections of this article are intentional: pause, play and record. While teachers and students gain enormously through listening to the podcasts created by others, there is also profound value in recording content. This may be enfolded into student-centred learning, but it is also part of creative-led research, aligning a sonic artefact and exegesis (Forbes, 2015). Particularly, there is attention to podcasting which is entering its second decade since it commenced life as a neologism. Before we start the sounds, it is necessary to pause, reflect and think upon its opposite.

2. Press pause

Shortly everyone, whether he's a musician or not, will have a computer in his pocket.

John Cage (Haskins, 2012, p. 147)

We have an experienced guide through this journey to unfamiliar sonic experiences. John Cage realized the complexity of sonic modernity. As a composer and philosopher, he studied the density and texture of silence and the productive chaos of thinking through noise. His composition 4'33" was released in 1952 and revealed that silence is never silent. It loops, ticks, swoops, breathes, hums and flows in waves, cycles and interventions. He recognized that silence must be constructed to be experienced. By 1980, he predicted the smart phone, the ‘computer in his pocket.’ The twentieth century was a tough century – of war, genocide and destruction of the landscape through man-made attacks on air, water and earth. Through John Cage, this brutal century found its composer.

Cage's (2011, p. 5) attention to silence, percussion, disorganization, randomness and play, embraced chance. Agitating the relationship between philosophy and composition, he opened out the spaces between hearing and listening (Carter, 2005). No longer would a sound – to use the cliché – go in one ear and out the other. Instead, if we ‘sound out’ a word, then greater interpretation and understanding emerge. The goal is to create a movement from perception to consciousness. Blesser and Salter (2009, p. 12) describe this as “a functional model of auditory awareness”. A location is squeezed into

sound and a sound bounces through a location. Cage (2011) reminded scholars of sound about indeterminacy, the multiple layers of ambiguity between composition and performance. While our senses are drawn to the familiar, the role of teaching and learning is to stretch our perspective and perception. To de-emphasize the visual and enhance and foreground the sonic means that teachers and other occupations that activate complex oral communication modes can play with sound and think about creating rich auditory environments that enliven learning.

Listening is different from hearing. It is intentional, conscious and active. Listening is literacy for the ear. It is a social act and involves making choices in filtering and selecting sounds from our sonic environment. Listening is underestimated in our daily lives and under theorized in academic literature. Nancy (2007, p. 6) confirmed that hearing is “to understand the sense,” while listening “is to be straining towards a possible meaning”. He argues that listening requires work, decoding the unknown and inaccessible into the realm of interpretation and comprehension. The overwhelming majority of information we receive to understand the world emerges through our eyes. We believe what we see. Most of what constitutes knowledge and methods of study – like ethnography and participant observation – attach meanings to behaviour, derived primarily from the information we gather through vision. Differences between people are judged visually. Racism most frequently emerges from the differences we observe, rather than the diverse accents that we hear.

With this saturation of visuality, Bull and Back (2003, p. 3) probed “the opportunities provided by thinking with our ears”. We read sound through the ears as much as print on paper or text on a screen. Every act of listening is based on recalling a prior hearing experience. When we listen, we learn. Because we lack ear lids, we often accidentally and randomly build literacies, learning about ourselves through what we hear and how we evaluate it.

Listening is intensely personal and intimate. As Szendy (2008, p. 142) asks, “what summons us to listen?”. For those who teach and learn, our task is to connect the motivation for listening with a motivation for learning. Each new musical technology creates artificial ear lids to develop fresh intimacies between the self and sound. The transistor radio in the 1960s disconnected teenagers from their family. The iPod allows diverse groups to claim space through sound, whether it is commuters, students or drivers. While hyper-personal, if teachers and librarians can find a way to share and enable sonic literacies and listening practices, then communities of interest – communities for learning - are made.

Technology matters to this discussion. An array of platforms can control sensory information and build an environment for listening, learning and thinking. An argument I have proposed is that less sensory information creates different types of learning (Brabazon, 2013a). When teachers and librarians intentionally – with careful planning and consciousness – strip away platforms and digital information to create an information scaffold, innovative modes of learning emerge.

As revealed through this article, sounds move. Sounds bleed. But sound is intrinsically progressive (Carpenter & McLuhan, 1970, p. 67). Sonic architecture can be changed and enhanced at a far greater speed than conventional architecture. Most school and university classrooms were designed and built for fordist education. Rooms are square. Desks are in rows. A teacher is at the front of the class. While theories of learning have transformed, building construction has lagged. Osborne (2003, p. 3), in his review of learning environments, stated that,

Most of New Zealand school buildings were built in a time when direct instruction was considered the only pedagogy that resulted in effective learning. 'Factory-style' learning (where all students learn the same things at the same time in lock-step fashion) has largely disappeared from our classes. However the actual classrooms largely remain as they were original designed and still retain the suggestion of faculty-style learning.

The key is to use educational technology to create change, flexibility and options while the buildings catch up with theories of learning. Podcasts – through sound – can move far beyond the limitations of bricks and mortar. A learning environment can transcend a physical environment.

Flexible learning is a phrase with many meanings and a myriad of political agendas feeding into it, from the extremities of neoliberalism through the anarcho-syndicalist 'de-schooling' movements. Percy (2014), from his history classroom, presented clear and convincing definitions and applications of flexibility.

Podcasting presented several advantages for students – they could download the audio files and PowerPoint files from my school-based website, and play them through any compatible device, including phones and tablets. As opposed to the typical setting for such a lecture, students were not bound to the classroom – they could play the podcast at any point, in any place, and pause it when they chose. Of greater utility was the fact that by supplanting the role of the traditional transfer of historical knowledge in a lecture format, I had cleared time in class sessions for more student-centred, interactive strategies.

Many modes of flexibility – in form and content – are discussed in this passage. There is a movement of content to a student's environment and appropriate time. Pausing is possible, to allow for diverse learning goals, needs and speeds. But classroom spaces and goals had also transformed, transposing traditional practices. For Percy (2014), this was not merely the movement in and of content. This was a transformation of learning and teaching processes and practices.

The selection of delivery systems is a form of information management. A scholarly monograph is distinct from a blog, tweet or Facebook post. However, the medium is not the message. McLuhan was incorrect. Choosing a medium is the first moment – the first decision - in meaning, making and interpretation. When a platform is selected, producers make a decision about who they will *not* reach and the type of information they will *not* convey. It is not effective to choose Twitter to convey complex ideas. However as a pointer to rich information sources, it is excellent. Similarly if a librarian, teacher or writer wants to craft information that can be scanned by students at speed, then sonic media is a mistake. For rapid searching on screens, visual literacy is efficient and appropriate. For abstract ideas that slow a user's engagement with data and defamiliarizes the relationship between readers and information, then sound is ideal. If imagination and creative thought are required, then sonic media are a strong option. Therefore, the next section of this article builds on this moment of pause and reflection and presses 'record' to creates sound in and through learning.

3. Press record

Can I assume that I know how all my students want to learn?

Tait Coles (2014, p. 21)

Podcasting is a portmanteau of ‘iPod’ and ‘broadcasting’ and has stabilized in its meaning to connote the online distribution of digitized media files and the use of syndicated feeds. The feed and subscription model is like a sonic direct debit. Users can automate the feed and files arrive without much thought. Playback is activated on portable media players and personal computers. Time is time shifted to suit the listening patterns of subscribers. The initial attraction to recording podcasts was that individuals beyond radio stations could deliver and distribute programmes, creating a diversity of content, voices, accents and programme length. The advantages to listeners were clear: they were free, without advertising, personalized and able to be moved through time in a way that was not possible for radio. The subscription model – based on the use of RSS (Really Simple Syndication) – ensured that new content was delivered directly to the user for consumption in a time and place at their convenience. Once downloaded, concerns with reception – particularly in rural and regional areas – dissipated. Rapidly though, the early adopters who expressed their enthusiasm and interests were joined by empowered institutions like schools, universities, museums, government and corporate communications. For some media organizations like NPR (National Public Radio), podcasts became the platform for ‘on demand’ radio. A major area of success has been the deployment of podcasts in formal education. My article explores the rationale for this uptake and proliferation.

Teachers’ talk has been critiqued for decades, mainly because it has been configured as the antithesis of student-centred learning. But the problem is not teacher’s talk but unnecessary teacher’s talk. Didau (2014, p. 2) described the ‘secret’ of literacy as “making the implicit explicit”. He asks that teachers – and politicians and policy makers – move beyond a deficit model for literacy. Such a model creates deep anxiety for students as a deficit model for literacy too easily displaces into a deficit model for people. Yet the way in which ‘assistance’ is given to both people and the literacy ‘problem’ only reinforces the problem because “scaffolding has been conflated with writing frames” (Didau, 2014, p. 39). Sound and sonic media have an expansive capacity for developing oral communication, enlarging vocabulary (Ting, 2014), organizing ideas and creating space for DIRT (Directed Improvement and Reflection Time) (Didau, 2014, p. 85). There is also an array of occupations – of which lawyers, medical doctors and nurses are clear examples – where data collection and diagnoses are obtained verbally from clients and patients. Listening to systems and situations, and being able to shape oral data into evidence, is a key skill.

The making of sonic media and podcasts – the pressing of ‘record’ – signifies an array of transformations, particularly in teaching language. The words move from *should* and *could* to *is*, *are* and *do*. It also provides a way to move beyond blame, shame and a complaint culture and towards diverse, complex and differentiated understandings of achievement. The innovative uses of podcasts in schools and universities are remarkable. At the University of Chicago Pritzker School of Medicine, a podcast was used to help candidates through the admissions procedure. They surveyed those who had listened to the podcast, directly accessible off the webpage. The candidates responded that it both increased their personal preparedness but also solidified their decision to apply for the School (Ferguson, Bister, & Krapec, 2014).

Teaching and learning with and through sound are filled with surprises. While leading a Masters programme in the United Kingdom, one of the courses I offered to students was titled Sonic Media. I had assumed my other courses on popular culture, media literacies and city imaging would have been much more popular and only a small group would be drawn to sound. Actually, Sonic Media became the largest course in the programme – and the weirdest. Students – inspired by Cage, Eno and radically defiant

theorists in this field – produced some extraordinary research and moved it through multiple platforms. Faracy Grouse, for her final assignment, built instruments to be played by water, wind and earth. She took an axe to a dysfunctional piano – with more than an echo to Yoko Ono – and allowed the wind to play the exposed strings. Other students danced, sung, hit objects and experimented with beeps, pings and tones. It was simply the most creative teaching experience of my life. Such achievements had little to do with the teacher, and a great deal to do with the freedom of sound and the chance it provides for students to stretch and challenge.

There must be space – a learning space – in our tightly regulated schools and universities for experimentation, silence, reflection, noise, sound interpretation, correction and recalibration. Podcasts can be an integral part of this strategy to summon sounds (for) learning. When we press play on an iPhone, iPad or iPod, a sonic environment is created. A distinctive mode of learning is revealed. Podcasting is important. Most of digital screen culture is visual. Computing speakers are hidden and masked between keyboards and screens. Embedded in this hardware – positioned in an appropriately liminal location – are speakers. The question remains how they are used to subvert, challenge and fray the linear relationship between typing and viewing words on a screen.

‘New media’ is a nonsensical phrase. Every ‘new media’ have old media within them (Brabazon, 2013b). Podcasting has a relationship with radio (Dubber, 2013). Both podcasting and radio weave into the fabric of daily life, adding texture to the everyday patterns. Particularly, podcasting rejuvenates talk programming. To understand these relationships between old and new media, media archaeology is “a travelling theory, mobile concepts and shifting institutional affiliations” (Parikka, 2013, p. 15). When aligning theory and history, integrated and resilient vocabularies can be developed to understand digitized sonic media and podcasting. Digital sonic history is important and distinctive. Grubbs (2014, p. xv) realized that, “persuasive arguments can be made that the current availability of an unprecedented amount of recorded music has contributed to a levelling of musical hierarchies”. The proliferation of sounds (and noise) ensures that new relationships and opportunities emerge to connect text and context, experience and expertise. This is not high or popular culture, art or trash. All sonic files are equal before the download. This plurality and diversity is multimodal. Digitization can – at its best – integrate an array of textual experiences (Kist, 2005).

Podcasting came late to learning. It came late to language. It gained popularity through Hammersley (2004) in a *Guardian* article from 2004. Teachers and librarians forget how recently the iPod and podcasts entered the portfolio of educational media. Mason and Rennie’s (2016) *Elearning: The Key Concepts* – published in 2006 - does not have an entry for podcasts. That is no surprise. The book was published only two years after podcasts moved from a *Guardian*-inspired neologism and into popular culture. Since then, a range of websites and guides have been produced to assist the movement into podcasting. However it remains important for both teachers and students to maintain an open, vibrant and imaginative definition and application of podcasting.

The iPod has not only offered new ways of listening to music, but new ways of engaging with sonic media. Sound is a mode of communication that slows the interpretation of words and ideas, heightens awareness of an environment and encourages quiet interiority. It punctuates buildings, workplaces, leisure complexes and family life. The visual bias in theories of truth and authenticity means that sounds are often decentred or silenced in empowered knowledge systems. Education rarely manages this subtle sonic sophistication. Formal educational structures are geared to develop literacies in managing

print. Too often, soundscapes are cheapened with monotone verbal deliveries in lectures, interjected with stammering and confusion, and do not open our ears to the other rhythms, melodies, intonations and textures in the sonic palette. The i-lecture rollout was commercially labelled Lectopia and then in a merger it became known as EchoSystem 360. This was an example of how an urgent – yet under theorized – need to obtain ‘online materials’ from academic staff resulted in low quality sonic resources. The system was developed so that it could be automated and not subjected to the chance of academics ‘ruining’ the recording and distribution. Yet as social media developed through the first decade of the 21st century, through the reduction in the price and complexity of hardware and software, new opportunities for sound and vision emerged. Recording a lecture and depositing it in a learning management system became an increasingly common, but banal, deployment of sonic and visual media. Taking a conventional lecture and disseminating it in new ways is innovative. But considering how the content itself may change to deploy and activate the specificities of sound-only digital materials is a more expansive and useful project.

The advantages of this educational material – for students and lifelong learning for those outside of schools, colleges and universities - are enormous. There is a reason for this success. Sonic media offer a reflexive space for the teaching of abstract ideas. While acknowledging this strength, it is important to recognize the weaknesses of post-visual (or blind) media. Not every subject is best learnt through digitized, mobile sound. Yet when podcasts and asynchronous sonic sessions are written and targeted for particular courses, approaches and student communities, the effects are powerful (Brabazon & Redhead, 2014).

A series of surprises have emerged in how students work with podcasts. Most significantly, it has been revealed that up to 80% of students listen to podcasts at their computer rather than deploying the mobility of the iPod platform (Smith & Morris, 2014). The potential of mobile education – delivering content anywhere and anytime – is distinct from the lived experience by students of learning by podcasts. Hardware does not move. Content moves.

We have now entered our second decade of podcasting. As the medium has matured, better uses of sonic media generally and podcasting in particular have emerged in education, rather than as medication for poor lecture attendance. As a teacher, and moving beyond space and time-shifting lectures, I have located ten clear uses for podcasts in my practice.

1. Teachers record specific (and short) sonic sessions that conveys specialist and often abstract information for a targeted audience, to enable deeper learning. These distinctive sessions are often a replacement for lectures, providing the foundation for flipped learning. (Profcasts) (Bergmann & Sams, 2012)
2. Learners create sonic assessments, constructing links between theory and practice, analysis and production, artefact and exegesis. (Learner-generated podcasts)
3. Presenting the student experience of a course, beyond surveys.
4. Providing audio feedback for assignments.
5. Provide sonic notes of supervisory sessions for coursework postgraduate programmes.
6. Generate new modes of doctoral supervision.
7. Disseminate student research and provide a show reel of student development.

8. Create special events and guest speakers to embed later within learning management systems and research.
9. Record micro-interviews with staff and students on a Creative Commons licence that can be re-purposed as Open Educational Resources.
10. Record learning events for men and women with visual impairments, creating rich sonic materials.

There are many more emerging applications, particularly for professional development. Most of these uses are creating deeper learning, moving from superficial and into the abstract. The use of podcasts, particularly in doctoral education, is an emerging area of growth and development.

For under-confident and inexperienced students, podcasts are an opportunity to connect theory and practice, thinking and doing. To provide one example, Adams and Blair (2014) demonstrated how podcasts can assist engineering students in gaining mathematical expertise. Particularly for a postgraduate course, podcasts on often abstract mathematical concepts can both fill gaps in knowledge systems and provide a revision of older learning experiences. The advantages are clear: podcasts are inexpensive to produce. They build a community of learners and add emotion to education.

Because auditory literacies are under-researched, there is a tendency to underestimate the effectiveness of sound in learning. For example, Shastry and Gillespie (2008) stated that,

The popularity of podcasts has mostly to do with the fact that audio has become an easy way to consume information without much effort. Reading anything requires your complete attention; your eyes need to see the content, your mind needs to be involved in digesting it, and your attention must be fully focused on the visual matter to understand it. On the other hand, using audio allows you to multitask and does not require your eyes.

Digestion is rarely an effective metaphor to understand the complex movement between information and knowledge, reading and understanding. Formulating binary oppositions of reading and listening, active and passive, attention and inattention, difficult and easy, is not capturing the complexities of learning through sound. However Shastry and Gillespie (2008) do recognize the benefit of opening up new spaces and times while travelling, commuting or exercising to create new learning opportunities. To transform the digestive metaphor into a culinary one, sound is the jelly of the media world. It fits into the spaces left by other responsibilities and media.

Podcasts are free. Gleaning a large audience is not the aim. An engaged international audience is the imperative. This community of listeners is highly motivational for students. While schools and universities often lag in the introduction of new technology, it is important to recognize the consequences – in terms of an audience for students' work – when remaining wedded to earlier technologies. For example, students have been asked to use a pencil – a technology introduced in the 1550s – to synthesize and present knowledge to one person (a teacher). A podcast uses digital platforms to disseminate student knowledge much more widely. In moving from a pencil to a podcast – from extrinsic to intrinsic motivation – students may see knowledge as emerging, evolving, transformative and international.

Podcasting was based on democratization of software and hardware, and a reduction in the technological expertise required to operate it. Through the 2000s, mobile phones gained increasing functionality. Smart phones – enabled through applications and

improved microphones - create reasonably effective recordings. Yet for a small investment, an array of strong, specialist, yet domestic microphones are now available. The basic recording kit includes:

- Microphone
- Headphones or an external speaker
- Audio editing software
- Copyright free MP3 sonic loops (optional)

Podcasting – like vodcasting – has captured the consequences of domestic technology producing high quality outcomes. Portable microphones like the Zoom H2 and Hn4 are easy to use, generating quality recordings. They weigh 120 grams, have a power adapter or can use AA standard batteries. They deploy a USB and SD card interface, permitting high quality recording with control over sound capture with four separate microphone capsules. The Zoom H4n also includes a small speaker to test the recordings. Pop screens are available at low cost. Because of this simple and effective technology, the focus can move to improving the quality of the voice and content and creative uses within curriculum or media organizations.

With a high quality recording, editing is less difficult. Editing software has also improved for podcasts and the construction of sonic files. While Audacity is free open source software, it requires the installation of a LAME MP3 encoder to overcome software patents. It is not as intuitive as other recording and editing programmes. While the Adobe Audition – which enfolds the Cool Edit Pro editing suite – is arguably the best software on the market, its complexity and scale is beyond what is required for many educational productions. A more appropriate and available software at one tenth the price is Acoustica’s Mixcraft, which is an intuitive multi-track audio recorder and mixer. While useful for musicians and remixers, it is also ideal for constructing podcasts and sonic material, composed of perhaps two or three sound tracks. It allows a simple mix down into MP3 files. Mixcraft is one of many intuitive and effective medium priced platforms and programmes available to improve the management of digital sounds.

For educational institutions like schools and universities, podcasting provides new modes, genres and forms of learning that can enmesh with an array of learning management systems. Podcasting in schools offers remarkable opportunities. Speaking is an important way of thinking, sharing and communicating knowledge. It builds relationships and offers surprises. Vocabulary can be developed. Through podcasting, the value of the voice can be recognized, along with a reflection on how the body provides the vehicle, pathway and gateway for creating that voice. The movement between thought and speech is not linear or expected. Vygotsky and Kozulin (1992, p. 219) stated that “thought undergoes many changes as it turns into speech. It does not merely find expression in speech; it finds reality and form”. The spoken word is a commitment to a line of reasoning, an actualized thought. The expression of ideas is of great value. Yet there is value in taking the next stage and recording these words and thoughts for an audience. Fontichiaro (2008, p. 45) stated that,

From time to time, podcasting brings out something remarkably wonderful in otherwise lacklustre students. Or a student struggling with a certain subject area suddenly reveals a moment of clarity while recording a podcast, and the educator knows the delight and relief this will bring to a parent.

Learning through performance activates play and creativity. Through this recognition, podcasting is part of “arts-integrated learning” (Fontichiaro, 2007, p. 3).

There are many types, modes and genres of podcast that are appropriate for distinct disciplines.

- Scripted presentation
- Sonic artefact (soundscape or exploratory sonic capture)
- Interview
- Oral History
- Professional development
- Audio tours
- Information literacy programmes

Podcasting is serving a key function in contemporary education, rejuvenating the role of auditory cultures and sonic media which have been traditionally under-utilized in teaching and learning. There has been little discussion of its pedagogical function in the curriculum. However the greatest benefit of audio-only teaching materials is that communication is enhanced through the use of rhythm, pitch, tone and modulation. It is an expressive and affective mechanism to convey interpretation and inflections on material. Podcasting has the advantages of radio broadcasting, through the much more targeted use of the voice for very specific listeners, while also adding the personalization, time-shifting and customization of recorded audio.

4. Press play

We should ... remember than no machine is a wizard.

Edgard Varese (2004)

The iPod entered popular culture through its leisure-based applications. Therefore, significant discursive translations are required to move it from leisure to educational deployments. The impact of the legislative attack on illegal downloaders had an impact. However it also diversified and popularized the uses of the iPod. Its storage capacity allowed the platform to become an alternative way to access media files and the legal download sites gained an audience and market share.

The communication flowing around teaching spaces are transforming, but considered decisions need to be made about media platform selection in education. Simply because a technological platform can permit the time-shifting of a teaching moment does not mean that it should occur. The advantage of analogue media is that it is not repeatable, it is distinctive and ephemeral. In terms of developing discipline and motivation in students, analogue media can often be most effective because once the hour has passed, that educational moment has gone and cannot be repeated. To actualize (sonic or visual) content on demand is to suggest that teaching and learning can be distilled to content. The relationship between teachers, students, curriculum and educational media is much more complex and intricate than a content on demand model suggests.

Through the domestication of hardware and software and the simplification of interfaces, power is shifting away from the corporate educational complex. Teachers and students can create, listen and think. They can press record. They can press play. They can press pause and ponder silence. This movement takes power away from educational designers and 'specialists' in educational technology. Salmon, Edirisingha, Mobbs, Mobbs and Dennett (2008, p. 9) confirmed,

our experience is that the technology is simple enough to put fairly quickly and easily into the hands of most university teachers. This transfer of power from technical specialist to the novice teacher makes a positive contribution to developing resources for student learning.

The podcast offers new modes of delivering content, but the diversity of functions, genres and modes – far beyond the delivery of a lecture – must be logged, recognized and supported.

Podcasting embodies the great paradox of social media. It appears to hyper-individualize, customize and tailor goods and services, delivering very specific material to consumers / students / citizens. At a time when state-based public institutions and organizations are being abolished or underfunded, such a hyper individualism cannot go without critique. Maxymuk (2007) also questioned the value of podcasts and vodcasts because of “the dry nature of the content generally on offer”. But he noted exceptions when presenting information on special collections, music and art libraries. Maxymuk (2007) asked whether library materials can be made exciting, believing that they are “more likely to be used by patrons desperately trying to cure insomnia than to find information”. While some basic training in and for sonic media is helpful, any information is boring if presented in a monotone. The key area of improvement in delivery of the voice through media is to inject emotion into the words. A script must come to life, rather than be read as straight prose. Podcasts are not text-anchored, but can start with a well drafted script. At their best, they are a conversation, triggering dialogue, action and transformation from the listener. They sort, point, recognize, emphasize and shape. They can reintermediate the information landscape. Perhaps most importantly, sonic media and podcasts build relationships.

The ipod-possibilities are expanding. Academics are developing podcasts to deliver audio feedback on assignments and I conduct course reviews through sound. Instead of ticking boxes, I ask students to comment on what they have learnt. I create a mix from their words and upload it to a centralized portal so they can monitor the thoughts of their colleagues as they write the final assignments. It is a sonic snapshot of their semester and helps me improve future learning opportunities. For undergraduate students to press play and hear themselves talking about learning creates loops of reflection and builds connections between old and new knowledge. Intriguingly, as mentioned in the previous section of this article, the close-to-invisible area in the sonic media literature is the role of podcasting in doctoral education.

Podcasts in doctoral education offer a wide array of potentials and advantages. They build confidence and motivation and provide a sonic diary of their ideas. The goal is to find new ways to chart and validate student development through their supervisory journey. Podcasts have great value in this context. Experience and confidence in spoken English is crucial in the British doctoral system. For most students – including those who speak English as a first language - preparation for an oral examination begins too late. A week or month before the scheduled defence, a mock viva is held. For all postgraduates, it is important that speaking about their research is a naturalized part of their entire candidature. Instead, the British supervisory system focuses for three, four or five years on the written thesis, but only a few hours preparing for a viva that often determines the difference between a pass and resubmission, or a resubmission and a failure. For all doctoral candidates, a mock rehearsal in the third year is too late. From the first month of the first year, they must become accustomed to speaking about their doctorate in a relaxed and confident way. Podcasts offers a range of options to prepare candidates for an oral examination that recognizes strengths and improves on weaknesses.

Our current cohort is the first to enter undergraduate and doctoral programmes with a mature podcasting network in place. Creating a customized podcasting strategy for students in the different levels of our system generates incremental, gradual, supportive and relaxed spaces to talk about research from the start of their enrolment. The sonic strategies can include a dynamic and robust question and answer session. However, a more gentle and ongoing recording of their ideas and results is often a better map of the supervisory process. Doctoral education – and universities more generally - can be sonically rich, enlivening voice, views and diversity.

5. Press stop

To communicate well and effectively requires thinking about the purpose of a university and the plurality of audiences that teachers and students must serve. The moment has gone where administrators, managers and teachers can maintain a pure model of the university - the pursuit of knowledge for its own sake - at the same time that universities are making demands on the public purse. With such conflictual pressures, how does a university maintain its relevance?

There are many answers to this question. One is to transform universities into corporate universities: the selling of knowledge and the discovery of data that only has immediate market return. Another option is to disconnect from the market and society completely, a closeted scholarship where the elite talk to other elite without a payoff except in the development of knowledge. That means that the majority of the nation are paying for a university system where they – or their children – gain little from it. The final option is to rethink the relationship between the media and universities. Finding new ways to commit to a widening participation agenda, so that the population that is paying for universities has a chance to directly benefit from them while at all times ensuring the widest dissemination of teaching and research through the use of the media. In an environment where journalism is conflating with public relations, it is important to sell ideas, rather than a product. But sell is the wrong word. A public intellectual must convince, argue and make the case for how our society can be improved.

This article has positioned podcasting into the literature of sonic media and auditory cultures. The theories of sound and learning intertwine in a way that embraces the potential and possible trajectories for podcasting. As we enter the second decade of podcasting, the learning objects created in those previous ten years have a resonance. This is the moment for digital voices (Middleton, 2013). Content between students and teachers becomes collaborative and progressive. Through all the formalities of curriculum, formative and summative assessment, the semi-structured and semi-formal podcasts reveal surprises and spurts of creativity. John Cage's innovation, play and capacity to subvert, invert and challenge gains new life through podcasts, not via silence but with user-generated content sound. At this moment in school and university policy where standards have been conflated with standardization, the interaction between the spoken and written word is important. A voice – from either students or teachers – can intervene. The digital voice has a greater scope and scale for that intervention.

References

- Adams, R. V., & Blair, E. (2014). The learner-generated podcast: Engaging postgraduate engineer students in a mathematics-intensive course. *Research in Post-Compulsory Education*, 19(2), 132–146.

- Attali, J. (2004). Noise and politics. In C. Cox & D. Warner (Eds.), *Audio Culture: Readings in Modern Music* (pp. 7–9). New York: Continuum.
- Bergmann, J., & Sams, A. (2012). *Flip your classroom: Reach every student in every class every day*. Eugene, OR: International Society for Technology in Education.
- Blessner, B., & Salter, L. R. (2009). *Spaces speak, are you listening: Experiencing aural architecture*. Cambridge, MA: MIT Press.
- Brabazon, T. (2013a). *Digital dieting: From information obesity to intellectual fitness*. Aldershot: Ashgate.
- Brabazon, T. (2013b). Dead media: Obsolescence and redundancy in media history. *First Monday*, 18(7): 8.
- Brabazon, T., & Redhead, S. (2014, June 22). Teaching law through podcasting. *Libsyn*. Retrieved from <http://goo.gl/uliysd>
- Bull, M., & Back, L. (2003). *The auditory culture reader*. Oxford: Berg.
- Cage, J. (2011). *Silence: Lectures and writings, 50th anniversary edition*. London: Marion Boyars.
- Carpenter, E. S., & McLuhan, M. (1970). *Explorations in communication: An anthology*. London: Jonathan Cape.
- Carter, P. (2005). Ambiguous traces, mishearing, and auditory space. In V. Erlmann (Ed.), *Hearing Cultures: Essays on Sound, Listening and Modernity* (pp. 43–63). Oxford: Berg.
- Coles, T. (2014). *Never mind the inspectors: Here's punk learning*. Carmarthen, UK: Independent Thinking Press.
- Didau, D. (2014). *The Secret of Literacy: Making the implicit explicit*. Carmarthen, UK: Crown House Publishing.
- Dubber, A. (2013). *Radio in the digital age*. Cambridge, UK: Polity Press.
- Ferguson, B. D., Bister, M. K., & Krapec, J. N. (2014). Podcasting as a novel way to communicate with medical school applicants. *Perspectives on Medical Education*, 3(4), 319–325.
- Fontichiaro, K. (2007). *Active learning through drama, podcasting, and puppetry*. Westport, UK: Libraries Unlimited.
- Fontichiaro, K. (2008). *Podcasting at school*. Westport, UK: Libraries Unlimited.
- Forbes, D. (2015). Beyond lecture capture: Student-generated podcasts in teacher education. *Waikato Journal of Education*, 16(1), 195–205.
- Grubbs, D. (2014). *Records ruin the landscape: John Cage, the sixties and sound recording*. Durham, NC: Duke University Press.
- Hammersley, B. (2004, February 12). Audible revolution. *The Guardian*. Retrieved from <http://www.theguardian.com/media/2004/feb/12/broadcasting.digitalmedia>
- Haskins, R. (2012). *John Cage*. London: Reaktion Books.
- Kist, W. (2005). *New literacies in action: Teaching and learning in multiple media*. New York: Teachers College Press.
- Mason, R., & Rennie, F. (2006). *Elearning: The key concepts*. New York, NY: Routledge.
- Maxymuk, J. (2007). Online communities. *The Bottom Line*, 20(1), 54–57.
- Middleton, A. (2013). *Digital voices: A collaborative exploration of the recorded voice in post-compulsory education*. Sheffield: Sheffield Hallam University.
- Nancy, J. L. (2007). *Listening*. New York: Fordham University Press.
- Osborne, M. (2013). *Modern learning environments*. CORE Education. Retrieved from <http://www.core-ed.org/sites/core-ed.org/files/Modern-Learning-Environments-v.1.pdf>
- Parikka, J. (2013). *What is media archaeology?* Cambridge, UK: Polity Press.
- Pearcy, M. (2014). Student, teacher, professor: Three perspectives on online education. *The History Teacher*, 47(2), 169–185.
- Salmon, G., Edirisingha, P., Mobbs, M., Mobbs, R., & Dennett, C. (2008). *How to create*

- podcasts for education*. Maidenhead, UK: Open University Press.
- Shastry, N., & Gillespie, D. (2008). *Podcasting for trainers and educators*. Boston, MA: Pearson Education.
- Smith, K., & Morris, N. P. (2014). Evaluation of biomedical science students use and perceptions of podcasting. *Bioscience Education*, 22(1), 3–15.
- Szendy, P. (2008). *Listen: A history of our ears*. New York, NY: Fordham University Press.
- Ting, K. (2014). Blended learning as a theoretical framework for the application of podcasting. *English Language Teaching*, 7(5), 128–135.
- Varese, E. (2004). The liberation of sound. In C. Cox & D. Warner (Eds.), *Audio Culture: Readings in Modern Music* (pp. 17–21). New York: Continuum.
- Vygotsky, L. S., & Kozulin, A. (1992). *Thought and language*. Cambridge, MA: MIT Press.