The Routledge Companion to Digital Media and Children

Lelia Green, Donell Holloway, Kylie Stevenson, Tama Leaver, Leslie Haddon

Young Children’s Creativity in Digital Possibility Spaces

Publication details
Kylie J. Stevenson
Published online on: 28 Oct 2020


**PLEASE SCROLL DOWN FOR DOCUMENT**

Full terms and conditions of use: https://www.routledgehandbooks.com/legal-notices/terms

This Document PDF may be used for research, teaching and private study purposes. Any substantial or systematic reproductions, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The publisher shall not be liable for an loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.
This chapter explores the nature of young children’s creativity in digital contexts. Taking a broad literature review approach, it draws on creativity theory, in particular the work of Anna Craft (2001) on possibility thinking, to investigate the notion of digital spaces as possibility spaces in which very young children enact Craft’s notion of small c creativity. The exploration suggests how posthumanism, which is rapidly changing approaches to early childhood education, might inform understanding of the affordances of digital contexts for children’s creativity. Whilst not based on any qualitative study itself, this chapter draws on recent research which examines posthuman perspectives of children’s engagement with apps, the Internet of Toys, and makerspaces, in order to identify how a posthuman lens may inform understandings of children’s real-life practices around technology, play, and creativity, and how such digital play may be perceived as taking place in posthuman digital possibility spaces.

Possibility Spaces

Little c Creativity and Possibility Spaces

The British creativity researcher Anna Craft proposed the notion of children as “digital possibility thinkers” (2011, p. 173), building upon her earlier work about possibility spaces for young children’s creativity (1996, 1999, 2001). In her initial research, Craft argued that, as a result of a need to adapt to constant change, “individuals are required to be increasingly self-directed . . . One way of describing this quality of self-direction might be ‘little c creativity’” (2001, p. 46). Here Craft is referring to her conceptualisation of a continuum of creativity from little c to big C, later expanded by educational psychologists James Kaufman and Ronald Beghetto (Beghetto & Kaufman, 2007; Kaufman & Beghetto, 2009), so that points on the spectrum were made more explicit.

Building upon Vygotsky’s (1971) work on the psychology of creativity and Gardner’s (1997) work on the creative mind in which he first proposed a new taxonomy of creativity, Craft explained:
I want to propose that there may be a spectrum of innovation, at one end of which is something which is novel to the agent but not necessarily to the wider world, and at the other end of which is novelty to the wider world.

(Craft, 2001, p. 50)

Contrasted with big C creativity, which is typified by the creativity of Gardner’s creative genius individuals with extraordinary minds, little c creativity is the other ‘end’ of the spectrum where the everyday creative actions of the individual are placed, for example the creativity of the exceptional home gardener or hobbyist painter: “Little c Creativity (LCC), by contrast, focusses on the resourcefulness and agency of ordinary people, rather than the extraordinary contributions and insights of the few” (Craft, 2001, p. 49). Craft goes on to identify the type of novel thinking typified whilst an individual is engaged in 'little c creativity’ as possibility thinking:

At the core of adaptability and flexibility, which the start of the twenty-first century is demanding of people both young and old is, I have suggested, the notion of “possibility”. Thus LCC [little c creativity] involves at its heart the notion of “possibility thinking”, or asking, in a variety of ways, “What if?”

(2001, p. 54)

New understandings of creativity have incorporated the notion of a creativity continuum and now look towards a 21st-century concept of creativity (Csikszentmihalyi, 1999; McWilliam, 2008; Moran & John-Steiner, 2003; Spencer, Lucas, & Claxton, 2012) that is more interdisciplinary, collaborative, system-contextualised, and learnable. These take into consideration the Vygotskian notion that there is a continuum of creativity and that the creative person may be at any point on this continuum: “Vygotsky’s ideas would suggest that he considered little c, or individual inventiveness, and big C, or historical creativity, as dialectically connected” (Moran & John-Steiner, 2003, p. 81).

This concept of little c creativity is particularly important when considering young children’s creativity as it foregrounds the individual’s attributes and agency as a creative agent unshackled from the formal sanction of the gatekeepers of Big C creativity’s validity or importance. However, Craft did not elevate the importance of the individual above a systems view of creativity. Like Csikszentmihalyi’s system theory of creativity (1999) in which the system is a dynamic interaction between domain, person, and field, Craft identifies three critical aspects of possibility thinking: “Each of the three parts of the framework – agents, processes and domains – offer a ‘frame’ or a perspective through which to both observe and also foster creativity. All are necessary parts of the whole” (Craft, 2001, p. 54). In the framework, the individual child has creative agency in their own unique way, applying processes that may include intuitive, non-conscious, and conscious cognition, bounded by domains that encompass all knowledge, “not confined to the arts … and not simply academic domains but all of life” (2001, p. 56).

Craft’s possibility thinking framework illustrates that the child’s creativity involves:

Self-determination and direction … personal route-finding in life …
Innovation … something which is novel to the child …
Action … an idea is operationalized …
Development … continual development on to a new “place” …
Depth … awareness of convention … deep concentration on one area …
Risk … the possibility that the intended outcome may not occur.

(Craft, 2001, pp. 56–7)
Possibility Spaces in the Material World of the Primary School

Craft worked with Open University and University of Cambridge academics Teresa Grainger (later Cremin) and Pamela Burnard to arrive at “an evidence-based model of possibility thinking” in young children (Grainger, Craft, & Burnard, 2007, p. 8). In this model, the child learner and the teacher are nested in an enabling context, and the entanglement of context, learner, and teacher gives rise to the child’s possibility thinking. In this model (pp. 9–10), a child’s possibility thinking exhibits the following characteristics:

POsing QUESTION: The focus on questioning, generating ideas through pondering and positing ‘what if’ scenarios in the mind.

PLAY AND IMMERSION: Immersion allowed ideas to incubate and questions to merge ... [what] Winnicott (1974) calls the deep play of childhood was rooted in the body and the senses.

SELF DETERMINATION AND RISK TAKING: By providing more freedom and framing regular “challenges where there is no clear cut solution” (DfES, 2003, p. 9) ... The children clearly developed the courage to take risks, ... and they were expected to exercise agency and autonomy.

BEING IMAGINATIVE AND MAKING CONNECTIONS: Few distinctions in terms of subject domains fostered their ability to make unusual connections between, for example, ideas and activities or their own and others’ lives.

PEDAGOGY: These [teacher] professionals allowed themselves and the learners time and space to play, to explore, to speculate, to question and to possibility think their way forward.

In 2018, a fieldwork study exploring possibility thinking was carried out at the newly established University of Cambridge Primary School, “a site where possibility ‘space’, an enabling context for possibility thinking, is embedded in the school’s design” (Burnard et al., 2018, p. 253). Burnard et al. (2018) applied an arts-based perceptual ecology framework placing the arts alongside science, technology, engineering, and mathematics, i.e., STEM, as a ‘bracketed’ concept, STE(A)M (p. 250). In the maths curriculum, they identified possibility spaces in the school evident in the following ways:

a. experiential possibility spaces where there was direct experience of models and music composing/constructing in mathematics;
b. intuitive possibility spaces for the use of imagination, intuition and magic in mathematics;
c. embodying possibility spaces for art-making of composing/constructing in mathematics; and

d. exploratory possibility spaces for the language of pattern in relation to its detection and recognition in mathematics.

(p. 276)

This shows possibility spaces to be relational places of imagination and little c creativity, whereby there is a dynamic relationship between the interior and the exterior worlds of the child and through which the child is transformed and learns. Burnard et al. argue (2018) that, in possibility spaces, the child’s “intuition stimulates imagination, acts as an organizing process that creates representations of our learning experiences. Thus, imagination becomes a modelling device through which we can test possibilities and co-create enabling possibility spaces” (p. 277). Craft’s
research about young children’s creativity rapidly evolved as digital technology advanced in the early 21st century and she proposed that, in digital spaces, children could be “digital possibility thinkers posing ‘what if?’ questions and engaging in ‘as if’ activity” (2011, p. 173). She argued that, as a result of the digital revolution, there are four key features of the changing nature of childhood which she called the 4Ps – plurality of identities, possibility awareness, playfulness of engagement, and participation (2011, p. 179). She stated:

The 4Ps have little c creativity inherent within them, each enabling and demanding creativity within and between people ... Understood in this way, it can be seen that the digital play-spaces of children and young people offer inherent opportunities for creativity.

(p. 182)

Whilst Craft’s death in 2014 meant the research world was not privy to how she might progress her work on digital possibility spaces nor how she might engage with the burgeoning research about the posthuman child (Murris, 2016), she did begin to evolve her work on creativity in ways that resonate with posthumanist theory, in particular the theory of wise, humanising creativity: “grounded in a reciprocal relationship between the collaborative generation of new ideas and identities, fuelled by dialogues between the participants and the world outside ... [wise, humanising creativity is] an antidote to marketised and individualised creativity” (2011, p. 179).

Posthumanist Possibility Spaces

A posthuman perspective of possibility spaces may extend understandings of agency in possibility thinking. Burnard et al. (2018) allude to a wider view of agency, broadening out from the agency of the little c creative individual, when citing Maxine Green: “landscapes of our interior worlds flow and merge into the landscapes of the exterior world ... [and] can stimulate much needed educational change” (Green, 1978, p. 37, cited in Burnard et al., 2018, p. 253). This merging of the interior and exterior is echoed in children’s engagement in virtual spaces, in which the immaterial virtual landscapes of children’s creative digital play merge with the materiality of their real-world contexts. Ash (2015) has proffered the term “teleplasty” (2015, p. 23) to describe the way that technology is agentic in shaping the possibilities in digital play. Marsh (2017, p. 5) applies Kuby and Rucker’s (2016, p. 17) notion of “togetherness in an entangled moment” to describe children at play with digital environments. She suggests this assemblage of technology and child is “play that crosses virtual/physical worlds, online/offline and digital/non-digital boundaries [which] raises a range of ontological questions” (p. 5). Whilst this chapter does not aim to answer these questions, it does engage with what applying a posthuman lens to the complexities children’s creativity in digital possibility spaces might offer.

Posthumanist perspectives decentre the human as an agent in any given context, including the digital. As Kuby and Rucker argue, “posthumanism is rooted in a relational ontology meaning we (humans, nonhumans and more-than-humans) are always already entangled with each other in becoming, in making, in creating realities (the world)” (Kuby & Rucker, 2017, p. 288). Therefore, when considering young children’s possibility thinking in the educational space of the primary school or in the interactive virtual space, it is critical in a posthuman perspective that consideration is given to the entanglement of agents, processes, and domains, that is, the entanglement of the person, becoming, being, space, place, things, and knowledges. Chappell (2018) states:

A dialogue between the inside-out and the outside-in of less boundary human bodies, other life forms, ideas, objects and environments becomes less partial (whilst still
acknowledging partiality), and allows more perspectives and actants into the creative process, leading to a richer set of possible new ideas.

(p. 290)

Digital possibility thinking could be an encompassing concept for children’s digital creativity in which posthumanist entanglements of being and becoming, of the human and nonhuman, are in dynamic inter-relationship. This may offer ways to understand the complex subjectivities that take place when a young child creatively intra-acts in digital spaces.

In Barad’s (2003) discussion of discourse and posthumanist traditions, she also identifies that posthumanism is akin to possibilities. Exploring “the mutually constitutive relationship of materials and discourses” (p. 819), Barad argues that discourse in any given context, including the context of children’s primary school, is filled with possibilities that arise from the individual and nonhuman agents:

statements are not the mere utterances of the originating consciousness of a unified subject; rather, statements and subjects emerge from a field of possibilities. This field of possibilities is not static or singular but rather is a dynamic and contingent multiplicity.

(p. 819)

The field of possibilities in the University of Cambridge Primary School, in which children were posing questions and play, risk-taking, blurring domains and boundary crossing to make leaps into the unknown, was facilitated through the engagement of the human landscape (child) with the nonhuman (school environment) landscape. This same human–nonhuman entanglement can be found in a child’s engagement in digital contexts. Some fields of possibilities for children’s dynamic entanglements with digital touchscreen technologies can be found in the examples of 0–5-year-olds’ play with iPads in the Toddlers and Tables study, children’s creative play with internet-connected toys, and virtual/nonvirtual entanglements in makerspaces, all three of which are addressed later in this chapter.

Posthumanist Digital Possibility Spaces

It is important to acknowledge that the contemporary childhood experience is one in which the human child and the technological are inherently entangled (Marsh et al., 2005; Marsh, 2010; Marsh, 2017). Incorporating posthumanism in conceptualising possibility spaces requires a paradigmatic shift from thinking of human subjects as biological beings to considering them bound in a technological totality:

Posthuman subjects assume not only the materialist totality of things (i.e., that all matter is One, intelligent and self-organizing), but also that this totality includes technology. This is important because it inscribes the technological apparatus as second nature. Do remember that this “Life” the posthuman subject is immanent to, is no longer “bios”, but rather “zoe”: non-anthropocentric, but also non-anthropomorphic. Zoe also needs to embrace “geo” and “techno”-bound egalitarianism, acknowledging that intelligence, thinking and the capacity to produce knowledge is not the exclusive prerogative of humans alone, but is distributed across all living matter and self-organizing technological networks.

(Braidotti, 2017, p. 23)

Thus, before possibility thinking can be reconceptualised from a posthumanist perspective, the child as agent of little c creativity needs to be understood as fundamentally entangled with the
material whereby “matter matters” (Barad, 2007, pp. 132–85, cited in Murris, 2016, p. 193). Barad identifies that “‘we’ are not outside observers of the world. Nor are we simply located at particular places in the world; rather, we are part of the world in its ongoing intra-activity” (2003, p. 828).

Posthumanist digital possibility thinking challenges the value and assessment of the products (rather than the process) of possibility thinking imposed by a second-generation creativity framework, whereby creativity is “imbued with an economic ethos of being production with others, something which is able to be influenced and encapsulated – plus an understanding that it can be taught, learnt and assessed” (Swist, 2013, p. 146). Third-generation creativity, in Swist’s view, is “an authentic and alternative discourse to linear, work-ready and economically driven reductions of [creativity in] education” (p. 147). Positioning children’s little c creativity as possibility thinking is one such alternate discourse but further positioning it within children’s authentic entanglements in digital contexts leads to the concept of posthumanist digital possibility thinking. Taking a posthumanist perspective on children’s creativity and play honours the existing, evolving techno-human assemblages that are the context for 21st-century creativity, what this chapter calls posthumanist digital possibility thinking. Further, these entanglements are made visible in posthumanist digital play.

**Posthumanist Digital Play**

Posthumanist perspectives of children’s possibility thinking may be a challenge for early childhood educators steeped in child-centred pedagogy and the freedom of child-centred (non-technological) play. These are largely drawn from Vygotsky’s notion that play is crucial to cognitive development: “play . . . is the leading source of development in pre-school years” (Vygotsky, 1933/1976, p. 540). In Vygotsky’s view, both child development and children’s creativity are seen as the “internalization or appropriation of cultural tools and social interactions” (Moran & John-Steiner, 2003, p. 63). However, this internalisation process is more than just adopting external tools. It is transformative in nature whereby, through a dialectic between the social, cultural, material, and non-material, the child creates new knowledge and ways of being in the world. Similarly, posthumanism “understands the human body as an unbounded organism that exists in an entangled network of human and nonhuman forces. Posthumanism opens up a very different kind of being and knowing” (Murris, 2016, p. 193). Thus, Vygotsky’s notion of the metamorphosis of the child from one state of being to another may appear to agree in part with the posthumanism’s theorizing of the child:

The posthuman child is not only discursive, but also material (and/and), including the body that the child not just has, but also is. In a monist universe, all earth dwellers are equal – they are mutually entangled, always becoming, and always intra-acting with everything else. The posthuman child is relational.

(Murris, 2016, p. 193)

However, Murris (2016) argues that Vygotskyan assumptions “that children will learn to think for themselves if they engage in the social practice of thinking together” (p. 155) do not equate with a posthuman approach as it is firmly social constructionist. To Murris, such a social constructionist approach “would assume there are bounded subjects and objects ‘in’ the world moving through space and time” (Barad, 2007, p. 815, cited by Murris, 2016, p. 156). Such children’s thinking involves “‘internalisation’ of the ‘outer voices’ that build on each other’s ideas in a community of enquiry [that] will lead to a richer, more varied ‘inner’ dialogue, and as a result a better, more reasonable thinking, through ‘self-correction’” (Murris, 2016, p. 155). But inner and outer suggest firm boundaries and a subject and other. Murris states:
a relational materialist ontoepistemology does not understand relationships as connections that are made between independently existing ontological units (like the more familiar “inter-action”), ... it is impossible to say where the boundaries are of each child, or the teacher, or the parent, or the gecko on the wall, or the furniture, or the drawings, [or the technology] and so forth (not only from an epistemological, but also from an ontological point of view). For relational materialists, the ontological and epistemological starting points for theorising are the intra-actions – the relations “between” individuals and nonhuman others.

(p. 156)

Thus, posthumanist digital play sees the child in relational engagement with not just humans, but with the nonhuman. This makes sense when one considers the child’s play world and the physical toys that are an integral part of children’s concrete and imaginary little c creativity. If this notion of the relational to the nonhuman is extended, then it is clear that the virtual toy or game is also a key aspect of the child’s creative play world, and that an assemblage of the technological and the human takes place in a child’s play interactions with the virtual.

Edwards (2013) described this as converged play, whereby traditional toy play converges with newer forms of digital play, such as virtual apps and games. Ash (2015) identified this process of convergence as teleplasty, “the way in which technologies preshape the possibilities of human activities and sensory experience” (p. 23). He describes these moments of convergence of the physical and the virtual, the human and nonhuman, as interface envelopes: “localized foldings of space-time that work to shape capacities to sense space and time” (Ash, 2010, p. 10). Marsh, however, argues that a different perspective of these convergences of the material and immaterial is needed, one that sees virtual play from a posthumanist perspective: “Given the extent to which the digital is an integral element of young children’s play ... there is a need to develop accounts that enhance an understanding of ‘ontological entanglements’ (Barad, 2007, p. 332) of children and technology” (Marsh, 2017, p. 6).

Marsh gives an account of research by Giddings (2014) in which he observes his sons at play “with Lego across virtual and material planes, [he] notes that they move seamlessly across these domains, and the material and immaterial are interwoven in their imaginatively conceived ‘game-worlds’” (Marsh, 2017, p. 15). By viewing the virtual play space as a posthumanist possibility space, and seeing this virtual play as a child’s enactment of little c creativity or possibility thinking, the entanglement of the human and nonhuman in digital possibility spaces identify that “his or her sense of presence moves beyond the corporeal to encompass the virtual environment” (Marsh, 2017, p. 6).

Such posthumanist digital play differentiates between a child’s interaction with the play world, and a child’s intra-action in an entangled posthuman digital space. As Wohlwend et al. (2017) state:

Interaction is defined as actions that are materially mediated in relations among subjects and objects that constitute social practices in a cultural environment (Scollon, 2001). By contrast, intra-action is defined as actions that emerge from within unspecified, entangled and changing phenomena of bodies and give rise to possibilities and transformations (Barad, 2003).

(Wohlwend et al., 2017, p. 453)

They argue that seeing the child’s play in the virtual world as intra-actions “reframes materiality from design affordances to a cycling interplay produced by the physicality, fluidity and messiness of entangled bodies, things and places” (p. 447). These posthumanist digital interplay spaces are
relational possibility spaces where intuition, imagination, and little c creativity are in dynamic intra-action with the interior and the exterior (including digital) worlds of the child. In its broad review of the field approach, this chapter has not presented primary research conducted by the author. However, below are some instances in which other researchers have viewed children’s engagement in digital contexts through a posthuman lens, as the following examples demonstrate.

Digital Possibility Spaces: Examples from the Research

Apps

Arising from the Toddlers and Tablets research project (Holloway et al., 2015; Green, 2019; Green et al., 2019), which investigated family practices related to young children’s technology use in the home in Australia and the United Kingdom, Holloway et al. (2019) interrogate skills scaffolding for a young child’s use of an app, taking “a broad posthumanist approach” (p. 211). In the child’s use of the app, they state, “an instructional assemblage is formed between parental scaffolding, in-built (app) scaffolding, and the child” (p. 210). Here they demonstrate that there is an entanglement between the human (parent and child) and the nonhuman (app) in order for the child to engage fully with the app. To recall Grainger, Craft, and Burnard’s (2007, pp. 9–10) model of possibility thinking which encompasses five characteristics – posing questions, play and immersion, self-determination and risk-taking, being imaginative and making connections, and pedagogy – this scaffolding is a kind of pedagogy in which the parent-as-teacher allows the child a possibility space to play and explore the app.

The researchers explain an interaction between parent and two-year-old child Scott whilst using an app. Applying their posthuman perspective, the researchers identify that there is an “entanglement of intra-activity between the three actants [child, parent and app]” (Holloway et al., 2019, p. 216). They demonstrate this intra-activity in which the very young child is engaged in digital play with the app to be a space in which scaffolding supports the child’s possibility thinking. Scott is immersed, taking risks at app-led activities outside his skills set, posing questions to his parent about choices, and making connections between his attempts to use the app and his parent’s scaffolded suggestions. The child’s possibility thinking is facilitated by parental scaffolding and in-built scaffolding within the app. Holloway et al. identify this as “the increasing imbrication or overlap of humans and technology within education [learning] processes” (Holloway et al., 2019, p. 217), highlighting the posthuman nature of the digital possibility space of the child-app engagement, and they call for new ways of considering the child as part of digital assemblages.

Internet of Toys

Arising from the Technology and Play project (Marsh et al., 2015) in which 2,000 parents of young children in the United Kingdom contributed to research about children’s use of apps in the home and school, Marsh (2017) constructs a “posthuman and multimodal analysis of connected play” (p. 1) in relation to the Internet of Toys (Chaudron et al., 2017; Mascheroni & Holloway, 2017). Marsh argues that, though Edwards (2013) applies the term converged play “in which traditional play with toys converge with newer forms of digital play” when discussing digital play, Marsh applies the term ‘connected play’ instead as it more holistically expresses “more peripheral as well as core connections between various aspects of play” (Marsh, 2017, p. 2). This is an important distinction when considering digital play from a posthuman perspective as connections expresses the messy entanglement of the human and nonhuman, rather than a smooth and more stable convergence of the physical and the virtual. Marsh identifies that children’s
digital play with interconnected toys is comprised of Barad’s posthuman “ontological entangle-
ments” (Barad, 2007, p. 332, cited in Marsh, 2017, p. 3), or intra-actions (Barad, 2003) in which
the boundaries between the subject/object and material/virtual are in a constant state of forming
or ‘becoming’.

The important distinction that Marsh makes in relation to children’s Internet of Toys play is
about children’s cardinal orientation. She draws on Ash to explain this as “the spatial orientation
given by the structure of the human bodies, rather than in relation to external points in space”
interconnected toy’s touchscreen interface results in a similar “reorganization of the child’s car-
dinal orientation” (p. 6). It is this reorganisation that can be seen as a digital possibility space
created though the child’s imaginative play, bringing to mind Burnard et al. (2018) on possibility
spaces. These Internet of Toys intra-actions are relational spaces of the child’s imagination
whereby imaginative play is a “modelling device … enabling possibility spaces” (Burnard et al.,
2017, p. 277). Possibility thinking’s characteristics of play and immersion, being imaginative and
making connections are all demonstrated in a child’s intra-activity with the Internet of Toys.

**Makerspaces**

The European Union (EU) has identified the changing nature of children’s engagement with tech-
nology. Consequently, they funded DigiLitEY (2020), a COST Action concerned with establishing
research networks investigating the digital literacy and multimodal practices of young children. Con-

ected to this broad network is the MakEY project – Makerspaces in the Early Years: Enhancing
Digital Literacy and Creativity (MakEY). This project is itself a broad network of research projects in
seven EU countries (Denmark, Germany, Finland, Iceland, Norway, Romania, and the United
Kingdom) and the USA, each of which “explores the place of the rising ‘maker’ culture in the devel-
opment of children’s digital literacy and creative design skills” (MakEY, 2020).

Though the project does not specifically take a posthuman approach, the term postdigital play
(Jayemanne, Apperley, & Nansen, 2015) has been applied to the experiences of young children
in makerspaces (Marsh et al., 2017), and this term closely aligns with posthumanism’s entangle-
ments of the human and nonhuman. Marsh et al. (2019), in outlining the principles of pedagogy
and practice of early childhood makerspaces, state: “The term [postdigital play] emphasizes the
way in which the digital is so embedded in everyday play practices that it is no longer meaningful
to consider the digital in contrast to the nondigital” (p. 224). They propose that makerspaces
enable children to “move seamlessly across digital and nondigital domains in their maker play”
(p. 223), again drawing attention to a posthuman interweaving of the material and the immater-
ial. In this way, makerspaces, like virtual play spaces, become spaces of emergent ‘postdigital’ pos-
sibility thinking.

The MakEY research makes clear that makerspaces encourage little c creativity, or possibility
thinking (Blum-Ross, Kumpulainen, & Marsh, 2020). The researchers explain how the MakEY
project was concerned with “the kinds of digital literacy skills and creative competences children
developed through their participation in makerspaces” (p. 6). A Romanian MakEY case study
within the collection is one of the few that positions the makerspace in a posthuman context (Velicu & Mitarca, 2020). The researchers state that they “embraced the hybridised nature of
makerspaces (i.e., with their mix of digital and non-digital, art/craft and technology, etc.) but
also refer to each particular situation in our project as unique agentic assemblages” (p. 116). It is
this notion of the hybridised makerspace that is akin to posthuman assemblages of the agentic
human and agentic nonhuman. The child enacts possibility thinking in these makerspace assem-
blages in which the human child and nonhuman matter (virtual and material) are entangled and
have agency.
Conclusion

This chapter has explored the concept of the posthuman possibility space. It makes connections between Craft’s (2001) notion of little c creativity and young children’s possibility thinking enacted in a digital (and postdigital) world. Consideration has been given to what a posthuman digital possibility space may entail, and the concept of young children’s posthuman digital play has been envisioned. It has dipped a toe into the extensive pool of research about very young children and digital contexts to briefly explore what research about apps, the Internet of Toys, and makerspaces reveal about posthuman digital possibility spaces. This chapter’s exploration of the literature has revealed that the research field of the digital child is poised for an application of a posthuman lens in order to fully understand the emergent, agentic assemblages of the human child and the digital nonhuman in the postdigital 21st century.

References


Children's Creativity in Digital Spaces


