"Beyond archetypes: advancing the knowledge of narrative fiction in future scenarios "

1. Introduction: Scenario archetypes and their limitations

This article argues that futures research that uses science fiction as an imagination stretching resource (see: Fergnani and Song 2020; Birtchnell and Urry 2013; Burnam-Fink 2015; Collie 2011; Johnson 2011; Love 2001) would benefit from broadening generic criteria to include specific examples from literary fiction and to remain aware of the limitations of using archetypes as a unit of analysis. The quest for and use of simple formal features, archetypes, basic plots and generic images in fictive texts is not uncommon in futuring, alternative scenario research and narrative forecasting (see: Candy 2018; Dator 2009; Fergnani and Jackson 2017; Fergnani and Song 2020). In Fergnani and Song (2020), for example, the authors frame their analysis of archetypes in films about the future in part as an effort to uncover the "full range of images of the future in human imagination" (2020, 3). The authors analyse 140 science fiction films and use a grounded theory analytical procedure to propose six archetypes—Growth & Decay, Threats & New Hopes, Wasteworlds, The Powers that Be, Disarray, and Inversion—two more than Dator's influential four (Dator 1998). These are described as more "transformational and nuanced" than existing archetypes frameworks and used in combination with local and global driving forces for change in particular contexts (2020, 15).

Images of the human imagination are surely not discoverable and empirically determinable in such a manner and the idea that they could be indicates a profound misunderstanding of how fictional texts are created and how they become meaningful as part of cultures. Abstractions are to some extent inevitable when deriving or using high-order informational structures and constraints associated with participatory research may make

such abstractions convenient (Sitas 2019). A repeated emphasis on particular sets of abstractions can, however, obscure other important aspects of making and using narrative. In Fergnani and Song (2020), for example, the films *Her, Bladerunner*, and *Avatar* are grouped together in the 'Growth and Decay' archetype, as though the imaginative distinctiveness of these works could be adequately accounted for by such macro level units of analysis. As noted by Pavel (2003) in his exemplary discussion of literary genres, the fact that some texts possess readily identifiable formal features should not lead researchers to the conclusion that such features are the most meaningful way to interpret texts in general.

There remains much scope for different approaches to scenario forecasting and worldbuilding that draw on what makes particular narrative texts distinctive. Some participatory workshop settings for scenario work may prioritise usefulness and clarity to reduce cognitive load and maximise input from participants (Candy 2018). As emphasised in critical futures studies that draw on poststructuralist approaches (Inayatullah 1998), the abstractions and tools used in workshop contexts are nonetheless shaped by certain assumptions about the appropriate units of analysis to interpret and conjecture alternative futures. If the origins and processes associated with such abstractions are not scrutinised and redesigned, then futures researchers run the risk of recapitulating under-examined assumptions of other fields of research. This article argues that a broader and deeper understanding of narrative texts, and the traditions of criticism that have sought to interpret their defining features, can help futures researchers sharpen their sensibilities in framing the deliberate subtleties, ambivalences and indeterminacies that have long been argued to be crucial in scenario planning (Dator 2009). Furthermore, documents such as futures roadmaps and reports on emerging technologies, many of which involve narrative scenarios (see: Deloitte 2020; Dellot 2019; PWC 2020), are also to some extent free from the challenges of facilitation and therefore more open to the nuancing found in some longer form literary texts.

Alan Hollinghurst's *The Stranger's Child* (2011) is used in the present article to exemplify an approach to exploring social-technological change that differs from the use of predetermined archetypes or generic images from science fiction as foundations, templates or provocations. The scale, quantity and complexity of the changes Hollinghurst explores in this work, and his cohesive, accessible, and fine-tuned use of narrative craft make *The Stranger's Child* a valuable example for futuring work that involves the creation of storyworlds or scenarios. Hollinghurst's queering of well-established realist genres is an example of a storyworld which goes beyond inherited archetypes and tropes to explore sets of problems that emerge in specific aesthetic and narratological contexts. In this sense it is complementary to critical futures approaches that argue for a problematising and making-strange of categories used to understand and organise culturally significant texts and images (Inayatullah 1998). Rather than attempting to offer a broad survey of popular narrative examples (see: Bina et al 2017; Fergnani and Jackson 2017; Fergnani and Song 2020), or impressionistic evaluations of favoured texts (see: Dunne and Raby 2013), this article uses a relatively in-depth analysis of a single example informed by literary theory. Through analysing the example of *The Stranger's Child* this article provides a sensibility-sharpening resource for researchers engaged in worldbuilding, scenario forecasting, futuring and design fiction.

The next section focuses on the key traits of the science fiction genre and how they are often informed by particular conceptualisations of socio-technological change. The following section discusses the work of other scholars, such as Burdick (2019), Blythe (2017) and Dunne and Raby (2013), who have also advocated for the use of literary fiction in futuring. Hollinghurst's *The Stranger's Child* (2011) is then analysed in some detail, with a focus on how the novel explores changing attitudes to style and aesthetics across multiple generations and from differing socio-cultural perspectives. In order to indicate how stories

like Hollinghurst's might be useful for futuring work, a curated selection of scenes from his narrative are then used as a model to create a series of swiftly sketched future scenarios involving domestic smart technologies. It is worth highlighting the present author's technical expertise in this area as a nationally awarded writer of long-form literary fiction (Lee 2018). As such, the scenarios are informed both by knowledge of the creative practice of narrative writing, a research background and publishing record in literary theory, in addition to research outputs focused on design and technology.

2. Science fiction and scenario archetypes

Science fiction is the narrative form that most commonly deals with the future and which is drawn upon most frequently in futuring work dealing with alternate worlds and scenarios (see: Bell et al 2013; Bina et al 2017; Dator 2009; Fergnani and Song 2020; Miles 1993). Like all genres, science fiction is capacious and always changing. The conceptualisation of a radically transformative new technology is, however, a common presence in many examples of the genre and a common trait identified by both science fiction critics and those involved in futures studies who analyse science fiction (see: Burri 2018; Fergnani and Song 2020; Johnson 2011). As noted by Roberts (2000) in his expansive historical study of the genre and its surrounding discourse, science fiction is typically characterised by the presence of new technologies and the exploration of worlds that significantly depart from the present. These twin attributes combine to create narrative situation in which prospective storyworlds are shaped by radical, dramatic innovations. This is the case both in popular historical examples authored by Jules Verne, H. G. Wells and Mary Shelly, and more recent canonical texts, such as Ursula Le Guin's *The Left Hand of Darkness* (2012), that, while not expressing an overly techno-centric focus, do nonetheless centre on what science fiction critic Dark Suvin

memorably called a 'novum' (Suvin 2016), or 'new thing' which has dramatic, world-shaping potential.

Historians of technology such as Edgerton (2007) argue that certain conceptualisations of technological change are in part responsible for "a startling, unselfconscious lack of originality" in approaches to future visioning, and by implication, science fiction (2008, xvi). According to Edgerton (2007), the prime oversight is interpreting technology as synonymous with innovation or selective novelty at the expense of considering the great variety of technological activity associated with use. For example, the anthropological and cultural impacts of cars, candles or mirrors would be understood in a very limited manner if all the transformative potential of these technologies were imagined to be enfolded within the thing at the point when it was considered to be an innovation.

Not only does Edgerton (2007) suggest that historical and theoretical studies of technology misconstrue the nature of technology when they focus too much on innovation, he also argues that the reality of innovation itself is poorly understood when it is equated with progress and success—most innovations fail, or at the very least only particularly succeed. Focusing only on technological successes eliminates the vast penumbra of contingencies, alternative potentials, indeterminate histories and mixed-successes-and-failures that, while not always as conspicuous, do nonetheless shape the texture and meaning of worlds, whether empirical or speculative in aspiration.

Latour provides an excellent narrative counterexample of a technological failure in *ARAMIS, or the Love of Technology* (1996) which he calls '*scienti-fiction*' in order to distinguish it from science fiction accounts of technological novelty. As noted by Bould and Vint (2006) in their review of *ARAMIS* (1996) for *Science Fiction Studies*:

The thriller format that predominates in sf tales of technological projects requires the reduction of complex networks of actants to various readily identifiable—and usually human—heroes, villains, bureaucrats and politicians, place-holders and talking heads, whose relative lack of depth tends to leave them incapable of acting as either realistic or representative actants (2006, 129).

This might be a broad brush with which to tar the entire genre of science fiction. The existence of these features is nonetheless clearly evident in the six archetypes developed by Fergnani and Song (2020), five of which involve reference to catastrophic changes, with abundant talk of threats and disasters, and binaries between dominant powers and rebellious individuals. As Bould and Vint (2006) suggest of Latour's *ARAMIS* (1996), the literary example analysed in the following section is a "valuable model for rethinking the nature of genre" (2006, 146), and subsequently the futuring work that draws from it.

3. Literary fiction and futuring: Theoretical and practical precedents

This article is not the first to suggest that literary fictions might have something to offer the practice of futuring. Anthony Dunne and Fiona Raby—among the most influential voices in design-led approaches to futuring in recent years—use literary fiction and fictional worlds theory as influences for their speculative approach to design futuring, or what they call 'speculative design' (2013). Dunne and Raby go so far as to suggest that literature and fine art are the best places to look for imaginative worldbuilding, which they define in opposition to pragmatic and logical approaches (2013, 71). The speculative, often postapocalyptic worlds of Margert Atwood are the "gold-standard" for Dunne and Raby, as they are both based on "real science" and "focused on social, cultural, ethical, and political implications" (78). Despite all the attacks on logic, pragmatics and rationality, Dunne and Raby (2013)

nonetheless appeal to works of speculative fiction that are based on so called "real science", without going into why or exactly what authority "real science" confers on the imaginative or the speculative in this instance. This reveals a certain assumption about how speculation ought to play out in prospective worldbuilding. There are many ways represent the hybrid forms that make explicit the complex and changeful connections between different domains of knowledge in scientifically advanced cultures. Cautionary tales about the meeting of biotechnology and the free market—Dunne and Raby's characterisation of Atwood's *Oryx and Crake* (2003)—exhibit a reliance on common science fiction tropes about threatening new technologies and oppressive systems. While appearing to question and critique the influence of science and technology on society, such approaches recapitulate the same focus on innovation-centric conceptualisations of technology—albeit in a fearful register—that Edgerton (2007) argues limit the originality of future visions.

Anne Burdick (2019) has also argued that literary fiction can give distinctively rich insights into the inner lives of the characters or personas that inhabit future scenarios and storyworlds. Burdick refers to comparable problems identified by Slaughter (2008) and Candy and Dunagan (2017), who offer different yet related approaches to a perceived lack of emphasis on the experiential dimensions of everyday life in futuring approaches. Burdick analyses her own design fiction, *Trina*, on which she collaborated with short story writer Janet Sarbanes. *Trina* combines the design of composite images used in a slide show with a written narration, the latter of which Burdick argues offers "access to a character's inner thoughts and motivations" (2019, 79).

Mark Blythe (2017) has also used examples from literary fiction and literary theory to analyse the plots in various scenario and worldbuilding practices, including those used in Human Computer Interaction (HCI), Design Fiction and Critical Design. Blythe cites a section from David Foster Wallace's *Infinite Jest* (1996) as an exemplary account of the ways

in which literary fiction can be used to explore the indeterminacy of technological change. The specific section to which he refers extends over about seven pages (Foster Wallace 1996, 146-151), during which Foster Wallace speculatively explores complicated trends and transformations associated with what he calls 'video telephony'. Rather than imagining a world defined by a predetermined, significantly impactful technology, Foster Wallace construes video telephony as a mutable, ambivalent force that is ultimately a commercial failure. He swiftly sketches a story that includes an account of the broader commercial environment, the industry that produced the technology, how the industry evolved in an attempt to respond to unexpected problems associated with contexts of use and how in turn new problems and user adaptations developed due to a range of complex factors. A series of solutions—things like masks and filters for people to wear while using the technology—are developed to respond to the problem of people missing the luxury of not being seen on a telephone call. What makes this aspect of the story all the more interesting, isn't that Foster Wallace proposes a radically innovative technology, but rather that he demonstrates a relatively unique appreciation for the simultaneous dynamism and complexity of the tech industry and human users, both of which converge and diverge in an ultimately unresolved rhythm. Blythe lauds exactly this aspect of Foster Wallace's work:

> By "losing the plot" he [Foster Wallace] creates a model for the uses of fiction as a tool for studying technology that encompasses auto-ethnographic insight (the advantages of voice only telephony and appearance related anxiety in videophony) with design fictions that go beyond technology fetishism (the rise and also fall of multiple business models) to seriously considering the social and psychological impact of new technologies (increased psycho-social distress) without providing

simple technological answers or knowing and ironic single message critique. (2017, 5409).

This is exactly the kind of exemplification and analysis that the present article suggests is sorely needed in approaches to futuring that deal with narrative and technology. Blythe focuses on a relatively isolated example within a very long novel. He spends the bulk of his article wrestling with Christopher Booker's Jungian-inspired taxonomy of basic plots. As Blythe (2017) notes, these taxonomies might work well when applied to basic narrative structures used in HCI scenarios and critical design, however, they fail to account for the creative efforts of authors such as Foster Wallace, and likewise of Hollinghurst, who deliberately queers, experiment with or studiously avoid norms of literary genres.

The following section gives a comparatively extensive, if still far from comprehensive, analysis of a work of fiction which features the "layers and complexity" (Blythe 2017, 5409) Blythe identifies in his example from *Infinite Jest*. It focuses on Hollinghurst's *The Stranger's Child* (2011) and describes how a particular nexus of changes associated with an aristocratic Victorian country house called Corley Court are represented in his narrative. Particular attention is given to the way Hollinghurst uses metonym to evoke a simultaneous sense of connectedness and non-equivalence between a diverse range of phenomena, with no scale of reality standing in to offer an ultimate explanation for another scale. The following section speculates about how smart home technology might substitute for Corley in a more forward looking narrative than Hollinghurst's, thereby offering an impressionistic indication of how his work might help inspire an approach to representing technological change in a future storyworld that offers useful insight for futures researchers.

4. *The Stranger's' Child*

Hollinghurst's *The Stranger's Child* (2011) has been described as mapping "the thousands of changes to befall England, Englishness and English subjects across the past hundred years" (Canning 2011). As noted by Eeckhout (2012), in an exemplary piece of literary criticism analysing the novel, *The Stranger's Child* can be read as a subtle queering of "the social realist novel, the family saga, and the country house novel" (2012, 1). Indeed, Hollinghurst's queering is so subtle, his imitation of the antecedent archetypes so compelling, that the novel attracted heavy criticism from esteemed literary critic James Wood, who described it as "randy for antique" and obsessed with the same overused archetypes common in English fiction over the last century (Wood, 2011). Wood might have got it right with his "randy for antique" quip—the book gives much attention to the relationship between libidinal and the aesthetic—however, his review fails to appreciate the more profound subversions evident in Hollinghurst's treatment of character, tone and narrative form.

Corley Court is a high-Victorian mansion described at various points in the narrative as a "Victorian monstrosity" (268) and "a violently Victorian house" (528). Hollinghurst uses the attitudes of Corley's heirs, Cecil and Dudley, and a range of their acquaintances, to tell two very different stories about how the next generation responded to the Victorian frame of mind and its architectural exemplification in this house. Cecil, who dies in the First World War, loves Corley and at various points speaks as an advocate for its extravagance. Dudley, who survives the war, has a contrasting reaction to the house and modernises many of its rooms when he lives there in the years after the war.

One of Corley's key features are the "jelly-mould" domes (Hollinghurst 2011, 20) in the ceiling of the original dining-room, which seem at once to lend a further level of specificity to the house and make it seem more mysterious. The domes are first referenced at the beginning of the novel, when Cecil is visiting the less auspicious dwelling Two Acres, home of his university friend George. Subtle comments about class-based insecurities and

aspirations are woven through the novel, though as Eeckhout suggests, "the fictional role and life of this estate is much richer than an analysis of class and status might suggest" (2012, 6). George's younger sister, Daphne—one of the other central characters, who is a young girl at this point in the narrative—asks the aristocratic Cecil about the domes:

> 'Do you have jelly-mould domes?' she wanted to know.
>
> 'At Corley?' said Cecil. 'As a matter of fact, we do.' He said the word 'Corley' as other men said 'England' or 'The King', with reverent briskness and simple confidence in his cause.
>
> 'What are they,' Daphne said, 'exactly?'
>
> 'Well, they're perfectly extraordinary,' said Cecil, unfolding his lily, 'though not I suppose strictly domes.'
>
> 'They're sort of little compartments in the ceiling, aren't they,' said George, feeling rather silly to have bragged to the family about them…
>
> 'I imagine they're painted in fairly gaudy colours?' Daphne said.
>
> 'Really, child,' said her mother.
>
> Cecil looked drolly across the table. 'They're red and gold, I think—aren't they, Georgie?'
>
> Daphne sighed and watched the golden soup swim from the ladle into Cecil's bowl. 'I wish we had jelly-mould domes,' she said. 'Or compartments.' (2011, 20-21)

This tonally deft dialogue, rippling with Hollinghurst's subdued wit, represents the domes as at once specific architectural features and swimmingly allusive figments, composed of different perspectives on the world: Daphne's imagined version of the domes in "gaudy colours", George's alluded to earlier boast about the domes to his family, and Cecil's

comparatively aloof yet proud account of the colours and importance of domes. These are the sort of "inner dimensions" that Burdick argues make literary fiction such a great potential resource for experiential approaches to futuring (Burdick 2019, 79). Furthermore, while represented as a specific set of attributes, the exact status of the domes remains indeterminate: they're not "strictly domes" but "little compartments".

While perhaps a seemingly minor detail, the domes are linked up in a layered mesh-work of events over the course of the narrative: after Cecil dies in the war, and Daphne has married Dudley and both have moved into Corley, the domes loom as an allusive part of the *mise en scène* and become talking point among family and friends engaged in a discussion about Victorian aesthetics; Dudley boxes the domes in, along with other aspects of the Victorian interior design, as part of Corley's so called modernisation; then the domes are rediscovered close to half a century later by Victorian enthusiast and teacher, Peter Rowe, after the house has been converted into an elite prep school and the floating ceiling installed by Dudley collapses on students rehearsing the *William Tell* overture due to a leaking bath upstairs. At the final sighting, Peter takes his love interest, Paul Byrant, up into the dark, damp recess of the ceiling to observe the domes by the light of a flame, under the wary supervision of the school headmaster, Peter's boss (2011, 344-346). The domes are described in the third-person indirect style through Peter as a vision of "lost decoration, a glimpse of an uncharted further dimension of the house" and "a dream, a craze, put aside now almost ruefully in favour of [Peter's] other craze, his bank clerk friend" (2011, 346). The apparently mundane practice of interior decoration and renovation is in this instance embedded as part of a variety of complicated psychological, social, political, characterological, historical and macropolitical dimensions that operate in the narrative. The domes, however, cannot be reduced to any of these forces and despite being a 'micro' detail in some senses, they remain as shifting, complex and ambiguous as generic imaginings of larger systems.

Eeckhout (2012) makes a compelling argument that Hollinghurst weaves the many dimensions associated with the domes together through a sustained and multilayered use of metonym. Unlike metaphors, which typically "establish identity on the basis of an equivalence", metonyms establish associations and patterns that exist in contingent relationships (Eeckhout 2012, 4). This is demonstrated in the above example when the domes are described as a "craze" which then connects through Peter with another "craze", this time his love interest, Paul, who is described metonymically as his "bank clerk friend". While important and meaningful, none of the relationships in this chain of referents can be explained as a 'likeness' or 'similarity' in the metaphorical sense: Paul and the domes are both a "craze" from Peter's perspective but they are not *like* each other in a metaphorical sense.

The domes are one of the many, "ultimately uncontainable" (Eeckhout 2012, 5) metonymic referents in the "labyrinthine metonymical constructions" (2012, 10) that define the way meaning is constructed in the text. It might be tempting to read the boxing-in of the domes as a metaphor for "suppressing all sorts of inconvenient or over-colorful aspects of the past" (Hollinghurst, cited in Eeckhout 2012, 8), thus giving precedence to a straightforward psychological explanation about Dudley's inter-generational trauma and a desire to repress memories and move on from the previous generation and the war. However, in Eeckhout's phrasing, the "novel stages a number of complicating ambiguities" that work at a metonymical level and invite the reader to consider, though ultimately not decide upon, "an unusual range of possible motivations for the appeal of architectural minimalism during the 1920s" (2012, 8). These include the aforementioned explanations about moving on from darker aspects of the past associated with the Great War, the contrary suggestion that such darkness was "psychologically pre-established" in the case of Dudley, and a range of other libidinal, interfamilial and social suggestions. As noted by Eeckhout, these various

disturbances in architecture and character are rendered in a manner that shows the two as "intrinsically dynamic, in the sense of mutually influencing and reinforcing, as well as unstoppable and uncontainable" (Eeckhout 2012, 4).

While the present analysis has focused on Corley Court and the jelly-mould domes, any number of metonymically linked actors could have been selected for the same purposes, whether human characters, like Daphne or Dudley, or non-human things, like Cecil's poem, titled 'Two Acres', or the childhood home of Daphne and George that shares the same name as the poem. In all these cases, the chosen entity exists in the narrative as a mutable force, shifting between a level of tangibility to guide the reader, viewer or creator of the storyworld, and a level indeterminacy that obscures or blurs emerging conceptions of *what that entity is*.

5. Exemplification: The case of smart technologies

So, how might such an example translate to the prospective, anticipatory worldbuilding of science fiction and scenario forecasting? Any exemplification in the present context will seem impoverished in comparison to sustained and careful worldbuilding evident in long form literary, televisual or cinematic work. It is, however, readily imaginable that an emerging technology, for example a smart home technology, might substitute for Corley Court or any of its defining features as the locus for exploration of sociotechnical change. More exactly, the smart home technology would substitute into an abstracted set of relations modelled on the various complications of sexuality, class, gender, generation, aesthetics and psychology evident in the narrative.

In this sense, *The Stranger's Child* would function in a manner that is comparable to the use of "pastiche scenarios" in Blythe and Wright (2006). These involve the use of well-known characters from existing fictions to "explore the 'felt-life' aspects" of people's experience with technology" (2006, 1140). In one case study Blythe and Wright use Bridget

Jones from *Bridget Jones' Diary* (Fielding 1999) and Renton from Irvine Welsh's (1996) novel *Trainspotting* to explore iPod technology (Blythe and Wright 2006, 1145-1147); in another case they explore a conceptual design for a wearable wireless webcam using Agatha Christies' Miss Marple (1997), *Nineteen Eighty-Four* (Orwell 1983) and Anthony Burgess' *A Clockwork Orange* (1998) (Blythe and Wright 2006, 1150-1158). Importantly for the authors these are well-known characters, from well-known stories that connect with an existing cultural imaginary in specific ways. According to Blythe and Wright: "Pastiche scenarios can be used as rhetorical devices for design—to convince and persuade and to make apparent assumptions and values around the design and use of technology. They can also be used to explore emotional, social and political contexts of use." (Blythe and Wright 2006, 1142). In the context of futuring, the authors argue that pastiche scenarios are "valuable as a tool for envisioning new systems, for structuring mock-ups and analysing existing systems or prototypes" (2006, 1143).

Using *The Stranger's Child* as a template for a future scenario involving smart home technology would offer comparable though distinct affordances, with less focus on how widely-recognised stock characters might behave in particular situations. Unlike the literary examples discussed by Blythe and Wright (2006) and the way they use such examples in the case studies they provide, *The Stranger's' Child* is better suited as a provocation to think about socio-technological changes at a longer timescale and among more abundant sets of relations. The following four linked scenarios, which are loosely based on the sections discussed from Hollinghurst's narrative, show how smart home technology might be valued differently over time and, relatedly, how *The Stranger's' Child* and literary examples like it might be used as a model in futures scenarios research. At this point the scenarios are high-level summaries, aside from the dialogue included for the first scene, which is adapted from the extended example taken from *The Stranger's' Child* above.

Scene 1

A family (The Blanks) are hosting a visitor (Joy) and they discuss a particular smart technology (a smart mirror, for example). Joy is Pele's guest. Pele is the eldest of the Blank family, and like George in Hollinghurst's narrative, admires his guest greatly. Class differences between the Blanks and Joy become apparent in the discussion. The Blanks do not have the most recent smart technology, some members of the family aspire to have it one day (Sam), while others are ambivalent (Tyrone), and others are negative towards it (Norma). The way Joy discusses the technology reveals certain things both about the way the technology can be made to mean differently and Joy's own background.

Example dialogue for Scene 1, based on *The Stranger's' Child:*

'Do you have the Denby Smart Mirror?' Sam wanted to know.

'A Denby?' said Joy. 'As a matter of fact, we do.' She said the word 'Denby' as though she was shocked Sam had to ask the question.

'What is it,' Sam said, 'exactly?'

'Well, it's perfectly extraordinary,' said Joy, taking out her smartphone and halfheartedly scrolling through some images, 'though sometimes I don't feel it's all that smart.'

'It's a sort of the internet of things in a mirror,' said Pele, feeling rather silly to have bragged to the family about it…

'I imagine it speaks to you in a friendly tone?' Sam said.

'Really, child,' said her mother.

Joy looked drolly across the table. 'Yes, I suppose it is friendly, but sometimes I find that very irritating.'

Sam sighed and watched a lettuce leaf fall like a feather onto Joy's plate. 'I wish I had a Denby Smart Mirror,' she said. 'Or an internet of things.' (2011, 20-21)

Scene 2

We witness a party where the Blanks are guests at Joy's family home. The smart technology is on display and being used in all its splendour. But one of the Blanks, perhaps Norma or even Pele, feels resentful towards the technology based on a comment made at dinner. After the party, when the Blanks have returned home, Sam might begin to imitate the voice of the smart technology. We might even see the resentful Pele or Norm in a vaguely humiliating scene in the bathroom pretending they have a smart mirror, drawing on the surface with lipstick. Perhaps Joy will give the smart home technology a nickname that has unpleasant connotations for the Blanks.

Scene 3

We have moved forward in time. One of Joy's family is removing the smart home technology from their home, perhaps stowing it away in a garage or storage facility—reluctant to throw it away but not wanting it in the house. This could be due to a range of reasons brought to life in dramatic, narrative scenarios: perhaps interfamilial relations with Joy have soured, she is now an undesirable aspect of the family's past and the technology is too saturated with her presence to comfortably cohabit with it—this could be effectively dramatised with a scene involving Joy's ghostly face in the mirror; there could be broader misgivings about the attitudes of Joy's generation that

have led to negative cultural associations with the technology, which have now become normalised in certain demographics, these could be to do with convenience, affordability, sustainability or security issues—in short, a range of different motives could be suggested without a single determinate reason. By contrast, we might witness Norma or Pele, now with a family of their own, or as a grandparents, making use of a smart mirror or home assistant in a practical way. Perhaps Joy's nickname for the technology will surface in a strange or amusing way.

Scene 4

We have moved forward in time again. This scene shows a new home occupant rediscovering or trying to re-install Joy's old smart technology. Perhaps it's a smart toilet they've discovered in the garage, a smart mirror or an old home assistant. Here we are exposed to the way a different generation views the smart technology and how it means different things to them based on particular cultural, historical and personal changes. The next generation is far enough away from the prior disturbances of the past to view the technology and its associations in a new light. Perhaps there is a revival of smart technologies due to privacy issues being ameliorated, there could be more affordable and accessible repair services, or it could primarily be semiotic revival, like 1950s furniture in the late-twentieth and early twenty-first century, with the idea of a smart home being cool in a quaint, whimsical manner.

These are four comparatively swiftly sketched vignettes lacking much specificity with regard to context. They are deliberately abstract at this point so as to show openness to substituting alternatives to the hypothesised smart technology. Richer descriptions would involve how the particular look, feel, and performance of the technology might interact with different

characters and practices and in different places and times—just like the domes in Corley Court. For example, the minimalist design or the particular friendly and fun tone of voice of home assistant technology might be shown to have different ramifications in different social and historical contexts. Through the use of metonym, different indexes for minimalism and friendliness might be woven together in a 'story-labyrinth' which shows how these are valued differently in different times and places—as shown by Strengers (2018), the question of gender might prove a particularly fruitful site for narrative exploration in the case of home assistant technology. Likewise, different moments in the life of the product—ranging from "acquisition, appropriation, appreciation" at the front end (Warde 2005), to "devaluation, divestment and disposal" at the back end (Evans 2019)—might be integrated as part of the narrative over a long timescale, like Hollinghurst does with the boxing-in (devaluation) and then rediscovery (appreciation) of the domes. The mixed history of the hypothesised nickname Joy gives to the mirror would be a further metonymic chain to explore. As with *The Stranger's Child*, the relations among different metonymically linked actors or actants would need to be "intrinsically dynamic" (Eeckhout 2012, 4), simultaneously showing how transformations in the technology offer an insight into other "in the world items" (Hacking 1999) and how other in the world items might offer insight into the technology. There is also the further narrative thread of the Blank family, who faded from view in the above scenarios in favour of a focus on Joy and the smart technology in the context of her life. Equally interesting narrative propositions might be conjectured based on this different family, and likewise on the other social circles in which they are involved. As noted by von Stackelberg and McDowell, such scenes become "vertical core samples" (2015, 39) of a storyworld that once established can be used relationally to navigate in the creative process of developing more "samples" or scenes.

Conclusion

Further work remains to be done refining the analysis of such literary examples and developing models based on their narrative style and structure that can then be used in participatory futuring research. The challenge in developing generic or higher-order conceptual toolkits based on such examples, is to avoid recreating the same hierarchical frameworks for understanding socio-technological change, while still offering helpful scaffolding or prompts for imaginative work. This is in part why Latour has been at pains to define alternative sociological approaches such Actor-Network Theory as anti-framework or anti-methodology (2007). Any closed set of examples analysed by a given scholarly community will tend to crystallise into its own archetypes in the absence of complexity generating resistance from a diversity of cases. The hope, then, is that these literary examples and associated emphasis concerning the particular mobilisations of indeterminacy in storytelling and worldbuilding, might be the beginning of a bridging of channels between different communities of analysis and help bring together some of their favoured theories and precedents.

As a final word, it is perhaps worth noting that the present article has employed the generic labels 'science fiction' and 'literary fiction' with some reluctance. To some extent, this generic partition gets the emphasis wrong with regard to the sort of imaginative and empirical creative work for which this article attempts to advocate. Indeed, even the high-level distinction between fiction and science would seem to perpetuate certain misleading assumptions concerning expectations and aspirations for the categorisation of different examples of knowledge creation. Generic conventions and labels are used in this context as an initiating step in order to speak directly to existing bodies of scholarship. Future work examining the convergences and divergences between different fictional genres—and between the empirical and the imaginative more generally—would do well to propose an

alternate genre, something along the lines of William James' 'radical empiricism' (1979) and Steven Meyer's attempts to revive this tradition in the name of new meetings of literature and science (Meyer 2018). In addition to avoiding the well-rehearsed clash of prejudices that even tentative talk of superior fictional genres invites, a common label for research of this kind might invite surprising mixings of creative and analytical work that remain distant when normative generic labels are the favoured abstraction.

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