Although Pixar Animation’s corporate identity has long been tied to the studio’s advancement of digital animation technologies, many of Pixar’s films paradoxically seem to highlight, and even champion, disused, archaic and obsolete technologies over their digital successors. The above quote neatly hypostatizes this sentiment: Pete the Prospector, a mint-in-the-box collectable toy, laments the effects of the space race and the development of rocket science, on the technologization of children’s toys, children’s play, and American culture more generally. The Prospector character, like Woody the cowboy (the protagonist of the Toy Story series) is a low-tech pull-string doll. Both dolls are merchandising spin offs from a fictional 1940-1950s television show in the film entitled “Woody’s Roundup”: a Western adventure series enacted with wooden marionettes and cut outs. Once a popular program, with the advent of space exploration technologies, or so The Prospector claims, audiences quickly lost interest in the show’s Old West frontier narrative as a new frontier myth began taking shape in the American cultural imagination. Beverly J. Stoeltje aptly terms this twentieth century frontier myth the “Space Age Myth,” wherein covered wagons and pioneers/cowboys are supplanted rockets and astronauts as the push for Westward expansion is transfigured into the drive for expansion into outer space (1987, p. 240). The show was thus abruptly cancelled, and Woody and the rest of his “Roundup gang” quickly fell out of fashion.

Ironically, the trajectory of the fictional “Woody’s Roundup” in Toy Story 2 in many ways reflects the very real impact that the highly successful Toy Story series, and Pixar more generally, has had on animation practices and contemporary screen cultures. This paper addresses this apparent contradiction, exploring the ways in which Pixar on the one hand exemplifies the increasingly animated/virtual nature of media forms, while on the other, reveals animation’s recuperative capacity to operate as a form of digital archive for the cultural/material artefacts rendered obsolete by ‘virtual realities’.

Pixar as Digital Pioneer

Pixar’s advancements to the field of computer animation radically altered the landscape of animated filmmaking; the years following Pixar’s release of the first computer generated feature in 1995 saw the widespread popularization of 3D computer animation technologies in both animated and live action cinema. By 2004, numerous animation studios had begun gearing their production towards computer generated fare: DreamWorks announced that they would no longer make 2D animated films, while Disney largely dismantled and retooled its animation wing towards computer animation (Michael Eisner having concluded that public tastes had shifted away from hand-drawn and towards a new digital aesthetic). Moreover, following Disney’s acquisition of Pixar in May 2006, many of Disney’s new theme park rides/shows also began employing digital animation and Wi-Fi technologies in lieu of their classic animatronics.
Thus, just as the arrival of “space toys” rendered Woody’s Roundup Gang obsolete, the Pixar-pioneered technologies of computer animation have arguably displaced hand-drawn traditions in mainstream American animation. Disney’s recent return to 2D, with their first hand-drawn animated feature in five years, *The Princess and the Frog*, and their commitment to produce two new hand-drawn features in the coming years, perhaps signals a change in this trend, though it is worthwhile to note that the computer animated films: *Up; A Christmas Carol; Cloudy with a Chance of Meatballs; Monsters vs. Aliens; and Ice Age: The Dawn of the Dinosaurs* which were also released in 2009, all fared better at the box office than *The Princess and the Frog*.\(^1\)

The latter film was no doubt beleaguered with other problems – not the least of which being its highly contentious constructions of blackness and deployment of racial and gender stereotypes – which had a decisive impact on its reception.\(^2\) Nonetheless, the sheer volume of and popular interest in computer animated features in 2009, as compared to their traditionally animated counterparts, speaks to a marked shift in animated production/reception patterns. In short, if, as Thomas Lamarre and other media theorists have proposed, animation has, in the 21st century, become “the dominant logic of the moving image” (2009, p. 36) Pixar has played a central role in redefining and repositioning animation within contemporary filmmaking and viewing practices.

Indeed, Pixar has long been associated with the technological advancement and optimization of digital animation. The studio’s early exploits in digital effects as the Graphics Group at Lucasfilm (prior to its incorporation as Pixar Inc. in 1986) for *The Young Sherlock Holmes* and *Star Trek II: The Wrath of Khan*, its digitization of Disney’s ink and paint system using the PIC (Pixar Image Computer), as well as its continued development of its proprietary RenderMan software, exemplify its foundational work in the field of computer graphics. In fact, this notion of Pixar as pioneer and innovator of rendering technologies is a central component of Pixar’s self-promotional rhetoric, or what John Thornton Caldwell calls Pixar’s “self-theorizing” discourse; a process whereby, as he describes, “sci-tech morphs into artistic vision” (2008, p.22). Pixar’s official website is replete with such informational bytes attesting to the studio’s technological ‘pedigree’ and aesthetic digi-complexity, enumerating for example, the lines of code required to render a given object or frame, the complex processes involved in creating various ‘shaders’ or textures, the number of rendering hours required to create a certain shot, as well as the studio’s ongoing advancement of digital 3D.

Yet, inasmuch as Pixar has played a key role in the popularization and proliferation of digital animation across a range of media – from film, to video games, and even amusement park rides – many of its films problematize the rapid development and implementation of new digital technologies. In spite of the emphasis that the studio itself places on its technological virtuosity and professional reputation as software manufacturer, films such as the *Toy Story* series, *Wall-E, Monsters Inc.*, and *Cars*, in particular, construct a pointed critique of the digital retooling of individual labour as well as the convergence of technology and the human body. Moreover, these films evince a pronounced nostalgia for obsolete or outmoded technologies.

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\(^1\) Each film outmatched Disney’s 2D feature in terms of both domestic and international box office gross, with the exception of *Cloudy with a Chance of Meatballs*, which *The Princess and the Frog* surpassed in foreign box office returns. Box office figures are taken from Box Office Mojo’s “Animation 1980-present” statistics.

\(^2\) Neal A. Lester’s Disney’s *The Princess and the Frog: The Pride, the Pressure, and the Politics of Being a First* provides a critical overview of the debates surrounding the film’s racial politics.
Woody’s Roundup: Rendering the Anachronistic

As an origin story within the diegetic world of the Toy Story series, “Woody’s Roundup” is an ideal locus for exploring Pixar’s critique of technologically mediated culture, and its fetishization of the low-tech, of archaic objects and media forms. Woody’s introduction to his “Roundup Gang” and edification as to his personal and socio-cultural provenance is largely facilitated by his interactions with episodes of the Roundup program and ancillary merchandise spun off from Woody’s eponymous series. This process of self-discovery is illustrated at length in a scene nearing the film’s midway point in which Woody, along with the other members of his ‘gang,’ collectively view the final “Woody’s Roundup” episode – a cliff-hanger never to be resolved due to the show’s precipitous cancellation.

More than a simple ‘screen within a screen’ narrative device, the “Woody’s Roundup” scene – with its kitschy, crudely fashioned set pieces and puppets – puts into sharp relief a stark juxtaposition in the film: the sequence employs state of the art digital rendering technologies (at least for the time of the film’s production) to create purposefully flimsy looking 2D wooden cut out animals and sets, to model rickety puppets with limited range of motion and facial expressions, and to achieve an overall grainy, washed-out aesthetic on an analogue television screen. The “Woody’s Roundup” sequence can thus be read as a tongue in cheek homage to outmoded media forms – black and white analogue television, children’s marionette television series of the 1950s (such as Howdy Doody and Andy Pandy), and arguably the marionette itself, now increasingly replaced in film and television with digital puppetry. The sequence romanticizes low-tech, anachronistic media, yet simultaneously exploits and exhibits the aesthetic/representational versatility of digital rendering software.

The scene immediately following the group screening makes this nostalgic thrust and reverence for the archaic all the more pronounced. Having been stolen by a sinister toy collector, Al, Woody becomes the unwitting centerpiece of a prodigious assemblage of Woody’s Roundup toys and memorabilia. Though initially determined to return to his owner, Andy, after uncovering his televisial history, Woody begins to take up a highly romanticized view of the Roundup show and the remnants of its multimedia incarnations. Thus, following the group screening, Woody, along with the viewer, explores the vast collection of toys and other mass-produced merchandise derived from the show that Al has unearthed and restored. Like Woody himself, these items – a mechanical piggy bank, a wooden yo-yo, a ball-toss game and a record player – have now become highly collectible items. These mostly low-tech toys and gadgets that have fallen into desuetude, material relics of a bygone era in American culture, are here recuperated and restored to their original glossy colour and working order and showcased as prized pieces of Americana.

On a wider scale, old fashioned and out of production toys feature prominently throughout the Toy Story series – toys such as the Etch-A-Sketch, the Slinky Dog (which, in fact had been discontinued prior to Toy Story’s release, but was resurrected for the film and put back into production as a result of the its box-office success), the iconic Fisher Price Chatter Phone, and a whole host of discarded second hand toys in Toy Story 3. Indeed, much like Toy Story 2, the final film in the trilogy is deeply steeped in nostalgia both for a bygone era (in this case that of Andy’s childhood) and for the disused and démodé, embodied here in the toys that the child has now outgrown. Even Andy’s younger sister, Molly, who is ostensibly still within the target demographic for the toys, has no interest in them. Molly, perpetually wired to her mp3 player, instead expresses an interest in having Andy’s old computer and video games. Therefore, just as the Prospector indicts “space toys,” for their role in transforming and technologizing children’s
play, on a broader level, the Toy Story series implicitly critiques the emergence of the digital cultures of video games, iPods, music downloading, etc., and actively problematizes the impact of such processes of digitization on American cultural production/consumption.

Wall-E’s Wunderkammer and the Horrors of Cybertechnology

Wall-E (2008) is similarly preoccupied with the ramifications of the virtualization of media and culture; however, it paints a much bleaker portrait. Wall-E conveys a dystopic vision of a post-Earth human society in which hyper-media saturation and cybertechnic immersion have desensitized and radically dehumanized the individual. Constantly plugged in and logged on to computer screens and video chat programs, all facets of social interactions mediated by a digital interface, humans have essentially become cybernetic beings. This techno-media assimilation of the individual amounts to a digital annexation of the human body, dispossessing the subject of individual agency and disintegrating the fabric of community and social bonds. Unable to move independently due to their sedentary lifestyle and loss of bone density in space, humans are shuttled around in “hover chairs,” waited on 24 hours a day by automated attendants, clothed in digitally rendered attire, educated by robots and virtual projections, and even soothed in infancy by holographic mobiles, all while remaining indefinitely confined to a spacecraft shepherded by a sinister HAL-like digital “auto-pilot.”

The boundaries between the biological and the digital are thus blurred as the body is overwhelmed by digital appendices and assimilated into the ship’s vast virtual network. It is only by means of a radical disconnect – ejecting from the hover chair, powering down the personal video projector, abandoning the techno-automated spaceship – which comes at the film’s end, that the individual is able to recuperate his/her autonomy and reconstitute a socially meaningful civic life. Technology’s destructive dimensions are also made manifest in the character of EVE (the Extraterrestrial Vegetation Evaluator), a highly advanced robot from the 29th century (the film’s present day), and Wall-E’s love interest. EVE is introduced in a chaotic flurry of fire as the spaceship transporting her touches down on earth scorching everything in its path. Her first meeting with Wall-E shortly thereafter is equally punctuated with explosive violence, as EVE holds Wall-E at gunpoint and shoots at him repeatedly. This menacing hostility sits rather at odds with EVE’s alluringly polished, streamlined, even graceful appearance; her sleek iPod-like body doubles as a powerful weapon, which even she seems incapable of fully controlling, often inadvertently wreaking havoc on her surroundings. EVE is then read as an allegory for the deceptive appeal of digital technologies, which belies an assaultive capacity and volatility.

Wall-E’s critique of this technological cocooning and digital sequestration of the body, as well as of the interrelation of digital technology and weaponry, gesture here towards a deeper scepticism and problematization of technology’s utopian promise, which is further articulated in the film’s dystopic depiction of Earth. Ironically, Pixar, a company with a vested interest in and corporate ties to Silicon Valley, creates in Wall-E a form of Silicon Wasteland filled with skyscrapers of refuse and scattered forms of digital debris – such as the fading digital projection screens which, diegetically, serve to explain humanity’s mass exodus into space. Earth is

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3 This breakdown of the boundaries between the organism and the machine, between the organic and the inorganic recalls both Haraway’s theorization of the cyborg and Hayles’ ‘posthuman’ subject wherein the body is so “seamlessly articulated with intelligent machines” that the “demarcations between bodily existence and computer simulation” are dissolved (1999, p. 3). Yet, unlike Haraway and Hayles, the film does not see the cyborg as a potentially progressive and “fruitful coupling” (1999, p. 150) or a vehicle for political work, but as a nightmarish “final appropriation” (1999, p. 154) of the human body by the cybernetic.

4 Indeed, director Andrew Stanton stated in an interview with Fortune magazine that he collaborated with Jonathan Ive – the head of Apple’s industrial design team responsible for such products as the iPod, the iPhone and the MacBook – in designing EVE.
envisioned as a massive landfill almost entirely devoid of organic life, encircled – as the film’s shot reveals – in vast, dense ring of defunct artificial satellites. Hyper-technologization and the proliferation of digital devices, are thus envisioned as a threat not only to the body and fabric of the social, but to very existence of life on Earth.

However, from among this seemingly infinite body of wreckage and heaping rubbish towers, the film highlights a number of salvaged objects – once again focussing on outdated or defunct media and technology. In the first place, Wall-E himself can be interpreted as a form of obsolete machine, a fact made clear in his juxtaposition with the much more technologically sophisticated EVE. And indeed, as the only other Wall-E units we encounter in the film are completely non-functioning, Wall-E seems to be not only a centuries old relic, but the last surviving model of his kind. The beaten up robot is, moreover, an avid collector of disused devices like himself and, as we discover, has built a treasury of discarded objects – the most prized among them being a Betamax tape of Hello Dolly, a 1969 film which is itself a period piece that fondly looks back to the 1890s. As with Toy Story 2 and the restored “Woody’s Roundup” memorabilia, in the face of the transformation of material culture into digital culture and the rise of digital media, Wall-E catalogues and, quite literally, reanimates outmoded material/cultural objects in a type of archive: a cabinet of curiosities in an abandoned truck counting everything from CDs to an animatronic singing bass, a mechanical egg beater, a longcase pendulum clock, and hundreds of other items. Wall-E thus creates a virtual repository in which abandoned, anachronistic cultural artefacts are resurrected and preserved in a form of digital archive.

Technology, Labour, and Community in Monsters Inc. and Cars

Though perhaps most pronounced in Toy Story 2 and Wall-E, Pixar’s proclivity for the archaic and its often cynical perspective on the rise of digital media and technologies crops up in a number of the studio’s other works. Much like Wall-E, the 2001 Monsters Inc. also clearly articulates tensions surrounding technology, production and the body, particularly in regards to the technological re-tooling of labour and technology’s infringement on the human body. The latter are made manifest in the film’s “scream extractor”: a machine equipped with a protruding, vacuum cleaner-like arm designed to literally suck screams right out of a child’s mouth – children’s screams being the main source of energy in the Monsters’ world. Here technology, the machine, is incontrovertibly pernicious and assaultive enacting what is tantamount to vocal rape – forcefully wresting a scream from the child’s body in violation of her will. Moreover, the scream extractor poses a threat to the monsters themselves, as the machine obviates the need for the monsters’ scare-inducing labour, mechanizing the entire process of scream extraction. In sum, like Wall-E, Monsters Inc. troubles the rise of digital industries in relation to the consequent eradication of traditional industrial modes of labour and production.

Finally, Pixar’s 2006 film, Cars, similarly exhibits both a wistful nostalgia for archaic technologies and adopts a highly sceptical view of technicized culture. The film is essentially an elegy to an outmoded channel of transportation: Route 66 (known colloquially as “The Mother Road” or “The Main Street of America”) which was superseded by the Interstate Highway System, and officially removed from the US Highway system in 1985. Cars juxtaposes the fast-paced world of racecar driving – portrayed as Alan Kirby aptly notes in a “hyperreal media haze” (2009, p. 16) moderated by a cacophony of tv commentators, camera crews and photographers – with the sleepy world of Radiator Springs, a once flourishing cultural and economic hub of Route 66 since bypassed by the Interstate and all but forgotten. Cars’s marked sentimentality for the heyday of Route 66 and its ‘mom and pop’ business-centred communities is
epitomized in its numerous homages to several iconic Route 66 heritage sites from Cadillac Ranch to the Wigwam Motel and the UDrop Inn, and caricatures of Route 66-related personalities (including, most notably Michael Wallis, author of Route 66: The Mother Road – a cultural history of the highway – as the voice of Sheriff).

**Marketing Nostalgia and Pixar as Digital Archive**

How can this paradox running through many of Pixar's films be reconciled? How can Pixar’s reverence for antiquated devices/technologies and wariness of digitization and, simultaneously be understood in relation to its emblematic role in the development of digital media, so intrinsic to its corporate identity? There are several main lines of inquiry that I would like to propose are worthy of further consideration in this regard. The first of these is Pixar’s relationship with its parent company, Disney, which has long been in the business of marketing nostalgia. Advertisements for Disney’s many worlds that promote a Disney theme park vacation as a return to childhood are perhaps most evocative of this nostalgic bent.

Disney’s “Year of a Million Dreams” campaign, which restages iconic scenes from Disney features using popular actors and celebrities (including Beyoncé as Alice in Wonderland, Tina Fey as Tinkerbell, and David Beckham as Sleeping Beauty’s prince) is a chief example of such marketing tactics. The 2007 campaign, photographed by Annie Leibovitz, specifically targeted an adult demographic, and appeared in such magazines as *Vogue*, *Vanity Fair*, *W*, *GQ*, and *The New Yorker*. Correspondingly, Pixar’s romanticization of American cultural icons of the 1940s through 60s – i.e. Route 66, the main highway for American vacationers in the 1950s, popular 1950s-60s marionette television shows, and so on – can be interpreted as a marketing strategy to attract a broader audience beyond animation’s (and especially Disney-produced animation’s) traditional child/family demographic.

In a similar vein, it is also worthwhile to consider how Pixar’s animators/directors’ – predominantly men in their 40s and 50s – own nostalgia for the gadgets and toys they played with growing up, how their techno-geek love of mint in the box collectibles like the Prospector is inscribed in Pixar’s films. Third, Pixar’s championing of the analogue, the obsolete, and the low tech, arguably functions to allay anxieties surrounding the very processes of digitization which Pixar has helped usher in. The veneer of sentimentality and rosy nostalgia for rudimentary technologies (a clunky broken down robot, simple wooden toys, etc.) perhaps serves to mitigate and soften the terrifying complexity of the technology and the inscrutable amount of bytes, data and circuitry required to render Pixar’s animated worlds. Thus, in exploring the capacities of digital media to operate as an archive for those elements of material cultural rendered obsolete by new technologies, Pixar facilitates identification and association with the digital, which is envisioned here as more than mere bytes of data, but as a potential database, for preserving and recording the material in an increasingly digitized world.

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5 Such a line of questioning also brings to light the issue of the gendering of children’s play in films such as *Toy Story* and *Monsters Inc.;* however, this matter lies beyond the paper’s purview.

6 There is a class element here as well – plastic toys are mass-produced and fairly affordable, but sustainable materials demarcate a certain kind of nostalgia inherent to upper-class parenting that is often coupled with the “green” movement. This can also be a footnote akin to the one about gendered play.
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