Northumbria Research Link

Apps for Art's Sake: Resistance and Innovation

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ABSTRACT

The paper reports on the growing phenomena of art-making on mobile devices and contributes findings from two studies of artists' responses to iPad painting apps: the first is a series of exploratory workshops where artists were recruited to engage with a range of art apps, the second is a series of in-depth interviews with two artists who had incorporated the device and Brushes app into their painting practice over a period of months and years. The artists in both studies generally agreed that the devices and apps were easy to use and enjoyable but remained ambivalent about the technologies and outcomes. Although there was excitement around new creative possibilities there were also tensions around the status of the work being produced. The paper reflects on the role of popular digital production apparatus and information exchange on the constitution of artist-identities at a time of rapid techno-cultural change. It argues that while tablet computing and art apps have democratized certain artistic processes these technologies have generated conflict with traditional conceptions of art and curation.

Author Keywords

Digital culture; digital art; apps; tablet devices; iPad; leisure; identity; authorship.

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

General Terms

Human Factors; Design; Art.

INTRODUCTION

There has been major and rapid expansion in the use of tablet computers. A report found that 11 percent of UK households owned tablet computers in 2012, nine percent up on the two percent recorded the previous year. [24] Owners were found to often have a close personal relationship to the device, with more than a third of interviewees agreeing that "I couldn't live without my tablet computer". While iPad ownership may not in actuality be yet a matter of life or death, mobile computing technology is certainly an ever more pervasive part of cultural life. Mobile devices such as the iPad enable not only the consumption but the production and dissemination of new cultural artefacts.

Lowered Thresholds to Production
A 2007 UK report [18] scoped the spectrum of digital media users and identified four types. Two were primarily involved in techno-cultural production: 'digital pioneers' and 'creative producers'. A generation of digital pioneers—highly technical, creative and self-organizing—had begun to flourish during the late 1980s and early 1990s. [see 12] Collectively, many contributed to what became the open-source software movement, providing sophisticated technical resources (e.g. operating systems and browsers to 'web 2.0' media) enabling digital creative production and dissemination on a massive scale. At the same time, commercial companies such as Apple's Macromind—later part of Macromedia and now Adobe—developed widely accessible proprietary creative production software. Versions of post-production technologies that were once the preserve of industry professionals were now available to keen, often autodidactic desk-top producers on domestic computers. By building platforms and resources, digital pioneers in turn enabled artists, designers and other creative producers [18] to further transform digital cultural space.

The activities of the other two groups in the 2007 report—'everyday communicators' and 'information gatherers'—were then conceptualized as primarily users as opposed to creative producers of digital media. However, a combination of factors have catalyzed huge participation in certain forms of cultural production for leisure and entertainment. Thresholds to digital production continue to be lowered in terms of access, ease-of-use and convenience. Mobile devices, for example are more 'ready to hand' than even a notebook and paper. [see 8] And increasingly, with mobile art apps more aesthetic mark-making is now possible in real-time, with sophisticated painting apps such as Brushes [9] available at very little or no upfront cost.

While some apps such as Autodesk's 123D Sculpt are developed with amateurs and professionals in mind, [25] Brushes and similar painting applications are explicitly positioned within the market as populist forms of entertainment. Brushes was ranked 18th in the 'Top Grossing iPad Entertainment Apps' during November 2012 on Apple's App Store. Indeed, during 2012 the majority

(56%) of tablet devices in the UK were reportedly bought primarily for entertainment purposes. [24]

Cultural Distinctions
Distinctions between previously discrete cultural practices and genres have become more complicated. Angela McRobbie argues that since the mid-eighties the clear separation between the 'high arts' (opera, ballet, fine art etc.) and 'low culture' (e.g. popular music and entertainment) no longer exists. [20] While she warns that social hierarchies are still at play, a more complex new system of what she terms "micro-distinctions" is apparent across the spectrum of cultural activities. Shifting and increasingly unstable labor markets mean that once-secure and permanent publicly funded positions for cultural intermediaries (e.g. critics, museum and gallery curators) are no longer widely available. Meanwhile, two decades of widening participation in higher education has enabled much easier access to what were previously elite academic subjects such as fine art. [20]

David Hockney is an English artist who initially found fame as part of the British Pop art movement. He went on to enjoy an international career which has included explorations into various reproduction technologies as they became available. In the later 1980s, Hockney rejected use of Quantel's Paintbox for being too slow and inconvenient. [15] Now in his seventies, and with the improved real-time digital painting possible with apps such as Brushes, Hockney is an ardent enthusiast of the mobile platform for drawing and painting. He has exhibited his iPhone and iPad drawings widely and achieved a great deal of publicity, not least as he emails low-resolution digital images to the journalists he knows. [1] Earlier studies by the authors included content analyses of paintings posted to the iPhone and iPad Brushes Gallery on Flickr. [10, 8] While this group produce an enormous amount of content, the sharing of images and comments was found to constitute a form of gift exchange and was for the most part hobbyist in nature. However, the work displayed received few views and little to no critical attention. [6, 8]

This paper contributes findings from a series of five workshops with artists in the north of England and additionally from in-depth interviews with two artists. The study critically situates the current state of tablet computer art-making using a range of popular apps within a spectrum of digital art production. This spectrum includes 'high art' and mass-participation hobbyist practices. At the time of the study— the workshops took place during the summer of 2012—UK ownership of tablet devices was growing rapidly. However, ownership was weighted heavily towards higher socio-economic groups and people living in London and the South East. [24]

THE STUDY
A series of five workshops took place between May and July, 2012 in which twelve early-career artists were introduced to tablet computers and art making apps that simulate painting, drawing and clay sculpting. The study additionally draws on in-depth interviews with Charles Staples, a workshop participant who continued to use one of the iPad devices and Brushes app for several months within his practice, and with Simon Worthing, an experienced iPad painter. The second artist, who was contacted through the Brushes Gallery on Flickr, [10] was compelled to adopt the light and portable tablet device because of a progressive health condition which limits his strength. He has subsequently established a successful full-time iPad art practice and career.

The Workshops
Workshop participants were recruited from a shared studio complex co-managed by Roger, an informant in an earlier study. [6] Roger circulated details of the first workshop to the 65 or so studio holders, advertised as iPad painting sessions programmed in the evening to enable those with daytime paid-jobs to attend. No payment was mentioned, though refreshments were to be made available at the workshops, to take place in the large social space of the artists' studio block.

Participants
This recruitment process resulted in a cohort of 'classically' trained fine artists, who were continuing to work within traditions of sculpture, painting, printmaking, performance and audio-visual media, or a combination of these. Their existing art practices, outlined below, largely reflected the legacy of their traditional art schools' curricula, in the north of England during the first decade of the twenty-first century. Only one had previously used an iPad, though several participants had experience using digital video and some design software applications. The workshop attracted twelve artists in all, with between two and seven attending each session.

Those participating included nine current and one ex studio holder and the two studio managers, who both described themselves as ex-sculptors (Roger and Jeff). The other participants were William and Charles, two abstract painters; Gary, an ex-industrial designer who now made money by running craft workshops; Heather and Fiona, who described themselves as using 'mixed media', though not digital; Rachel, a sculptor; Ruby, a recent graduate who used sound and video; John, who didn't currently have a studio and wasn't making much art; and Pete and Harold, who were both experienced in using digital media in what they described a performance-based practices.

The following sections report findings from the workshops where the artists were asked to use iPads in traditional art school activities such as still life painting and life drawing.

Method
The first session was advertised as an 'iPad flower painting' session, informed by Hockney's use of this subject matter. [1] The session was designed to facilitate an initial period

of group discussion followed by 'from life' iPad painting. This structure was adopted across the series of workshops, each of which was themed around traditional art genres, in turn informed by some of the most popular subjects revealed in an earlier content analysis of the Brushes Group on Flickr. [8]. This relative continuity enabled discussions to build across the series of workshops, each one of which attracted a different group of participants. At least one new app was installed across the iPads for each session. Further variety was introduced, particularly for repeat-attendees. This included organization of an on-location drawing session in the local car showrooms and the recruitment of two life models.

	From life theme	App Introduced
1	Flower painting	Procreate2
2	Fruit and still life	Brushes 123D Sculpt
3	Car and motorcycle drawing	Sketchbook Pro
4	Nude life drawing	TypeDrawing
5	Burlesque drawing	Zen Brush

Table 1. The five workshops by theme and app introduced.

Four of the workshops were audio recorded and two were briefly photographically documented. All works produced on the iPads were archived (e.g. Figure 2). Recordings were transcribed and, along with field notes written after every session were coded using a grounded theory approach. [11, 16] Transcripts of the interviews with Simon and Charles were also included. The combined data were categorised using summative open codes and then combined into larger groups around common themes. Establishing connections between themes became the basis of the emergent 'theory' [11]—and in the context of grounded theory, the word 'theory' is of course used very broadly. It does not refer to a predictive model but rather a rich description of phenomena. [11, see also 26]

FINDINGS
The following sections outline the themes which emerged from the workshop discussions, that is: production, tension and exposure.

Much of the workshop discussion, particularly in the first two sessions revolved around production and the technologies' ease of use.

Production
Participants in the first workshop made references to the iPad's design, including its perceived limited drawing surface. "*I do want it to be so much bigger* [...] *imagine a whole wall like this*" said Heather, gesturing to the touch screen. In all the workshops only one participant alluded to the iPad's portability, imagining using it "*on the Metro*

[underground]" (Rachel). While the tablet device's small scale and mobile convenience have been fundamental to its take-up and use on a huge scale for communications media, as an art-making platform these characteristics were seen as largely negative (scale of screen) or irrelevant (portability).

Figure 1. Workshop 2.

Some artists commented positively on the technologies' more generic digital affordances for speedier working. Charles was pleased that in his twelve-layered digital painting made in the workshop maintained a purity of color with "*all the paint* [is] *untouched by the pigment below*". This compared favorably to working in oils which required weeks of drying time between layers. Several participants commented on prospective savings on materials: "*you could try out an idea before you actually had to waste a piece of paper*" (Heather). Digitization's provisionality, afforded by the undo function was, for some, a benefit. *"I've just done that because I thought, 'Why not?' so it does have that 'Why not' quality about it"* said Heather, with Rachel interpreting this as being "*a big advantage*". For others, provisionality meant the loss of affective feedback, with Jeff recalling the pleasure of working with more tangible material: "*In real life there's a sort of fetishistic thing of having that—you know, and even the sensation of running the piece of charcoal along, especially if you've got a really expensive piece of paper or something and feeling it smack and crack, it's quite a nice thing*". Jeff expressed this dissatisfaction with the digital equivalent forcibly, saying "'*Oh bollocks to that*'" about the lack of sensation as he dragged his finger over the non-resistant iPad glass.

There was several minutes' silence on the audio recording from the first workshop where the group was fully engaged: "*You kind of get totally absorbed by it*" (Roger). This was punctuated by excited exclamations: "*Yeah, this is good*" (Rachel). Although the artists were critical of the technologies they nonetheless enjoyed using them, with the social nature of the sessions further engendering fun. In this context, the technologies' use suggested that these are indeed 'entertainment' apps. But after an hour of so of the first workshop, the majority of the group seemed to lose interest in solo painting activities. At this point they discovered the photo-capture function and flower painting was largely abandoned as participants snapped each other and annotated the photographs with wigs, gold teeth etc. within the painting app (Figure 3). In subsequent sessions participants enjoyed sharing the process: "*Wow, look at that, you can do this*" exclaimed Harold in session two,

finding that photographs could be wrapped around 3D shapes in 123D Sculpt: "*Let's have a look at this....Wow!*" agreed Jeff.

Some participants produced work which they found compelling. Harold for example took a preset owl from 123D Sculpt, stretched the digital clay from its back and superimposed a photograph of a can of lager. He also used the brush tool to add a photograph of another workshop participant's eye (Figure 2). In the life drawing session he photographed the model's testicles and 'painted' these over the 123D Sculpt preset head. During the vehicle drawing session out on location he superimposed the Bentley car badge onto the forehead of a photo of Charles. Both Harold and the other artists felt that these works were in themselves engaging. Later on, Harold mentioned he imagined 3D prints of his lager-owl selling as 'limited editions' for thousands of pounds each, arguing that if prices were not high then the work would not be taken seriously.
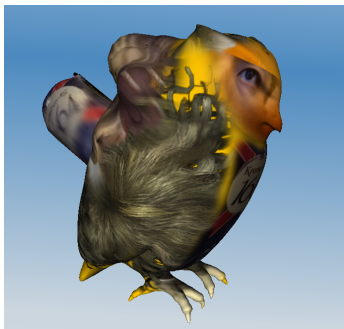

Figure 2. Harold's 'Owl'. Copyright the artist[©].

During one of the later workshops, and when participants had been introduced to two or more of the apps they were asked to consider and comment upon images from the Flickr Brushes Gallery on a laptop. Discussions began to explore the broader effects of the technology. This included participants reflecting on the scale of digital art production and how this might negatively impact upon their own circumstances. "'*Shit, there's a lot more of this* [digitally produced art] *going around,*'" Pete imagined art collectors saying. He was worried about how this might affect artists' "*influence and* [...] *prestige*". While the studio's ethos was built on peer support and social-engagement, the democratizing potential of the digital production tools was considered a threat and generated tension.

Tension
Although the participants found the apps easy to use and enjoyed themselves, there was a significant degree of tension around the validity of the work. This applied not only to the majority of images produced in the workshops, but to Hockney's iPhone and iPad art, and to 'digital art' more generally.

While Heather engaged in the humor of the sessions she remained resistant to the technologies: "*Other than the*

instantness of it, it's still producing the same sort of imagery that computers have for ten, twenty years". She complained: "*It's an imitation of a form of painting*". For Heather, this did not translate into good work. Her objections were not about ease of use or convenience. Instead, her concerns were with the aesthetic and ethical authenticity of the work.

Figure 3. Images Produced by the Artists in Workshop 1.

Other participants began to reflect more critically on the app designers and their own relationship to them: "*You're creating it using a program* [that] *people have spent so long trying to get the brush stroke exactly right*" (Pete). For participants, this evidently intruded on their experiences of being creative and for some of them, led to a concern about authorship. Was this the work of the artist or the app designer? Similar anxieties have been apparent in music production with many musicians feeling that they must programme the sound themselves if they are to retain authorship. [7] However, no-one related this to more material art production involving everyday use of commercially branded paints bought off-the-shelf in art shops. Indeed, nor to the more familiar photo and video editing software tools, such as Adobe Photoshop and Premier. In some sessions the artists reflected that an app that allowed them to set the marks and brushes very distinctively would be more desirable. Heather wanted "*to do something that comes out of this machine that I've never seen anywhere else*". Echoing Jeff Bardzell's critique of 'amateur' creative multimedia production, [2] she considered that the 'newness' of a technology necessitated a new aesthetic. Sometimes the artists' comments suggested that the technology was more in control than were they. Roger described the camera function on the iPad as "*incredible*" for its depth of field. Meanwhile he detected a digitally generated effect that seemed to simulate visual depth. This enhanced the "*distinction between what's close and what's far away*", but in the process manipulated the color relationships.

Charles meanwhile reflected positively on his experiences of viewing his paintings on a back-lit display. He compared these to the photographic prints he had been producing in the darkroom. While he was dissatisfied with those outcomes he'd found a way to make the work look more "*legitimate*" and "*aesthetic*", and had taken to scanning the photographs to enable on-screen viewing. The Brushes app has an automated facility whereby all mark-making actions are recorded and played back. Pete said he preferred the on-screen playback of Charles' working process to his actual,

real paintings. Charles agreed that the video version "*makes* [the painting] *a lot more interesting*". But again there were questions of the work's legitimacy as art. Pete thought their automatic generation meant that Charles' videos were as much part of the software as they were original artistic creations.

Heather acknowledged her ambivalence to digital art generally, reflecting on how the Procreate app was simulating paint and pretending to be something it wasn't. With regard to the 'democratization' of digital art practices she was forthright in expressing her view that the iPad and art apps constituted a form of "*diarrhoea machine*". The iPad, with its high usability and convenience is "*an easy way to create something pretty* [and] *shove it on the internet*" she said. She singled out David Hockney for criticism for "*not using his brain enough* [as he] *can just pick it up and do some squiggle*s". Heather associated the device with intellectual sloppiness, and physical laziness because of it typically being 'to hand'. In this sense, its usability, including convenience, was antithetical to aesthetic and wider cultural legitimacy.

Reflecting more broadly, once again conversations focused on the scale of digital arts production and its effects on cultural legitimacy: "*A lot of people are turning their nose up at it because it is too common*" (Pete). Pete was an enthusiastic supporter of new technologies while also recognizing their disruptive influence on the art establishment which he—as a still-establishing artist—was trying to become more acquainted with. Talking about digital technologies more broadly, Pete thought they "*should be embraced* [by artists and the artworld] *to see what happens*". Digital technologies for Pete were democratizing and intellectually stimulating: "*the ideas that are coming out of it, the actual art and the way progression is going to move is much more exciting*", more exciting that is, than the status quo. But he was aware of the predicament whereby few artists enjoy an enhanced socio-cultural status—compensation for the impoverishment of previous generations of artists. And nor was there any real mechanism to make any money from their work. "*I think it does frustrate people*", said Pete, exasperated.

On being asked in a later workshop to critique selected images from the Flickr Brushes Gallery on a laptop Pete stated: "*Aesthetically, I like, well, I like 14 and 107. The others are all right, I'm not as fussed*". Pete was prepared to express an opinion about "*good art or bad art"* though paradoxically he would not be pressed on making judgments about whether the Flickr Brushes group images constituted art. At university Pete had written a thesis on digital art and in group discussions he represented a vigorous advocate for digital practices. Defining art, he offered: "*So long as* [an artefact is] *made with the same intention and it's presented as a piece of art. Like being it in a gallery or being on a website or whatever*". He went on to say that for him, anything could be art, so long as someone who called him or herself an artist said it was.

Exposure
Exposure represents a broad range of concerns including the constitution and promotion of artist-identities, making a living from art, and issues of access: to apparatus, knowledge and professional networks.

Participants were crucially aware of how personal associations were key to developing relationships with galleries. Within the studio complex "*some people do very well out of talking themselves up*" while other more talented artists were "*god-awful at networking*" (John). This, John suggested, was seriously impeding their careers. Participants expressed very mixed views around promoting themselves through digital networks. "*You can get your work out through so many means*" enthused Ruby. But most participants preferred to work with galleries, and had resisted generating online artist-identities beyond keeping a website portfolio. This led on to lively discussion around the advantages and disadvantages to artists of increased "*openness*" in society fostered by digital and networked technologies. Participants reflected on the potential negative impact on artists' ability to retain 'mystique'. Harold had started 'blogging', but had abandoned the site after making two postings, shocked to have received a comment. "*I was like, 'Oh fucking hell, people are actually reading this'*" he exclaimed, alerted to the possible negative impact on his artistic persona. He now preferred to just maintain his "*more professional*" website. Several participants considered the Internet as potentially undermining their chances of acquiring high status as an artist. William recognised that although it is easy to put work online, it remains very difficult to generate an audience solely from this. The Brushes Gallery artists he said were "*just desperate for some views* [hits]" while Hockney's iPad art received attention because of his already established reputation.

Summary
The discussions in these workshops revolved around tension, production and exposure. Although the artists enjoyed using the apps and saw potential applications of them in their work they remained ambivalent about the technology. This ambivalence often focused on what these developments meant for their own identities and status as artists. The workshops were characterized by a degree of skepticism and irony around both the tasks and the technology. The initial tasks were often abandoned and the artists took photographs of each other, had fun and played (Figure 3). This play occasionally resulted in work that they subsequently found compelling, for example Harold's Owl (Figure 2). But anxiety remained over skill, originality and authorship—was this the work of Harold or the app designer? There were further tensions around the artists' needs for public exposure, and worries about managing online identities due to the perceived potential for negative

impact. Two participants wistfully talked about the 'mystique' deemed to have been enjoyed by pre-Internet generations of artists.

The workshops were the first time that most of these artists had experienced the technologies. It was decided therefore to supplement the workshops with interviews with two artists who had used the iPad for digital painting over a more protracted period of time.

INTERVIEWS
In depth interviews were conducted with two artists. One of these was Charles Staples, a workshop participant. The other artist was Simon Worthing, an experienced iPad painter who has established a successful full-time art practice and career.

Method
Charles Staples was recruited from the workshops to participate in a longer study and borrowed an iPad from the researchers in order to develop new work alongside his painting practice. He worked for several months to produce an iPad painting using the Brushes app. Simon Worthing is an artist who was compelled to adopt the light and portable iPad device for art-making because of a progressive health condition which limits his strength. Simon was an 'early adopter' of the iPad and painting apps in late 2010; at the time of writing they'd been at the centre of his art practice for just under two and a half years. The authors found Simon's work on the Brushes Gallery on Flickr [10] and conducted in depth interviews with him initially by phone [see 8] and then in person. The main interview with Simon and the one with Charles were audio-recorded and transcribed and coded along with the data from the workshops.

Simon
Simon gave up his job almost a decade ago due to a progressive neurological condition and is now a wheelchair user. Simon tries not to position himself professionally in relation to his wheelchair use and takes on what sounds like extremely physically demanding iPad workshops with groups of children. He avoids involvement with disability arts initiatives: "*I'm just disabled*", he says, not a 'disabled artist'. His condition both enabled his full-time arts practice and determined his uptake of the lightweight mobile platform for art-making, a move initially inspired by early media coverage of David Hockney using the iPhone and the Brushes app. Having put the tablet platform at the centre of his art Simon is now blossoming professionally, being the recent recipient of two Arts Council England public grants. "*It's wonderful really*," he says in interview.

Simon spoke at length and with great insight about his iPad painting experiences from the perspective of an artist enjoying a renewed level of success. He reflected upon previous experiences of using oils and canvas and on his ongoing use of the digital platform, comparing their respective material and aesthetic outcomes. The artist shared thoughts on the two broadly distinctive cultural spheres he belonged to: as an early regular contributor to the more hobbyist Brushes Group on Flickr and as an Arts Council England supported artist involved in national exhibitions. Over the course of three interviews and follow-up emails, Simon reflected on these two spaces and his changing relationship to them, becoming increasingly aware of his own improved circumstances.

Figure 4. iPad Paintings: (left) 'Fear of Flying' and (right) 'I Dream of Being Super', copyright Simon Worthing.[©]

Production
Simon's condition demands that he adopt an unusual and particularly personal configuration of technologies to enable the hours of digital painting he engages in. The "*light*" and "*portable*" tablet devices are hooked up to a large Apple TV, enabling him to recline in a specially adapted chair. "*It's perfect because I can literally lie on my back and make art, which can then be printed to the size of a house*" he enthuses. The lightness of the iPads enables his use of multiple devices: "*I put the two iPads together and put a little pencil mark where they are so I know where to start with the next panel*" when working on diptychs. The device's small scale is a necessary constraint, given the artist's condition, although Simon magnifies the iPad interface in his mind's eye. "*Working on the 5x6 [inch] screen, having that close relationship I can imagine that this is a six foot canvas, going to be massive*" he says, while recognizing that working at such a scale "*would wear me out* [physically]". When asked to envision the perfect mobile technology one of Simon's primary wishes was for a larger touch screen.

Like workshop participants, Simon noted that the iPad increased speeds of production: "*I can change it very quickly, I don't have to wait for it to dry* [...] *I can do a lot of work in a short space of time*". His friend remarked to him that Simon had produced fifteen years' worth of work in two years, enabled by the iPad: "*It was all there waiting to come out,* [the iPad has] *opened up a whole world for me*". But, unlike the other artists, this is highly pertinent given the progressive nature of Simon's condition

The artist also appreciates sensory aspects of the digital art-making process—the "*beautiful"* quality of the expensively produced Giclée prints he has printed out—and the "*beautiful*" electronic products he uses. "*You can fall in love*

with the design of the things [...] *it's an aesthetic relationship you have with Mac products*" he muses. Like many iPad users, [24] Simon's relationship with the device is deeply personal. He engages in a "*private and practical process [...] because you've got that relationship with this object*". This was in sharp contrast to the workshop artists who resisted the corporate Apple brand.

Like participants in the workshops, Simon laments the absence of sensory feedback while painting: "*I miss the smell, I miss the texture, I miss getting dirt under my nails and the work preparation*". In a follow up meeting Simon described his ultimate interactive experience with a specially adapted 'art iPad', which would elicit the "*smell of oil paint"* and leave the user with *"dirt under your nails*".

But there were also tensions around the nature of the work Simon had produced on the device, and especially around sites of its display, discussed later on.

Charles

Charles Staples borrowed an iPad from the researchers to facilitate longer term, more intensive and personal use than had been possible in the short bursts of activity in the five sessions. Over four months, Charles explored the iPad's use while also preparing a series of paintings, a related sculpture and an architectural construction in which to display some of the work for an exhibition in a public contemporary art gallery. Using the Brushes app, Charles initially wanted to interrogate how long the software's auto-record function would document his process, mark-by-mark. While never exhausting this facility he created a video made up of dozens of individual highly colored abstract paintings, one on top of the other.
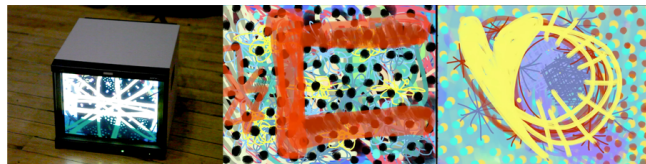

Figure 5. Charles Staples © 'Painting #1 (Digital Finger Painting) variable duration', installation and stills.

During the interview, Charles replayed the multiple layered paintings as a video on the iPad device. The work suggested a 'never ending painting'. Charles commented:

"*What's really fascinating to me is that you don't see the amount of work that's gone in or amount of time that's gone into it [...] every other layer, it's a completely different image.*"

Charles seemed to be problematizing the materially additive time consuming process of painting. The video auto-capture function recorded, and then re-presented the making of multiple semi-abstract works. Intentionally or otherwise, the 'never ending painting' acted as a metaphor for the repetitive, even relentless activities of an artist's life in the studio. Although the device did enabled Charles to produce

work, its use also generated conflicted meanings and feelings around art production and display, as it did for Simon.

Tensions

Simon Worthing's Fear of Flying (Figure 4) was returned in an earlier study [8] as the top-rated image when a search for 'iPad art' on Flickr was made, on the 25 May 2012, and the returns ordered according to the site's 'interesting' filter. This is an undisclosed Flickr algorithm which takes into account activity surrounding each work in relation to views, comments etc. [see 27] Simon consciously negotiates two cultural spaces: exhibiting online and in public galleries in the UK and abroad. He appreciates the sociality and support he's received within the online Brushes group: "*It was quite lonely* [starting out as a full time artist]. *I'd gone through quite a difficult period* [and] *there is a real community there*". But he adopts a dual role, as "*part of the iPad network but separate from it*". In this more hobbyist context he considers himself in a tiny minority: "*I think you're talking a small group where people are using* [the iPad] *from the point of view of, 'I'm an artist, this is me making a statement'*". Over the course of communication Simon goes on to position himself outside of the online group: "*I don't fit in, I'm on my own little island really,*" he says, distancing himself.

Simon commented on the varying quality of the images posted on the Brushes Gallery. "*There are 50 billion images of Wolverine or Luke Pritchard*" he noted, exasperated. After reading one *of* the earlier academic papers, [8] Simon wrote in an email: "*It was funny looking at the* [Brushes Gallery] *link, as I don't really use Flickr as much as I did. Think it's because things have moved on so much for me now.*" Then in a follow-up meeting he more vigorously criticized some of the work on Brushes as being unimaginative and for using repetitive subject matter. He'd been "*too polite*" in the earlier telephone interview he stated. Simon complained that too much user-group interest and discussion is focused on the technologies to the detriment of the work's aesthetics. He also commented that many of the Brushes Group artists are increasingly dissociating themselves from the Brushes app—which is perceived to be more 'amateur'—meanwhile aligning with the more corporate Autodesk's Sketchbook Pro.

Charles meanwhile was wary of presenting iPad work as 'art' in a gallery situation and chose not to include the Brushes animation in his solo show at the contemporary art gallery. However, he did agree to the work's inclusion in a group show in the research lab (Figure 5). Even in this more ambiguous context Charles expressed reservations about using the iPad device for presentation. This, he said, would be "*too much*", preferring to disconnect the video from its popular-technology means of production. Charles' desire was to culturally legitimize his Brushes video as art, by using what he referred to as a "*frameless*" gallery style video monitor. The Brushes file he had created was

exported from the iPad as a movie file and played on a 'retro' style monitor, artfully positioned on the floor by the curator in the research group exhibition (Figure 5, left image).

Exposure

Simon has now pragmatically adopted the electronic platform accepting that there are "*more pros to it than cons*". As an early adopter of iPad painting apps Simon is almost by definition innovating around his art practice. It is possible that this aspect of his practice helped win Arts Council England funding which has further improved his exposure as an artist.

The device is liberating and empowering but there are also tensions at play. The focus of user-group discussion is too often on the technology and not the talent. There are questions about skill, including the role that photography has in processes whereby the user can snap and trace the everyday imagery that surrounds them incorporate pictures sourced via Google. But artists who use these tricks merely expose their own shortcomings according to Simon: "*You can spot* [the use of photograph within Brushes paintings] *a mile off*". Meanwhile he justifies his own use of photography within his self-portraits by making art-historical analogies to tracing techniques by the old masters. Although Simon is a successful iPad artist questions remain about his artist-identity.

While Simon resists disability-related arts opportunities he is "*pragmatic*" about the funding he applies for, which enables his practice. Simon's physical condition is explored in his subject matter. He "*visualises*" the effects of his medical condition on his physical being in an ongoing series of iPad self-portraits. "*I realized it, but never actually said it and it is really obvious. The* [self portraits] *in the masks are the illness, they're some kind of thing that's going on and it has its own voice*" (e.g. Figure 4). The artist says that he increasingly is incorporating symbols in to the work to form a visual narrative of his life for his children.

The research lab event generated discussion between the first author and Charles around a suitable means for presenting his Brushes video work. The retro style monitor facilitated only non-interactive display. The final installation exhibited what seemed like hundreds of Brushes paintings over an hour's duration. The monitor was set to auto replay, further extending the animation in a never-ending loop. The work invited references to the relentlessness of a young painter's effort. This reference was reinforced due to the absence of any 'pause' facility on the video. Although Charles was keen to exhibit the work—internally in the lab at least—it is important to note that the final piece (see Figure 5) resolutely hid its very simple means of production, once again raising questions around artist-identity and authorship.

DISCUSSION

David Hockney meanwhile is delighted with the iPad. He is on record praising its usability, portability and the quality of the images it can produce. [14] Any artist, he claimed, would go mad for it. The reactions of the artists in this study were more guarded. Hockney is one of the most successful painters alive today. His reputation and income are assured. But for new artists the technology is in some respects threatening. The workshops and interviews with the artists revealed a number of ambivalent attitudes to the iPad art apps. Anxieties were in part personal but also cultural and technical.

Although the development of these technologies undoubtedly democratizes art it also makes it more difficult to claim 'artist' as an identity. John notes: "*It's getting harder because so many people are artists now*". There are now more artists coming through the art school system due to a widening participation agenda in higher education [e.g. 22]. There are also more easily accessible ways of making and distributing work. Charles noted: "*there's so much* [art] *now you're quite lucky if you can make your living out of it*". With art's value closely tied to scarcity and the reputation of the maker, these artists were caught in a loop. That is, retaining exclusivity in terms of production and distribution while at the same time trying to develop their artistic identity among a densely populated peer-group—and wider field of enthusiasts. "*The only reason some people* [in the art establishment] *get hung up on* [technology] *is because it dissipates the exclusivity of* [art]" said Pete, summing up this tension.

Previous theories of the value of art based on scarcity and labour are challenged by the new means of production and dissemination. Theories of value based on labour or skill are threatened when technologies make the production of arresting images easier and quicker. In a recent documentary [19] the White Stripes guitarist Jack White remarks: "Ease of use is the enemy of creativity". For White, authentic playing involves pain, blood on the fretboard. This attitude was evident amongst the artists here: art should not be easy.

Writing in 2007, Bardzell observed that newly available and easy-to-use digital tools, vast online "libraries" of audio-visual resources and networked "community sites" were catalyzing the "emergence and aesthetic maturation of amateur multimedia on an unprecedented scale". [2] Following media critics such as Marshall McLuhan and Raymond Williams, Bardzell celebrated the democratizing effects of these newly available and easy-to-use creative production technologies. As the technologies further improved and became more ubiquitous, Bardzell witnessed the appearance of "aesthetic values [...] as communities learnt not only how to use the technology to make these movies, but more importantly how to make them *well*". For Bardzell, "tremendous artistic innovation" was apparent in

amateur productions of machinima, Flash animation etc., exhibited online. [2]

Cultural critic Angela McRobbie has delineated the politics of creativity by researching the lifestyles and activities of graduates from Britain's art schools. [20, 21, 22] For successive UK governments, art education and production has been for employment's sake, with employment surveys counting fine art graduates amongst graphic designers, industrial designers, filmmakers and advertisers. These constituted 'the creative industries' and were presented as an increasingly important part of the economy as manufacturing and service industries declined. For McRobbie, a generation of the upper working class and the lower middle class has embraced 'creative' courses in higher education in order to take on occupations beyond those repetitive menial and exploitative manual jobs done by their parents. [20] But like many members of this knowledge economy, the resulting large cohorts of establishing artists must negotiate disappointment and adopt what McRobbie calls "the must-try-harder ethos" in order to acquire and validate their artist identities. The digitally-enabled creative economy fosters neo-liberal individualization in which "new forms of self reliance must [...] be invented".[20] To compensate for the inconvenience and sheer toil of managing multiple jobs or 'projects', McRobbie's creative worker develops their own work. This constitutes a prospective "magic card", with the potential of achieving significant critical or financial success. [20]

The art establishment has been "curiously unresponsive" to the disruptions wrought elsewhere in society and culture by digitization. [4] Academic and curator Claire Bishop notes how, as digital technologies became increasingly ubiquitous in the 1990s, contemporary artists felt a "sudden attraction" to non-digital forms (e.g. painting, film and social practices [see 3]). She goes on to conclude that the pervasiveness of analogue materiality in contemporary art is primarily due to its relative "commercial viability". Finally, Bishop warns that the art establishment risks its own obsolescence by its reluctance to embrace techno-cultural change. [4]

'Digital art' is an ambiguous term. Typically it describes artefacts and practices that foreground digital technology in their materiality or means of display. [28] Various 'subterms' have appeared over the last four decades— including *generative art* and *digital painting*. Digital art is sometimes considered as situated under a larger umbrella term of 'new media art' (or media art), which in turn signals a widened spectrum of telecoms and media technologies and a broadened disciplinary scope. For example, taking in genres and practices that include performance and music to artworks utilising bio-data and even hacktivism—computer hacking with a politically activist intent. In specifically mobile technologies, what claims to have been "the first major exhibition worldwide on mobile, wireless and locative arts", took place in 2004 in Manchester called Mobile Connections. [23]

However, computing and media technologies have an inherent immateriality, transience and cultural ambiguity that challenge established taxonomies of institutional 'high' art. Supporters of the newer forms bemoan museums' and public galleries' reluctance to invest in digital media artworks as it deprives the field and its artists of economic support, artistic exposure and institutional legitimacy. [4, 13] Consequently, digital art and media arts have developed as separate, "similar but different", to mainstream contemporary art. [13]

Simon Worthing embraced the new technologies and has built a successful practice from it. However, this for the most part is funded by the state, including in the form of Arts Council England grants, rather than through sales. Further, these awards typically incorporate an exhausting programme of school-based iPad painting workshops.

CONCLUSION

This paper has reflected on and contributes insights into the ways in which the current generation of mobile devices are enabling wide access to forms of digital art processes. While this democratizes digital art-making it also generates tensions for establishing artists. Although there is excitement around new possibilities for the digital production and distribution of art there is also conflict around the constitution of and enactment of artist-identities. This generation of mobile devices enables not only new forms of art production, but perhaps more crucially, access to and the generation of new kinds of networks. While the participants sought exposure in terms of publicity and success, they also feared exposing their working practices and risking their artist-identities. E.M Gombrich famously argued: "there is no such thing as art with a capital A, but there are and always have been artists." [17] But most artists have depended at least in part on some form of patronage. Despite changes in patronage the role of the artist historically has been a relatively elite one because it was highly skilled and materials were expensive. This is changing.

The great cultural critic Raymond Williams' prophesized that widened access to media production technologies would lead to "profound social change in forms of representation and power". [29] Mobiles and tablets are clearly already creating profound impacts on the notion of art and the role of an artist in the digital age. This is not unproblematic. Simon Worthing currently uses the iPad and app technologies to create imagery, which he then often has printed out as large paper prints, just as Hockney does. Similarly Charles insisted on displaying his Brushes paintings on an old style monitor rather than an iPad. This is in part a retreat to older forms of art production, display and commerce—as it is perhaps a retreat from the Apple brand.

Some of the artists are currently being invited to help develop a series of imaginative concept designs and related prototypes. This enables their access to the significant

resources from two large university departments of design and computing. In many ways, this study exemplifies the current tensions around digital production and the consequent potential impact on the individuals' artistic practices and reputations. While some of the artists are eager to develop novel new technology-enabled artefacts, they're also hesitant about the work's attribution and presentation in public.

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