

## Use of Street Art in Augmented Reality and Copyright Issues

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### Abstract

Graffiti writers and street artist are faced with novel ways their art can be used, but also exploited, due to the rapid evolution of technology. The AI revolution the world has witnessed over the last years, holds implications for the use and accessibility of other types of technology such as Augmented Reality (AR). AR is a technology using digital overlays or filters on the real world to give users an enhanced presentation of reality, through digital devices such as a smartphone. The creation of the digital overlay or filter, used to demand a high degree of tech knowledge. Now, however, that AI generators producing images are accessible to everyone, it is easier than ever before to create digital overlays to use in AR. Graffiti and street art works are vulnerable to exploitation in the digital world through the easy accessibility of the works in the street, the (often) anonymous artists and the appeal this type of art has to the public. In this article we explore one side of the legal implications of unauthorized use of street art and graffiti in AR, namely that of potential Copyright infringement. This article builds on an article we have published in the University of St. Thomas Law Journal, Vol. 18, No. 3, 2022, and presented at the Urban Creativity Conference in 2022. Our new article digs deeper into this intersection between law and technology from the street art perspective, and in light of the developments within the technology since the last publication we have a number of new questions to discuss.

### 1. Introduction

Beyond the rapid evolution of artificial intelligence, other technologies are also taking leaps into the future. One such technology is augmented reality (AR), where a digital filter or overlay is presented upon reality in real-time, creating a mix of the two worlds.<sup>1</sup> The complete version of reality with the augment can then be viewed by the audience through a smart device such as a phone, or lately also AR eyeglasses.<sup>2</sup>

At this point in time the most common way of viewing the augment is through a smartphone, and this presents a

barrier between the viewer and the real world, removing the augment somewhat from reality. When AR becomes part of regular eyewear and this reaches mainstream consumers, the user will be able to connect with people while remaining in the AR experience in a more effective way than through the physical barrier of the smartphone. This way of interacting also presents both new opportunities and major challenges for street artists who use urban surfaces as their medium and are vulnerable to exploitation exactly because their art is so accessible to the general public.

1 - See the definition of augmented reality by Ronald T. Azuma, in A Survey of Augmented Reality. 6 (4): Presence: Teleoperators and Virtual Environments 355–385, 356 (1997), <https://doi.org/10.1162/pres.1997.6.4.355> .

2 - One notable example of this is Orion glasses by Meta, launched in sept 2024, Meta website: Introducing Orion, Our First True Augmented Reality Glasses, September 25, 2024, at <https://about.fb.com/news/2024/09/introducing-orion-our-first-true-augmented-reality-glasses/#:~:text=Orion%20combines%20the%20look%20and,every%20field%20of%20modern%20computing> , retrieved 14 October 2024.

In this short article we discuss some of the issues arising from a series of semi-structured interviews we conducted over the summer and autumn of 2024 with artists who place pieces in the street. Specifically, such artists shared with us opinions on the combination of their art and AR. Our aim is to illuminate what artists see as opportunities and challenges in using or having their art exposed to this technology, and to let that inform and shape a discussion on how copyright is challenged through this new way of using art.

Our sample is of 9 artists from around the world, with the majority coming from a European or US background. The group consists of 7 males, a female and a male/female team. Since the sample is small, we do not claim any form of representativeness. There is also an inherent bias stemming from the selection of artists, as we have chosen artists who are relatively familiar with the use of technology. This was necessary as our aim is to highlight the use of AR in these artforms. In future studies, we will widen the scope of informants to include artists not strictly familiar with this technology. However, we believe the interviews we conducted give our theoretical discussion a foundation rooted in reality. The artists are here all anonymised and referred to with letters, and in some instances the quotes are lightly cleaned for better clarity and preserving the integrity of the meaning.

## 2. The prematurity of the technology

A theme several of our participants touched upon is the prematurity of the technology. For example, Artist F discussed this and said: "... right now, I personally have not experienced any really excellent uses of this [AR]. I just find it to be ... somewhat cheesy. He went on to elaborate that the AR experience is "not tangible, lacking emotion, I have a hard time connecting with it, not only as an artist, but as a human being."<sup>3</sup>

A muralist we interviewed, Artist C, discussed the prematurity of the technology in the context of the need to download different apps and how that makes the technology less available. He highlighted that: "It could be cool in the future, but it's just too much investment right now".<sup>4</sup> Artist A, for his part, thought about using AR on one of his murals but then the project did not materialize for lack of funding. He likens the output to "a gimmick 3D, ... I would think that would be fun one time yeah, no I would never think to try it again."<sup>5</sup> This notion of AR being a gimmick resonates with what Artist H he said: "the majority of artists I see - they use it as add on to something they normally do or as a toy."<sup>6</sup>

## 3. Opportunities and challenges

From a layman perspective, there seems to be a number of opportunities that presents themselves in the use of AR in street art. Artists can effectively tell a story connected to their art; they can use AR to give viewers information about themselves as well as of their process; they could also use their art commercially without compromising the physical piece; they could set the art into a larger social context, etc.

The artists we spoke to, however, have conflicting views on the opportunities that this technology presents for their practice. On the one hand, Artist G, who uses AR frequently, said that its most interesting aspect is the possibility of adding an "enhanced layer of perception". He went on: "when most artists paint something, they only paint like a still image of potentially infinite action or activity, so you only always paint still, and with the AR overlay you have the opportunity to show what's happening before and after the still. ... you can animate it obviously, and set a completely different context, so you can move around the image".<sup>7</sup>

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3 - Interview with Artist F, 8 July 2024

4 - Interview with Artist C, 8 July 2024

5 - Interview with Artist A, 3 July 2024

6 - Interview with Artist H, 29 October 2024

7 - Interview with Artist G, 1 August 2024

Artist G also highlighted two specific possibilities the technology presents, namely “immersion and possible infinite action”, adding that “these are the two main aspects from an artistic side”. This notion that there are artistic opportunities in the technology is echoed in another interview, where Artist C simply puts it this way: “adding a layer of interactivity to our pieces, that’s cool”.<sup>8</sup> Artist B then discussed the opportunities of using AR through QR codes to track “how many eyeballs were going by and who was paying attention to it”.<sup>9</sup> This use of the AR app to gather statistical information about the audience is interesting in terms of marketing - however it has little to do with artistic practices.

On the other hand, some of the artists we talked to took a more doubtful approach as to whether the technology represent opportunities, with one who works mainly with stickers, Artist E, saying: “we are already overwhelmed with information, so even more information? I don’t know ... You know, it’s too much of everything.”<sup>10</sup> Artist F then simply put it this way: “There’s already enough to grasp front sight”.<sup>11</sup> The term “front sight” means ‘enough to view in the mural/piece itself’. Another one, artist I, expressed doubts about the value of AR in artistic practice, discussing what a mural really represents. He said that we cannot view a mural as a simple frame from a movie. We should view it instead as an “infinite moment” in time, and using AR does not really add to this. The fear is that applying AR to a mural, instead of adding to it, will “burn the magic of one single infinite moment condensed in that frame”.<sup>12</sup>

#### 4. Copyright issues

During our research we also wanted to know artist’s views on copyright issues that might arise from the use of street art in AR. Not all the artists answered the questions relating to copyright,<sup>13</sup> but those who did had interesting opinions on this issue. Artist G for example described the copyright issue on art and AR this way: “It’s part of the original work and it’s, or can be, also a standalone version, but the person who actually made it [the digital overlay/ augment] is the copyright owner”.<sup>14</sup> In other words, the artist here seems to view the augment as a derivative digital work which attracts a separate and independent copyright.

When asked about whether it would be a copyright infringement to augment someone else’s art, Artist A put a lot of emphasis on the intention behind the making of an augment, the level of skill involved and the type of intention behind the augmentation taking place. He said: “the intention for making a piece out in the street? There are many intentions but mine is basically that the piece is seen and that people discover the piece. So often I won’t mind [about the augmentation made by others] as long as they don’t alter the piece.” This artist also said: “if someone did it with kind of adding something in an intelligent way with an augmented reality, that could be a fun kind of intention of giving something cool to the piece. I wouldn’t protest at all”.<sup>15</sup>

Similarly, Artist H approached this issue by looking at the intention which moves the person who does the augment. He said: “it’s the context [which is conclusive], how they do it, why they do so .... If it’s something commercial, of course it is going to drive me crazy and upset and I’m

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8 - Interview with Artist C, 8 July 2024

9 - Interview with Artist B, 8 July 2024

10 - Interview with Artist E, 9 July 2024

11 - Interview with Artist F, 8 July 2024

12 - Interview with artist H, 29 October 2024

13 - Four of the nine artists discussed copyright

14 - Interview with Artist G, 1 August 2024

15 - Interview with Artist A, 3 July 2024

going for it [legal action]”.<sup>16</sup> This was also echoed by artist I: “I don’t really have a problem with someone using augmented reality using my work for non-profit purposes (obviously). Now if they use it for profit and don’t ask for permission, I think they could get into trouble”.<sup>17</sup>

This way of viewing the intention behind a possible legal reaction, and differentiating on whether or not the person who makes the augment has artistic intention or an economic and commercial aim, aligns with some of the answers we received in another project concerning the minting of NFT’s of street art. In that case, artists similarly considered the underlying intention of the NFT minter as determinant.<sup>18</sup>

### 5. A glimpse into the future

In discussing the prematurity of the technology, some of the artists also talked about what the use of AR could mean for street art, once the technology is more mature. Specifically, Artist C said that “Augmented reality will be awesome because, you know, you’re walking around, everybody’s walking around with their [eye]glasses, and they could see the murals popping out of the walls”. He also discussed the barrier presented by the need to download specific apps: “I think once the technology is more streamlined ... phones [will] have native support for that in their operating systems. ... there’s like a native virtual reality app that ships [is compatible] with Android or native augmented reality app that ships with iPhone. Maybe you could make that. That’s when I feel ... it will really take off as long as everybody has access to be able to see that [the augment]”.<sup>19</sup>

Artist D then discussed the audience in this future perspective: “this technology is becoming more

mainstream and you know. We’re getting younger users that are glued to their phones expecting these experiences ...”.<sup>20</sup> And finally Artist D raised the need for regulation of AR, comparing the altered reality presented through AR with that induced by substances that are “hallucinogenic like LSD”, thus raising concerns over how AR in a more direct viewing mode “distorts your sense of reality in a way that a narcotic would understand”.<sup>21</sup>

It should also be noted that the attention split this technology demands if it is to be presented directly through the eyeglass, will likely affect how people go about their day. Driving with AR eyeglasses on, would take away from the focus on the road; the technology could also probably be used to “deepfake” the world and people in it, and to present new ways of bullying individuals. There seems to be almost endless ways in which the seamless use of this technology through eyeglasses could create problems in the real world.

### 6. Conclusion

From our small sample, we gained an initial insight into how artist’s view the current use of AR technology in urban art and how the use might change in the future. This short qualitative study will be further expanded in a second phase of our research. A first embryonic perspective seems to emerge, though. AR technology already brings new opportunities both artistically and commercially for artists, and may soon impact more significantly the artistic practice of many more. The flipside of this is that the potential for infringement and commercial cooptation also increases. Our future interviews and discussions with practitioners of these forms of art will certainly shed more light.

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16 - Interview with Artist H, 29 October 2024

17 - Interview with Artist I, 2 November 2024 – written response to questions

18 - Enrico Bonadio and Siri-Helen Egeland, “Street Art, Graffiti and NFTs: Copyright Issues on the Streets of Web3” in Enrico Bonadio and Caterina Sganga (eds.) *NFTs, Creativity and the Law - Within and Beyond Copyright* (Routledge 2024), pp. 175-176. It must be noted that three of the artists interviewed in the NFT project (out of total 4 artists and one curator), were also our informants in this project on AR.

19 - Interview artist C, 8 July 2024

20 - Interview artist F, 8. July 2024

21 - Interview artist D, 8 July 2024