






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HOW LIVE STREAMING DOES (AND DOESN'T) CHANGE CREATIVE PRACTICES



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Insights

- Live streaming is an increasingly popular way for artists to share their creative process.
- Streamers face a tension between making their performance engaging for viewers and being as authentic as possible.
- Creating in public as opposed to in private involves trade-offs, such as producing less-polished work but receiving more timely feedback from audiences.

A digital illustrator prepares for a session of work. She has her sketches from yesterday open and her tablet ready; today she will draw over her sketches in color. But that's not all she has prepared. In a few moments she will go live, and people from all over the world will tune in to watch her work. She has been posting on social media so her followers know she is about to stream. Her cameras, microphone, and streaming software are all set up and tested, and she even has a prize ready for one lucky viewer that she will raffle off for donations.

This is an example of the preparation that goes into creative live streaming. Live streaming

allows artists to instantly share their complete unedited process for all kinds of creative activities, from drawing to wood carving, and gives viewers a front-row seat to watch. The process behind creative work can be alluring but mysterious, so many people jump at the chance for a window in—to contribute to and learn from the gritty reality of creative work and all its mistakes, happy accidents, and iteration. While the sharing of artistic process has been around for decades—for example, the process art movement of the '60s and TV shows such as Bob Ross's *The Joy of Painting*—live streaming democratizes this



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sharing in a new and exciting way. For example, the Twitch Art category broadcasts on average more than 300 streams at any given time [1].

By streaming video while they work, artists create a global shared studio, with a whole community of people watching, commenting, and asking questions. The benefits go both ways: Viewers get a valuable learning opportunity, and streamers get the comforts of community. But streaming can also be distracting, as artists split their attention between creative work and audience engagement.

So why do artists do it? From interviews, surveys, and discussions with creative live streamers, we explore the following questions: What are the benefits and drawbacks of creating in private versus public? Which parts of the creative process are easier done in private versus public? How does creating in private versus public affect creative outcomes?

WHAT IS CREATIVE LIVE STREAMING?

Live streaming is especially popular in domains such as video gaming and lifestyle sharing. Creative live streams differ from other types of streams by their focus on creating an *original artifact*. Creative streams feature live video from one or more cameras showing the artist's studio or screen as they work (Figure 1). Streams often also include a separate camera view of the artist's face. Viewers can comment and ask questions through live text chat, which streamers can see and respond to. Many artists talk out loud or play background music while they work. Some add overlays to their video, showing things like their name or social media handles, popups when viewers donate or subscribe, and the status of their goals or projects.

We have observed four main forms of creative live streams [1]. In *teaching* streams, the artist's main goal is to educate viewers via demonstration or Q&A. *Making* streams focus on the work and process: The streamer might work silently, talk about unrelated things, or talk about their work without explaining how to do it. *Socializing* streams focus on interaction between the streamer and viewers, featuring lots of casual chatter. *Performing* streams tend to include mostly musical or acting performances, often with a casual or improvisational flavor.

Popular platforms in the U.S. include Twitch, YouTube, Facebook, Instagram, and Periscope. Some platforms are general purpose: Twitch, one of the largest streaming platforms, grew out of gaming and has built up a large creative community. Other platforms are more focused: Picarto, launched in 2013, is entirely dedicated to creative live streaming; Pixiv Sketch, launched in 2015, features live-streamed digital drawing; and Behance, a social network for creative work, recently launched its own live-streaming service.

WHY DO ARTISTS LIVE STREAM?

Live streaming gives both streamers and viewers a way to be "alone together," socializing with like-minded people while they work on solitary projects. Many streamers have mentioned that they use streaming as a form of accountability; it gives them an external reason to keep working [2]. With solitary creative work, staying motivated can be hard when the only person you are accountable to is yourself. Viewers also often watch streams for company and motivation while they do their own creative work. The degree of social interaction can vary

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a lot across streams; some viewers put them on in the background for ambient company, like a virtual co-working space or a shared studio. Others engage directly and frequently, communicating through the chat. Creative live streams tend to form tight-knit communities; streamers watch and participate in each other's streams, and viewers tune in regularly to watch their favorite streamers.

Live streaming also facilitates learning and creative growth. Streamers often mention getting new ideas and feedback from their viewers, which shapes their work in ways it wouldn't have if they worked solely in private [1,2]. Early feedback can be incredibly beneficial for creative work [3], and live streaming enables artists to get feedback at the most actionable moment: when they are actually working!

Most streamers we have talked to say their main motivation for streaming is engaging with an audience, but close behind is income. Making money as an artist can be difficult, so many artists work other jobs or have entire other careers in parallel with their art. Live streaming offers a path to monetizing both art *and* the time spent working on it: When a stream gets popular enough, platforms often pay artists for their time, and viewers often donate to streamers. Streaming can pay off in an indirect way, too, by serving as an advertisement for the artist's work: It can lead to new clients and commissions, and drive viewers toward the artist's e-commerce and social media outlets. To get paid as an artist is the ultimate dream for many [2]; it enables them to spend more time on their art and less time working other jobs. Live streaming can even become a full-time career for those who are able to put enough time, effort, and talent into growing and maintaining an audience.

THE TENSION BETWEEN PERFORMANCE AND AUTHENTICITY

There is a paradox with live streaming: Viewers seek a full, authentic process, but if this process is not interesting or entertaining to watch, streamers risk losing their audience's attention to any of the

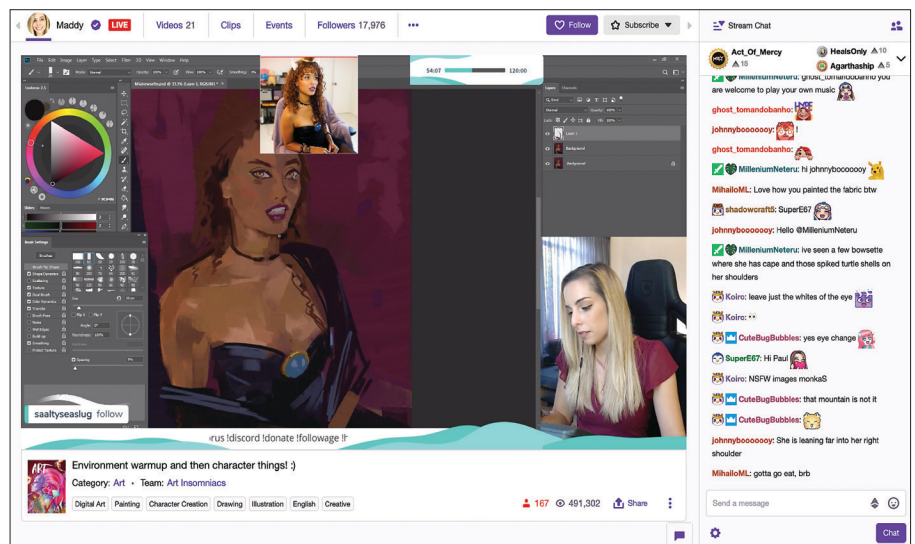


Figure 1. A typical creative live-stream setup. (Source: <https://www.twitch.tv/maddy>)

Internet's myriad other distractions (*c.f.* cat videos). Like reality television, streamers address this by strategically eliding pieces of their process, adding flair to others, and incorporating extra entertainment where they can.

Stages featuring a well-practiced skill make for great streaming content, as they are fascinating to watch and usually require less concentration from the artist, so they can be done while multitasking. For example, coloring an illustration, tracing over a rough sketch to make a polished drawing, performing a song previously written, and other such familiar tasks can feel like second nature.

By contrast, many streamers reported not streaming stages that feature a lot of internal reflection, such as early ideation: It's too messy to share live, not very interesting to watch, and very distracting to share [1]. Similarly, recovering from problems while live can be stressful for streamers and uninteresting for viewers; computer-programming streamers often avoid debugging live for these reasons [4]. In recent interviews, some streamers have mentioned that they worry about boring their viewers by moving too slowly, so they will rush through stages that involve a lot of repetitive actions and small refinements (e.g., tweaking details on a model's face while retouching a photo), working less carefully than they would in private.

Authenticity also means

vulnerability. Creatives often talk about not being ready to share a draft. It can be scary to broadcast original work before it feels polished, and though getting feedback early is often helpful, it can also be discouraging if the feedback is critical. However, with practice, artists can and do stream the more traditionally private and vulnerable activities; for example, a digital-artist streamer said she used to be afraid to start from a blank canvas while live, but after building confidence and getting to know her community, she found it enjoyable, as it yields helpful feedback and inspiration from viewers [2].

Still, most streamers do some amount of private preparation before going live. Even for those starting with a blank canvas, preparation includes things like deciding roughly what to draw, doing background research, and finding reference images [2]. For streamers who want to engage their audience in fun ways, this can include planning games to run during the stream or going through audience requests and choosing one to stream [1].

Engaging with an audience while working requires artists to split their attention between their work and interacting with the audience through chat [1,4,5]. If a streamer doesn't pay attention to the chat, viewers may get frustrated with not having their questions answered or bored with the lack of conversation. If a streamer pays too much attention to the chat, they may not get any

meaningful work done. Many streamers attempt to split their time between working and talking, but when there are active conversations, it can be hard to keep up. Many artists also narrate while they work to educate viewers and make the stream more interesting, but this is an acquired skill that takes time to perfect. Even with practice, some artists find it very difficult to talk while they work.

Creative work has moments of enormous cognitive intensity, and large blocks that are rote. Streamers' chattiness while they work tends to vary accordingly. For example, a woodblock carver will talk a lot while chipping away the larger pieces of a design but will quiet down when they get to the finicky bits that require careful attention. One benefit of live streaming compared with working in a shared physical space is that distractions are arguably more avoidable: The artist can simply choose to ignore the chat when they need to focus.

Focusing too much on performance and audience engagement can affect creative output. In order to build an audience, streamers need to give viewers

a reason to stick around. But multitasking or rushing through a tricky process for the sake of not boring viewers can mean that artists end up with a less-polished final product than their other work, and will need to either spend time in private fixing it later, or will not end up publishing it anywhere. More generally, when streamers worry too much about what the audience wants, they risk not doing what *they* want to do; for example, a singer/songwriter streamer mentioned that she has learned to become OK with saying no if viewers are requesting songs she doesn't want to perform [2], but this can be hard to do.

WHAT DOES LIVE STREAMING MEAN FOR ARTISTS' CAREERS?

Live streaming (and video sharing in general) is changing the landscape of artistic careers. Money is a big motivator for streamers, and is sometimes a reason they will sacrifice elements of authenticity for the sake of performance and engagement. So what does this mean for artists' careers? How do artists decide what and when to stream?

Although live streaming may seem

like an easy way to be an artist full time, some streamers get burned out after several years, because of the intense amount of preparation, planning, and marketing that is required behind the scenes to grow and maintain an audience in full-time streaming [1]. Many artists therefore stream on the side, to supplement other income, rather than relying solely on it to sustain them.

Artists who stream *and* work other jobs often have restrictions on what or when they are able to stream. Several streamers we talked to can't share work because of nondisclosure agreements, while others say that not all projects align with their portfolio and online persona. Similarly, artists who work full time at companies or agencies may not be able to stream their work depending on their employer's policies. Side projects or passion projects seem better suited for streaming, as they are not constrained by outside factors, but these mean that streamers have to find the time and energy to work on those projects outside of their regular commitments.

Finally, live streaming is by definition less polished than other forms of sharing such as posting edited tutorial videos or a portfolio of finished work. While many streamers like this form of sharing for its authenticity, others are wary of sharing content that doesn't align with their public image [1]. For this reason, some streamers will delete live-stream videos after they are archived, so that people don't come across them later when the interactive experience no

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longer exists. A legitimately good performance in a live stream may not hold up to repeat viewings later on. However, one interesting feature of live streams is that they tend to be so long (three to four hours on average [1]) that only someone truly invested will spend the time to watch them after they are over. In this way, they are perhaps less public than other more curated forms of sharing [6].

WHERE ARE WE HEADED NEXT?

Live streaming is ripe with opportunities; anyone with a camera and an Internet connection can share their process, and meet and collaborate with other artists from around the world. If you wanted to participate in the art-making community before the Internet, the only way to get involved and see what others were doing was to move to a major city like New York. But now, people can share, collaborate, and learn from each other from anywhere in the world. So where are we headed next? Will all creative work be live streamed in 10 years?

We've seen that live streaming can be a full-time career option for many, and that artists can make money not just by selling final products, but also by selling the *process* behind them. In this age of clickbait, GIFs, memes, and 280-character limits, we are quickly bored but at the same time intrigued by long, slow processes like creative work, and we are craving authenticity more than ever. For

these reasons, we think creative live streaming will continue to grow in popularity, but there will always be some amount of curation and attention to performance. Finding the right balance between performance and authenticity will be the key to succeeding in the live-streaming world. Creative live-streaming technologies should support this by taking some of the burden of audience engagement off of the streamer, for example, by providing more automated support for managing chat questions and conversation. This would allow streamers to focus more attention on their work, enabling them to share a more authentic process. After all, part of what gives live performance its frisson is the risk. A stray stroke could ruin a painting; a stroke of genius could make it. Because it's live, who knows which it will be?

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