

ENCRYPTED CAREERS

How technological advancements like AI generators and improved synthesizers are shaping the careers of studio musicians around the country.

BY JEREMY REYNOLDS



Warner Music Group, one of the largest record labels in the world, made history in September when the group signed the first AI pop singer artist. The “artist,” Noonouri, dropped its debut track, “Dominoes,” on September 1, and in its first month alone, it racked up more than 200,000 views on YouTube and nearly half a million streams on Spotify. But here’s the kicker: Noonouri—also an Instagram influencer—isn’t a solo act. A real artist conceptualized its visual design. Real songwriters wrote the song’s music and lyrics. German DJ Alle Farben features on the track. In fact, the only thing about Noonouri that is actually digitally generated is her voice. And it shows—the track is a little raspy but flawless in a way that no acoustic human voice could ever imitate.

The same can be said of synthesized instrumental

music: “Yo-Yo Ma playing the cello sounds completely different from anyone else,” said conductor Sarah Hicks (Conducting ’99), who specializes the increasingly popular “live-with-film” concert productions in addition to classical performances with many top U.S. orchestras and artists. “There’s more humanity in the creation of sound than can ever truly be duplicated.” However, as

technology advances, there is concern about whether synthesized music and artificial intelligence will begin to displace professional musicians, mirroring the concerns of the writers and actors guilds in Hollywood.

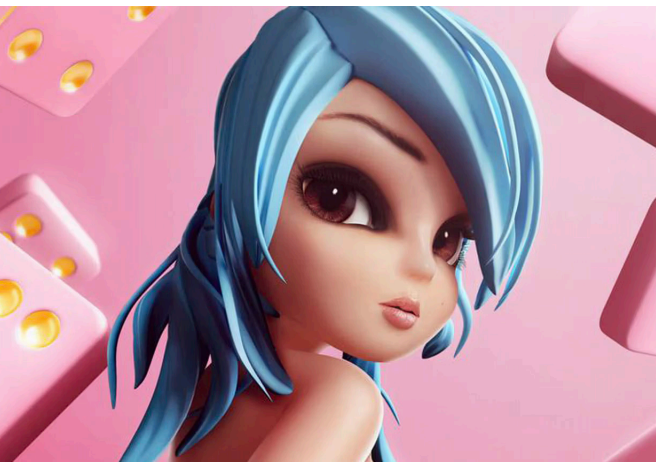
“The studio industry in Los Angeles specifically has shrunk quite a bit,” said Nathan Farrington (Double Bass ’06), a bassist who recently scored Martin Scorsese’s film *Building a Bridge*. “I don’t know if this contraction is the result of less demand for live recordings in film and television, but as digital sound libraries and tech improves, it seems probable.”

While digital instrumental samples and generative AI music are making headline after headline in the music business, no one believes that they’ve yet reached a point where they’re indistinguishable from live performance, at least not to musically trained ears. What, then, is driving the contraction in studio jobs, and how are today’s musicians adapting to these technical developments?

SOUND ECONOMY

As with many other U.S. industries, the simple fact is that using automated synthesizers—and now AI—can be significantly cheaper than hiring live musicians, just like automating the fast-food industry was cheaper than hiring cashiers. Still, this isn’t a new phenomenon in the music world: “Live studio musicians have been replaced by tech for decades. It’s not a new trend due to AI,” Ms. Hicks said, continuing, “The number one driver is it’s more cost-effective. Live musicians are exceptionally expensive because of union regulations. Machines don’t need breaks or multiple takes. They absolutely don’t sound as good, but it can take a trained ear to tell the difference.”

Among the more famous examples of a synthesizer taking over for a live musician was the opening credit sequence of the blockbuster HBO show *Game of Thrones*, which handed its unmistakable cello solo off to a synthesizer instead of a cellist. “It sounds *terrible*,” said violinist Timothy Fain, whose studio credits include performances in the feature film *Black Swan* and another



HBO blockbuster show, *Succession*. “Synths drain out the life and emotion from the music, and people generally recognize this,” he added. Mr. Fain isn’t against using synths or AI as tools in the creative process for brainstorming or working through writer’s block, for example. But he’s convinced that the end result of using digital instruments instead of live studio musicians simply sounds cheap.

There’s nuance here, as the extent to which a “live” studio sound actually matters depends on what sort of music is scored. “When you have a more minimalistic score with simple, repetitive lines and with slow-moving melodies, then it’s not such a loss,” Ms. Hicks said, noting that, on the other hand, playing a John Williams score without live musicians simply can’t be done with any justice. “And there are still composers writing big orchestral music like Williams,” she said. The contraction taking place across the studio music industry to date has affected corporate and commercial video work—where the music is perhaps less important—more than in television and film scores, she noted. “Those are more formulaic, and cost will rule there.”

Then again, “Musicians are the ones using this tech, and musicians want to work with musicians,” said Gabriel Cabezas (Cello ’13), a prolific cellist who has performed on albums with famous artists ranging from Rufus Wainright to Taylor Swift. “Maybe a movie executive wouldn’t be able to tell the difference between synthesizers and live musicians, but the people involved in actually creating the music are not going to be able to stomach it. There have been really sophisticated VSTs [virtual studio technology] around since before 2020. I don’t think the ability to create other sounds that aren’t live will completely change the field suddenly.”

OPPORTUNITY COST

In addition to improvements in synthesizers and emerging AI programs, the sophistication of recording equipment is also changing the studio landscape somewhat. “The equipment, the gear you need, and the software you need to make quality recordings of yourself—the cost has just gone way down,” said James Nova (Trombone ’96), a

trombonist in the Pittsburgh Symphony Orchestra who has a background in studio work that includes credits in the *World of Warcraft* video game soundtrack. “Apple has a student bundle discount for high-quality software for only a couple hundred bucks,” he said.

The lower costs have significantly reduced the barrier to entry for creating and producing music at home. “The democratization of the home studio is what started this torrential downpour of self-produced music,” said Mr. Farrington. “You’re no longer required to hear it in your head like composers and songwriters back in the day—



there’s instant playback and feedback.”

Is that translating to more studio work occurring in the home rather than at studio sessions in the wake of the pandemic? “Even before COVID, there were already musicians who had home recording studios,” said Mr. Cabezas. “But it’s definitely more popular in general now, especially if producers started working with you during the pandemic.” After all, contracting a musician to record at home is less expensive than booking studio time, and composers and producers alike have long taken advantage of that fact. Mr. Fain moved his family to a house in Montana years ago because it came equipped with a home studio. “It’s surprising how little one needs as far as equipment these days to record at this level,” he said.

For his part, Mr. Nova is sought by universities around the country for his skill in making “overdub” recordings, where he records himself playing multiple parts on multiple instruments and synching them together to produce a complete piece, a practice that exploded in popularity during the pandemic. Still, he said that while home recordings and overdubbing have become more popular, he doesn’t foresee them replacing live sessions





anytime soon. As above, it'll depend on the project. "The learning curve is too high," Mr. Nova said. "It takes a lot of patience and a lot of time, so it's not necessarily faster or cheaper to hire one person to do this instead of hiring multiple people at once in a studio."

The technical advancements in recording and production technology have actually opened the door to orchestras' biggest form of business currently: the live-with-film performances, where the musicians perform a soundtrack live underneath a screening of a film. Ms. Hicks, an early adopter of live-with-film, said that the industry has come far enough to become its own branch of the orchestra business, which requires significant labor to edit and create the scores and digital parts that make it

composers' arsenal.

Perhaps, then, the way forward is for musicians to embrace this tech. All the Curtis graduates interviewed here emphasized the importance of familiarizing oneself with new tech and software to help secure contracts. "Let's think about why we're musicians," Mr. Fain said. "Learning new skills quickly will be one of the most important skills, and that's part of the conservatory program."

Many performers who play studio contracts typically have a diversified portfolio of performance opportunities, a mix of film and television, and commercial and album work in addition to chamber and orchestral performances. "It is an absolute *must* for people to be fluent in this software," Mr. Farrington concurred, noting that many successful studio musicians are conversant in the tech in addition to being masters of their respective instruments. "How marvelous and capable these studio musicians are. It's just remarkable how they roll in and can do anything," he said. "They're a group of unbelievably capable musical ninjas."

Even the most sophisticated synthesizers and generative AI will require guidance from musicians. In 2019, an AI program on the Huawei Mate 20 Pro Android smartphone generated themes to complete Schubert's Symphony No. 8, the *Unfinished*. But because the tech couldn't actually develop and orchestrate the themes, a live human composer stepped in to do so. "Things are changing slowly, but I have a deep faith in the necessity for human touch," said Ms. Hicks. "At no point in the foreseeable future is AI going to generate something that hasn't already been thought of by a human. To be truly creative—I believe that's what makes us human."

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FAIN (VIOLIN) CREDIT: JOHN WALKER/JEEPFIsher MEDIA
 NOONOURI CREDIT: WARNER MUSIC GROUP
 GABRIEL CABEZAS CREDIT (RIGHT): ZOE PRINDS-FLASH



Left: Noonoori, Tim Fain, Sarah Hicks.
 Right: James Nova, Sarah Hicks conducting the San Francisco Symphony. Gabriel Cabezas.

possible to synch the orchestra with the film. "I remember running things on a single projection in the past, now multiple laptops. Everything is much more technologically advanced and *much* more refined," she said.

ART VS. ENTERTAINMENT

Ultimately, the question may be whether studios and directors are prioritizing music as an artistic aspect of their projects. There is a traceable historical line stretching from Mozart to Wagner to contemporary film and television composition, argues Mr. Farrington. "What Christopher Nolan is trying to do is certainly Wagnerian in scope," he said. "Take *Oppenheimer*. Nolan wants you to see it on the IMAX to be enveloped. And on the composition side, the most successful composers are concerned more with what best serves the film and amplifies the director's vision than composing in their own style." That doesn't mean composers should necessarily aim to use live musicians all the time, just as it doesn't mean all synthesized all the time. Farrington explained that synthesizers and AI will represent another tool in

