FORWARD THINKING

The world of music moves at a lightning-quick pace, but still not as fast as the ever-evolving **technology business**, which is driving everything from the way songs are made to methods used to collect **data** and pay creators. In this **special report**, *Music Week* profiles some of the companies using technology at the forefront of their business, investigates how tech is changing the music industry, and explores what's on the horizon...

— BY JAMES HANLEY —

It seemed like every week in the early pandemic, a new technological innovation was cropping up promising to make the best of a bad situation. From the omnipresence of Zoom and livestreaming, to the wonder of the metaverse and non-fungible tokens, tech was on hand to shake up the music business in a time of unprecedented uncertainty.

All of that pales in comparison, however, to the advent of file sharing and the evolution of music streaming. Love it or hate it, it has changed the face of the industry, enabling artists to bypass the traditional gatekeepers and reach their fans directly.

"Technology has democratised the music business," says Pieter van Rijn, CEO of digital distributor FUGA. "It has helped level the playing field, reduced gatekeeping, and provided artists, labels, and artist services companies the opportunity to unlock their content across the globe and retrieve real-time data insights. To be successful, you no longer need to look for a partner who offers the biggest team or the most money, but instead, the smartest and most flexible technology.

"Without modern technology, it would be impossible to scale our delivery and reporting systems to handle billions of transactions per month."

Innovation is at the heart of the FUGA ethos, continues van Rijn.

"As soon as new technology becomes available we explore how it could be incorporated into our products and how it might drive value for our customers, either now or in the future," he says. "Whether that's integrating with Verifi Media to enrich recording metadata on the blockchain, or automating delivery of Dolby Atmos music to our DSP partners, we want to be at the front of the pack."

Earlier this year, the Downtown-owned company inked a partnership with Peter Doherty's new label venture, Strap Originals, which joined FUGA's roster of clients including Domino, Ninja Tune and IE:Music.

Van Rijn points out that tech enables the firm to complete tasks more effectively, efficiently and at scale, while reducing manual errors. Indeed, it is worth its weight in gold when dealing with billions of data lines and transactions, allied to an ever-growing client base and complexity of services.

"Pretty much everything we do now is powered by technology in some way, whether that's via the software that our engineers create or people in the teams figuring out how to create efficiencies using out-of-the-box digital products," he says. "This company is a real hive of ideas, and we're constantly learning."

Andrea C Martin, CEO of royalty collection body PRS For Music, says the speed of technological advancements presents as many challenges as it does opportunities.

"These are challenges that we must tackle head on, in order to maximise PRS member income," Martin tells *Music Week*.

The organisation, which boasts 155,000 members, among them artists such as Adele, Harry Styles and Rina Sawayama, processed 22.4 trillion lines of data last year – a number that is set to increase "exponentially" in 2021.

"This increase in data, driven primarily by the growth in streaming, places an additional burden on rights-holders' ability to process royalties quickly and accurately," says Martin. "To help with this, we continue to invest in machine learning technology, investigating opportunities around auto-matching.

"The benefit of this increase in accurate data for PRS members is that they now have more visibility around usage of their works. With unprecedented access to granular information via PRS online statements, creators can maximise the value of their works in specific areas, taking control of how these works are being used."

Back in May, Martin outlined a five-year vision for PRS with the target of becoming a "billion pound organisation" by 2026. Improving its day-to-day operations with the use of modern tech is a key facet of that goal.

"The recent delivery of our Oracle+ programme has migrated PRS' existing IT distribution processing systems to a flexible environment on the cloud," she says. "This ensures that our current systems are fully supported and can cover our estimated growth requirements over the next five years and beyond."

For reigning Music Week Awards Accountancy Firm Of The Year CC Young & Co, streaming has been transformative. Founder and owner Colin Young explains this is due to "the sheer volume of royalty statement data it now receives from all quarters". But quality of this data can vary to a significant degree.

"The biggest problem we face is how the data is presented to artists and songwriters by record labels, publishing companies, collective management organisations and performing rights organisations," he says.

"Problems with completeness and the accurate allocation of royalties to recording artists and songwriters are pervasive," claims Young. "As a consequence, the recording artist and songwriter are underpaid."

The issues around data collection are two-fold – the format and the level of detail.

"The biggest concern is the grouping and consolidation of data," he says. "The labels suggest that the consolidation of data is done to simplify interpretation and to keep the size of data files down. This reduces transparency to an unacceptable level. It prevents some of our royalty audit testing and limits the accuracy of our royalty audit results and our audit claims.

"We can deal with the volume of data," Young continues. "We need full data, no suppression, no amalgamation. For the artist and songwriter to be assured of completeness of income we, as their agent, require complete, accurate granular data."

Young gave evidence to MPs during the DCMS Committee streaming inquiry based on his expertise with royalties models and experience of auditing accounts for clients.

"Keeping the data clean is the one thing [all parties] could do to enable the recording artist and songwriter to make an effective claim and get paid what they are due," he adds.

"Another consequence of the technology used in streaming is that music data is often transferred from between companies until it eventually appears – or not – on a royalty statement," Young continues. "Consolidation, abbreviation, re-labelling and omission can occur inside each company before the data is passed on.

"We now analyse the data through statistical analysis and machine learning, to tease out the individual ingredients in the soup. The data analysts and data scientists provide the complementary skill sets to sieve the data and find the anomalies."

Following the DCMS report on streaming, Young is convinced transparency in the market will improve.

"The transparency agenda will take hold more strongly and we hope that music companies will use their resources and expertise fairly to improve royalty statements for the benefit of their creatives – the originators of their very being in the first place," he adds.

PRS distributed a record £699.4 million to its members in 2020, a 2% year-on-year increase. Recently, it has bolstered its data processing to pay out royalties as quickly as possible. But there is always room for improvement. Andrea C Martin, appointed chief executive in 2019, is confident that intelligent automation and machine learning will help to expedite issues around data, adding the body is working with licensees and third-party suppliers to improve the standard of data it provides.

"There is a lot to learn from looking outside of our own industry for examples of best practice and clean data infrastructure," she says. "Within financial services, multiple systems run on common rails, which benefits all involved. If this method were implemented in the music industry, for example with work identifiers and the harmonisation of Music Recognition Technology, our objective of maximising member income would become a more streamlined process that can keep up with increasing data volumes."

Moreover, teams across the organisation have been working diligently to create a robust data strategy for 2022, focusing on how PRS manages data internally.

"We're looking into how we can partner with external providers to improve what we do, and how we do it," adds Martin. "Hypothesis free analysis – looking across multiple data sources we may previously have never considered – will show correlations in usage data that will allow us to enhance our distributions to members."

Martin stresses that PRS is resolute in its backing of The Ivors Academy and the Credits Due campaign, which aims to bring the industry together to ensure complete and accurate metadata is attached to all recordings at the point of creation.

"Not only will this benefit music creators, it will enrich the way fans engage with music," she maintains.

"Tackling the issues of poor data, from the point of creation through to usage and payment of royalties, is essential to the future of the music industry. We continue to invest in new technologies that will form the backbone of the sector's data infrastructure."

But not every new technology has changed the business for the better. FUGA's van Rijn suggests there is an over-reliance on streaming data in discovering new artists.

"Although A&R techniques have changed now that there is such an abundance of information, I believe record labels nurturing talent and backing artists over multiple albums is crucial to this industry," he says. "Data should aid in that process, but it's just one of many signals.

"The industry has a tendency to jump on new technologies too fast, to the point where it becomes hype. If there is no underlying substance or real use case yet, good technologies may disappear and it could be difficult for them to resurface because the initial adoption was unsuccessful."

Be that as it may, van Rijn insists tech is sure to continue to play an "enormous" role in the future.

"As streaming is now reaching maturity in the developed markets, DSPs will have to get creative with packaging and pricing to grow their subscriber numbers," he says. "We're already seeing this with support for next-generation formats like Dolby Atmos from major players including Apple Music, Amazon and Tidal, plus lossless audio becoming more widely available, at no additional cost to subscribers on Apple Music and Amazon.

"UGC [user-generated content] platforms will continue to grow, and along with that are the challenges of increased data volumes and complexity in reporting. We will continue to invest in our technology to keep pace with these trends."

Then there's the seismic shift towards Web3, accelerated by Covid-19. Many remain sceptical about concepts like music NFTs and concerts in the metaverse, but the level of investment, engagement, and returns in these areas is impossible to ignore.

"We'll see a lot more innovation, crossover with music use cases, and, inevitably, regulation in 2022," concludes van Rijn. "It's an exciting time to be working at the intersection of music and technology."

Innovators: Nova Twins are signed to FUGA client Marshall Records

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