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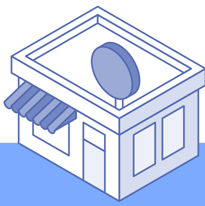
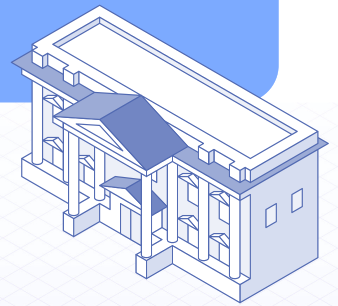


In the rapidly developing digital worlds of mixed and augmented reality (MR and AR), advertising rights present huge potential for generating revenue, with their virtual form making them attractive for a variety of reasons. Firstly, they can be implemented technically and the technology underpinning conventional digital assets can be reconfigured to provide a highly secure ledger of easily referenced digital rights. Secondly, they can be traded in secondary digital markets, therefore being transferable with ease, given the underlying digital technology lacks the friction of traditional physical, paper-based markets. Finally, there's plenty of opportunity for growth; there are large swathes of AR inventory, linked to the physical world, where such rights have yet to be defined or monetized, sitting alongside yet to be created secondary markets. As with all items that hit the top and bottom line, with implications for retained earnings, transparency and the correct application of accounting policies are essential. Determining the appropriate valuation methodology for these rights is vital for these emerging business models to become widely accepted. Moreover, as this technology develops and these rights become increasingly interesting to larger corporates, especially those with extensive property portfolios with premium sites, the rights will inevitably become an item in the annual accounts and therefore fall into the scope of the statutory audit.

This article explores the current opportunities, and the challenges from a legal, valuation and accounting policy perspective. It is intended as a prompt for policy makers to explore this domain further, as well as an invitation for those preparing accounts and undertaking statutory audits to ready themselves for this new asset class.



WHAT IS MR & AR?

Both MR and AR create a user experience, typically via smartphone or glasses, where elements from virtual and physical worlds are blended. They impose digital elements onto a real world experience and allow users to interact with digital representations of the world around them. In both cases, the opportunity to render advertising imagery should be apparent. Imagine Eros, in Piccadilly London, with rotating hearts above it, advertising Tinder, experienced through your smartphone. Or being able to engage with Madison Square Garden, via MR, where you can book tickets for that evening's concert, through interacting with your smart glasses.

These digital experiences are no different in nature from traditional advertising imagery, albeit they go way beyond a simple two-dimensional image, in how they are experienced, and the opportunity for interactivity.

Advertising rights, or more specifically digital rights as they relate to advertising on a property, give property owners the ability to determine permission for MR and AR advertising on their properties and to earn money from that advertising.

ARE THESE NEW RIGHTS AN ASSET CLASS?

The UK Law Commission of England and Wales recently published recommendations in June 2023 () for reform and development of the law relating to digital assets, which appear broad enough to embrace these new types of advertising rights. The backdrop of the consultation was the need to determine the extent to which UK law was sufficient to support the broader topic of mainstream digital assets such as cryptocurrencies, recognizing the importance of the underlying technology from an innovation perspective. In particular, the Law Commission posited that a crypto-token can be used in a variety of ways, namely; a thing of interest or of value in itself; as part of a register or record of interests instead of a conventional database entry; and to link to or embody rights such that the holder of a crypto-token can claim performance of the obligations recorded by the crypto-token. Set against this, the Law Commission concluded that whilst some digital assets are neither things in possession nor things in action, the law of England and Wales can treat them as capable of being things to which personal property rights can relate, in effect creating a third class of thing. Importantly, the Commission purposely avoided defining hard boundaries of this third category of thing, and instead recommended statutory confirmation that a 'thing will not be deprived of legal status as an object of personal property rights merely by reason of the fact that it is neither a thing in action nor a thing in possession'.

In summary, the Commission proposes that the common law is the better vehicle for determining those things that properly can (and should) be objects of personal property rights, and which fall within the third category: third category things. These might not necessarily always be digital things and could include things like milk quotas or certain carbon emissions allowances. The Commission calls digital things falling within the third category "digital objects". As such, arguably digital advertising rights are, or can be, deemed through the development of the common law, an asset class considering the conclusions of the Commission's work.

In many ways, they are firing a starting gun, the runners getting themselves ready, with a few already having set off. Whilst full certainty depends on case law or more specific regulation, the Commission appears to have provided a strong enough base upon which this new class of rights can be constructed.

RECORDING AND SUBSEQUENT VALUATION OF THESE DIGITAL ASSETS

Having established the first pillar, in relation to the legal premise of these property digital rights, the second is determining the appropriate methodology to apply when valuing these assets on the balance sheet. Put simply, we cannot ignore asset value when it comes to generating revenue.

PROPERTY DEED HOLDER ACCOUNTING

Situation 1 Just holds the building and PDT, no PDR rights sold

Current Market: In the current market, the property deed holder would not be able to recognize a separate asset whilst using the building as it was originally intended until there is a sale. The PDT would have a nominal value based on the cost to acquire the NFT and would remain at this value until there is supportive market or valuation-based indicators suggesting an increase in Fair value or impairment. The PDR would follow the same process.

Future Market: In this market, virtual reality advertising is mainstream and there are numerous active PDTs and selling/leasing of PDRs. The PDT, under IFRS 13 would be revalued to its fair value based on comparable PDR lease profit and loss valuations. As per IAS 38, an annual impairment analysis would need to be conducted to assess whether there have been any indications of a decrease in value.

Situation 2 Utilise the PDR for your own advertising

There would be no revenue being generated as you are using this advertising for yourself and therefore, the PDT will remain at cost in the current market, or its comparable fair value as mentioned above when VR advertising becomes mainstream. There would be no income to be recognized.

Situation 3 Sell a portion of your PDR

When this occurs, you will effectively create a revenue contract with that customer for that portion. Your PDT value will now be revalued upwards to reflect the discounted future cashflow of that lease contract. Depending on how established the market is, there could be an argument that the remaining PDR not sold out could be revalued proportionally to the sold PDR's discounted future cashflow. If the market is not established and it is unlikely to sell another PDR space, then this proportionate extrapolation of value cannot be applied to the PDT.

Situation 4 Have sold all your PDR space

The value of your PDT will be the accumulated discounted future cash flows of all the lease agreements as at that point in time. If the market value of the PDR space goes up during this time, the PDT value cannot be revalued to reflect this until the current lease agreements end and the new PDR lease agreements start at the increased market rate. This is because the PDT is entirely valued upon the revenue and cashflow it allows the owner to produce.

Factors such as footfall expectations, location, size, adoption rates etc should all be considered when creating the PDR lease contracts so that the discounted future cashflows and income reflect the most up to date market conditions.

Situation 5 Company buys the building and therefore PDT, for investment purposes

Under IAS 40, only the building would class as investment property and therefore be accounted as explained below. The separately identifiable NFT (PDT), despite being purchased for investment reasons, will be treated under IAS 38 and IFRS 13 when being revalued.

ADVERTISING PURCHASER

The advertising contracts being sold and purchased need to be correctly recognized based on the level of control and authority the purchaser has over the usage of that asset (level of ownership). As the contract only provides rights to a specific advertising slot or service for a contracted term length, then the contract should be considered a lease for the purchaser. Therefore, this contract would be recognized under IFRS 16 – leases rather than under IAS 38 – Intangible assets for the Purchaser.

TECHNICAL STANDARDS

Accounting for the PDT:

Intangible Asset:

Under IFRS & IAS accounting standards, the main debate in valuation is between whether the assets should be recorded at historical cost less any identified impairment or at their fair value on the date they are being reported for. Digital assets intrinsically are classed as intangible assets as they do not physically exist and currently under IFRS 9, there is no specific mention or criteria that allows digital assets to be recognized as financial assets. Consequently, these new digital assets will abide by IAS 38 – Intangible assets which allows both historic and fair value measurement providing, the valuation can be clearly and accurately measured.

Historical Cost, less any Impairment:

This is the standard valuation methodology used for intangible or unique assets that do not have distinct comparisons or an active market to compare against. It is simply the cost incurred to acquire and set up the asset, ready for use at the point or acquisition. Impairment becomes due when the predicted future value of the asset becomes less than the cost to acquire the asset. This could be caused by significant macroeconomic events, a potential adverse change in the crypto environment or damage to the physical building that reduces its ability to be used for digital advertising. The impairment amount is the difference between the recorded cost and the newly lower calculated value of the digital asset and this will occur as an expense in your P&L and a credit to your asset.

Fair Value

According to IFRS 13, fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value should be determined based on the assumptions that market participants would use when pricing the asset or liability. This involves considering observable market data when available and using valuation techniques when observable inputs are not available.

Under IAS 38, intangible assets can be valued at fair value using 2 main valuation techniques:

1. Cost basis – The cost approach establishes fair value based on the cost to replace or reproduce the asset. This method is appropriate when market data is limited or when the asset is unique, and there are no comparable transactions. It involves estimating the cost to recreate the asset, considering factors like production costs, technological advancements, and obsolescence.
2. Income Approach - The income approach calculates fair value by estimating the present value of future economic benefits derived from the use of the intangible asset. This method is suitable for assets generating predictable cash flows, such as copyrights or customer relationships. Key criteria for applying this approach include the availability of reliable cash flow projections, discount rate determination, and consideration of risk factors.

To apply either fair valuation approach, it is essential to know which inputs are being used as per the IFRS 13 established fair value hierarchy levels. As you go down the levels, the level of reliance on the valuation lessens and the required supporting evidence/information increases:

1. Active Market – Quoted prices in active markets for identical assets or liabilities.
2. Comparable Transactions – Inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. Essentially, if there is no active market, are there comparable transactions with similar assets.
3. Valuation Techniques – Unobservable inputs for the asset or liability, typically based on the entity's own assumptions. If neither 1 or 2 is available, use an appropriate valuation technique to predict future expected cashflows and discount these to the present value.

As these PDTs will not be actively having PDRs sold in the short to medium term and be inherently different to each other based off of their advertising space, geographical location, footfall etc that level 3 would have to be used in the short term with a potential to move to level 2 as the market becomes significantly more established and active. This does increase the difficulty in being able to justify the valuation to stakeholders or auditors, but it is not impossible.

Once 100% of the PDT's space has been converted into sold PDRs, then the PDT will be fully revalued using the total discounted future cashflow values of all the leases. This will then be updated as each lease comes to an end the subsequent lease is updated to consider the new current market rates, conditions, interest and adoption.

Depending on your current accounting policies, any gains in the revaluation of the PDT will either go through your OCI (Dr asset, Cr Revaluation Surplus) if the policy is the revaluation model. This provides an equity reserve for which any future downward revaluations would first have to offset this reserve before reducing your P&L as an expense.

If the policy is the cost model, no revaluation gains can be recorded but any impairment will be accounted as Cr PDT, Dr Impairment expense.

For simplicity, at the current stage of the market, it could be considered best practice to record the PDT asset at historic cost and perform an annual impairment assessment in line with IAS 38 until such time as there is commercial and financial sense to change accounting policies for this specific class of asset to Fair value.

You can also disclose in your financial statement notes what the fair value would be if you were to apply your valuation methodology which allows you to communicate a more up to date value to your stakeholders without making it a core financial statement balance.

Accounting for the PDR Purchaser:

IFRS 16 Leases – Right of use asset and lease liability:

If the contract is identified as a lease, then the contract should be accounted for as a right of use asset which represents the lessee's right to use the underlying leased asset over the lease term. A related lease liability indicating the company's obligation for future lease payments should also be recognised.

Initial Measurement:

The right-of-use asset is initially measured at the present value of lease payments, plus any initial direct costs incurred by the lessee, minus any lease incentives received from the lessor.

The present value of lease payments is determined using the discount rate implicit in the lease (if known and the same as the one used in the ROU asset calculation) or the lessee's incremental borrowing rate. This liability includes fixed payments, variable lease payments, amounts expected to be payable under residual value guarantees and or, the exercise price of a purchase option if the lessee is reasonably certain to exercise that option.

Subsequent Measurement:

The right-of-use asset is generally measured at cost less accumulated depreciation and impairment losses. The lease liability is remeasured over time as lease payments are made, to reflect changes in the lease term, lease payments, or the discount rate.
The interest payments, lease principal payments and ROU asset depreciation or impairments are all recorded in the P&L in the year they occur.

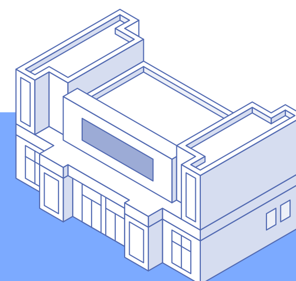
Accounting for Investment Property:

IAS 40 Investment property

The property and the NFT (PDT) are distinct assets with different characteristics, and therefore will be accounted for under different IFRS standards.

The property would fall under the scope of IAS 40, "Investment Property". The property would be initially recognized at cost and subsequently measured at fair value, with changes in fair value recognized in profit or loss.

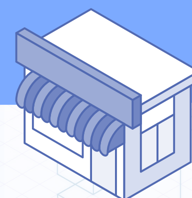
The NFT (PDT) represents a unique digital asset and its accounting treatment would depend on its nature and purpose. Since it's directly linked to the property and provides the ability to advertise digitally for investment purposes, it will be considered an intangible asset under IAS 38, "Intangible Assets." This asset would then follow the above stated treatment under this accounting standard.



SUMMARY

As of right now, the PDT will have a nominal value based on cost. This will increase as PDR's are sold and the value will reflect the discounted future cashflows of that sales contract. As the market matures and grows, then the PDR % pertaining to the PDT holder will be valued at a proportional extrapolation of the PDT holders current PDR sales and market comparisons. If the PDT holder has sold 100% of its PDRs, then the value will remain at the total discounted cashflows of all PDRs until the sales contracts renew and can be updated to reflect the latest market rates. The PDR generated income and related expenses will flow through the P&L.

The building's valuation will remain completely separate to the PDT with their valuation based off only traditional building valuation methods. The PDR purchaser will account for the sales contract as a lease with an ROU asset & lease liability on the BS with income/lease payments going through the P&L.



RECOGNITION UNDER US GAAP

US GAAP requires the issuer to follow the guidance in FASB ASC 820 which defines fair value as “the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.” Extending this further to the specific case of digital assets, FASB earlier this year, issued a proposed Accounting Standard Update , comments being due by June 2023. This ASU proposes that it applies to crypto assets that meets all the following criteria:

- Meets the definition of intangible asset as defined in the Codification Master Glossary.
- Does not provide the asset holder with enforceable rights to, or claims on, underlying goods, services, or other assets.
- Are created or reside on a distributed ledger based on blockchain technology.
- Are secured through cryptography.
- Are fungible.
- Are not created or issued by the reporting entity or its related parties.
- Provided those criteria are met, the FASB propose that an entity would be required to subsequently measure crypto assets that meet those criteria at fair value with changes recognized in net income each reporting period.
- However, a PDT/PDR may not meet all the criteria listed above, as it provides the asset holder with enforceable rights to advertising capabilities and the advertising purchaser to claims on that space/ service. Therefore, even under US GAAP the discussion between IAS 38 for the holder and IFRS 16 for the buyer (or US GAAP’s equivalent: ASC 350 & ASC 842) is still the most relevant to consider for companies when looking to recognize these assets.

The consultation has now closed, although some of the largest digital asset businesses, as well as Big Four accounting firms have told the FASB that proposed crypto assets accounting rules would be operable with fixes. With the broad pipeline of regulation as it relates to digital assets passing, or having passed through different parliaments, it is inevitable that digital assets will appear on balance sheets, property digital rights

THE STATUTORY AUDIT

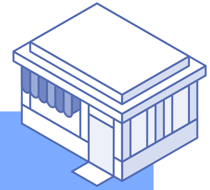
Our final pillar is one that creates an independent layer of scrutiny through the statutory audit. Once a company meets its local regulatory requirements for an audit or the company voluntarily elects to have an audit (for valuation raising purposes for example) then the following points indicate the potential areas of challenge and complexity.

In substance, the audit industry is well versed in dealing with auditing advertising related businesses and so the same general principles and collective understanding should apply. However, unlike balances in bank accounts, we are dealing with intangible digital asset technology which confer rights to advertise, and there are some nuances relating to demonstrating control of these digital rights. Although substance over form will take precedence in terms of the advertising contracts and leases acting like a traditional advertising contract, to prove some of the balance sheet assertions such as Existence, Rights & Obligations and transfer of control, this may require crypto native audit procedures and understanding, especially if the contracts are tokenized and sent via the blockchain.

Existence is 100% provable using blockchain technology thanks to the node infrastructure recording the asset/transaction. Proof of ownership is inherently more difficult without using someone else's wallet passwords or watching them perform another transaction from the same "sender" address as the advertising asset. Control of the rights is via a key, which is private and held in secure custody arrangements by the owners and/or controllers of those rights.

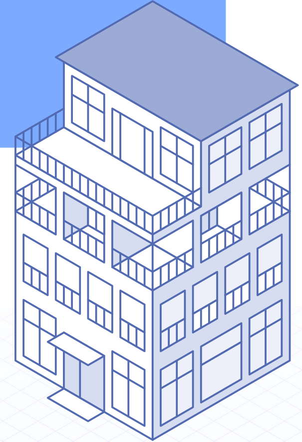
However, there are crypto native technologies and specialists that can use said technologies to provide static assurance over ownership of an asset. This can be performed through using tools that get a targeted wallet to sign a message proving the companies access and control over that wallet. There is still a risk that other parties have access to those wallets and whether control and sole ownership has been the case all year (no live way of proving ownership) but these risks can be mitigated by working backwards through any movements in the asset itself. What's missing is a broad understanding and ability by the audit profession to perform these new crypto specific procedures but the foundations are there, with a few digital asset specialists, such as Harris and Trotter, paving the way in revolutionizing crypto audit practices and assisting traditional companies and auditors in navigating and providing assurance to stakeholders in this new

WHATS NEXT ?



This new advertising technology holds great promise, offering a very different mechanism to engage consumers on a deeper, immersive level. Early frameworks exist which put the technology on a legal footing with the ability to record and measure under existing legal financial frameworks and provide certainty as to the existence of the rights themselves. What's needed is leadership, and confidence that technology can successfully be applied to an age-old industry.

As the MR and AR advertising landscape continues to evolve, the establishment of industry standards becomes increasingly important, and in this instance, that implies the requirement to build alliances across very different professions and jurisdictions. Collaborative efforts across companies providing this technology, advertisers, and regulatory bodies will be necessary to shape a responsible and effective advertising framework within MR and AR environments.



MANAGE AND MONETISE PROPERTY DIGITAL RIGHTS

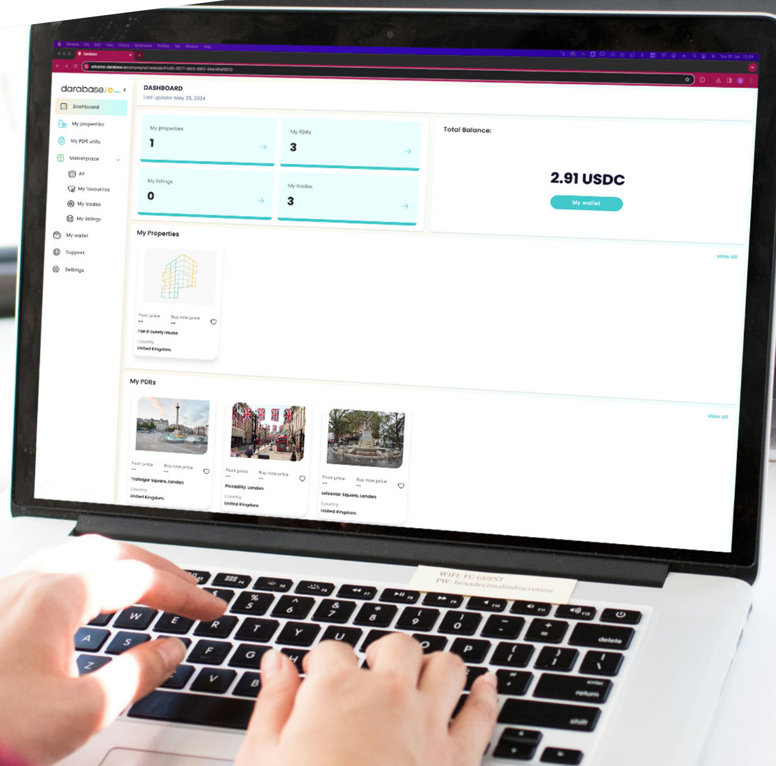
DARABASE

Darabase provides a global registry and content platform for the management and monetisation of digital rights as they relate to immersive advertising on a physical property. In effect, Darabase is delivering the permission based ecosystem that MR and AR advertising urgently needs.

Darabase's registry allows property owners to control how their property is used and claim the right to their property's digital value. It is also the mechanism through which publishers and advertisers can access this permission based inventory.

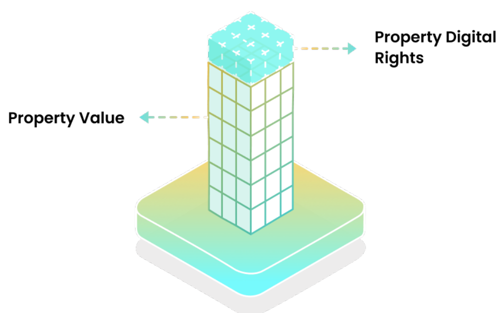
When property owners register their property on the Darabase platform they can claim:

- The **Property Digital Title (PDT)**: As well as registering their digital rights to a property, PDTs give property owners the ability to record whether they allow third party immersive advertising to be associated with their property, whether they reserve the property for their own immersive content, or whether they block any immersive content from being displayed.
- The **Property Digital Rights (PDR):** The PDR gives property owners a vehicle for earning revenue from the third party immersive advertising that makes use of their property.



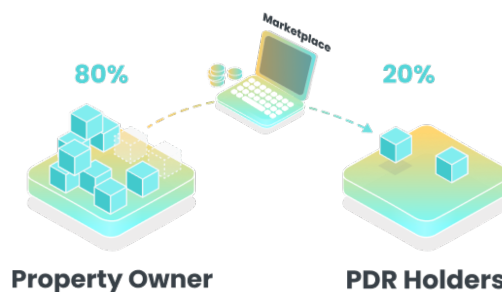
PDRs - a new asset class

As with traditional screen or billboard-type advertising, PDRs can provide a lucrative additional source of revenue for property owners.



As with traditional screen or billboard-type advertising, PDRs can provide a lucrative additional source of revenue for property owners. Like existing income from outdoor media, this incremental revenue can be converted into asset value on the owner's balance sheet, with only marginal investment. Once a property owner decides to allow third party immersive advertising, Darabase defines and shares the property inventory with app publishers. These publishers use the inventory in exactly the same way a website or app uses advertising space' that is to generate revenue from their audience. Darabase helps the publisher make the inventory available to advertisers through existing ad networks and any revenue earned by the immersive advert is shared between the publisher and the property digital rights owners.

PDRs can also be fractionalised so that the property owner can lease some or all of the PDR through the Darabase Marketplace. In doing so, the property owner can earn immediate revenue, and the buyers gain the right to a proportion of the advertising income. Fractionalised PDRs have a 10 year lease and when this expires, they revert back to the property owner with recognition and measurement from both parties following IFRS 16 or IAS 38 as discussed above.



On initial registration of a property, Darabase helps estimate the initial value of their PDR through an algorithm that factors in the property's physical asset value, location, use (commercial, land etc.) and class (iconic, urban etc.). The PDR value can then be updated over time based on subsequent advertising earnings and Marketplace trading of the fractionalised PDR. It is also worth noting that this algorithm will need to include and be updated by taking into account, other factors such as footfall, acceptance/uptake of digital marketing by consumers (weighted per city/country), level of involvement and value deemed by marketers and level of involvement from places allowing advertising on their assets.

As more and more of our digital lives are layered on the world around us, today on mobile and in the future through smart-glasses, Darabase is offering an innovative solution to the challenges facing MR and AR advertising, as well creating an exciting new asset class for property owners.

AUTHORS AND CONTRIBUTORS

KROLL

Kroll is the leading independent provider of risk and financial advisory solutions leveraging unique insights, data and technology to help their clients stay ahead of their demands.
Kroll provides their clients with a way to build, protect and maximise value through their differentiated financial and risk advisory and intelligence. Their transaction experience and expertise have earned them global recognition as leaders in valuation, corporate finance and restructuring. They are also known for their world-class experts and solutions in corporate risk.

Haydn Jones - Managing Director, Data Insights and Forensics

Haydn Jones is a Managing Director and Global Head of Blockchain and Cryptocurrency Solutions, based in London. Haydn leverages more than 25 years' experience across multiple sectors leading sales and business development, and is now exclusively focused on cryptocurrencies and blockchain.

Prior to joining Kroll, Haydn served as a director at PwC, leading the UK Crypto and Blockchain team. He was responsible for sales and business development working across PwC's lines of service, supporting audit, assurance, tax, deals and consulting. Before that, he was the founder and managing director for Blockchain Hub, a blockchain and digital currencies advisory company. Haydn has also held positions at The Bank of England, Deutsche Bank and the UK Ministry of Defence.

His notable engagements include regulatory authorization support for a multilateral trading facility covering Europe, Asia and the U.S., independent expert witness reports in civil and complex criminal matters relating to theft and fraud, global review and framework design for digital asset custody services to support a bitcoin miner, regulatory triage across five jurisdictions to support a global crypto exchange covering the Fifth Anti-Money Laundering Directive (5AMLD) and regulatory triage for a wallet provider as part of an FCA registration under 5AMLD.

Haydn's expertise has been featured in Palgrave Macmillan, as co-author of An Executive Guide to Blockchain published in February 2020.

Haydn is a fellow of the Institute of Engineering and Technology, an associate member of the Institute of Mathematics, a member of the General Council of the Bar, liveryman of the Worshipful Company of Information Technologists, the former governor of Dallington School and former chair of trustees of Citizens Advice Bureau in London.

Harris & Trotter is a leading technology-driven firm with a strong focus on providing exceptional service. H&T is headquartered in London but has a global presence, establishing itself as an international leader in the cryptocurrency, blockchain, and web 3.0 industries. The journey in the world of digital assets began in 2017 and today, H&T offer a comprehensive range of services, including audit, advisory, bookkeeping, accounting, proof of reserves, compliance, off-ramp assistance and taxation support to individuals and companies worldwide, including those in the metaverse.

Leveraging cutting-edge technology, often developed in-house, H&T deliver professional services in this rapidly evolving field. H&T's diverse clientele includes: cryptocurrency exchanges, market makers, decentralized gaming platforms, metaverse entities, ICO participants, NFT creators, miners, DeFi protocols, investors, and more.

Moreover, H&T has nurtured professional excellence and industry leadership by cultivating a dedicated, crypto-savvy team. Notably, pioneering the development of the industry's first comprehensive digital assets accountancy ACA training contract, empowering the team to navigate this evolving landscape with confidence and expertise.

Gidon Ross MEng BFP ACA – Digital Assets Partner

Gidon Ross is one of the Founding Partners at Harris & Trotter Digital Assets Limited, a crypto accounting firm based in Fitzrovia, London. Gidon's eight-year experience in the financial sector started with graduating with a master's in engineering before training at PwC and specialising in the revolutionary digital asset finance sector at Harris & Trotter LLP. With a diverse background, specialising in business advisory, start-ups, and large group audits, Gidon brings his clients specialised technical insights and invaluable expertise.

Through his contributions as manager, and partner of first Harris & Trotter LLP, now Harris & Trotter Digital Assets Ltd, the firm has experienced notable growth, achieving 600% expansion within only two years. He has played a significant role in fostering essential connections and providing crucial services and contributions to the crypto finance industry, facilitating collaboration and growth opportunities for industry leaders.

Craig Fox ACA – Digital Assets Manager

Craig Fox having left A levels, immediately joined and trained with Deloitte to become an ACA Chartered Accountant before transitioning into the world of cryptocurrency accounting and finance, serving as a crucial figure in the largest global firm in this sector – Harris and Trotter Digital Assets Ltd. With over 6 years of expertise in the financial services sector, covering: audit, bookkeeping, advisory, and tax engagements, Craig provides specialised technical insight to clients with a proactive approach and deep understanding of blockchain technology. He provides tailored solutions that meet compliance standards and drive success. Motivated by a passion for innovation, Craig continues to make significant strides in helping to shape the landscape of crypto finance, positioning clients for success in this rapidly evolving industry.