

Refinitiv's Ayla Kremb on AI, Machine Learning and Wealth Management – the State of the Art

Hubbis was lucky to spend some time recently discussing Artificial Intelligence and machine learning with Singapore-based Ayla Kremb, one of the boffins at Refinitiv, who offered her thoughts on the latest state of play for the application of AI and ML in wealth management. She discusses why these technologies will win through, where progress is being made, and also where not, and why some institutions remain hesitant. Nominally, Ayla's title is Ecosystem Manager – Applied Innovation Asia, Refinitiv Labs and in practice, she is at the cutting edge of the application of algorithms across the world of finance, and especially for private banks and other wealth managers.



AYLA KREMB
Refinitiv

“Understanding the advisory workflow to complement how advisors connect with their customers is vital, and of course improving efficiency. Better experiences and better results. AI and ML can be used to help tailor the wealth management experience and help the portfolio managers and product managers tailor risk profiles, extract more valuable alpha-generating insights from documents, and so forth.”

What is your role at Refinitiv?

Refinitiv is one of the world's largest providers of financial markets data and infrastructure, serving over 40,000 organisations in over 190 countries. [Refinitiv Labs](#) is a group within Refinitiv itself and our focus is to provide data services. One of our core functions is to generate IP for Refinitiv. We do this in several ways - we either build our own solutions through our team of about 45 people globally in Singapore, New York and London - who code and scrape data, or we also partner with different start-ups. Another key role is working with customers to understand their problems when it comes to AI and ML. My role is specifically with customers in the wealth space.

In brief, what do you see as some of the big picture trends in the world of wealth management and briefly where do AI and ML fit in this evolution?

Younger, tech-savvy high net worth individuals have been shaping some of the major trends in wealth management, driven by their preference for digital touchpoints. Additionally, we have been seeing, at least until the pandemic hit, 12 per cent plus annual growth in numbers of HNWIs and their wealth.

Wealth management firms need to deliver greater efficiencies, better advice, and better outcomes, as well as an enhanced client experience. AI and ML help to deliver these goals.

Refinitiv Labs recently launched our second global survey 'Rise of the Data Scientist' on how institutions are implementing AI and ML. The report highlights how Covid-19 has accelerated an unprecedented level of technological change in financial markets, ushering in scaled AI and ML as the new normal in financial services in 2020, including here in Asia.

Some of the major findings from this region include that ML advances have moved from hype to reality - for 69% of APAC respondents, AI/ML is now a core component of their business strategy, while 78% of APAC organisations make significant investment in AI/ML.

Side Bar – Refinitiv ML/AI Survey 2020 - Asia Findings

ML ADVANCES MOVE FROM 'HYPE' TO REALITY

ML continues to be a core component of business strategy, with significant investment in this area.

- » Organisations in the Americas are leading in terms of ML maturity and investment levels, followed by those in Asia-Pacific.
- » For 69% of APAC respondents, AI/ML is a core component of their business strategy

Where and how exactly are AI and ML helping or going to help the private banks and other wealth managers in Asia?

Banks and WM firms seek a richer client experience, so how do we actually have a deeper conversation with the customer, given that we might have the market and news data, and we have the customer's own portfolio, what are they currently invested in? We focus on how we can tie these datasets together and drive a unique insight or a unique focus for them, that means that they will work with those banks and feel like they have a better product that is ideally suited to them. That's one of the biggest problem statements that Refinitiv actually works on constantly, which is sitting at the intersection of multiple data sets.

Understanding the advisory workflow to complement how advisors connect with their customers is vital, and of course improving efficiency. Better experiences and better results. AI and ML can be used to help tailor the wealth management experience and help the portfolio managers and product managers tailor risk profiles, extract more valuable alpha-generating insights from documents, and so forth.

AI in a nutshell is using machines to pair up a task in a more efficient way. But that is not the genius, the genius is in the machine learning portion. Why? Because only with AI and vast amounts of data, you cannot really solve the output problem, but with ML you can find insights in a pool of data, as ML is teaching the machine to learn on its own what it's searching for.

» 78% of APAC organisations make significant investment in AI/ML

As ML adoption increases globally, ML and data science teams have also expanded, including APAC.

» Over one-third (39%) of APAC respondents expect an increase in number of data science roles in 2021

ASIA SET TO CAPITALISE ON AI/ML INVESTMENT RESEARCH, IDEA GENERATION

Majority of APAC respondents deployed ML for investment research and idea generation, which is significantly higher than EMEA and Americas

» AI/ML for Idea Generation trumps Risk Management in APAC: 40% of APAC respondents deployed ML for investment research and idea generation, which is significantly higher than EMEA (19%) and the Americas (35%)

» Unstructured data is racing ahead in APAC due to the lack of structured data: 16% of APAC respondents use unstructured data in 2020, as compared to 1% in 2018

» As global trading hubs, more companies in APAC are leveraging commodities, supply chain and shipping data compared to other the Americas and EMEA

BARRIERS TO ADOPTION

However, poor data quality and data availability continue to be the biggest barriers to successful adoption and deployment of ML

» Other barriers to delivering ML solutions such as talent and funding are progressively being overcome

» The APAC region experiences more barriers to AI/ML adoption than other regions

» Poor data quality is the biggest barrier cited by 62% of APAC respondents, and this is especially high compared to 50% in the Americas and 49% in EMEA

Now, with that comes what I can say is the really big issue, especially in finance, which is the "explainability" of the algorithm. People will say, well, we don't want to use anything that's not explainable, because that will put us at risk with the regulators.

But in reality, actually, if we could explain it, it wouldn't be machine learning. The machine is supposed to learn on its own, and actually we're supposed to be to some degree clueless of how we got there, and specifically for vast datasets.

Now, this becomes very interesting and meaningful when we're using a few interesting technologies, one of them is intelligent tagging. That's basically being able to extract semantically words out of documents. And then, say that it's an apple, but it's actually an apple, it's not Apple, the company, for example. And we also use the [Knowledge Graph](#) (which link disparate financial datasets, including infrastructure assets) to be able to bring together multiple data sets, let's say, news and market data and equity research reports and earnings, announcements, and so

“We know there are results. It is very tangible and quantifiable, for example, implementing an AI process in a certain workflow can just cut down the number of hours spent on task X massively. Secondly, when Black Swan events such as Covid-19 happen, using AI and ML and supplementing that with alternative data sources can truly deliver insights and predictions. Better insights result in better decisions.”

forth. And then on top of that, let's say, regarding a client's portfolio, we can then connect the dots, so tell them, for example, that their portfolio valuation reacted like this, because of that, and drive far more intelligent conversations. So, this can help the RMs and advisors explain extreme stock movements instantly, and that has implications for clients and therefore revenues. Understanding that advisory workflow at the banks and wealth managers, and the need to complement the RMs at every instance is what really matters. We're not going to replace RMs and advisors, but AI and ML combined can truly augment their advice and capabilities.

community, who do not have the financial power of the banks, but who can benefit from the rising number of off-the-shelf solutions using AI and ML.

Where does Refinitiv fit in?

Refinitiv Labs created [SentiMine](#), which can help wealth portfolio managers digest more information faster. SentiMine helps our customers gain more value from unstructured content by reducing the time and associated cost of consuming research. It combines natural language processing (NLP), sentiment analysis and

As to tying in social media and other strands, there's a fascinating company called MarketSite, it's a partner of Refinitiv's. They tie social media data to stock movements, and then are able to do trend prediction or sentiment detection on certain stocks using social media and other blogs, and other online alternative media sources. This can also really improve personal relevance to that advisory workflow and truly provide differentiation.

So, in brief, we can say AI helps private banks in Asia achieve better experiences and better results. The same is true also for the internal asset manager

deep learning to provide insights from thousands of unstructured research reports and company transcripts quickly and efficiently.

We already have a couple of the biggest banks using it at the moment in their wealth management teams. This is not for direct customer interactions, but more under the portfolio management side, enabling wealth managers to read tonnes and tonnes of research reports in one go and then using machine learning to refine through those to be able to discover topics and sentiments and then tell a portfolio manager, please read these five reports that are outliers, for example, just to get a more balanced view.

This is really one of the most interesting pieces that we've worked on out of the Refinitiv Labs.

What are your key priorities for the AI and ML proposition in Asia, and why?

Firstly, an interesting trend to highlight here from our Rise of the Data Scientist survey found unstructured data is also racing ahead in Asia due to the lack of structured data: 16% of APAC respondents use unstructured data in 2020, as compared to 1% in 2018. As global trading hubs, more companies in APAC are leveraging commodities, supply chain and shipping data compared to the Americas and EMEA. Since Asia never had the same historical data as the west to build their models and has levelled up its knowledge of unstructured data, this new status quo in the post-Covid world might even help Asia build new models, better and faster than their Western counterparts.

In terms of key priorities, alternative data is a core focus in Asia. Alternative data is defined as non-traditional data that can provide an indication of future performance of a company outside of traditional sources, such as company filings, broker forecasts, and management guidance.

Many investors already see that alternative data is just as essential as fundamental data for their financial analysis and insights. When standard data is not available, or as with the pandemic when the standard data was suddenly no longer a leading indicator, making sense of supply chain information is essential.

Another key area is Asian Languages - China's HNW population has been rising very fast. Regarding what influences domestic financial markets and the search for alpha, if you can understand the local nuances, which are hidden behind the subtleties of the languages, you are much better placed.

Additionally, there is the whole area of [Knowledge Graphs](#) - tying together disparate data sets, which is both key for HNWI KYC, as well as to generate alpha or manage risk.

Is this all great in theory but poor in practice?

I would say that people taking more of a holistic strategy and thought

process around it will be much more effective than an organisation that just pulls a robo-advisory tool from a start-up. It has to be a studied, integrated approach.

And we know there are results. It is very tangible and quantifiable, for example, implementing an AI process in a certain workflow can just cut down the number of hours spent on task X massively. Secondly, when Black Swan events such as Covid-19 happen, using AI and ML and supplementing that with alternative data sources can truly deliver insights and predictions. Better insights result in better decisions.

On the better result side, we have a lot of portfolio managers that like doing things the way they've always done, so using something new, and trusting something new, especially trusting something that you don't really understand, can be difficult! But as more evidence mounts that portfolios can be enhanced, while risks diminished, they will veer towards greater usage.

And at the start of the process, as clients join banks and other firms, fraud detection and KYC can be dramatically improved. Costs can be reduced significantly as headcounts fall, efficiencies rise.

The long answer to the short question is that the dots are being

joined up. We see that clearly in our 2020 survey previously mentioned, and we can really see how usage has changed at the same time as the perception of the results also improved.

Beyond the biggest and smartest and most financially resourced banks, are the others making good decisions on all this, or are they still bankers struggling to comprehend and apply technology?

As mentioned, Covid-19 has accelerated a huge amount of technological change in financial markets in 2020 and has made data-driven strategies and investment in AI and ML more critical. These topics are now front and centre of conversations I'm having with clients and stakeholders. My role within the team is to communicate, run webinars and sit down with those teams out there and get an understanding on what problems they face. What are you curious about but don't have an answer to? The answer is those that take the most strategic and holistic approach are advancing well, and others, once they start understanding how it works, then appreciate how they would really make use of all this in practice. ■

