MODULE 6 UNIT 2
Video 2 Transcript

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NIR VULKAN: Well, hi, everyone. In this video, I want to talk to you about ethical considerations for algorithmic trading. Where is this coming from? Well, AI is everywhere, and everybody seems to be excited and, at the same time, really worried about it. And, particularly, governments and regulators are really, really worried about it. And we have task force around the world. We have in the UK, in the US, the European one. They seem to be everywhere, all concerned with what they call ethical AI. And what does ethical AI mean in particular for finance?

Now, this is important for us because we are algorithmic trading in finance, and so we need to understand this. But the idea of using computers and data to make decisions in finance isn't new. But, of course, what's changed is that the algorithms became very, very complex and not transparent. So that's the big thing. So, in the past, you could have said, look, Mr Vulkan, we're saying no, because, you know, it was very easy to the person looking at the computer, the huge computer screens from the 80s, to tell you why.

Whereas now, it's complicated because it's using some machine learning algorithms, and it puts you in group K15, and K15 doesn't, it doesn't like K15. Why are you in K15? I don't know. I don't even know what K15 is. It's a machine learning random forest type algorithm. I'm exaggerating, but hopefully, I get the point over to you. And this is why regulators are really, really concerned about it. And I was, I chaired the banking and finance committee that advised the EU on that. There's millions other committees like that. They try and translate this idea into actions in finance.

It turns out many of the things that they came up with, that we came up with, and other came up with, are not that relevant to hedge funds. For example, they're talking about, the right to human. So if you, there's a decision about you, you didn't get credit or whatever, you have the right to have a human explain it to you or to have a conversation with a human. This is one of these kind of principles that seems to be emerging everywhere I've seen.

The other thing is what we call explainable AI. So those black boxes, these algorithms that make decisions, there is something that sits on top of them. It's called explainable AI or XAI. If you're interested, you can easily Google and find out about that, which sort of says, we don't know what the black box does, but for all purposes, it is, I don't know, it discriminates against this group and it doesn't discriminate against this group. And this is something the regulator put in place so they can say, your algorithm violates the law because it discriminates against an age group or gender. Even though it wasn't meant to do that, somehow it learned to do that. So these are really interesting things and, if you are interested in them, I encourage you to look up and read more about them.

But what does it mean for us in hedge funds and in algorithmic trading? One is this explainable AI. There is an element of that for us as well, which is you need to be able to explain what your algorithm does. You need to be able to explain it to your investors. In particular, you need to be able to explain to investors when your algorithm is having a drawdown, when you're not doing well. And this is something I've learned the hard way. Pension funds and other big allocators are comfortable with you sometimes losing money, but they want to have an explanation why.

So you don't need to sort of say exactly it's because the math says this or this rule didn't work. But you have a general kind of story about the algorithms, you know, taking advantage of other medium-term trends. And now there's some kind of, you know, these events has happened, which meant the medium-term trend doesn't work, but, you know, you think it will come back, or something like that. You need to be able to explain what it is you do. And I think that is essential for the success of you and your algorithms in this business. So this is something I suppose we have in common with other parts of finance.

The other things that regulators are concerned about when it comes to algorithm making trading is that algorithms don't abuse markets. Yes, that we don't try and move markets. What it looks like in practice is that your algorithm make orders, so say limit orders, that don't get filled. So they get replaced with a different order. Now, if you are trading, the examples we looked at at Module 4, if you're trading once or twice a day, that's not really an issue. You know, you issue an order on Wednesday. If it doesn't get filled by Thursday, you issue a new one. That's okay. But it might be an issue when you have an algorithms that produce, I don't know, a hundred orders per second. Then it becomes an issue. And what the regulators might say is, I want to look at the percentage of limit orders that don't get filled and, sort of, are you using this as a weapon, in other words.

And this is a slight problem for us, because it is important for us to have limit orders. It's the language that we use to express we are only interested in trading if the price goes over a certain amount or below a certain amount. So it is really crucial that we keep that. And I think, when I talk to regulators, they still understand that. So it really is an issue with very high-frequency algorithms and to ensure that they comply with these things.

My message to you is to, kind of, we're not the same in the sense, you know, we're not using machine learning and AI to make decision about personal finance. We're using it for algorithms, but we're subject to the same kind of regulations and the same kind of concerns by the regulators. And it is good that we keep on top of it. In particular, that we know to explain, to have a reasonable story explaining what it is our algorithm does, and when it does well, why, and when it doesn't do well, why. And if you keep that in mind, you'll be safe.

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