

As artificial intelligence (AI) tools become more widely adopted, M&A professionals must consider how the technology might change their professions and how they might take advantage of opportunities those changes will bring

Al technology is already widely used for discovery. The electronic discovery (eDiscovery) market was estimated to be worth US\$8.4bn in 2017 and growing 11% a year, according to market research provider Knowledge Sourcing.

Financial and legal advisors are now exploring where else Al can be used. Contract review and due diligence in the legal field are two of the more advanced fields.

As Al is set to become as mainstream as data rooms and spreadsheets in the next decade, we wanted to find out how M&A practitioners were already using the technology and how the M&A process is likely to change over the coming decade for financial advisors, lawyers and corporates alike.

A McKinsey analysis estimates that half of all activities carried out by human workers today could be automated, but not all roles will be affected to the same extent. Skills like negotiation, longterm strategic thinking and creative problem-solving are expected to remain crucial for dealmakers and facilitators. "The ability to negotiate effectively, the ability to persuade, the ability to find creative win-win solutions to difficult problems are still going to be key to any transactional practice," said Dean W. Harvey, partner and co-chair of the Artificial Intelligence, Machine Learning & Robotics practice at law firm Perkins Coie.

However, the future is already here — it is just not evenly distributed, as science fiction writer William Gibson said. If dealmakers are to be part of that future, they need to ask themselves a series of fundamental questions: What are the advantages and risks to using AI? What are AI's limitations? What type of skills should dealmakers hone to maintain a competitive advantage in the age of AI?

With this in mind, we asked five experts in M&A from the fields of law, investment banking, technology and academia to weigh in on how AI is changing the dealmaking landscape and to explain what the M&A community needs to know to stay ahead of the pack.



Expert speakers



Sean KellyGroup Sales & Business Development
Director, Imprima



Dean W. HarveyPartner, Perkins Coie



Adam Robert PahProfessor, Kellogg School of Management



David BellDirector, Silverpeak



Scott MoellerProfessor and Director, M&A Research Centre
Cass Business School

While the vast majority of M&A processes are still carried out in much the same way they have been for the past decade or more, many firms are seriously exploring the use of Al tools, although the level of penetration varies widely across sectors and organisations

Mergermarket: To what extent is AI or technology more generally integrated into the M&A process today?

Scott Moeller, Cass Business School: Technology, and even to some degree AI, are already being used in the M&A process. When you think about the due diligence process, almost all, if not all, deals now use virtual data rooms.

Sean Kelly, Imprima: When we began selling virtual data rooms, lawyers were reluctant to adopt them and still worked in the same way as they had with physical data rooms. They would print out documents, put them in a folder and send them to us to scan in, rather than upload the document themselves. Now, all of the major law firms are looking to introduce Al into their businesses at all levels. Part of the reason is simply because the billable hours model is becoming less and less viable for them. Their clients are telling them they want flat fees, and once they go to flat fees then they are looking for efficiencies.

We've found that financial advisors are a little behind in AI adoption when compared to their legal counterparts. A key reason being that most AI tools currently on the market are designed to supplement legal analysis, not financial or commercial analysis in due diligence. We see this changing; in principle, AI (specifically machine learning) holds the same promise for financial analysis as it does for legal analysis. It has the potential to automate the repetitive, monotonous work faced regularly by financial advisors.

Finally, to accelerate wider adoption, deep collaboration will be required with clients to create valuable use-cases. When there



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Adam Robert Pah, Kellogg School of Management

are a handful of use cases that can be packaged and scaled, we'll see financial advisor adoption of Al accelerate and therefore integrate further with M&A processes.

Dean W. Harvey, Perkins Coie: I would say that lawyers have traditionally been slow at adopting new technologies. Lawyers are risk-averse. They are often not folks who have a lot of tech experience or tech knowledge, and so they perceive risk in moving to a new process. Law firms don't tend to have large, sophisticated IT departments, so they trail behind the leading edge of technology.

Adam Robert Pah, Kellogg School of Management:

Every sector is moving at its own pace, and within each sector it's extremely heterogeneous. Some have embraced new technology and been early adopters, while others are very wary. And I don't think that's going to change. That's always going to exist with all kinds of technology. Even so, it doesn't feel like M&A bankers are any further behind than lawyers in adopting AI tools.

Mergermarket: What are the biggest barriers to adoption of Al-enabled technology among M&A professionals?

Sean Kelly, Imprima: Al tools are not integrated with software generally used in M&A due diligence (such as VDRs), which is a major contributing barrier to adoption. Another key reason is

that legal Al tools on the market are based on machine learning algorithms that need to be trained by humans (so, by lawyers in this instance). Legal advisors are neither trained to do that nor do they have time to do that. Finally, law firms that mainly charge clients via billable hours have less of an incentive to explore this technology because it doesn't suit their current business model.

Adam Robert Pah, Kellogg School of Management:

The reality is that within a sector, culture is what modulates the pace of change. The future that we're going to get is largely a by-product of the culture.

Dean W. Harvey, Perkins Coie: Lawyers have a duty of competence, so we can't just grab a tool and assume it's going to work. We have fiduciary obligations to our clients, and we're liable if the tool generates problems for our client.

Mergermarket: What types of tasks and skills do you think will most likely be automated?

Adam Robert Pah, Kellogg School of Management:

When you look at the impact of technology on work, you're really looking at three types of task: tasks that can be automated; tasks where human effort can be augmented; and tasks that are so open-ended or so poorly-bounded that they are still entirely in the human domain.

If you look at something like due diligence, it's similar to the discovery process in the legal field. Let's say you're doing a deal. You want to provide all the documents that you need but you don't want to give away too much in case the deal falls through. That is a process that could require huge amounts of human effort or it's a process that can be automated. You can train Al to learn what documents matter for this process and can be given away, and which ones don't and should not be disclosed.

For augmented tasks, that is a bit harder because the field is so much more open. In M&A, this could mean the reworking of the process of building a profile of a prospective buyer or target. You wouldn't have to fill out a complete profile of what would make a good partner. The machine can actually help and augment your efforts, reducing the time it takes to do that work.

Scott Moeller, Cass Business School: Nearly all M&A processes today use VDRs, which allow an almost unlimited amount of data to be shared. The ability to roll through that data,



analyse it effectively, and identify patterns is very important. I think this is where we will see more use of AI, given that there is so much data there. I don't think AI is going to be a decision-maker in the M&A process, at least not yet. Valuation is another area where you have a lot of data. You have the ability to compare across industries and sectors in a way that you haven't before. That's already happening to some degree. One sees already how analysts use macros to automate the valuation process. That automation will continue.

David Bell, Silverpeak: You could see greater development in people using AI to identify and uncover insight which they hadn't seen before or for which relevant data had been unavailable. For example, if you can find ways of incorporating various different layers of M&A information and allow an AI to analyse it, then it may be possible that it will provide insight which dealmakers didn't even know to ask about in the first place. I think that's where it could be very powerful. And I think that's certainly where dealmakers could have an edge.

Mergermarket: What are some of Al's limitations for the M&A process?

Adam Robert Pah, Kellogg School of Management:

Machines are excellent at tactics. If you could look at chess, machines are unbelievably good at the best move to make next. But they're not exceptional at a long-term strategy. Our world is messy and complicated and there are actions that can be taken that have never been done before. So, long-term strategy, that's still something that humans have, although we can be assisted in it.

Dean W. Harvey, Perkins Coie: When you look at something like machine learning, the algorithm goes through massive amounts of data, finds correlations in it, and that's how it's able to make predictions and decisions based on new data. The problem is that the effectiveness of it depends on the data that it was trained on.

You are not going to rely on the conclusions of a data analytics program. Let's say you use junior associates to go out and do this analysis. Do you just accept the junior associate's conclusion? On a billion dollar deal, are you going to accept that they've reviewed everything? Or are you going to go through it and do a quality check? Similarly, if you're using a tool you don't fully understand, you need to double-check and make sure that you do in fact understand the output you're getting and whether or not it's correct.

David Bell, Silverpeak: I question whether there will ever be sufficient meaningful M&A deal information for machine learning to derive material insight. There is a limit on the amount of publicly available data, particularly for private M&A, given that a lot of the information is proprietary – and therefore not shared. In terms of public market M&A, whilst there is considerably more information in the public domain for these transactions, there are far fewer deals. Again, will there be sufficient information for machine learning to derive meaningful insights?



Over the coming ten years, M&A practitioners at all stages of their careers will have to learn not only how to use AI tools, but which of their other skills to hone in an evolving environment

Mergermarket: What skills do you think will be most valuable for M&A practitioners in 2030?

Adam Robert Pah, Kellogg School of Management:

The biggest skill will still be building human relationships. Companies are and will continue to be composed of humans. It's not just about the numbers, it's about understanding why someone would want to sell, convincing someone that this is the right thing to buy, and so on. That's a human endeavour. Trying to make a machine that does that would be extremely difficult.

Dean W. Harvey, Perkins Coie: Many of the skills that are valuable today are going to remain extremely valuable in the future. The ability to negotiate effectively, the ability to persuade, the ability to find creative win-win solutions to difficult problems, all of those things are still going to be key to any transactional practice.

Scott Moeller, Cass Business School: M&A deals are really one of the most significant events that can happen in the life of a company. Therefore, even in 2030, the human element of decision-making will continue to play an important role. You will have to take into account things such as the politics amongst those within the company, the desires of shareholders that may, in fact, not be recorded anywhere.

Mergermarket: How tech-savvy would M&A professionals need to be to work with Al?

Sean Kelly, Imprima: Traditionally, a junior lawyer gets 100 documents to review and might be just redacting those documents by hand. Now, she's being given a piece of technology and she needs to be aware of the limitations of the software. And every software, even in 30 years' time, will have limitations.

If she's not aware of the limitations, how does she fill that gap? What's her role then? I think the key thing is going to be, "Okay, what is this technology doing for me and what are the limitations? What do I really need to check for?" You need to understand a little bit of how the technology works. Not in super detail, but nevertheless, she will need to know why she's getting one output instead of another.

Adam Robert Pah, Kellogg School of Management: The important thing isn't just to be proficient at using the tool. It's learning about the basic essence of how these machines work. The reality is that as the field grows, more tools are going to be made available and each tool is going to operate differently. It's not about being an expert in operating the tool – it's going to be about being an expert in understanding how the tool was built, so that you can discern why one tool says one thing and the other tool says another.

In a field that's as competitive and with as much money as M&A, there's going to be a lot of black box providers that all have their own take on how to make something because the truth is that the actual definitive answer doesn't exist.

Dean W. Harvey, Perkins Coie: I agree with that. The reality is you don't have to understand the Al algorithms. You don't have to understand every aspect of how the machine-learning tool works, but you do have to understand its capabilities and its limitations, just like with any other tool that you use – smartphones, email, even Word.

Mergermarket: Will M&A advisory businesses have far fewer entry-level positions by 2030?

Scott Moeller, Cass Business School: I think that investment banks in 15-20 years are going to require fewer analysts than they have in the past, and fewer associates. This will be a challenge for the industry, because the way people acquire the skills they will need – skills like the ability to be able to negotiate,

the ability to build relationships, and the understanding of an industry – is by attending meetings as a junior with somebody more senior from whom you can learn.

Adam Robert Pah, Kellogg School of Management:

That is the interesting part about the future of work. Entry-level positions are exactly the type that are going to be automated first. But the problem is that without entry-level people, you don't get mid-level people and without mid-level people, you don't get principle. This is where I think firms will differentiate themselves from one another. It all comes down to how they plan to reenvision their human capital pipeline.

The largest firms can try and subsist for a while on poaching employees from other organisations. But ten years out, the health of a company is going to come down to establishing this pipeline and figuring out a training programme to prepare people for a mid-level position and beyond.

Sean Kelly, Imprima: Some of the Magic Circle firms have told us that, once they introduce technologies, they expect to have the same number of staff but do more deals. Essentially, lawyers and firms will become more efficient; the amount of repetitive, simple work will reduce and time saved will be filled with tasks involving deep analysis of complex legal issues. Competitive advantage gained is therefore two-fold: businesses can do more deals in the same amount of time and/or be more competitive on price against firms who continue to employ traditional working practices.

Dean W. Harvey, Perkins Coie: I think that there will be less need for the juniors. If you look back to, say, 2001, there was big demand for lawyers to do discovery and diligence, but then a lot of that got off-shored. Suddenly, that created an employment glut, particularly at the commodity end of the market. And then the Al tools came along and a lot of this work is moving back onshore, but without more bodies. Will there be other roles? Someone has to manage all these tools, someone has to understand the output, someone has to check the output. But I think in the law firm of the future, you will see a slimming of the junior ranks.

David Bell, Silverpeak: I'm not sure there will be fewer positions. There is an increasing amount of deal information which has to be distilled. Any information or insight which is being generated by Al is only as informative as the underlying data – which has to be sanitised and screened. In my experience M&A professionals seem to insist on doing this themselves. As the proliferation of

data and its availability is not necessarily matched by an increase in accuracy – or completeness – this may lead to an increase in some roles

Mergermarket: Will overall head count be smaller at advisory firms in the future, or will new positions, possibly technology-focused ones, be created?

Sean Kelly, Imprima: As Al helps reduce the time and effort required to complete simple, repetitive tasks, there will be a number of consequences, but it's difficult to say how that would effect headcount. One consequence could be the changing nature of a lawyer's role. With simple tasks out the way, time for more in-depth analysis of complex issues is freed up, so firms may need more highly trained lawyers. Another consequence could be the rise of IT departments in legal and financial advisor firms. Their skills and expertise will be critical to the smooth implementation and management of such systems.

Adam Robert Pah, Kellogg School of Management:

My opinion is that the headcounts are going to stay roughly similar. You may be doing more deals, in which case you might grow a little. The IT department is now going to need to be even bigger than it ever was before to support all the data ingestion.

We could see a change to the nature of a lawyer's role with greater Al adoption.

Sean Kelly, Imprima



Extrapolating into the future, it is not only work and tasks that will change, but the overall shape and culture of the profession

Mergermarket: How might M&A advisory firms change overall?

David Bell, Silverpeak: There will be changes, but I don't think you can remove people from the equation. Deals are still between people. Ultimately somebody is going to be responsible for the purchase price, the negotiation and the result of the transaction. When it comes to negotiating a deal, there are many aspects – for example, risk analyses, synergy analyses and cost of capital – that could benefit from the application of Al. To a degree, in my experience, much of that analysis is still embryonic. For example, earlier in my career I'd have to go and scrape around in various databases to pull out all the information. Now, whilst I have considerable information at my fingertips, it doesn't actually make me any less busy. In many respects, it makes me more busy – there's more to analyse. Layering Al on top may help me make better finessed and informed decisions – but I don't think we're as advanced as we might have anticipated.

Adam Robert Pah, Kellogg School of Management:

What's exciting is that our jobs will become less repetitive and we will get to do the creative parts more. The only question is how much more creative parts can we take on. And that's going to be related to how many more people can filter up to that level. It could just be that instead of everyone being overworked so much, we actually bring it down and make things more collaborative. And because we're spending more time and being more collaborative, our results will be even better than they were before. If we have time and space to actually engage and talk, we could come up with something that was better than when we were running around like chickens with our heads cut off just to get something done before the deadline. But that requires a kind of a cultural change in what we think people's workflow should look like.

Sean Kelly, Imprima: This is a really difficult one to answer because if you had asked me ten years ago where we'd be here and now, I'd have thought we'd be way further ahead than where we are now. In 2030, I don't think there will be a data room around as we know it now. Everything will be integrated on one platform or one system. So initially, life may become more difficult for lawyers because once you introduce new technology, people have to learn how to work in different ways. With a greater push towards remote, flexible working though, technology that can be accessed and shared anywhere quickly will be mandatory. But once people in these professions get used to new ways of working, the technology is going to charge ahead rapidly and make life much easier for everyone.

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- Imprima Asset Lifecycle Management (ALM) empowers
 you to organise, manage and track your assets in an efficient
 and cost-effective way, ensuring they are sale-ready at any
 given time.
- Imprima Automated Information Retrieval (AIR) is our new Al tool that increases the accuracy of contract review, whilst reducing both the time it takes to complete and human error.

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