

How AI is Transforming Venture Building and Venture Capital

Executive Summary

9th Oxford Entrepreneurship Policy Roundtable

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The 9th Oxford Entrepreneurship Policy Roundtable (OXEPR) convened over forty founders, angel investors, venture capitalists (VCs), senior executives, and academics to discuss the opportunities and challenges of building and investing in AI ventures in Europe. The event was held on June 7th, 2024, at the Saïd Business School, University of Oxford. It was made possible by the sponsorship of XTX Markets and XTX Ventures and support from Creative Destruction Lab Oxford and Saïd Business School, University of Oxford. The roundtable set out to understand the future of venture building and venture investing in light of the recent advances of Artificial Intelligence (AI). It posed and discussed the following five key questions:

1.) What are the key opportunities, strategies, and business models for AI startups?

Roundtable participants emphasized two factors all AI startups require to be commercially viable. First, they must generate outstanding user experiences that build and maintain trust with their clients. Second, they must own some proprietary data to continuously improve consumer experiences and ensure client retention.

AI models are developing at a rapid pace. Consequently, AI startups need to strategically position themselves not only against the current competition, but also against future improvements in AI models. This requires a high degree of fluidity and adaptability, because those who are not prepared for the rapid advancements risk being “steamrolled” by larger incumbents, like OpenAI.

Unlike previous generations of software companies, AI companies need to develop business models that deviate from the established SaaS model. They need to design offerings around capabilities that are not only enabled by AI, but also constantly updated by the latest AI advances. Different from traditional SaaS systems, the long-term cost structures of AI systems require constant maintenance and improvements.

While large language models (LLMs) led by US incumbents dominate, European opportunities lie in developing smaller models that can be curated with proprietary data sets. Examples include Retrieval Augmented Generation (RAG), edge implementations, and AI agents. Tailored AI solutions for specific industry needs and non-language-based AI applications also present significant opportunities.

2.) What determines the adoption of new AI systems within established companies?

Large established companies, which are the main customers of B2B-oriented AI start-ups, are potentially considering the adoption of AI differently from the adoption of SaaS software. Inside these large enterprises, there is considerable debate about building AI capabilities internally versus buying it from third parties. They are looking for established software providers and start-ups that can offer data sets and capabilities beyond their internal capabilities. However, given the nature of the data and capabilities required to operate AI models, there is considerable reluctance to outsource to third-party companies. This makes it especially difficult for younger smaller start-ups, that unlike the large established software providers (including the tech giants), do not have any proven track record.

The internal adoption of AI initiatives is largely determined by the most influential senior managers, who are not necessarily the most knowledgeable about the current and future risks and rewards of AI adoption. In principle, AI technologies also have the potential to empower middle managers. However, to realize their potential, organisations often need to redesign their structures and change their internal culture accordingly.

One important unanswered question is whether established companies will continue to develop sufficient interest in acquiring AI startups, to generate the exits that VCs require to make their investment returns. Even if AI start-ups are developing superior technologies, established companies may prefer to stick with their in-house developments. They could even face active resistance against making acquisitions from their in-house development teams.

3.) What are the implications of AI for the finance sector?

In Europe, FinTechs are among the most successful tech startups of the last decade. They sell into a large finance sector which is characterised by conservative and slow-moving large financial institutions as buyers of technology. However, the use of AI presents opportunities for incremental innovations that can cumulatively create large productivity gains in the sector. AI is currently used to improve activities such as credit scoring, fraud detection, cyber-security, anti-money laundering (AML), know-your-customer (KYC) requirements, general customer services, and securities trading. While these areas represent a big opportunity space, there are many start-ups competing across numerous niches, often with low entry barrier and limited differentiation. Some roundtable participants expressed a hope that AI would allow FinTechs to go beyond such incremental innovation and look for bigger, more disruptive innovations. However, one of the key challenges is to identify the required talent. In particular, roundtable participants noted that there is a lack of people who deeply

understand both the rapid development of AI technology and the inner working of the finance industry.

Regulation is a key challenge for the adoption of AI in the finance sector. Established financial institutions are severely limited in the way they introduce new technologies, frequently requiring discussions with, and approvals from, the regulatory agencies. Typical concerns include data security, privacy, transparency, fairness, and bias. Unlike established financial institutions, start-ups often lack the networks and experience of effectively navigating these regulatory challenges. Moreover, the regulators themselves are only beginning to familiarize themselves with the new frameworks and challenges of the AI revolution.

Incumbent financial institutions are famously cautious with the adoption new technologies. AI startups can thus expect long sales cycles with conservative but demanding customers. All of the adoption challenges of established companies that we discussed above apply here. Moreover, financial institutions face some additional challenges of replacing legacy technologies that support mission-critical operations. Furthermore, the reason that financial institutions are particularly conversative, even compared to other established companies, is that trust places a pivotal role in all finance. Trust issues pervade every aspect of the financial system, so that, even if some financial institutions place high trust in the use of AI themselves, they still face the risk of losing the trust of their counterparties, be it their customers, the trading partners, the regulators, or the general public.

One important implication is that in the financial sector there remains a strong preference for retaining human decision control over AI-generated processes. AI start-ups may therefore initially focus more on building customized decision support systems, rather than fully automated decision tools.

4.) Can AI improve the process of venture building and venture capital investing itself?

There is considerable debate whether AI can enhance the VC processes itself. In principle, AI can be used to analyse large volumes of data to better identify promising startups. It can also streamline the venture selection funnel and assist with due diligence.

Several roundtable participants argued that the adoption of AI technologies is inevitable for some stages of the VC investing process, especially for early triaging of investment opportunities, and at the due diligence stage. One example mentioned was that AI models should soon be able to quickly and cheaply perform due diligence on a start-up's intellectual property portfolio. However, there is considerable scepticism about delegating too much to AI systems, because human judgment is widely believed to remain crucial for assessing investment opportunities. At present, all final investment decisions remain firmly under human control.

AI models are only as good as the underlying data, but data quality is traditionally poor in the VC industry. Important information about the investment target companies and the financial

investment terms remain jealously guarded secrets. While these problems are ubiquitous, they are further amplified in Europe by the lack of unified languages, terminologies, and company registration information source, let alone all the distinct markets and regulatory structures. If AI is to have a bigger impact on the VC industry, greater emphasis must be placed on curating high-quality, structured data sets, ideally with open access. To be useful, data must also be updated continuously, otherwise the AI models cannot keep up with the rapid pace of the industry.

Because AI models are always built on existing data, they are valuable for comparing one investment opportunity with similar opportunities in the past. This implies that AI lends itself to investment portfolios of start-ups that are pursuing more incremental innovation. Along similar lines, some roundtable participants noted that AI models were useful at identifying areas to invest in, but not good at identifying the winner in those areas: there are simply too few useful signals in the data to identify potential unicorns. More generally, it was noted that VCs seeking to invest in startups with more radical breakthrough innovation, those that are more likely to become unicorns, will have to rely mostly on human judgement.

One more speculative perspective discussed at the roundtable is the possible bifurcation of VC investment strategies. Some VC firm may become largely driven by data and build the technology to track thousands of companies to identify as many deals as possible that fit their investment hypothesis. Other VC firms will continue to rely on traditional sourcing strategies. They will pursue narrower investment theses and develop their human networks among founders and coinvestors, emphasizing the relational aspects of selecting and supporting entrepreneurial teams.

Beyond the venture investing process, AI can also significantly enhance the venture building process. The main benefits are to reduce the time of certain important but predictable tasks needed during venture creation (such as opportunity scanning), as well as later scale-up stages (such as growth planning). One roundtable participant from a venture builder organization shared that they created their own ontology of deep tech innovation. They trained an AI model to undertake some technology and economic analysis in order to examine alternative innovation pathways. They reported a significant reduction in time taken for such key workflows. This allowed them to dramatically increase the number of concepts developed in their venture builder, and to be faster in achieving high levels of conviction about the viability of a venture idea.

However, the effective use of AI in venture building requires sharing of private information in order to properly train and evolve the underlying AI models. This requires sharing private information and heuristics from all the players involved in the venture building process. It also requires a method for capturing all this information and incentives for sharing it. An additional challenge is these AI-based decision support tools are to be used not just by one individual decision maker, but by a whole team of founders, experts, and advisers. Finally, there is a significant challenge in feeding all the data back into the AI models, to continuously train and improve them.

5.) Can European startup ecosystems compete with the US in AI technologies?

The European VC ecosystem is at least two decades younger than its US counterpart. However, it is constantly growing and developing stronger networks with US and global investors.¹ The so-called “flywheel effect” has been set in motion, where exits from European scale-ups and unicorns are expected to unleash more liquidity, energy, and new investments within European markets.

Several roundtable participants noted that the large foundational AI models require “full-stack” businesses models with significant economies of scale. They require aggressive capital investments that are mostly provided by the large US tech giants, as well as large US VC firms and investment banks. Consequently, it was argued that European AI startups should focus on niche, underexplored areas. One interesting line of argument was that by now, the US had a strong advantage at the intersection of AI and the English language. Thus, Europe may be better off focusing on non-language-based AI applications, such as in medical imaging. More generally, the areas of opportunity for Europe may lie mainly in smaller but lucrative niche markets.

One of the key comparative advantages of Europe in the AI race is its talent base, including its founder talent. European universities produce a considerable number of highly diverse talent. However, this talent is being recruited in a globally competitive market. Moreover, European founders are constantly attracted to moving their companies to the US which is widely understood to have a better entrepreneurial infrastructure, more VC funding, and a faster and more agile entrepreneurial culture.

Conclusion

Overall, there was broad agreement among roundtable participants that the adoption of AI technologies in VC, both at the company and the fund level, was well underway, that it would face considerable challenges collecting timely and comprehensive data, and that, most importantly, the vast majority of applications would involve decision support systems where humans would remain in charge of all the key decisions.

¹ Several of the previous OXEPR roundtables also looked at the development of European venture ecosystems. For details, see <https://www.sbs.ox.ac.uk/research/centres-and-initiatives/entrepreneurship-centre/oxford-entrepreneurship-policy-roundtable>.