The Future of Funding: How AI is Reshaping Venture Capital

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Artificial Intelligence (AI) has driven transformative changes across several different industries and functions over the past couple of years. As AI continues to mature and its adoption increases, it has the potential to be truly transformative in the world of Venture Capital (VC) – thinking, learning, and driving decisions and actions autonomously across all aspects of the work of a VC.

The investment lifecycle for VC firms
Venture Capital firms aim to find and back disruptive innovation from idea to execution. The work of a typical VC involves four major elements – sourcing, diligence, portfolio support and management, and fundraising.

Sourcing involves finding the best companies, teams, and ideas that can be taken to the next level through investment and portfolio support. Typically, this has been done through a mix of methods, both outbound and inbound. VCs build investment theses through thematic research and market mapping, which are then used to proactively identify and approach promising startups based on a strong understanding of the market landscape. Additionally, VCs track several research labs (at universities, as well as at large enterprises), accelerators and incubators, and funds investing at earlier stages to identify promising startups as they become a fit for their own investment strategies. Finally, firms dedicate significant amounts of time to building their own brand image so as to encourage inbound outreach from startups that see them as ideal partners. This involves speaking at conferences, hosting or attending networking events, publishing thought pieces and articles, or posting on social media.

Diligence involves analyzing and evaluating startups once they have been identified through the aforementioned sourcing process. This step involves conducting detailed research to deeply understand the pain point the startup is solving for, the technology that underpins this solution, the potential market size and opportunity, the strength of the team delivering the solution, the competitive landscape they are going up against, as well as any tailwinds or headwinds that are transforming the market. VC firms typically conduct detailed analyses of the company's available data (typically shared as a "data room") including their technical and sales presentations, product roadmaps, past financials, future business models, etc. This is augmented with multiple interviews with the founding team and customers of the startup as well as with industry experts. Once companies are rigorously

analyzed and the potential upside is weighed against the risk, a decision to invest is made by the VC's investment committee. Once this decision is made, the VC firm provides the startup with a term sheet that indicates their interest in investing and outlines the relevant terms of the investment (including the round structure, valuations, ownership percentages as enumerated in a cap table, and any other protective provisions). If accepted by the startup founders, the relevant legal formalities are completed by both parties and the investment is completed. However, this is just the start of the partnership between the VC firm and the startup.

Portfolio support and management is critical to generating value for the startup, the VC, and the market as a whole. VC firms often work closely with startup founders to support them with key projects across all functions, including product strategy, sales and marketing, financial management, future fundraises, hiring, etc. VC firms also actively participate in company governance and help guide the founders as they build and grow their company to achieve its true potential. This is a crucial step, especially in the earlier years of a startup, as the VC firm can bring its experience and expertise, as well as its birds-eye-view of the startup ecosystem, to help founders navigate the challenges and uncertainty as they develop their product, win customers, and grow their own team.

Fundraising is the last major element of the workflow, and the only one that is not startup-facing. Venture capital firms conduct fundraising to earn capital investments from limited partners (LPs). This is a highly complex process that involves finding potential LPs (typically larger institutional investors or high net-worth individuals), pitching to these potential LPs, and winning their trust and confidence. Once the fund is raised, VC firms need to share frequent updates with the LPs to keep them apprised of all key information relevant to the fund.

Technological tailwinds
Several developments in the Artificial Intelligence (AI) world have the potential to transform all the earlier enumerated elements of the Venture Capital workflow.

First, **generative AI** has the ability to analyze vast amounts of unstructured data across modalities including text, images, audio, and video. This allows AI models to ingest, learn from, and reason on various datapoints from presentations, technical documentation, interviews, and more. The recent growth of Retrieval-Augmented Generation (RAG) solutions have also enabled large-language models (LLMs) to incorporate information from domain-specific external sources (ie, data that may not be publicly available and hence not in the training data of typical models, such as internal notes and analyses from the VC themselves) thereby providing more context and additional information that enables more accurate analyses. This also helps models stay up to date with the latest information – a critical necessity in the fast-changing world of startups. AI models are also improving their reasoning ability, and have shown promise in structuring

and analyzing complex problems end-to-end.

Second, the recent advent of **agentic solutions** also have the ability to take actions based on the decisions made by the AI models. These could involve creating presentations or investment memos, drafting and sending emails, or building reports for internal use. As agentic solutions continue to mature, they could also potentially conduct more complex activities.

Third, advances in the **efficiency of AI models** have made them more accessible, to the point where anyone can now run these models in a few seconds on a standard laptop or mobile device. Larger, more complex data sets can also be analyzed through AI models that are affordable and available – allowing more firms, as well as all members of the firm, to incorporate AI into their day-to-day work.

From Heuristics to Hyperparameters

As detailed earlier, the work of a typical VC involves four major elements – sourcing, diligence, portfolio support and management, and fundraising. As a consequence of the earlier enumerated technological tailwinds, AI is now ready to transform the entire VC workflow – and has already been incorporated into the operations at some forward-thinking and pioneering Venture Capital firms.

Sourcing: Sourcing was earlier heavily dependent on networking, thematic research, and brand-building. AI-enabled sourcing can now scour the entire world to find startups. AI models scan startup databases (such as Pitchbook, Crunchbase, Tracxn, etc), other leading data indicators (such as Product Hunt, Github, patent filings, etc), social media (such as LinkedIn, X, Bluesky, etc) – and do so at a hundred-percent coverage, thereby ensuring all potential startups are tracked. In addition, startups can be identified across geographies and sectors, as per the firm's preferred constraints. As a consequence, AI allows a reach far beyond what is possible for a VC firm through their analysts and personal networks. AI models are also improving in their ability to reason and form coherent work outputs – which enables them to conduct relevant thematic research and structure the identified startups into a coherent landscape as per the VC firm's theses. Sourcing models can also use startups' digital footprints (for example, their web traffic, social reach, etc) to estimate their progress and compare different startups as a first-level review to compare different companies and prioritize them for outreach. Agentic AI can also help with creating and sending personalized emails for outbound outreach efforts, as well as tracking and managing the outreach workflow – thereby impacting the outbound sourcing process end-to-end.

AI can also help with inbound sourcing in two different ways. First, AI can conduct a first review of all inbound materials received, and prioritize them for further review by the investment team – leveraging not just the materials received inbound, but also using RAG to bring in external data sources from publicly available data sources as well as the VC's own prior learnings. Second, AI can help venture capitalists build their brand presence by supporting content creation (this article was not written with AI help though!) as well as automating the posting / publishing process across different platforms.

While AI can be massively helpful in sourcing, it is crucial to note that its sourcing efficacy is dependent on the availability of data. At earlier investment stages (pre-seed and seed primarily), data availability can be scarce, and there is significant noise in data. This can act as a potential limitation to the success of AI; network-driven sourcing will always hold the edge here. Additionally, question marks remain about AI-generated content, both in terms of quality, as well as how well they represent the person they are ghostwriting for. Despite these limitations, AI can deliver significant benefit to investors in the sourcing process.

Diligence: AI can help with the diligence process in three different ways. First, AI can analyze data rooms and match the reasoning chain, process, and productivity of the best investment teams – and do so in a highly repeatable manner, with fewer biases. Second, generative AI can help automate the creation of investment memos, documentation, etc. Third, agentic AI can also help with some procedural elements of the diligence process, such as communicating with founders, or building diligence questionnaires. Over time, AI models and agents can also help build a collective memory layer for the venture capital firm that collates, stores, and learns from the compiled intelligence and learning of all the team members, thereby forming a knowledge base for any future analyses.

While the reasoning ability of AI models has improved significantly, it is not as yet at the level of the best humans. The accuracy of the diligence findings are dependent on the data inputs – both at the time of training the model, as well as at the time of inference (ie, while analyzing the data room in question). Any biases or blind spots in either or both of these would reduce the accuracy of the diligence output. Additionally, qualitative aspects, especially with respect to the founding team, cannot be clearly tracked through digital data or analyzed by a predictive model. Finally, the best venture capitalists identify outlier founders and companies through a blend of vision, creativity, and intuition that is hard to replicate through a purely data-driven process. Additionally, it is critical to ensure that any data received from founders is respected and treated with utmost confidentiality – thereby preventing these materials from being analyzed using publicly available models.

While AI-enabled diligence has its limitations, it can still support the process and increase the efficiency of this step – and is only likely to become more accurate over time, as models continue to improve.

Portfolio support and management: This is perhaps the step where AI has made the least impact on an VC's role. However, AI is starting to show promise in some realms – for example, VCs have started leveraging AI-powered sales tools, hiring tools, marketing tools, and more to support their portfolio companies – enabling startups to grow while remaining lean. Agentic AI can also help automate some of the procedural elements of portfolio management, such as building dashboards that compile and track key metrics of portfolio companies, and proactively flag risks so that the investor can intervene as needed. Finally, AI can also provide venture capitalists with market intelligence by tracking and sharing relevant information across news sources – which can help inform their advice to founders and keep them on top of all the latest information.

However, both due to the complexity of the strategic

issues that VCs help their portfolio companies with, as well as the need for confidentiality, the adoption of AI in portfolio support and management is currently limited.

Fundraising: Generative and agentic AI can help VCs structure and build their fundraising collaterals, as well as manage the outreach process (similar to what has already been enumerated for outbound sourcing). AI can also help build a target list of potential LPs by scouring all publicly available data, providing greater reach than could be done purely through networks. Generative AI can also help compile all relevant information and create dashboards and reports for circulation to LPs. Finally, agentic AI can also help automate some aspects of the outreach process, similar to the outbound startup sourcing workflow.

However, building relationships with LPs is still a human-led process that requires people to connect and earn trust over multiple interactions. AI can help automate some of the periphery of this process, by increasing efficiency in targeting potential LPs and sharing frequent updates – however, this step will likely remain human-led for the foreseeable future.

Conclusion

Overall, advances in artificial intelligence have laid the foundation for solutions that support venture capitalists across all aspects of their role. While some VC firms have begun adopting these across their workflow, penetration is currently low. The future evolution of AI models will be crucial to building faith amongst potential users and driving adoption. This adoption can augment the efficiency and productivity of investors through automation, while ensuring that humans continue to focus on the aspects of the process that they are best at.