

Beyond Prompt Engineering: Skills Marketers Need to Deploy Generative AI Successfully

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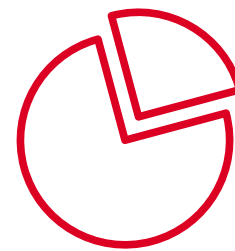
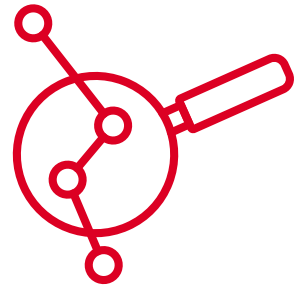
Prompt engineering: THE skill in the age of Generative AI?

× Throughout history, waves of technological innovation have continually redefined the professional landscape. Not long ago, roles such as switchboard operators, typists and stenographers were indispensable to large organizations. Fast forward to today, and once-unthinkable professions like social media managers or app developers have become the norm. Now, as generative AI tools like ChatGPT, MidJourney, and Google Gemini emerge, we stand on the cusp of another monumental shift.

Among the new job titles surfacing, “prompt engineering” is often heralded as the “job of the future.” However, it’s imperative to look past the hype and concentrate on transferable and sustainable skills that are crucial for harnessing the potential of generative AI.

Start with the problem × A key skill for effectively integrating generative AI systems within organizational workflows is problem formulation. Unlike prompt engineering, which focuses on crafting and fine-tuning the perfect query, problem formulation is the strategic process of defining what you’re asking in the first place – establishing the problem’s focus, scope and parameters. This distinction is crucial: Without a clear problem, even the most elegantly engineered prompts will miss the mark. Yet in practice,

problem formulation often doesn’t receive the attention it deserves, as the traditional preference for problem solving overshadows the foundational step of problem formulation. Framing marketing jobs and activities in terms of problems – or tasks that marketing professionals aim to accomplish – is a starting point for intentionally engaging with new AI tools. That is, problem formulation allows marketers to use generative AI in a more purposeful way and, in turn, obtain AI solutions that are more precisely tailored to specific marketing challenges. In addition to better alignment, this approach prompts a reconsideration of marketing operations in a more problem-centric way. Such reevaluation can serve as the basis for strategic prioritization and smart experiments





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To fully reap the rewards of GenAI, managers must cultivate a suite of complementary skills.

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FIGURE 1 > Key components of effective problem formulation



> **Problem diagnosis**

identifying the core problem for AI to solve and the main objective you want generative AI to accomplish



> **Problem decomposition**

breaking down complex problems into smaller, manageable sub-problems



> **Problem reframing**

changing the perspective, enabling alternative interpretations



> **Constraint design**

delineating the boundaries of a problem

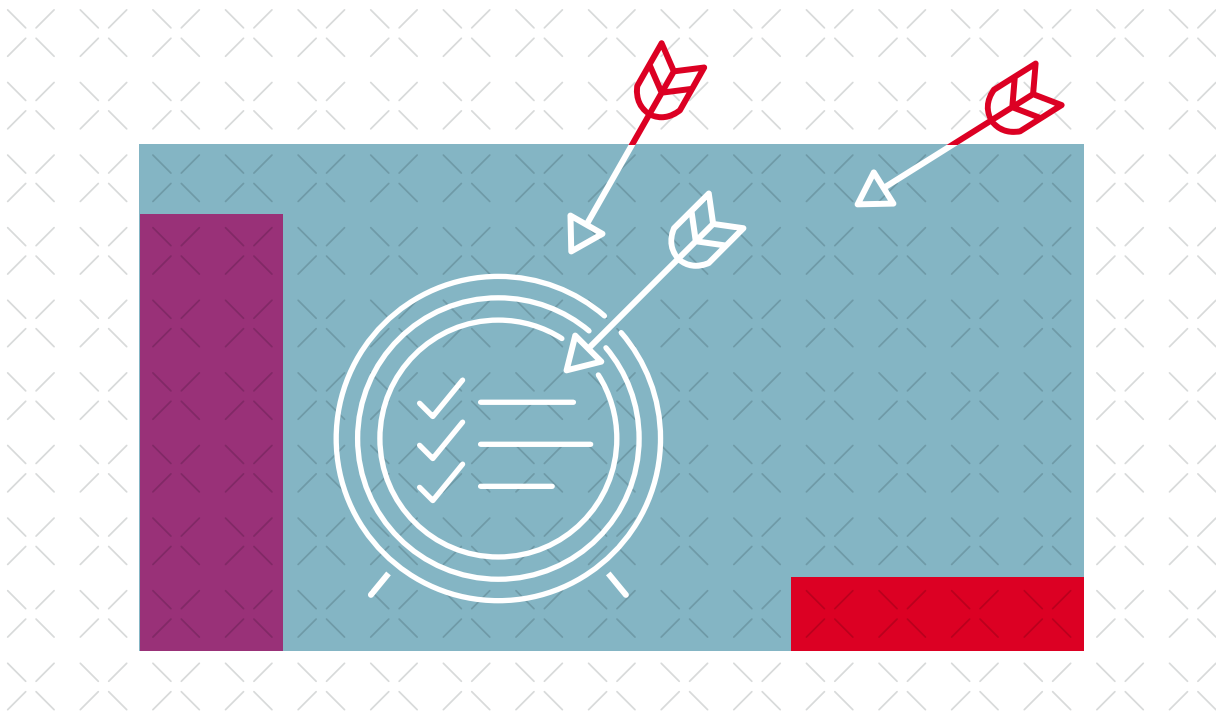
to guide marketers in determining when a task should be automated via AI, when it can augment human efforts and when its application might be counterproductive.

Problem formulation has four main components: problem diagnosis, decomposition, reframing and constraint design (Figure 1).

> **Problem diagnosis** ✕ Problem diagnosis is primarily about getting to the heart of the issue and defining the specific objective for the AI to tackle. Take, for instance, a company facing an unexpected dip in sales. A conventional approach might be to jump straight to solutions, like ramping up advertising or rolling out promotions. Yet a strategic problem diagnosis requires a step back to probe underlying causes: Is a new competitor on the rise, have customer tastes shifted or is there an unnoticed flaw in the product? By pinpointing the exact problem for the AI, the resulting AI-generated insights or output will be more focused on specific solutions rather than broad-stroke attempts to raise sales. In other words, a well-diagnosed problem enables AI to generate more targeted, actionable solutions that address the real issues rather than just the surface-level symptoms.

> **Problem decomposition** ✕ Problem decomposition concerns breaking down complex problems into smaller, more digestible sub-problems. This becomes particularly important when dealing with multifaceted issues that, if tackled as a whole, might overwhelm the problem-solving capabilities of both humans and AI. Consider an e-commerce platform aiming to increase customer engagement. This overarching goal can be dissected into distinct components like refining the user interface, tailoring the shopping journey, streamlining the checkout pathway or augmenting post-purchase support. Each sub-problem presents a clear objective for AI intervention. For example, when the AI is used for “optimizing the checkout process to curtail cart abandonment,” it is poised to devise specific solutions or algorithmic enhancements that simplify the purchasing trajectory. By compartmentalizing the overarching problem, marketers can leverage AI to tackle each component systematically, yielding more effective, practical solutions that cumulatively address the larger problem.

> **Problem reframing** ✕ Problem reframing is about altering how the problem is approached, offering a new



lens through which alternative solutions can emerge and allowing marketers to uncover a broader array of potential solutions. Take, for example, a retailer grappling with diminishing foot traffic at in-store events. The initial challenge may be straightforward: “How do we boost attendance at in-store events?” However, a reframed query could transform the problem space entirely: “How might we replicate the in-store experience for customers virtually?” This shift in perspective can lead AI to pivot from conventional ideas focused on driving physical attendance to generating innovative alternatives like virtual reality shopping or interactive online workshops.

- > **Problem constraint design** ✕ This component is about delineating the boundaries of a problem by defining the input, process and output restrictions of the solution

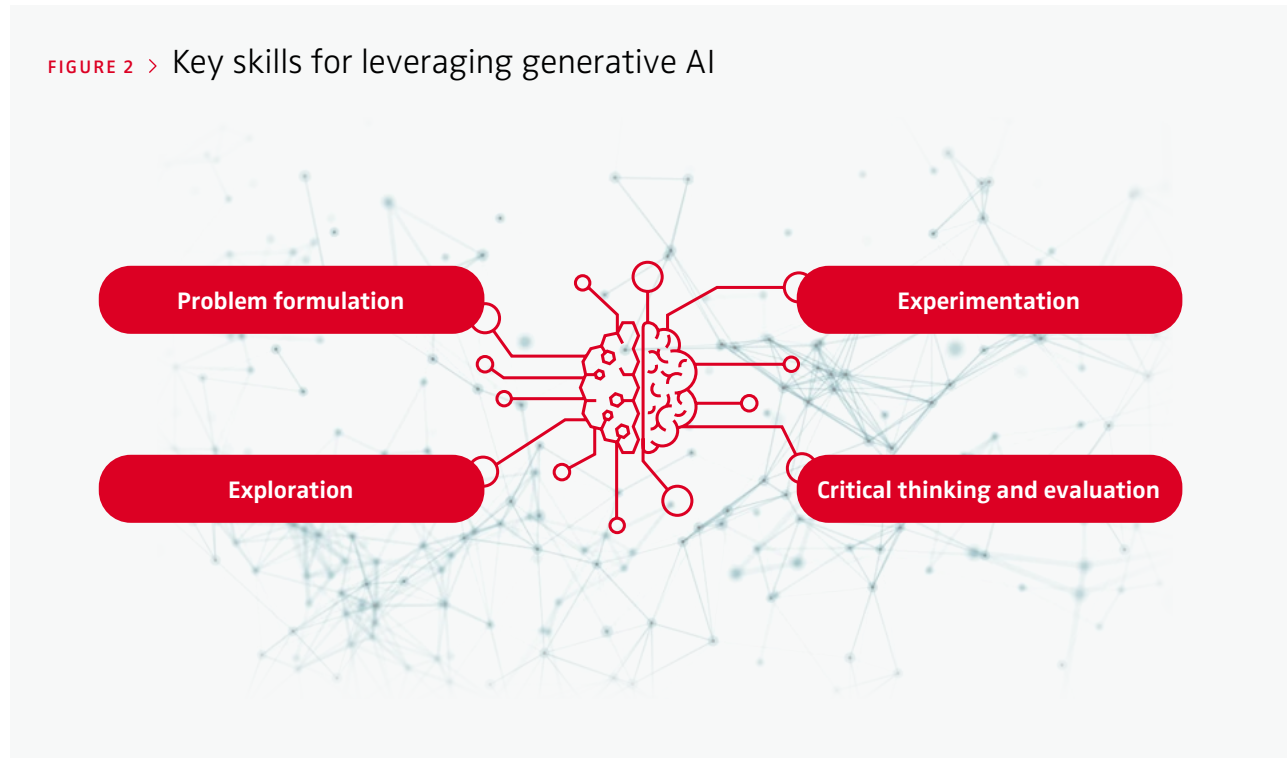
space. Setting these parameters within which a problem must be solved enables the strategic channeling of AI’s capabilities. For tasks where productivity is key, precise and stringent constraints are often necessary. For instance, when AI is being employed to craft a social media campaign, constraints might include target demographics, budget limits, selected platforms for engagement, and alignment with brand identity. Such parameters guide AI to generate tailored output that meets specific marketing objectives. When the aim is to spark creativity, however, the approach to constraints should differ. Relaxing, adjusting or even temporarily removing constraints can lead to fresh and novel ideas. Overall, when the right constraints are in place, AI can excel at producing solutions that are both innovative and in harmony with the campaign’s goals and the brand ethos.



A key skill for effectively integrating generative AI systems within organizational workflows is problem formulation.



FIGURE 2 > Key skills for leveraging generative AI



Focus on sustainable skills ✕ Developing problem formulation skills is just the initial step in a much more comprehensive course toward effectively harnessing generative AI tools. To fully reap the rewards of this transformative technology, managers must cultivate a suite of complementary skills. This skill set encompasses exploration, experimentation and critical evaluation (Figure 2).

> **Exploration** ✕ In an era where new AI tools and functions are announced almost weekly, the ability to navigate and identify the most appropriate AI solution for a given marketing challenge has become increasingly important as well as challenging. Marketers are not only expected to be familiar with main generative AI tools – such as ChatGPT or Google Gemini – but they must also explore

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tools that are specifically designed or particularly useful for marketing. Consider, for instance, Jasper and Lately.ai, which are tailor-made for crafting social media content, or text-to-video generators like Runway and Synthesia, which can transform the creation of marketing videos.

> **Experimentation** ✕ Given the fast-paced evolution of AI, one of the most practical approaches for staying ahead is continual experimentation. This process goes beyond passive observation – it's about dynamic engagement with AI, characterized by hands-on interaction, trial and error and careful evaluation of results. In branding, for instance, text-to-image AI, like OpenAI's DALL-E generator, opens up a new frontier for creative exploration and co-creation. Coca-Cola's "Create Real Magic" campaign serves as a case in point. The company invited consumers to an image-generation contest where they could use a design tool that leverages ChatGPT and DALL-E to generate images. Active experimentation with such tools allows brands to discover innovative opportunities to improve marketing processes and outcomes.

> **Critical evaluation** ✕ Generative AI tools sometimes confabulate – i.e., produce inaccurate, biased or contextually inappropriate content. Not only is this a major limitation in general, but it is also particularly concerning when such AI-generated content informs strategic marketing decisions or is presented directly to consumers. Integrating a human with strong critical evaluation skills in the loop helps identify and mitigate this limitation. By applying a disciplined and attentive lens through which to evaluate the generative AI output, humans with better creative skills can distinguish between what is suitable and what is not. As such, this skill is key to ensuring that AI-generated content makes sense for a brand in a given situation.

From prompting to proficiency ✕ To truly leverage the growing capabilities of generative AI, managers must look beyond the confines of prompt engineering. AI systems are already getting much better at understanding user intent and generating prompts themselves. For example, Chat GPT 4 can generate sophisticated prompts from very basic inputs to create images in DALL-E. Likewise, a recent study introduced a new framework called GATE (Generative Active Task Elicitation), which enables AI systems to not only surpass user prompting techniques in eliciting superior responses but also to produce novel outcomes that were not initially foreseen by users.

For marketers, staying ahead of this transformative wave demands a resolute commitment to continuous adaptation, learning and development. This involves a thorough exploration of emerging AI tools, a proactive approach to testing the frontiers of these new technologies and the development of skills to articulate complex problems clearly. Additionally, it requires a critical acumen for assessing AI-generated outputs.

As the generative AI landscape evolves, it is these skills – unearthing and articulating complex problems, dissecting AI-generated solutions and remaining agile in the learning curve – that could separate AI leaders from followers. ✕



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