# AI Development and SaaS Strategies

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## **Propositions**

**Proposition 1** (Contrasting Strategies of AI Development). Two major approaches exist in AI development:

- 1. Strategy A assumes the model is effectively static (e.g., GPT-4's capabilities are near-final), prompting developers to build complex layers or specialized features that rely on the current version.
- 2. Strategy B presumes that ongoing progress is the norm, prompting developers to plan for continuous model evolution and to integrate improvements as they appear.

**Proposition 2** (Prevalence of Steady Progress). Empirical evidence shows LLMs (Large Language Models) consistently improve with each iteration. Consequently, a substantial majority of businesses would benefit from aligning with Strategy B, acknowledging that GPT-4, GPT-5, and subsequent releases are likely to become progressively more capable.

**Proposition 3** (SaaS on Top of GPT-4). Many Software-as-a-Service (SaaS) providers build niche functionalities on top of GPT-4, believing that:

- 1. The next model release won't significantly surpass GPT-4.
- 2. They can maintain a competitive edge by simply layering specialized workflows or domain-specific prompts.

However, when a new LLM release (e.g., GPT-5) offers these same niche capabilities natively, such SaaS solutions can lose market relevance.

**Proposition 4** (OpenAI and Other LLM Providers). OpenAI, alongside other AI/LLM providers, aims to perpetually enhance base models:

- 1. Each new iteration may integrate functionalities that were previously seen as domain-specific or too specialized.
- 2. Companies that bet on stagnation (Strategy A) discover their onceunique features are now subsumed within the upgraded base model ("AI killed my startup").

**Proposition 5** (Risk of Supersession). Any SaaS enterprise heavily reliant on GPT-4 alone, yet unprepared for GPT-5, faces a tangible risk of obsolescence:

- 1. This risk is not maliciously targeted; it emerges from the natural trajectory of AI innovation.
- 2. As the model becomes more versatile, small vertical solutions or micro-features get absorbed into the LLM's core competence.

**Proposition 6** (Welcoming Progress as a Strength). Enterprises that actively embrace ongoing improvement (Strategy B) generally thrive by:

- 1. Rapidly integrating newly released features or capabilities from each model update.
- 2. Anticipating potential expansions in LLM competence and adjusting internal workflows and product offerings accordingly.

**Proposition 7** (Designing Products for AI Evolution). When developing products or SaaS solutions on top of LLMs, organizations should:

- 1. Use modular architectures that swap or upgrade underlying language models without necessitating a total rebuild.
- 2. Focus on domain expertise, data privacy, user experience, or workflow integrations that extend beyond the LLM's generic improvements.
- 3. Provide value-added layers—such as specialized knowledge bases, compliance checks, or user-specific personalization—so that even if the base model evolves, your unique layers remain relevant.

**Proposition 8** (Leveraging Data and Differentiation). Companies can safequard themselves against being overtaken by raw LLM improvements by:

- 1. Developing proprietary or niche datasets, ensuring the service offers exclusive insight the base LLM lacks.
- 2. Engaging in fine-tuning or retrieval-augmented generation (RAG) with private data to provide a specialized knowledge domain the generic LLM cannot fully replicate.
- 3. Building robust user communities and brand loyalty, giving them a distinct ecosystem that is not trivial to clone.

**Proposition 9** (Iteration and Agile Mindset). The best strategic posture for SaaS providers using LLMs involves:

- 1. Continuous iteration: Expect each model update to force some rethinking of product functionality.
- 2. Agile pivoting: If a new LLM release nullifies a core feature, quickly pivot to new differentiators that leverage or complement the model's novel strengths.
- 3. Long-term synergy: Recognize that each iteration can expand your potential feature set rather than seeing it solely as a threat.

**Proposition 10** (Opportunity Cost of Strategy A for SaaS). Choosing Strategy A can be especially damaging for SaaS companies:

- 1. **Duplicative R&D:** Resources may be poured into patching or approximating features that the next LLM release will inherently perform better.
- 2. Lost Time and Capital: Upon each model improvement, extensive re-engineering is required to avoid abrupt obsolescence of the layered architecture.

**Proposition 11** (Long-Term Sustainability). SaaS products that anticipate ongoing LLM progress show greater sustainability:

1. They design for adaptability, ensuring minimal friction when upgrading the underlying model.

2. They see each LLM release as an opportunity to expand or refine user-facing features, rather than clinging to a static codebase.

**Proposition 12** (Case Study of AI-Induced Obsolescence). *History has shown repeated instances of smaller AI-based solutions getting overshadowed:* 

- 1. Tools that provided grammar correction or summarization on GPT-3.5 found themselves obsolete once GPT-4 natively performed those tasks with higher quality.
- 2. Voice-based assistants integrated into earlier LLM versions lost their distinct advantage when the next wave of models offered robust multi-turn conversation and voice features out of the box.

This pattern underscores the importance of Strategy B.

**Proposition 13** (Conclusion and Forward Outlook). In conclusion, SaaS ventures building on GPT-4 or any advanced LLM must:

- 1. Accept continuous model enhancement as an inevitability rather than a remote possibility.
- 2. Invest in unique data, specialized domains, and brand loyalty to differentiate themselves from the LLM's generic leaps.
- 3. Adopt an agile approach to product design, ensuring that if a future GPT-5 or beyond subsumes certain functionalities, they can pivot swiftly to provide novel value.

By doing so, companies align with Strategy B: constantly evolving to harness AI's rapid progress, rather than being blindsided by it.

### References

• AI for Success. "If your SaaS is a thin wrapper around GPT-4, GPT-5 will kill your startup." April 12, 2024.https://x.com/ai\_for\_success/status/177993049862;