

## **The SPAR Framework – Bornet Pascal**

### **Sensing: The Eyes and Ears of Agents**

Imagine sitting in a self-driving car as it navigates through city streets. The vehicle's array of cameras, radar systems, and sensors are constantly gathering data about its surroundings—monitoring everything from the position of nearby vehicles to traffic signals and road conditions. This is remarkably similar to how AI agents operate in digital environments.

Just as a self-driving car needs to understand its environment comprehensively, AI agents must be able to perceive their digital workspace. They gather data from multiple sources, detect important triggers, and maintain awareness of their operating context. When you enter a destination into an autonomous vehicle, you're setting its goal—just like when you assign an objective to an AI agent. The agent maintains what we call a “short-term context window,” similar to how a self-driving car keeps track of immediate road conditions and navigation requirements.

### **Planning: Charting the Course**

Once an autonomous vehicle knows where it needs to go, it doesn't just start driving blindly. It processes map data, considers traffic patterns, and evaluates multiple possible routes. This planning phase perfectly mirrors how AI agents work. They don't simply jump into execution—they first process available information to make informed decisions about how to achieve their objectives.

Think about how a self-driving car plans a lane change. It doesn't just swerve immediately; it evaluates the speed and position of surrounding vehicles, calculates the optimal moment to move, and ensures the maneuver can be completed safely. Similarly, AI agents engage in sophisticated reasoning to develop step-by-step plans for achieving their goals. They evaluate options, prioritize actions, and coordinate resources, much like how an autonomous vehicle coordinates its various systems to execute a complex driving maneuver.

### **Acting: Putting Plans into Motion**

The ability to take concrete action sets both autonomous vehicles and AI agents apart from simple analytical systems. When a self-driving car executes a turn, it coordinates multiple systems—steering, acceleration, braking—in precise sequences. Similarly, AI agents use their available tools to carry out actions in their environment, whether that's sending communications, updating systems, or managing digital resources.

What's particularly interesting is how both systems monitor their actions in real-time. Just as a self-driving car continuously adjusts its steering and speed based on road conditions, AI agents actively monitor their actions for accuracy and effectiveness, making adjustments as needed to stay on course toward their objectives.

When something goes wrong in an autonomous vehicle, there is usually a remote human that can take over and resolve the problem.<sup>56</sup> Similarly, when AI agents take action, there needs to be a clear path for humans to review those actions and take remedial steps when necessary.

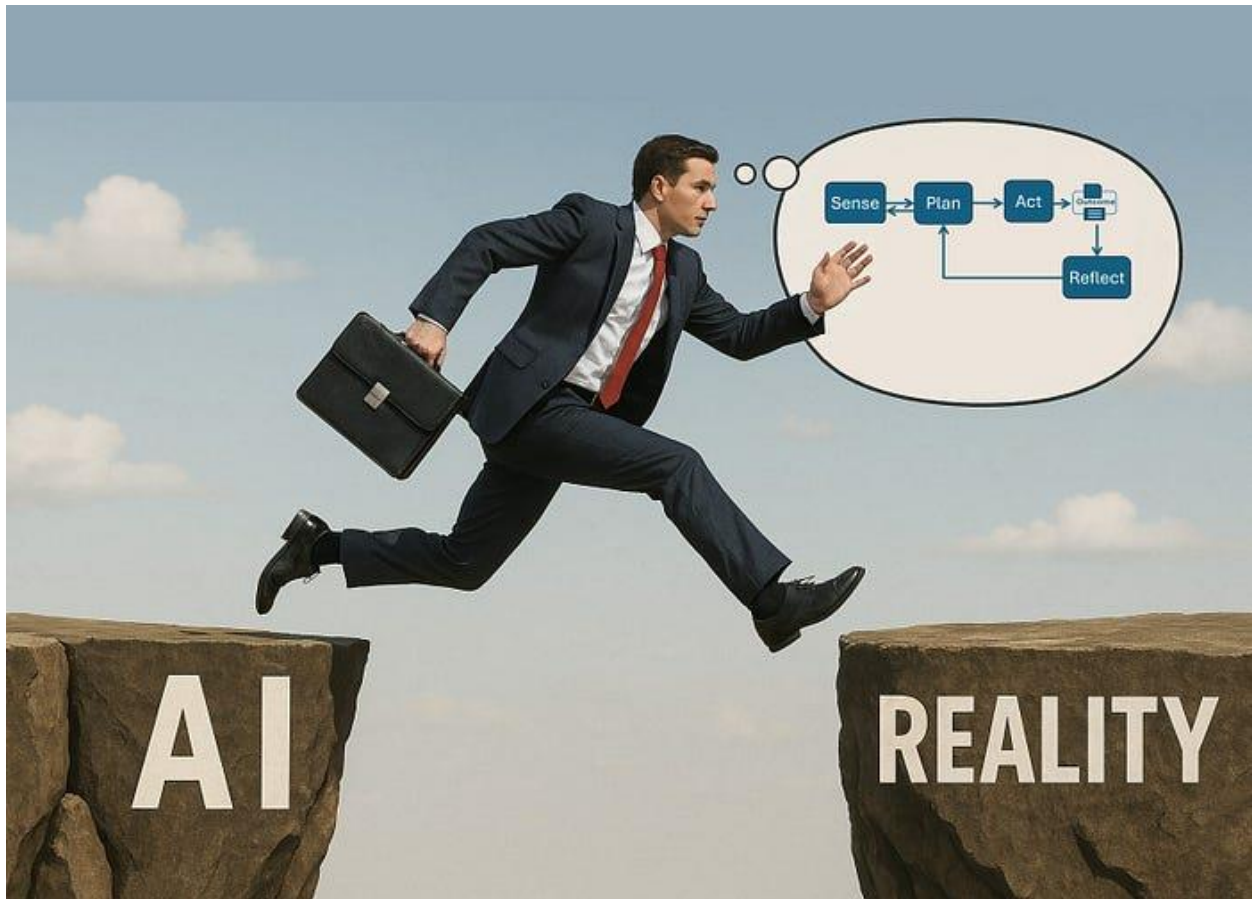
## **Reflecting: Learning from Experience**

Perhaps the most sophisticated capability in both autonomous vehicles and AI agents is their ability to learn and adapt from experience. When a self-driving car encounters road construction or heavy traffic, it doesn't just navigate through the immediate situation—it can incorporate this information into its knowledge base to improve future journeys.

This reflective capability enables both systems to get better over time. Just as autonomous vehicles learn optimal routes and driving patterns, AI agents can evaluate their performance, analyze outcomes, and refine their approaches based on what works best. They build what we might call an “operational memory” that helps them perform more effectively in similar situations in the future.

Bornet, Pascal; Wirtz, Jochen; Davenport, Thomas H.; De Cremer, David; Evergreen, Brian; Fersht, Phil; Gohel, Rakesh; Khiyara, Shail; Mullakara, Nandan; Sund, Pooja. *Agentic Artificial Intelligence: Harnessing AI Agents to Reinvent Business, Work and Life* (pp. 65-66). Irreplaceable Publishing. Kindle Edition.

## Closing the Reality Gap in Agentic AI with the SPAR Framework – Pedro Robledo



In the current rise of agentic artificial intelligence, there is one critical concept that every leader, technologist, and digital transformation leader must understand: the reality gap. This gap refers to the distance between what AI agents are believed to be capable of and what they can actually achieve in practice. Grandiloquent promises, inflated marketing campaigns, and a lack of technical understanding have contributed to expectations that are misaligned with the actual maturity of this technology.

Many consider an AI agent to be a completely autonomous entity, capable of making complex decisions, adapting to any environment, and executing actions without human intervention. However, the operational reality falls far short of this ideal. Most current agents still require supervision, operate within limited environments, and have limited capacity for reasoning, learning, and generalized adaptation. When these limitations are not understood from the outset, projects fail, resources are wasted, and institutional trust in AI is eroded.

Given this scenario, frameworks such as SPAR, introduced by Pascal Bornet in his recent book, “Agentic Artificial Intelligence,” are essential tools for bridging this gap. SPAR — an acronym for Sense, Plan, Act, and Reflect — offers a clear and structured representation of an intelligent agent’s operational cycle. It is a conceptual model that breaks down agent functioning into four

interdependent phases, allowing for a deeper and more realistic understanding of their capabilities and limitations.

The first phase, Sense, represents the agent's ability to perceive its environment and capture relevant data. It is the equivalent of the system's "senses," where the quality of the information collected will determine the rest of the process. Then, in the Plan phase, the agent uses this information to evaluate alternatives, define strategies, and make decisions. Next, in the Act phase, it carries out the planned actions, generating an impact on the environment. Finally, in Reflect, the agent analyzes the results, learns from experience, and adjusts its behavior to improve in future iterations.

This framework not only enables the design of more functional and coherent agents, but also offers a clear method for diagnosing problems, improving processes, and facilitating the integration of agentic AI into existing business systems. By understanding the SPAR cycle, those responsible for its implementation can focus their efforts more effectively, developing solutions with an appropriate level of autonomy and ensuring that each phase of the cycle is properly supported by real technological capabilities.

Furthermore, the SPAR Framework is part of a larger set of tools proposed by Bornet to build a comprehensive vision of agentic AI, along with the Agentic AI Progression Framework and the three fundamental pillars: Action, Reasoning, and Memory. These conceptual structures not only provide technical clarity but also a strategic guide for moving forward responsibly in the deployment of intelligent agents.

Understanding the reality gap and applying models like SPAR is, therefore, essential. The goal is not to slow down innovation, but rather to channel it with clarity. At a time when agentic artificial intelligence is poised to transform industries, processes, and business models, only those who work from a place of deep understanding — not wishful thinking — will be able to successfully lead this new era.

## **SPAR Framework**

SPAR is an acronym for Sense, Plan, Act, and Reflect. These four phases comprise the complete operational cycle of an intelligent agent. More than a technical sequence, SPAR represents the anatomy of agentic thinking and provides clear guidance for the design, implementation, and continuous improvement of AI agent-based systems.

### **1. Sense**

It all starts with perception. The agent must be able to capture and understand its environment. This phase represents the system's "senses": physical sensors, contextual data, digital information streams. The higher the quality of this perception, the more accurate the subsequent analysis.

### **2. Plan**

With the data in hand, the agent moves on to the strategic evaluation of alternatives. This stage includes identifying objectives, simulating scenarios, and selecting the best course of action. This is where the agent's decision-making capacity materializes, a differentiating factor compared to more traditional automation systems.

### 3. Act

The third phase is decision execution. The agent performs actions in the environment: responds, adjusts parameters, communicates, and transforms. The precision, agility, and adaptability of this stage largely determine the system's effectiveness.

### 4. Reflect

Finally, the agent evaluates its performance. It learns. It adjusts. It improves. This phase of continuous reflection and learning transforms the agent into an increasingly autonomous and intelligent system. Without this feedback, the agent stagnates; with it, it evolves.

<https://medium.com/@pedrorobledobpm/closing-the-reality-gap-in-agentic-ai-with-the-spar-framework-08710ae0e016>