Intelligent Analytic Interfaces
Passive Analytics: Contact Centre Assistance

MARKET NEED

As the voice and sometimes face of a company, Contact Centre Agents must deal with customer inquiries efficiently and professionally. Pressures on agents include throughput-based service level goals as well as the need to ensure a **top-quality service and sales experiences** to customers at every point.

Maintaining this quality and efficiency requires the provision of **key customer history data** to agents during calls without requiring agents to engage in time consuming searches across interfaces.

Unfortunately the provision of such customer and case histories to the agent is far from a trivial task. Customer history summarisation is made difficult not only by enterprise-wide information integration challenges, but also by the computationally demanding task of determining the most relevant information that can be provided to the agent in bite-sized chunks.

TECHNOLOGY SOLUTION

We are developing a prototype analytics-driven solution that automatically provides Contact Centre Operatives (e.g. call centre workers) with a **concise review of customer history** and other **relevant information points** (e.g. weather events that might affect deliveries) to provide an optimal service experience.

Innovative semi-supervised learning components are included that allow IT and Contact Centre management help define the relevance of different information points to different customer types.

Figure 1: The Assistance Engine learning cycle.

The key issue handled by this prototype is to distill, from the massive amount of data that an organisation will likely have in relation to a particular customer, just the key information relevant to a particular customer contact.

Data is filtered according to:

- a customer's history, including general known key performance indicators,
- a customer's service contract,
- the product under discussion.

Deployment of the analytics driven assistance tool will be dependent, in part, on learning appropriate rules and clusterings that feed the assistance recommender. Rather than training based on feedback from Contact Centre Agents, we have opted for a **semi-automatic learning system** that can be used by IT and Contact Centre management to bootstrap and supervise the assistance provided.
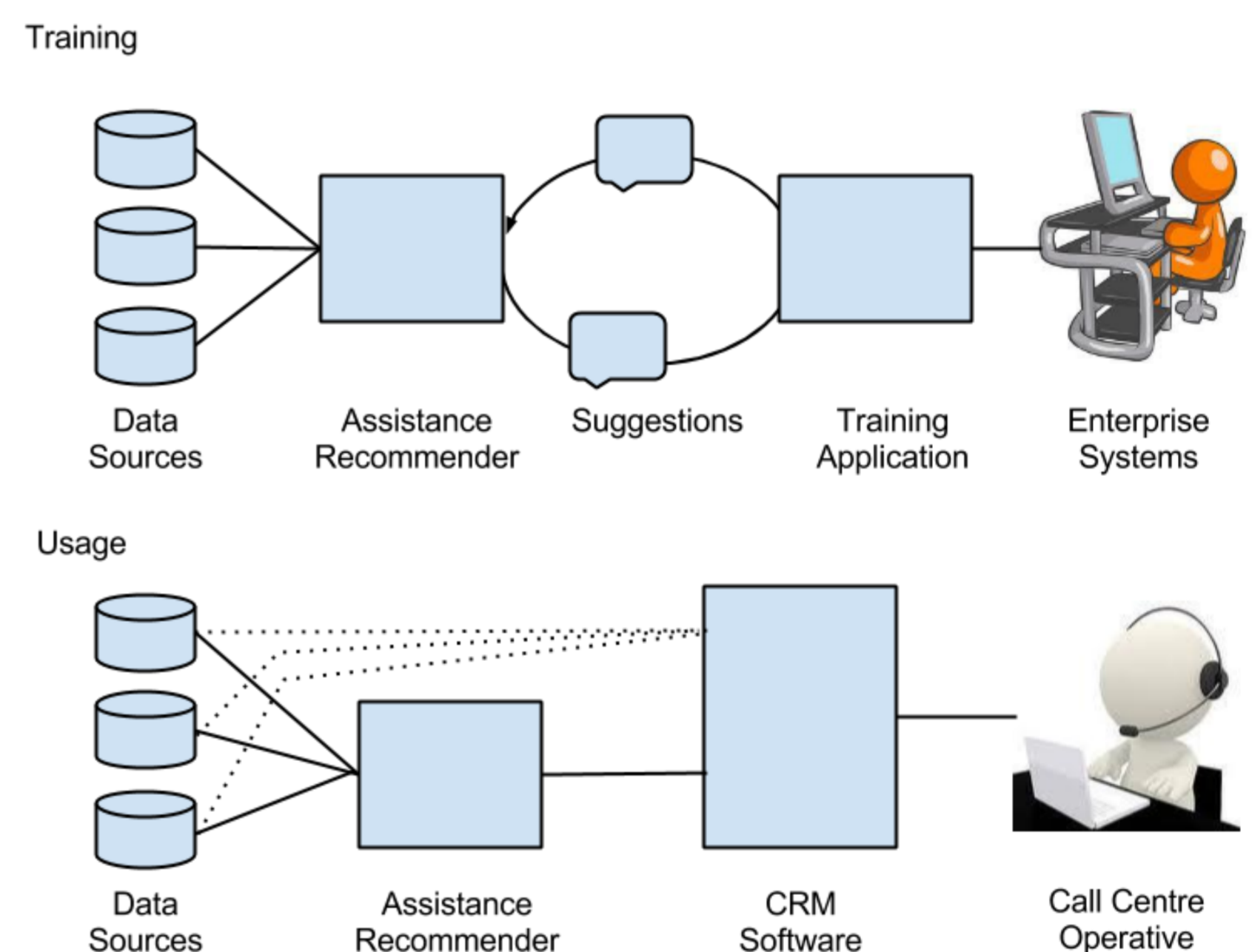
Figure 2: Active Learning training phase and application phase in the call centre.
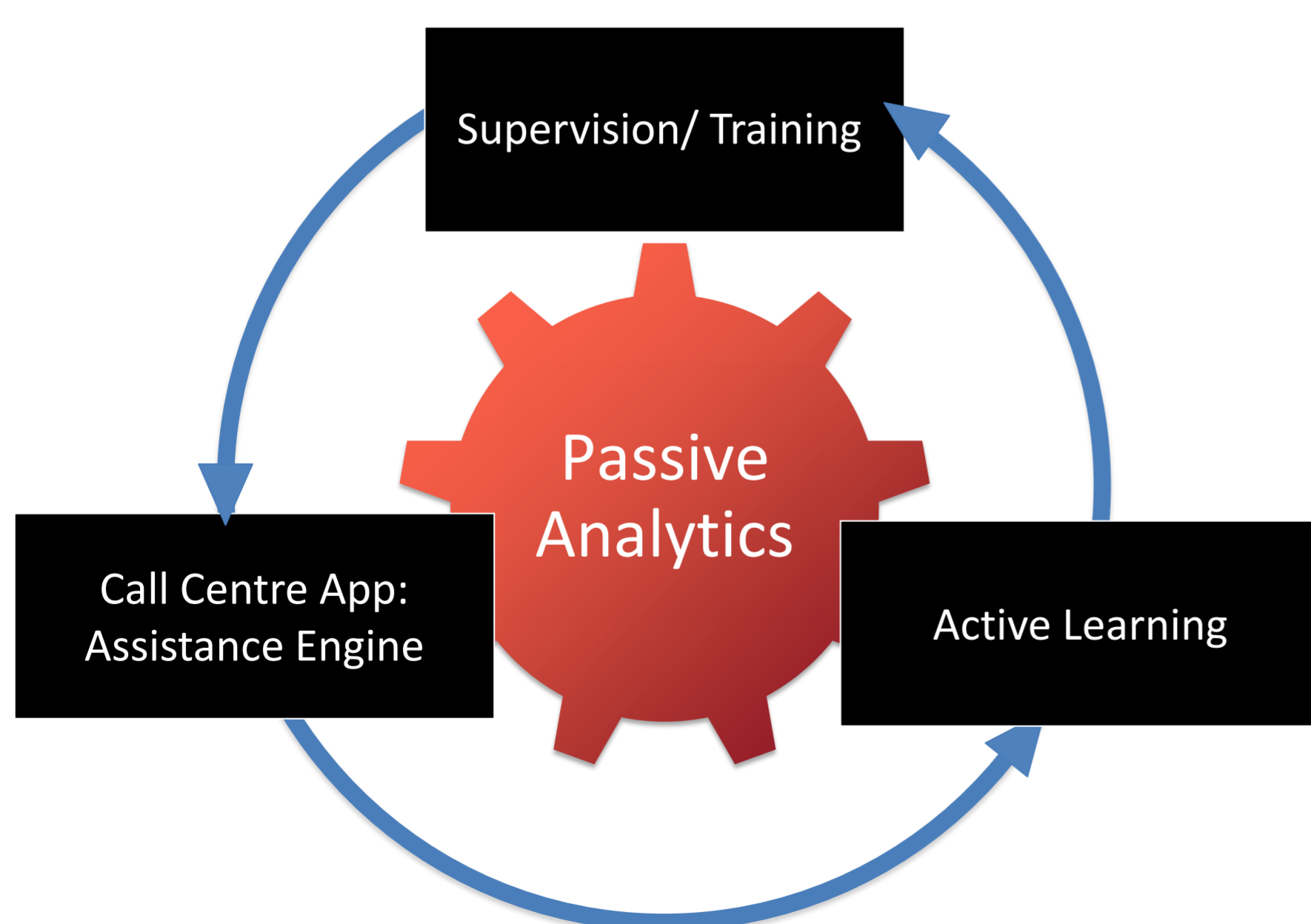
APPLICABILITY

The Contact Centre industry is massive and the issue of extracting, from all of the data available, just the key data points required to assist a particular customer at a particular time is one of the industry's biggest concerns. A tool that helps in this regard could have a considerable impact.

RESEARCH TEAM

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