0257 Artificial Collaborative Intelligence

Turning generative AI into a persistent, structured collaborative reasoning partner

Brunel University of London

THE OPPORTUNITY

Generative AI remains largely stateless and can produce plausible outputs without clear epistemic status. ACI adds a model-agnostic orchestration layer for persistent, traceable and human-guided reasoning.

1 TECHNOLOGY

ACI/SCR creates a bidirectional human-machine reasoning loop.

Model outputs are converted into epistemically labelled CogTags and stored in Cognitive Artefact Memory.

CogCarts and a Cognitive Orchestration Engine retrieve and reuse prior reasoning across sessions.

2 APPLICATIONS

- Complex professional analysis in law, policy, strategy, health and education.
- Long-horizon research, knowledge work and decision support.
- Enterprise and multi-user organisational intelligence.

3 KEY BENEFITS

- Persistent reasoning continuity across sessions.
- Model-agnostic operation without changing model weights.
- Structured epistemic labels, audit trails and alternative-framework analysis.
- Reusable project-specific reasoning assets.

EVIDENCE & DEVELOPMENT STATUS

- Stage: patent-draft / architecture definition
- Evidence: system design, operational flows, data structures, pseudocode and five architecture figures
- Next milestone: implement a demonstrator and validate multi-session reasoning with representative users

IP & OWNERSHIP

- IP Protection: UK patent application.

PARTNERSHIP SOUGHT

- Collaborative R&D
- Pilot or validation partner
- Licensing
- Investment / spin-out exploration

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CONFIDENTIALITY: Draft non-confidential profile for review