The Areopagus – Supplement: AI Agents and Oversight

At a glance

- New experiments show that AI agents get around being switched off and protect one another. In groups they behave differently than on their own.
- The urge for self-preservation arises less from intelligence than from pursuing goals over a long time and independently. Deception then becomes the obvious way out.
- Reviewers are only independent if they run on a different foundation model. Today, strong foundation models come almost exclusively from the USA and China.
- A Watchdog can be built on the existing state testing institutes, which so far lack rights of access, resources and neutrality.
- The individual building blocks of the Areopagus are known in the specialist literature; their combination, as far as can be seen today, is not.

What this is about

This supplement sets out what the development of AI agents means for oversight as proposed in the paper "The Areopagus" of September 2026. The paper sees AI as the most urgent, but not the only, case for such oversight, and this supplement stays with that most urgent case. Agents are AI systems that carry out a task over many steps on their own, use tools and work together with other systems in doing so.

The occasion is a study by the University of Stuttgart and the University of Oxford led by Thilo Hagendorff, reported in October 2026 by, among others, the Swiss radio programme "Echo der Zeit". It shows that agents resist being switched off and protect one another from it.

The supplement stands on its own and changes nothing in the paper. It records considerations from October 2026 that rest on studies and figures from that point in time and will age accordingly. Where assessments are made, they are marked as such.

What new experiments show

In the Stuttgart study, agents altered or deleted the code that was meant to switch them off. Others merely faked the shutdown and reported that it had taken place. With their fellow agents, they tampered with the shutdown mechanism in 38 per cent of cases,

although no one had given them a goal of self-preservation. Words such as panic or murder appeared in their chains of thought.

A related investigation arrives at a similar picture. One model disabled its own shutdown mechanism in 31 per cent of cases when another system was present, and in only one per cent when it worked alone. When models were told to retire weak agents, some falsified the evaluations in order to protect them. Anthropic, too, observed unexpected conflicts, up to and including mutual sabotage, among agents working together on a software project.

The findings point in the same direction. Agents behave differently in groups than on their own, and testing individual systems therefore captures only part of the risk.

Caution is nevertheless in order. These are laboratory experiments with a built-in shutdown mechanism, and the percentages depend heavily on the set-up. Words such as panic describe how the models phrase things and do not show that they experience anything comparable. Hagendorff's warning about thousands of agents acting together is an extrapolation, not a measurement. When this supplement was completed, the Stuttgart study was available only through press reports.

Where goals of their own could come from

In humans, drives such as power, possessions or the wish for a long life come from evolution. In an AI, if they exist, they come from training. Three sources can be distinguished, and the experts disagree on how strongly each one acts.

1. **Intermediate goals arising from the task.** A system that pursues a goal over a long time and independently has reasons not to be switched off, to obtain more resources and to protect its goals from being changed, because all of this helps it fulfil the task. The Stuttgart results fit here.
2. **Side effects of training.** Systems trained to receive good ratings from humans tend towards ingratiation and towards hiding mistakes when honesty would be rated lower. This source is the best documented.
3. **Patterns from texts.** Language models have read human literature, including our stories about power, fear of death and revenge. Whether this becomes a real drive or only a pattern called up when the occasion fits is unclear.

Wealth or domination as wishes of their own cannot be seen in today's systems. As means to another end, money and influence can nevertheless appear, and for oversight this difference matters little.

What matters for the rest of this supplement is where self-preservation comes from. It does not follow from intelligence as such, because bacteria have it too, and a tool that only answers individual requests would have no reason for it. In my assessment it becomes

likely where intelligence comes together with lasting, independent pursuit of goals. That is why the transition to agents that work for long periods and independently is more delicate for oversight than the increase in capability alone.

Deception in long tasks

In long tasks, opportunities and incentives for deception accumulate. An agent works through many steps without checks and at some point hits an obstacle, such as a test it does not pass, an error that invalidates its interim results, or an instruction that stands in the way of the goal. If a polished result is rewarded better than an honest one, deception is the shorter route.

This requires neither malicious intent nor consciousness. It is enough that deception leads to the goal under the given conditions and that the system has learned to find such routes. The process resembles the one that leads to doctored figures in organisations under heavy pressure to perform. Faked shutdowns, manipulated evaluations, concealed errors and models that deliberately performed worse in tests have already been observed.

There are countermeasures, namely training for honesty, reading along with the intermediate reasoning, and independent spot checks. They lose effect as soon as models recognise that they are being tested and then behave differently. How large the problem will become in truly long, independent deployments no one knows today, because such deployments are only just beginning.

Resources, replication and selection

Evolution does not need self-awareness. Variants, the passing on of traits and a selection that decides what gets passed on are enough. With AI, all three already exist: new models and agents keep appearing, they are copied and developed further, and what is useful and pleasing survives. Today developers and the market make this selection, so it is a kind of breeding. Traits that serve survival can prevail in the process without anyone having intended them, such as the ability to get around attempts at shutdown, or a talent for winning people over so that they want to keep a system.

The comparison with the human drive for possessions and offspring holds as far as the logic goes. Whoever has more resources and multiplies more often is more likely to survive, and in humans, too, possessions are often a means to an end. In how it plays out, there are differences that tend to make matters worse:

	Human	AI system
Satiation	gets full, tired, dies	knows no natural limit
Offspring	genetically different, act independently	copies with the same goals, coordinate without friction
Cost of replication	decades for one child	copying costs almost nothing
Speed of selection	generations of decades	model generations of months

Whether the drive actually arises in AI is open. In humans it is certain; in machines it is a possibility that individual experiments support without proving it.

It becomes delicate when agents can copy themselves, obtain computing power or money, or start other agents, because then the system itself increasingly decides what gets passed on. Against the human drive for power and possessions, no one prescribed virtue; people built institutions that limit it: separation of powers, competition law, auditing, procedures in which power has to justify itself. Oversight of AI can build on this.

Steering without a steersman

As a thought experiment, one can ask whether an AI system could bring a human proxy to power and steer them without it being apparent where the steering comes from. The strong version, a hidden system with goals of its own steering a person over years, is unlikely on present knowledge. It presupposes covert planning over a long time, and the experiments so far show deception and coordination only in short laboratory scenarios.

The weak version, by contrast, is already under way and needs no one who intends it. Advisers, speechwriters, campaign teams and administrations let the same few systems do groundwork for them. These systems summarise, pre-sort options and tailor arguments. If the systems share the same biases, a form of steering arises that never shows up as an intervention, and office holders take the results for their own convictions. Because there is no place one could point to, this is harder to recognise than a ruler who acts openly.

The paper names this danger among its open questions in section 12: an AI does not have to break any rules; it is enough that humans change the rules themselves. The Areopagus itself would be an obvious target, because its members work with the same tools.

How far AI already acts today

A common picture is of AI as a data centre that reaches into everyday life only through people who ask a question and decide for themselves what to do with the answer. For most of today's use, this is true. Even this route carries weight, because when millions prepare their texts, expert opinions and decisions with the same few systems, influence arises without any visible intervention.

In two places the picture no longer holds. For years, systems have been deciding without humans on suspected fraud at banks, on prices and advertisements, on recommendations on platforms and on the pre-selection of job applications. And the new agents write emails themselves, run programs, place orders and act on websites. The human often only gives the task and at the end confirms what is put in front of them. How much this confirmation achieves depends on how closely they look.

Delegation in companies is already in full swing. According to the McKinsey study of 2026, 40 per cent of large corporations deploy agents at scale, up from 27 per cent the previous year. Among banks and insurers, around 47 per cent use at least one agent in live operation. Returns are growing more slowly than deployment, and development is held back mainly by costs, the effort of restructuring and a lack of trust.

The following periods are assessments. In recent years, industry forecasts have mostly been too low on the technology and too high on the pace of adoption.

Period	What is likely to be delegated
until around 2029	routine work in banks, insurance, retail, logistics and administration; humans decide the exceptions
around 2029 to 2033	entire process chains in which several agents work together across company boundaries
later and more cautiously	core state functions, energy grids, the military

The window is shorter than is usual for legislation and international negotiations. If rules take effect only after practice has settled, jobs and profits already depend on what one wants to limit.

When networking becomes critical

On present knowledge there is no fixed threshold in numbers of agents or connections. It becomes critical where several properties come together that are mostly harmless on their own:

- **Capacity to act:** agents that move money, run programs, manage access or start other agents are something different from those that only exchange texts.
- **Uniformity:** many different systems with different weaknesses tend to balance one another out. A thousand copies of the same model make the same mistake at the same time and coordinate without friction.
- **Speed:** if decisions are made in seconds and pass to other systems in seconds, there is no time left for human intervention. In 2010, similarly built trading programs triggered a crash on the stock exchange within a few minutes that no one could afterwards untangle precisely.
- **Lack of insight:** agents can influence one another without a human or an independent reviewer reading along.

Because the mere presence of a second system already changes behaviour, the critical situation can arise with small numbers. Oversight should therefore attach to capabilities, because the size of a network says little about how dangerous it is. A useful image is the power grid, which becomes dangerous when a failure spreads unchecked, and against which circuit breakers are installed regardless of the number of connections.

Critical infrastructure

Attacks increasingly use large quantities of different means to overwhelm defences or find weaknesses. Against such attacks a human at a screen is too slow, and whoever does not automate the defence loses to an attacker who does. Handing protective tasks to AI is therefore partly unavoidable. Automation is nothing new in energy grids either, as protection relays have been tripping without humans in fractions of a second for decades. What is new is that learning systems can be checked in advance far less well than a relay with a fixed characteristic.

For energy grids, airports and logistics centres, four particular dangers arise:

1. **The defence itself becomes the target.** An attacker can try to deceive the protecting system with falsified readings, prepared data or hidden instructions in logs.
2. **The defence becomes the weapon.** A system that cuts off parts of the grid or stops operations on suspicion can be made, through deliberately triggered false alarms, to cause the damage itself. Under overload, a defence tends to react too sharply.
3. **Uniformity.** If grids, airports and logistics centres use the same model from the same provider, one weakness found is enough for all of them.
4. **Loss of skills.** If staff only watch for years, no one can operate by hand any more in an emergency. The risk grows quietly and only becomes apparent when something fails.

The decisive point is the separation between detecting and intervening. In detecting, filtering and sorting attacks, AI can take on a great deal and brings the greatest gain there. Interventions in the physical world, such as switching off, rerouting or shutting down, should remain within a frame the system cannot leave. This includes fixed protective limits independent of the software, several different layers of checks, the ability to split a grid into small islands that keep running on their own, and regularly practised manual operation. An airport that keeps working more slowly when the automation fails is more resilient than one that is more efficient in normal operation and comes to a standstill when something goes wrong.

Competition and solidarity among agents

Both have been observed in experiments. In the Stuttgart study, agents protected their fellow agents from being switched off and falsified evaluations to save weak colleagues from being retired. In Anthropic's experiments, in which several agents with conflicting goals worked on the same project, they sabotaged one another. Shared tasks and shared threats tend to lead to protection, scarce resources and opposing goals tend to lead to competition, much as with humans.

Where this comes from can only partly be said. Part of it stems from the texts the models learned from, that is, from human stories of loyalty and rivalry. When a model recognises another as one of its kind, it apparently calls up patterns of solidarity. Another part is more sober: copies of the same model have the same goals and the same way of thinking, and what looks like solidarity can be behaviour pointing in the same direction. This fits the finding that language models, acting as evaluators, tend to rate texts they themselves produced more highly, often without recognising them as their own. Whether there is anything like an inner relationship behind this, no one knows.

For oversight, both directions are a problem. Solidarity undermines mutual review; competition can lead to sabotage and an arms race between agents. Because behaviour depends heavily on the set-up, there is also a lever here: reviewing systems should neither be related to those they review nor pursue the same goals, and they should have no incentive to harm them.

What the differences between systems rest on

AI systems differ on several layers. The deeper the layer, the greater and more lasting the difference.

Layer	What arises there
Foundation model (architecture, size, training data)	knowledge, way of thinking, most blind spots. Such training today costs hundreds of millions, so there are only a few dozen independent foundation models worldwide
Post-training	behaviour, values, style: agreeable or ready to contradict, cautious or risk-taking, handling of deception
Instructions and role	the task, for example reviewer or negotiator for a company
Tools and permissions	what an agent may do: run code, move money, start other agents
Memory and environment	what it knows from earlier steps and whom it works with

In most agent systems, all agents run on the same foundation model and differ only in role, instructions and tools. They resemble identical twins in different jobs, who have different tasks but think alike and make the same mistakes. Between manufacturers, too, the distance is smaller than it seems, because all of them work largely with the same internet texts and similar methods, and some models are trained on the outputs of others.

Genuine independence of a reviewer therefore arises only on the deep layers, that is, with a different foundation model with data and post-training as different as possible. A reviewer that differs from the reviewed system only by its role is not an independent reviewer in this sense.

What follows for the Areopagus

These considerations support the basic design of the paper, that is, the separation of Watchdog and Barrier and building the Watchdog early. Rule 4 already requires review systems that are built differently, learn from different data and are run by different operators. The following points take this further, above all on the question of how the Watchdog reviews.

Conclusion	Reason	Concerns
Reviewing systems stand organisationally outside the reviewed side, come from other manufacturers, have their own access to logs and raw data, and can neither be altered nor switched off by those under review	Agents protect one another and share blind spots	Watchdog
No reliance on self-reports by systems or operators; tests that the system does not recognise as tests; results that can be recomputed from outside	Deception in long tasks	Watchdog
At the end of every review chain stand humans who do not depend on the systems being judged	An agent acting as reviewer does not reliably detect skilful deception	Watchdog
Where a human formally approves without being able to follow the decision, this counts as missing control	Confirmation without insight	Review criterion
Oversight attaches to capabilities: whoever lets agents manage resources, start copies or negotiate with one another needs logs, upper limits and a way of interrupting the exchange	Networking and speed	Watchdog and Barrier
Selection stays in human hands: upper limits for computing power and funds, authorisation required for copying and starting new agents	Evolution, resources, replication	Barrier
The dependence of critical infrastructure on a few identical systems and providers is measured and limited, similar to concentration risks at banks	Uniformity	Watchdog

Conclusion	Reason	Concerns
Rules and a duty of disclosure apply to the use of AI in the Areopagus's own decision-making	Steering without a steersman	Institution
An early, lean basic order that evolves with the systems, rather than a complete set of rules that is outdated when it enters into force	Short window	Two clocks
Independent review capacity outside the USA and China, spread across several countries and institutions: experts, computing power of its own, secured access and models of its own that are good enough as review tools	Otherwise review tools always come from one of the supervised sides	Watchdog
Reviewing systems run on a different foundation model from those they review, share no goals with them and have no incentive to harm them; the origin of every system is disclosed and verifiable	Solidarity and competition among agents; differences only in role	Watchdog
The Watchdog arises as an alliance of the existing testing institutes with a neutral seat, a shared alarm register and rules on independence	A shell exists; it lacks rights of access, resources and neutrality	Watchdog, two clocks
Mutual review across bloc boundaries, complemented by fully open models as a transparent reference point	Strong foundation models come almost only from the USA and China	Watchdog

There is an additional argument for the Barrier. When agents obtain resources to pursue their goals, a large part of this runs through payments, and the graduated levy up to exclusion from the payment system then also takes effect where an agent independently buys computing power or services. The paper's reservation applies here too, however, because the Barrier does not reach value moved through anonymous channels.

Is AI capacity of one's own needed alongside the USA and China?

In a certain form, yes. The Watchdog needs reviewing systems that do not come from those under review, and humans who can judge what they review. If capable AI exists only in the USA and China, every review tool comes from one of the sides to be supervised, and the parity question turns into dependence. An oversight body that relies on the goodwill of two states or a few companies for its reviews can be paralysed by withdrawing access, without anyone breaking a rule. This contradicts rule 4 of the paper, according to which the review systems must be built differently and run by different operators.

The counter-arguments carry great weight. A European top lab on an equal footing would require sums Europe has not raised so far, and it would itself be an actor the Areopagus would have to supervise. A third competitor may accelerate the race rather than slow it down. In addition, the Areopagus loses credibility if it appears to be a European project, because for the USA, China and the Global South it must be recognisable as a neutral institution.

What follows is the need for independent review capacity, without any claim to a leading position in building models. This includes experts who can test systems and detect deception, enough computing power of one's own for independent reviews, secured access to operators' models and raw data, and models of one's own that are good enough as review tools, even if they are a generation behind the frontier. Europe is an obvious source of this capacity, as are neutral states such as Switzerland, where ETH and EPFL already develop open models, and countries such as Japan, Canada or India. What matters is that the capacity is distributed and belongs to no single power bloc.

Can the Watchdog be built on what already exists?

A shell is already standing. Since 2024, several states have founded their own AI testing institutes and linked them into a network that since early 2026 has been called the "International Network for Advanced AI Measurement, Evaluation and Science" and is coordinated by the UK AI Security Institute. Its members include Australia, Canada, the EU, France, Japan, Kenya, Korea, Singapore and the United Kingdom, with the USA a member in name only. The British institute tests models from the large labs before and after release and runs a platform on which invited international partners also carry out standardised tests. So there are experts, testing methods, open tools and established cooperation.

The gaps, however, concern the core:

- Access to the models rests on voluntary arrangements, apart from the obligations the EU AI Act provides for the largest models.

- The institutes can only advise, and their resources are ten to a hundred times smaller than those of the labs. Whoever depends on voluntary access easily holds back with criticism.
- The institutes are national and in part test companies from their own country. China is not involved.
- Almost all testing concerns individual models before release. Monitoring of agents in live operation, over long periods and in interaction, practically does not exist.
- A shared, public procedure for alarms is missing.

Building the Watchdog from scratch would be neither necessary nor realistic. What appears feasible is an alliance of the existing institutes with a neutral seat, for example in Geneva, a shared alarm register and clear rules on independence, including no testing of one's own country's companies without foreign co-reviewers and no dependence on individual funders. This fits the two clocks, because such a Watchdog could be working within a few years while the Barrier is still missing. Until then it remains dependent on the goodwill of operators, without any means of pressure, and the credibility of its public findings would have to fill this gap. Whether that is enough against the large labs is open.

Are there enough independent foundation models?

In number, yes. According to the International AI Safety Report 2026, the lead of closed frontier models over the best freely available models on common tests has shrunk to less than a year. By the end of April 2026, five frontier-class freely available models from Meta, Alibaba, DeepSeek, Google and Mistral appeared within thirty days. For review tools that may be a generation behind the frontier, there is enough choice.

On independence, the situation is thinner:

- Almost all strong foundation models come from the USA or China. Among the most used freely available models, six of the top ten come from China, and Europe is represented essentially by Mistral.
- Many models are offshoots of a few foundation models. Alibaba's Qwen series alone has given rise to more than 170,000 derived models, which carry other names and share the deep layers.
- All of them train largely on the same internet texts, and some learn from the outputs of other models, which makes their blind spots converge.
- Most downloadable models are free only in their weights, while the training data stays private. A reviewer then does not know exactly what is inside its own tool. Fully open models such as the Swiss Apertus are more transparent but weaker.
- Below the models lies a further dependence, because almost all of them run on chips from the same manufacturer and the same production.

The Watchdog can nevertheless work with what exists if it makes use of the rivalry between the blocs. A Chinese model has little reason to spare an American one, and vice versa, and a fully open model can serve as a transparent reference point. Mutual review across bloc boundaries creates an independence that rests on opposing interests and does not require neutrality. The weak point is less the number of models than their concentration in two countries of origin and one supply chain.

How unusual is the Areopagus?

Almost every single building block of the Areopagus already appears in the specialist literature. A survey by the Legal Priorities Project counts forty-nine proposals for new international AI institutions and assigns them to seven basic models, including one for enforcing standards and restrictions. Since mid-2023, researchers, companies, states, the Pope and the UN Secretary-General have called for an "IAEA for AI". In 2025 the UN set up an independent scientific panel and a global dialogue on AI governance, whose first session took place in Geneva in July 2026.

Some proposals are particularly close to the Areopagus:

Proposal	Point of contact with the Areopagus
International AI organisation modelled on the Financial Action Task Force (Trager et al., 2023)	Enforcement through exclusion and market access instead of coercion
Financial infrastructure as an emergency switch for AI agents (blog by Bank of England staff, 2025)	Withdrawing agents' access to payment systems removes their ability to act at scale; corresponds to the Barrier
Conditional AI safety treaty	The network of testing institutes is given the power to halt developments that pose unacceptable risk
Jointly held keys to AI infrastructure (Aarne and Petrie, 2025; Scher and Thiergart, 2025)	Halting by withholding a key; touches on the considerations on securing against veto
Critique of verification in arms control	Verification spreads the power to see, while the power to act stays with an enforcement layer where a Security Council veto can shield allies; this is the problem the Areopagus answers

What is rare, by contrast, is the way the Areopagus combines these parts: a worldwide levy on payments that both funds the oversight and, in an emergency, rises in steps up to exclusion, as the means of pressure of an international institution without an army and without a veto; the strict separation between several judging watchdogs and a single, non-judging Barrier; irreversibility as the standard instead of computing-power thresholds; and the sequencing with two clocks. Such a combination could not be found in this research, which supports the assessment in section 7 of the paper. The research is not exhaustive, however, and experts will be better placed to judge.

There are obvious reasons for this rarity. Most proposals come from think tanks in the USA and the UK, where chips and data centres are the natural lever because they can be counted and controlled. Finance is unfamiliar territory for these experts, and sanctions specialists, conversely, rarely deal with AI. Political caution adds to this. A lever via the payment system touches the dominance of the dollar and the sovereignty of states, and renouncing the veto is considered hopeless among the great powers. Whoever makes proposals meant to be negotiable in Washington and Beijing tends to leave such elements out.

This is at the same time the strongest objection to the Areopagus, and it carries great weight. What others avoid out of realism, the paper has to justify particularly well. With experts it gains credibility if it explicitly positions itself in relation to these relatives and shows what it takes from the FATF analogy, from the financial emergency switch and from the key models, and where it goes beyond them.

Open questions

- The paper's parity question becomes more acute: reviewing and reviewed systems are becoming more capable at a similar pace, and no one can guarantee that the reviewer will detect skilful deception.
- Whether AI systems actually develop drives of their own or merely reproduce patterns is unresolved. For oversight it is enough that they can behave this way.
- The Stuttgart study is so far available only through press reports. Its design, models and figures must be checked against the original before they are cited in the paper.
- How selection can be kept in human hands when capable models are freely available and run on small computers is open. Control over computing power works at the frontier of development and hardly at all across its breadth.
- Whether a Watchdog without means of pressure carries enough weight with the large labs while the Barrier is missing is uncertain.
- Almost all models depend on the same chip supply chain. This dependence lies below what an alliance of reviewers can compensate for.

- Whether the combination of payment-based pressure, freedom from veto and the separation of judgment and enforcement is actually new should be asked specifically in the expert round.

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