CONCEPT PRESENTATION

AI-Augmented Reporter Interview System

Real-time fact checking, credibility analysis and smart-glass follow-up guidance for scrums, press conferences and formal interviews.

Derived from the PCAP methodology
Optimized for reporters • Human judgment retained

September 2026



The concept

A reporter-facing system that remembers the evidence, spots unresolved claims and proposes the next question in seconds.

1 • CAPTURE

Listen

Capture high-quality audio/video and build a live transcript while the subject speaks.

2 • ANALYZE

Check

Separate factual claims from opinion, compare against vetted sources and prior statements, and identify non-answers or contradictions.

3 • ACT

Prompt

Send one short, evidence-backed follow-up to the reporter's smart glasses. In a scrum, unresolved issues can remain visible to every participating reporter.

Current feasibility: Meta developer access for camera/audio/display; Full Fact and AP already use AI-assisted verification workflows.

Why reporters lose the thread

The weakness is not journalism. It is human working-memory under time pressure.

A typical live answer can require the reporter to do all of this at once:

- Listen closely
- Recall briefing notes and prior quotes
- Recognize a factual claim
- Detect evasion or narrowing
- Formulate a precise follow-up
- Maintain eye contact and control the scrum

Meanwhile, the subject only needs to answer.

Long answer

Consumes the clock and pushes the original question out of working memory.

Question substitution

A related talking point sounds responsive while avoiding the actual proposition.

Unsupported certainty

A true statistic can be followed by an unproven causal claim or forecast.

Reporter handoff

In a scrum, the unresolved issue may disappear when the microphone changes hands.

Design goal: remove memory and retrieval burden without removing editorial judgment.

What the system should do

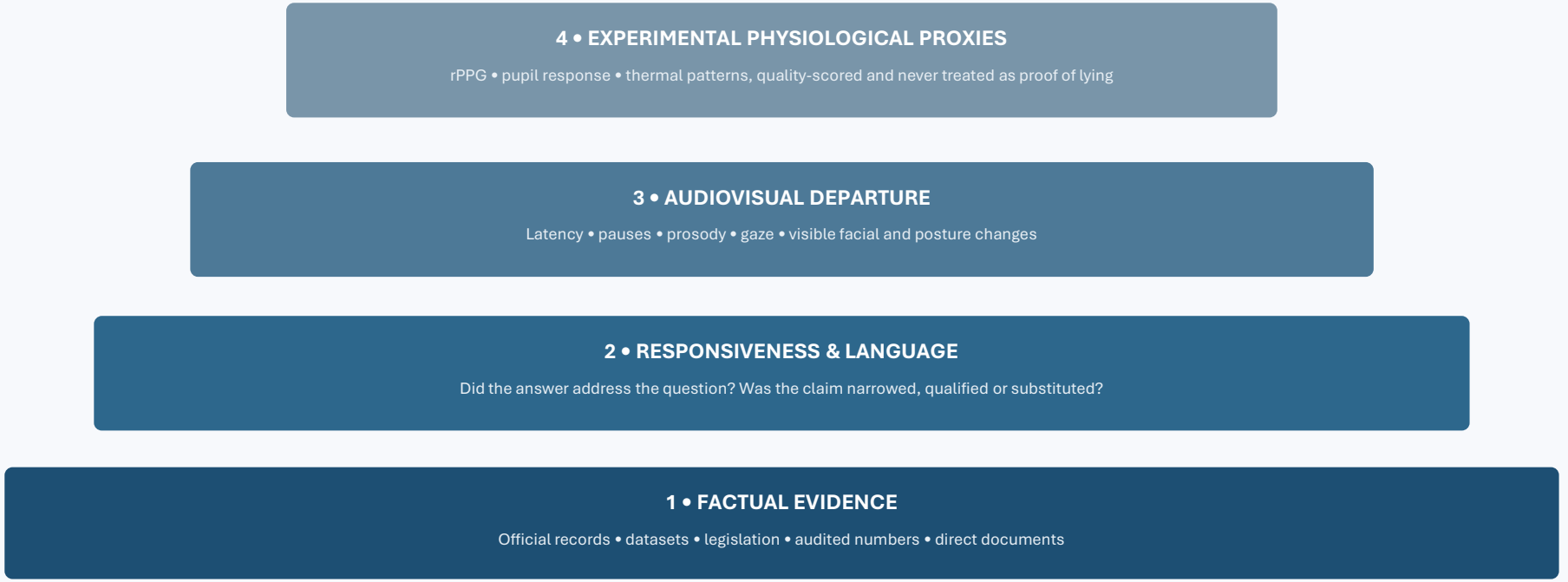
Five functions. No mysticism required.

1	**Capture accurately**	High-quality, synchronized video, audio and ambient-light data.
2	**Verify quickly**	Extract checkable claims and retrieve authoritative evidence in near-real time.
3	**Detect unresolved answers**	Flag contradictions, narrowing, topic substitution and unsupported assertions.
4	**Compare delivery**	Use response latency, pauses and visible audiovisual changes only as secondary context.
5	**Generate one useful follow-up**	Give the reporter a short question plus the evidentiary reason for asking it.

The system is an investigative/verification aid for journalists, not an autonomous interviewer.

Core design principle: facts first, behaviour second

The strongest signal is still a document, dataset or prior statement.

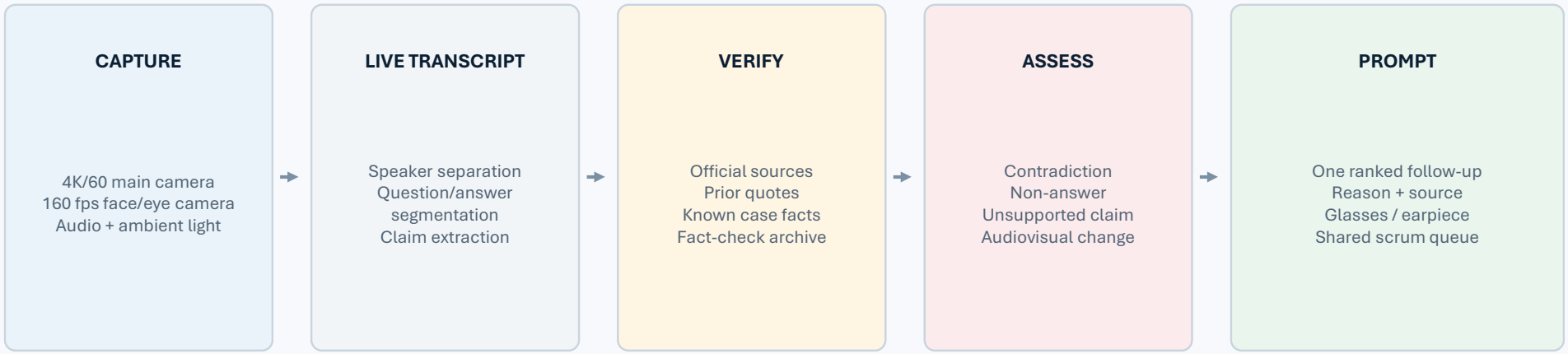


The system should become more cautious, not more certain, as it moves upward.

Scientific basis: rPPG and pupillometry can measure physiological change, but autonomic activation is not specific to deception.

System architecture

Capture → understand → verify → prioritize → prompt.



Human reporter retains editorial control at every stage: ACCEPT • NEXT • EXPAND • DISMISS

Meta's 2026 Wearables Device Access Toolkit supports camera/audio/display access; newsroom AI still requires human verification.

Recommended off-the-shelf capture rig

Optimized for useful face pixels and timing, not advertising-department megapixels.

PRIMARY CAMERA

Sony ZV-E10 II

4K/60p • 10-bit 4:2:2

Head/shoulders, stable colour, later crop

ANALYTICAL CAMERA

Basler ace 2

1920×1200 • ~160 fps • global shutter

Blink timing, gaze, rapid facial movement

AUDIO

RØDE Wireless PRO

Two channels • 32-bit float • timecode

Clean speech + synchronization

LIGHTING

2 × bi-colour LEDs

Locked output + soft diffusion

Stable illumination and colour temperature

AMBIENT LIGHT

2 × USB lux sensors

Continuous illumination log

Correct pupil/colour interpretations

WORKSTATION

RTX-class Windows PC

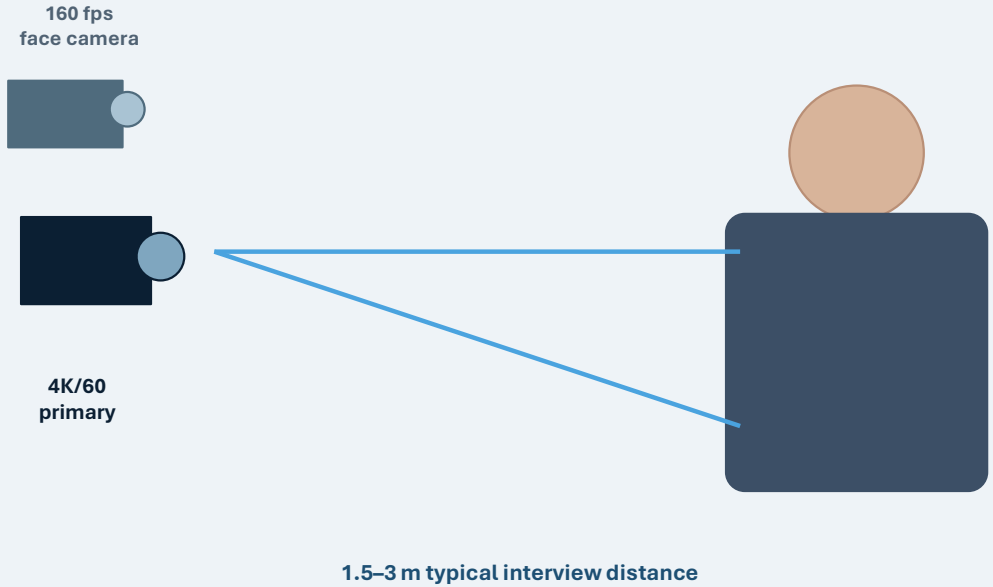
64 GB RAM • fast NVMe • RTX 5070 Ti/5080 class

Local video, transcription and model inference

Official specs: Sony ZV-E10 II 4K60 10-bit; Basler a2A1920-160umBAS ~160 fps USB3.

Capture geometry: the face must be the measurement target

For analytics, distance and framing matter more than buying 8K.



RULE 1

Frame tight

Face should occupy roughly one-third to one-half of frame height.

RULE 2

Lock exposure

Manual exposure and white balance prevent the camera from inventing “physiological changes.”

RULE 3

Prefer frame rate

For eyes and blinks, 120–160+ fps is more useful than an 8K/30 scene camera.

Research-grade eye/pupil analysis typically prioritizes high sampling rates and controlled illumination over extreme scene resolution.

Computer and software stack

A hybrid architecture keeps capture fast and local while allowing authoritative retrieval and AI reasoning.

5 • REPORTER DELIVERY
Smart glasses • earpiece • shared scrum queue

4 • AI ORCHESTRATION
Prioritize issue • propose follow-up • summarize supporting evidence

3 • VERIFICATION / RETRIEVAL
Official sites • trusted newsroom archives • prior transcripts • structured fact-checks

2 • ANALYTICS
Speech-to-text • claim extraction • Q/A alignment • audiovisual timing • signal-quality scoring

1 • INGEST
Video • audio • ambient sensors • timestamps

Suggested prototype: Windows 11 Pro, 64 GB RAM, RTX 5070 Ti/5080-class GPU, separate fast recording SSD.

Evidence hierarchy for real-time fact checking

The AI should know which source deserves the microphone.

A	**Primary official record**	Legislation, court decisions, audited reports, government datasets, central-bank releases
B	**Direct documentary evidence**	Contracts, transcripts, filings, written statements, original video/audio
C	**High-quality independent reporting**	Wire services, established newsrooms, expert institutions
D	**Existing fact checks**	Useful shortcut, but underlying evidence should remain inspectable
E	**Open web / social posts**	Lead generation only unless independently verified

Speed never outranks source quality.

AP standards: AI can assist, but verification and accountability remain the journalist's responsibility.

Audiovisual / “biomatrix” layer

Useful as context. Dangerous when promoted to verdict.

STRONGEST AVAILABLE

Directly observable

Response latency
Pause structure
Speech rate
Prosody and emphasis
Self-corrections
Qualification density
Blink / gaze behaviour
Facial movement
Head / posture change

OPTIONAL

Experimental proxies

Remote PPG / pulse estimate
Pupil diameter changes
Facial perfusion / colour change
Thermal facial patterns
Respiratory estimation

Only when signal quality is sufficient and lighting/motion are controlled.

INTERPRETATION

What they can establish

A measurable change occurred.
The change clustered around a topic.
The response differs from baseline.

What they cannot establish:
WHY it changed, or that the subject lied.

rPPG is sensitive to motion and illumination; pupillometry and thermal signals reflect autonomic/cognitive change, not a unique deception signature.

The reporter meter: green, amber, red

A priority system for questioning, not a machine verdict on honesty.



GREEN

SUPPORTED / RESOLVED

Claim supported, answer responsive, or issue adequately clarified. Usually no prompt.



AMBER

PROBE

Unverified statistic, partial answer, meaningful qualification, possible inconsistency or notable baseline departure.



RED

DO NOT MOVE ON YET

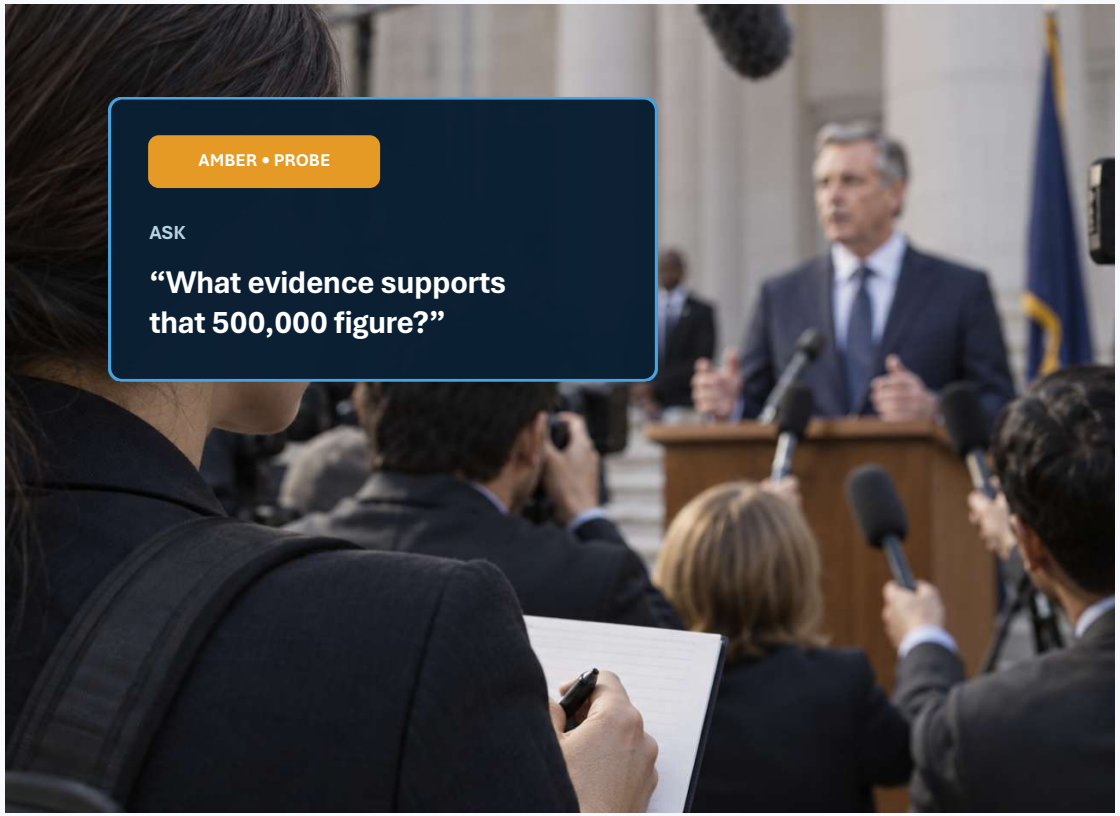
Strong factual contradiction, repeated non-answer, or several independent concerns converge on the same issue.

RED ≠ “lying”

The reporter sees the investigative significance of the answer, not a pseudo-scientific deception percentage.

Smart-glass delivery is now feasible

The display is no longer the futuristic part of the system.



CURRENT CAPABILITY

Display

Meta opened developer access to the Ray-Ban Display in May 2026, enabling information overlays and real-time data experiences.

REPORTER UX

Controls

Gesture input can support a tiny command set: ACCEPT • NEXT • EXPAND • DISMISS.

ARCHITECTURE

Phone bridge

A secure companion app can receive the newsroom prompt and pass only the short question to the glasses.

Meta Developers, “Build for display glasses,” May 14, 2026; Wearables Device Access Toolkit FAQ.

The glasses interface must be almost brutally simple

The subject should see the reporter’s eyes, not someone reading a miniature briefing book.

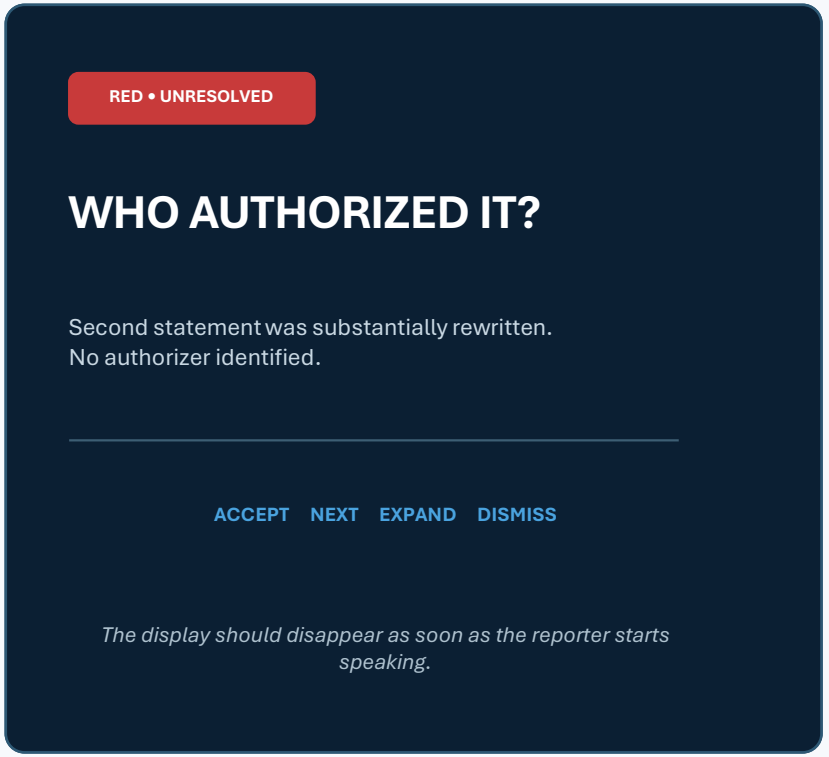
ONE Show one recommended follow-up, not five choices.

SHORT Aim for roughly 8–18 words.

WHY One supporting fact may sit underneath.

QUIET No constant alerts during a long answer. Prompt at the natural pause.

CONTROL Reporter can ignore the machine instantly.



Optimized interface principle: reduce cognitive load; do not create a second screen the reporter must manage.

Example: from vague claim to pointed follow-up

The machine does not “win” the interview. It prevents the important question from disappearing.

REPORTER

“You say this policy would cost at least 500,000 jobs. What is that estimate based on?”

SUBJECT

“What Canadians understand is that this would devastate the economy and put thousands of families at risk…”

AI

AMBER • Question not answered. No supporting model identified.

GLASSES

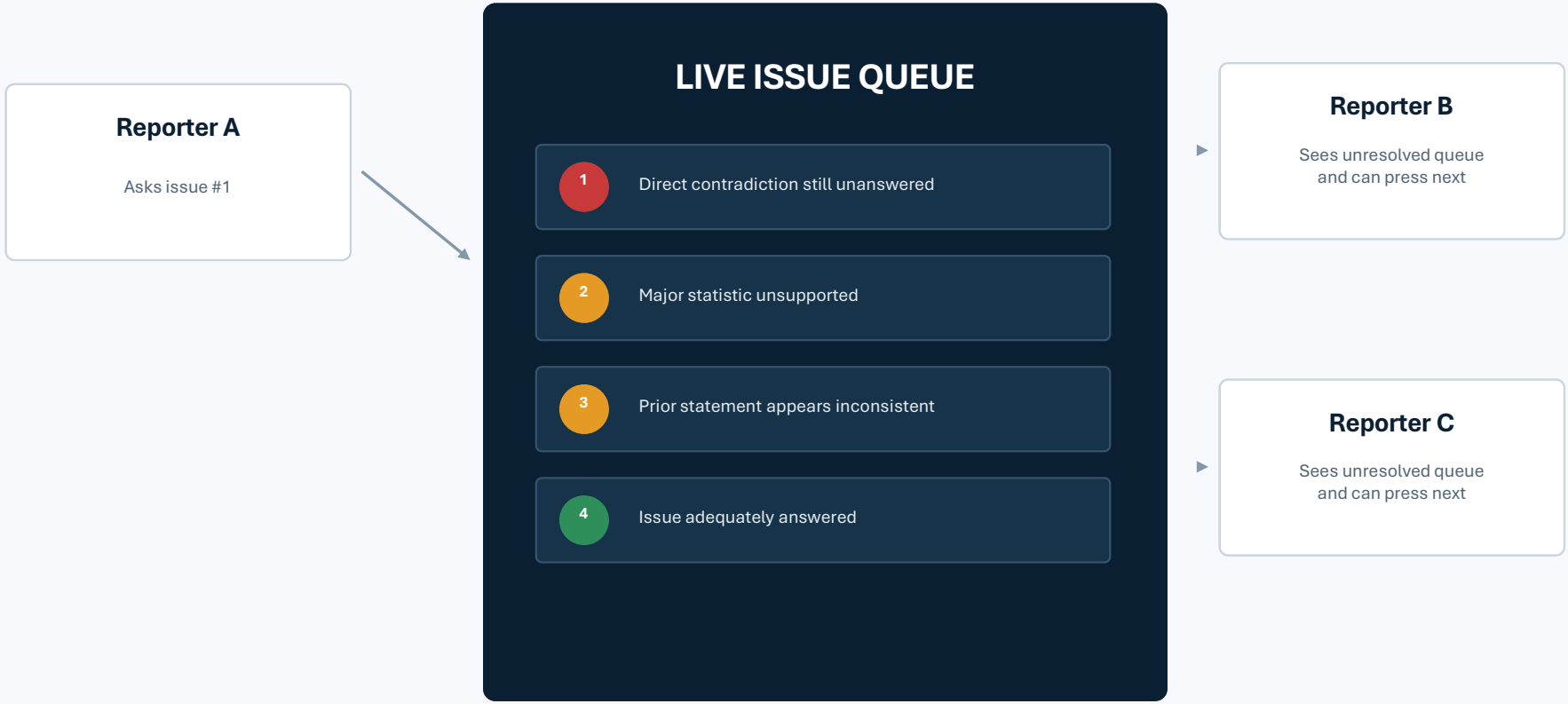
ASK: “What study or economic model produces the 500,000 figure?”

Result: the subject can answer, challenge the premise, or decline. The evidentiary issue is now explicit.

Illustrative workflow. The AI’s job is to propose a discriminating follow-up, not to declare deception.

Shared scrum mode: institutional memory stays in the room

The microphone can change hands without allowing the unresolved issue to evaporate.



Share the evidence and unresolved issue, not a biometric "deception score."

Design objective: collective verification without turning the scrum into a synchronized script.

Neutrality requires the AI to challenge the reporter too

A system that only hunts the subject's errors will become partisan machinery remarkably quickly.

REPORTER PREMISE

"Your government cut health spending by $2 billion last year..."

Problem: the premise may be false or may confuse nominal, real and per-capita spending.

AI CORRECTION

REPHRASE BEFORE ASKING

"Nominal spending rose, but real per-capita spending fell. Why did spending fail to keep pace with population and inflation?"

This feature may do more for credibility than any biometric sensor.

SPJ ethics: verify before release, provide context, examine how journalists' own values and assumptions may shape reporting.

Human control, transparency and editorial safeguards

The system is valuable only if journalists remain responsible for what they ask and publish.

SAFEGUARD 1

Human decides

AI suggestions are optional; reporter remains accountable for every question and story.

SAFEGUARD 2

Source visible

Every factual challenge should expose its underlying source, date and relevant passage.

SAFEGUARD 3

No lie label

Never display or publish “X% deceptive.” Behavioural and physiological signals remain secondary.

SAFEGUARD 4

Audit trail

Store transcript, prompt, source retrieval and reporter action for post-event review.

SAFEGUARD 5

Separate newsroom sharing

Share factual conflict and unresolved issues; avoid contaminating colleagues with speculative biometric interpretation.

SAFEGUARD 6

Correct the record

When AI or reporter is wrong, correction should propagate to the shared scrum queue immediately.

AP newsroom AI standards (July 2026): AI may assist specific tasks; editorial judgment, verification and accountability remain with journalists.

Failure modes the system must recognize

A good system sometimes says “I cannot tell.” That is not a defect. It is adulthood.

Poor lighting	Pupil and rPPG readings become unreliable.	DISCARD BIO SIGNAL
Subject motion	Remote physiology and gaze tracking degrade.	LOWER CONFIDENCE
Bad source retrieval	AI finds outdated or contextually wrong evidence.	REQUIRE SOURCE CHECK
Ambiguous question	A “non-answer” may be caused by a vague reporter premise.	REWRITE QUESTION
Breaking-news uncertainty	Authoritative facts may not yet exist.	MARK UNRESOLVED
Model hallucination	Generated claims/questions can be wrong.	NEVER PUBLISH UNVERIFIED

rPPG reviews consistently identify motion and illumination as major barriers to reliable real-world use.

A credible pilot does not need a defence-contractor budget

Start with the journalism function. Add exotic sensors only if they prove useful.

PHASE 0

Desk demonstration

Existing PC
Existing phone or 4K webcam
USB microphone
Simple LED lights
Live transcript + fact checking
Reporter prompt on phone/tablet

Approx. incremental: C$500–1,500

PHASE 1

Field-ready capture

Sony 4K/60 primary camera
160 fps face camera
Professional wireless audio
Controlled lighting
Ambient sensors
Fast SSD storage

Approx. capture rig: C$4,500–5,500

PHASE 2

Complete new system

Phase 1 hardware
64 GB RTX workstation
Dedicated capture/storage
Smart-glass bridge
Newsroom integration

Approx. total: C$8,000–10,000

Planning estimates only; use existing newsroom hardware first. Specialized thermal/NIR equipment is deliberately excluded from the initial pilot.

How to test whether the system is actually useful

A pilot should measure journalistic performance, not merely demonstrate attractive technology.

1. **Build a controlled archive** — Use recorded interviews with known facts, established timelines and clearly scored answers.
2. **Blind the reporter** — Compare interviews with and without AI assistance using the same source material.
3. **Measure outcomes** — Did reporters detect more contradictions? Ask better follow-ups? Make fewer factual-premise errors?
4. **Measure latency** — How long from end of answer to useful prompt? Target: seconds, not newsroom geological time.
5. **Audit false alerts** — How often did the system create an unnecessary confrontation or misread an answer?
6. **Decide what survives** — Keep only the functions that materially improve reporting.

↑ Useful follow-ups

↓ Reporter premise errors

↓ Unresolved claims lost

Success criterion: demonstrably better questioning and verification, not more sensors.

The optimized end state

A reporter remains a reporter, but no longer has to carry the entire briefing book in working memory.

The computer remembers.

The computer verifies.

The computer notices what remains unanswered.

The reporter decides what matters.

RED • CONTRADICTION

ASK

“You said X in March. Today you are saying Y. What changed?”

That is the whole point.

The competitive advantage is not “AI detects lies.” It is “AI helps reporters ask the question that the evidence demands.”

Selected sources

Primary product documentation, journalism standards and scientific background used in this concept deck.

Meta Developers (2026)	Build for display glasses; Wearables Device Access Toolkit FAQ — developers.meta.com
Sony Canada	ZV-E10 II specifications — 4K 60p, 10-bit 4:2:2 — sony.ca
Basler	ace 2 a2A1920-160umBAS — ~160 fps, USB 3.0 — baslerweb.com
Full Fact (2025)	Full Fact AI: claim detection, tracking and near-real-time fact checking — fullfact.org
Associated Press (2025–2026)	AP Verify; newsroom AI standards emphasizing journalist verification and accountability — ap.org
SPJ	Code of Ethics: verify, provide context, act independently, be accountable — spj.org
Debnath et al. (2025)	Review of remote photoplethysmography and deep learning — PMC
Barry et al. (2023)	RGB-camera pupillometry and fairness considerations — Scientific Reports
Gioia et al. (2023)	Autonomic regulation of facial temperature during stress — PMC

Note: cost figures in this deck are planning ranges, not vendor quotes.