**AI/Smart glasses – What are they and training invigilators in identifying them in the examination room**

**Introduction**

AI glasses – often called smart glasses – pose a threat to the integrity and security of the examination system as they use artificial intelligence to provide hands-free access to digital information and useful features. Unauthorised use of these glasses would allow candidates to potentially engage in malpractice by interacting with technology without needing to look at a phone or use their hands.

In this article we consider the main factors which will support exams managers/officers and invigilators in identifying candidates who may be wearing a pair of AI glasses in an examination.

**AI glasses - functionality**

AI glasses combine traditional eyewear with advanced technology such as cameras, microphones, sensors, and sometimes augmented reality (AR) displays. They are designed to give users quick, convenient access to information and digital tools, creating a more seamless connection between the physical and digital worlds.

**AI glasses - five key features**

1. Hands-free functionality - Users can take photos, record videos, and receive notifications without touching a device. Some models respond to simple voice commands to capture moments or perform actions.

2. Real-time translation - Many AI glasses can instantly translate spoken or written languages, making them especially useful for travel or multilingual environments.

3. Augmented reality (AR) - Certain models project digital information directly into the user's field of view - for example, navigation directions or contextual data overlaid on real-world objects.

4. Integrated audio - Built-in speakers and microphones allow users to take calls, listen to music, or receive spoken notifications while still hearing the environment around them. Features such as Whisper Mode help to keep sound private with minimal audio leakage.

5. Object recognition - Advanced versions can identify objects and provide additional information, helping users better understand or interact with their surroundings.

**AI glasses - identification**

Smart glasses are becoming increasingly compact, and many now look almost identical to regular eyewear. Although improved privacy features have reduced concerns about secret recording, these devices still give users an information advantage.

The challenge for anyone invigilating an examination will be to identify any candidates who are using smart glasses to receive assistance thereby gaining advantage in their examination(s). Below are the most common ways to identify AI glasses (however, multiple identification methods should be combined to confidently identify the use of smart glasses).

<u>Visible hardware cues</u>

As the most popular smart glasses are used for entertainment (watching movies and portable gaming) purposes, they are relatively easy to spot. In addition to dark lenses, the most frequently purchased models have a visible camera lens or an indicator light. Some models include adjustable nose pads to enable long-term wear.

However, many models hide these components well or only show them when active. To distinguish smart glasses from regular ones, look for these hardware signs:

- Thick temples or ear hooks: Smart glasses often have thicker arms/sides as they house processors, batteries, and radios. Some may also have unusually thick ear hooks with thin arms.
- Small holes near the ear or nose area: Unlike regular glasses, there may be openings for speakers or microphones
- Thicker-than-normal lenses: Built-in displays and sensors make the lenses bulkier. If the wearer does not have a strong prescription, thicker lenses may be a clue.
- Buttons, charging ports, or magnetic pogo pins: Any visible controls or connectors strongly suggest smart glasses
- A specialised glasses case: A case with a power button, charging cradle, or USB port indicates a smart-glasses charging case, not a standard one

User behaviour

Smart glasses can subtly alter a person's behaviour, even if they try to hide it. Signs that someone may be interacting with their glasses include:

- Unusual eye focus: They may look at the lenses instead of at you, or appear to be looking slightly downward. Small head tilts can also help them read the display.
- Frequent tapping or swiping: Many smart glasses use touch controls along the temple or ear hooks
- Odd speech patterns: If they repeat questions to trigger voice commands or respond slowly with unnatural pauses, they may be receiving information through the glasses

If several of these behaviours occur repeatedly, the person may be using smart glasses.

Audio and visual cues

Smart glasses use small displays and speakers that are designed to be discreet, but can still be detected by paying careful attention:

- Visual cues:
    - Faint text or shapes in the lenses, especially in dim light
    - Purple or blue reflections at an angle, which differ from normal anti-reflective coatings
- Audio cues:
    - Soft sounds from open-ear speakers

- Slight audible vibrations from bone-conduction speakers, especially in quiet environments

Using Bluetooth to detect smart glasses

Smart glasses typically use Bluetooth to connect to a phone. If you suspect someone's glasses are connected:

- Turn on your phone's Bluetooth to check if their glasses appear as a discoverable device. (Note: active smart glasses are often not discoverable). This check should take place before the start of the examination and conducted in line with JCQ regulations which state that an invigilator is only allowed a mobile phone in the examination room (on silent mode) to get help easily without leaving the examination room and without disturbing the candidates.
- Smart glasses also emit Bluetooth Low Energy (BLE) signals. With a BLE scanner app such as UFind (Android) or Bluetooth BLE Device Finder (iOS), you can:
  - Scan for nearby BLE devices
  - Look at RSSI signal strength
  - Move your phone closer to the glasses to see whether the signal changes accordingly

A changing Received Signal Strength Indicator (RSSI) value can indicate the presence of smart glasses - unless another Bluetooth device is nearby.

Using your phone's magnetometer to detect magnetic fields

Most smart glasses use small magnets for their speakers, charging systems, or clip-on accessories. A phone's magnetometer can detect these by:

- Installing a magnetometer app - Magnetometer (Android) or Magnetic Detector (iOS)
- Viewing the normal Earth magnetic field reading (typically 25–65 μT)
- Bringing the top of your phone close to the glasses
  - A reading above 90 μT suggests the presence of a magnetic component, which is common in smart glasses

Some regular glasses may contain small magnets (e.g. for clip-on lenses), but these are easy to spot and distinguish from smart-glasses features.

**AI glasses – the features and capabilities of the most popular models** (as of March 2026)

Although AI glasses technology is continually developing and improving, the most popular models based upon current trends, reviews and comparisons are currently:

RayNeo Air 3s Pro

Cost - approximately £200-£250.

Identifying features:

- Thick, chunky sunglasses-style frame
- Auto-dimming lenses (visible changes indoors/outdoors)
- Multiple buttons on right arm
- USB-C port on left arm
- Bulky speaker bumps near ears

Capabilities:

- Watch films, TV, and streaming apps on a cinema-sized screen
- Play console and PC games in a portable big-screen format
- High-quality audio without extra headphones
- Auto-dimming lenses
- Connect to phones, tablets, laptops, and consoles
- Add prescription lenses for personalised viewing
- Pronounced nose pads for long-term viewing

XReal One Pro:

Cost - approximately £500-£600

These are considered amongst the most advanced smart glasses available.

Identifying features:

- Thick augmented reality (AR)-style sunglasses with Bose speaker bulges
- Electrochromic dimming lenses
- Buttons + USB-C port on left arm
- Large optical modules behind the lenses

Capabilities:

- Watch movies on a large virtual display
- Play games
- Bose-quality directional audio
- AR features like head-tracking and spatial interaction
- Auto-dimming lenses
- Connects to devices via USB-C
- Physical buttons to control brightness and menus
- Prescription lens inserts for personalised viewing
- Pronounced nose pads for long-term viewing

<u>Rayban Meta Glasses</u>

Cost – approximately £300-£350

Identifying features:

- Looks like normal Ray-Ban Wayfarers
- Small front camera lenses
- Minimal buttons; subtle speaker openings
- Very natural “everyday glasses” appearance

Capabilities

- Takes hands-free photos and videos
- Livestream directly from the glasses
- Listen to music, podcasts, and audio
- Make calls and send messages
- Use Meta AI hands-free with “Hey Meta”

- Receive smart assistance
- Use touch controls to interact quickly
- Sync, edit, and share media via the Meta app
- Wear them like normal Ray-Bans
- Enhanced audio and camera quality on newer models
- Glasses charge in a portable charging case

Qinux Intellens

Cost - approximately £65-£100

Identifying features:

- Very lightweight, slim frame
- Small front camera
- Open-ear speaker vents
- No bulky arms or dimming lenses

Capabilities:

- Translate conversations in real time
- Translate written text instantly
- Capture photos and videos hands-free
- Listen to music and audio through open-ear speakers
- Make hands-free calls
- Record voice notes
- Use a companion app for setup and enhanced functions
- Wear them comfortably all day due to a lightweight design

**Side-by-Side Identification Table**

| Feature | RayNeo Air 3s Pro | XReal One Pro | Ray-Ban Meta Glasses | Qinux Intellens |
|---|---|---|---|---|
| **Frame Style** | Chunky sunglasses-style frame; visibly thick and robust arms | Chunky black sunglasses-style design with thick arms to hide electronics | Standard Ray-Ban style design; natural-looking eyewear with integrated tech | Standard eyewear appearance; lightweight (25g), slim design |
| **Lens Appearance** | Electrochromic lenses that automatically tint darker/lighter - major visible giveaway | Electrochromic dimming lenses that darken/lighten depending on environment | Standard clear or sunglasses-style lenses (non-dimming) | Regular clear lenses with anti-reflective coating |
| **Speaker Indicators** | Distinctive speaker bulges near ear area | Bose-tuned speaker bulges along thick arms near ears | Built-in open-ear speakers for music and calls (subtle, integrated into frame) | Open-ear audio for music and calls (vents along arms) |
| **Controls and Buttons** | Brightness rocker, menu button, extra shortcut button along right arm - visibly placed | Brightness rocker, menu button, and top shortcut button on right arm; USB-C port on left | Very minimal buttons; controls mostly via touch or Meta AI voice commands | Simple touch/voice-based controls via companion app |
| **Ports** | USB-C port on left arm/ear hook - easy to spot | USB-C port on left ear hook for wired connectivity | No visible large ports; charging via proprietary cable or small connector | No prominent ports visible; connects via smartphone app |
| **Weight / Build** | Slightly heavy, thick build due to internal optics | Heavier (~87g), thick arms and frames with internal lens modules | Lightweight standard eyewear feel; designed for everyday wear | Very lightweight (25g), comfortable and slim |
| **Special Visible Features** | Large internal optical modules visible from some angles | Pronounced optical modules with flat-prism system providing wide FOV | Camera lenses on front frame for photos/video; Meta AI integration | Small front camera, open-ear audio vents, minimalist frame design |

| Feature | RayNeo Air 3s Pro | XReal One Pro | Ray-Ban Meta Glasses | Qinux Intellens |
|---|---|---|---|---|
| | Pronounced nose pads for long-term viewing | Nose pads for long term use | | |