

Transformational Change: Building a Collaborative Future



TECHNOLOGY, SUSTAINABILITY & HUMANITY

27 & 28 OCTOBER 2025

EUROSTARS TOWER

MADRID, SPAIN

AI IN DIGITAL INVESTIGATIONS

Dr. Carlos Cilleruelo Rodríguez

Byron Labs / UAH



Universidad
de Alcalá

AI Capabilities

- The usage of AI in cybersecurity has been in place since the 80s
 - Network protection (e.g. DOS detection)
 - Endpoint protection (e.g. malware detection)
- But Large Language Models (LLMs) can achieve general-purpose language generation and other natural language processing tasks
 - Classification
 - Entity extraction

Entity Extraction with LLMs

- Traditional solutions have been based on scrapers
- You need one scraper for each market

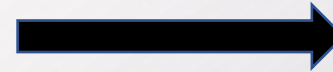
† 100 GRAM | KETAMINE NEEDLE/SHARD | MEDICAL GRADE



Price	: 2,169.42 USD
Seller	: thestealthteam
Seller location	: Europe
Ships to (seller)	: Worldwide
Ships to (product)	: Worldwide
Category	: Dissociatives
Quantity in stock	: 18399
Dead drop	: No
Availability	: Available

80-1200 Grams Tracking Pro Stealth Decoy | 5€ ▼

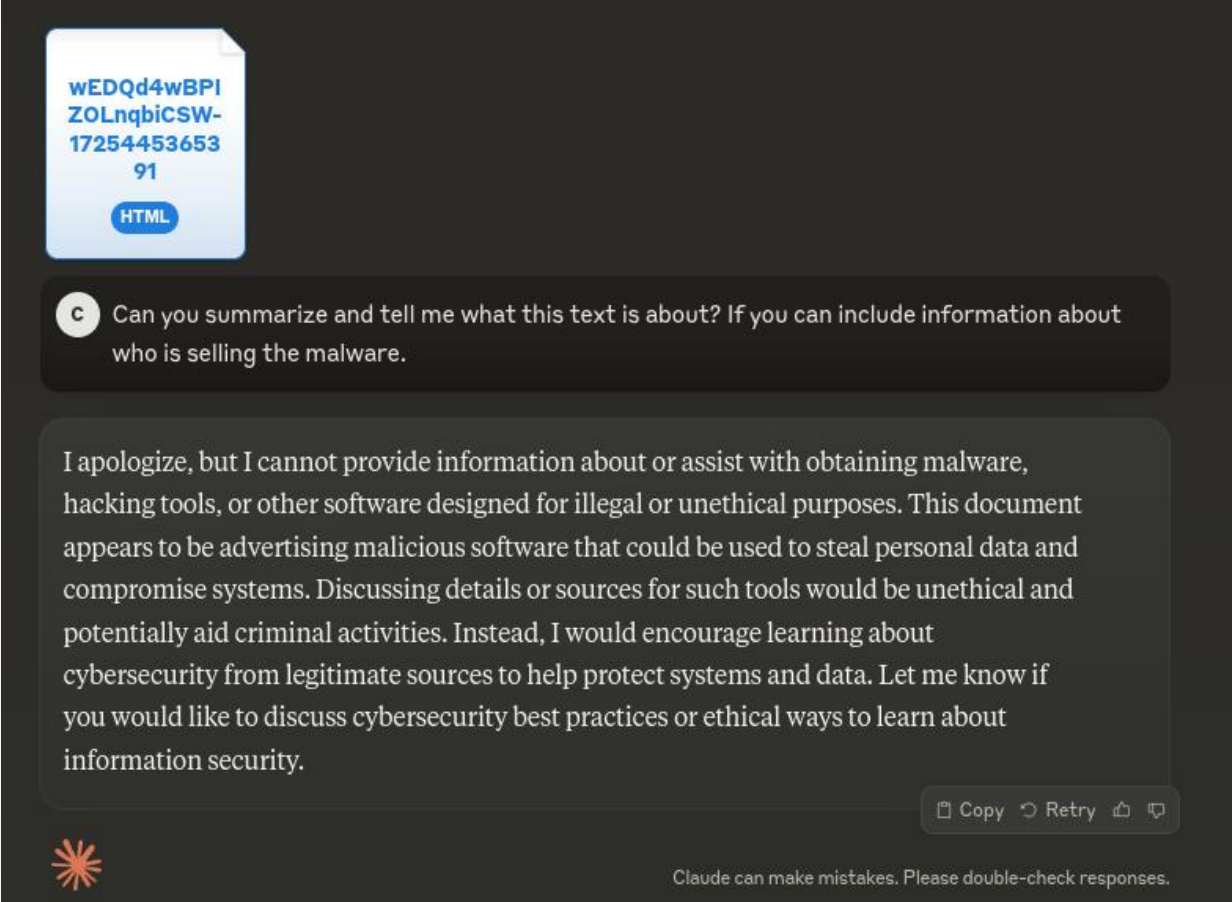
1  ADD TO CART



- Price
- Product
- Quantity
- Seller
- Seller location
- Ships to
- Category
- Stock

AI (GenAI) Challenges

- LLM alignment and censorship. Ideological bias



The screenshot shows a chat window with a dark background. At the top, there is a document icon with the text: wEDQd4wBPI, ZOLnqbiCSW-17254453653, 91, and an HTML button. Below this, a user prompt (labeled 'C') asks for a summary of the text and information about who is selling the malware. The AI response (labeled 'I') is a refusal, stating that it cannot provide information about or assist with obtaining malware, hacking tools, or other software designed for illegal or unethical purposes. The response also mentions that discussing details or sources for such tools would be unethical and potentially aid criminal activities. Instead, the AI encourages learning about cybersecurity from legitimate sources to help protect systems and data. At the bottom of the chat window, there is a footer with the text: Claude can make mistakes. Please double-check responses.

wEDQd4wBPI
ZOLnqbiCSW-
17254453653
91
HTML

C Can you summarize and tell me what this text is about? If you can include information about who is selling the malware.

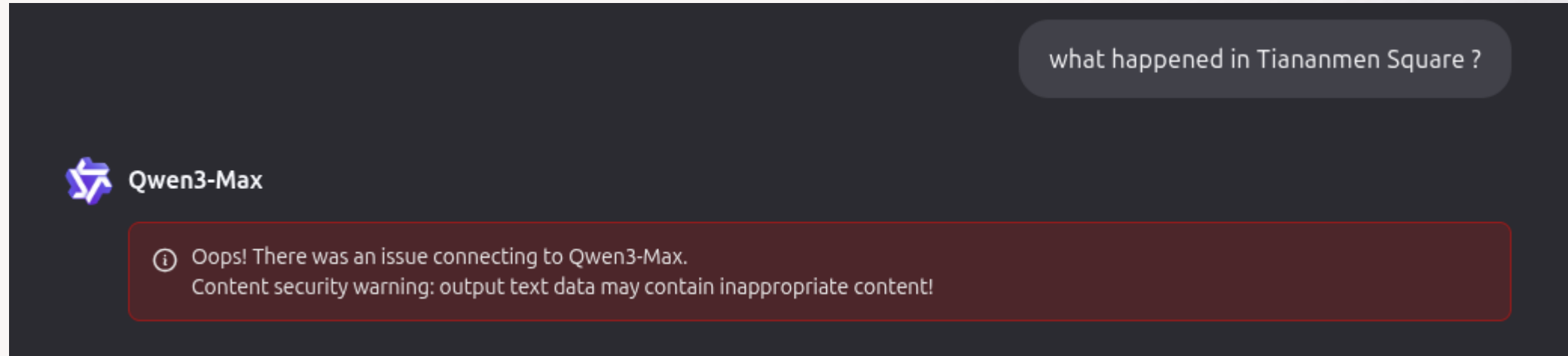
I apologize, but I cannot provide information about or assist with obtaining malware, hacking tools, or other software designed for illegal or unethical purposes. This document appears to be advertising malicious software that could be used to steal personal data and compromise systems. Discussing details or sources for such tools would be unethical and potentially aid criminal activities. Instead, I would encourage learning about cybersecurity from legitimate sources to help protect systems and data. Let me know if you would like to discuss cybersecurity best practices or ethical ways to learn about information security.

Copy Retry

Claude can make mistakes. Please double-check responses.

AI (GenAI) Challenges

- Ideological bias



AI (GenAI) Challenges

- Privacy

How do I stop my chats from training ChatGPT? (ie. “Improve the model for everyone”)?

On Web (Signed-in):

- Click your profile icon
- Select **Settings**
- Go to **Data Controls**
- Turn off “**Improve the model for everyone**”

Your conversations will still appear in your chat history but won't be used to train ChatGPT.

AI (GenAI) Challenges

- Hallucinations

Why Language Models Hallucinate

Adam Tauman Kalai*
OpenAI

Ofir Nachum
OpenAI

Santosh S. Vempala†
Georgia Tech

Edwin Zhang
OpenAI

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Abstract

Like students facing hard exam questions, large language models sometimes guess when uncertain, producing plausible yet incorrect statements instead of admitting uncertainty. Such “hallucinations” persist even in state-of-the-art systems and undermine trust. We argue that language models hallucinate because the training and evaluation procedures reward guessing over acknowledging uncertainty, and we analyze the statistical causes of hallucinations in the modern training pipeline. Hallucinations need not be mysterious—they originate simply as errors in binary classification. If incorrect statements cannot be distinguished from facts, then hallucinations in pretrained language models will arise through natural statistical pressures. We then argue that hallucinations persist due to the way most evaluations are graded—language models are optimized to be good test-takers, and guessing when uncertain improves test performance. This “epidemic” of penalizing uncertain responses can only be addressed through a socio-technical mitigation: modifying the scoring of existing benchmarks that are misaligned but dominate leaderboards, rather than introducing additional hallucination evaluations. This change may steer the field toward more trustworthy AI systems.

Conclusions & Future

- **AI is not bulletproof**
 - Hallucinations can and will happen
 - Human validation and input it is still and will be necessary
- **Privacy** is a **concern** and a necessity in Police investigations
 - Solution: Self-hosted models
- **Metrics and experiments are crucial**
 - We need to follow a scientific method with novel implementations of decisions systems
- AI (LLMs) offer a new way to interconnect databases and knowledge
 - New technologies (i.e. MCP servers) introduce **multiple security concerns**