NHS
East London
NHS Foundation Trust

ELFT Generative Artificial Intelligence (GenAI) user guide

Aims of this user guide

This user guide aims to explain and give you confidence to know how to use Generative AI (GenAI) safely and appropriately. We'll provide examples of what we've found to work well so far and confirm what is *not* acceptable use of GenAI at ELFT and should be avoided. This guidance will develop over time as AI tools continue to appear and change, to keep you informed about which AI tools you can use at ELFT.

Key message

GenAI technology must not be used with patient, staff or commercial data unless approved by ELFT's Digital Solutions Board.

This guide is divided into 6 parts to make it easier to find what you're looking for:

1. What is Generative AI? (Sources: Gen AI framework for HM Gov & Garter)

Generative AI (GenAI) refers to an artificial intelligence technology that generates new content such as images, text or audio in response to text prompts.

AI models which generate content are not new and have been the subject of research for the last decade, but it was the launch of ChatGPT in November 2022 which increased public awareness and interest in the technology, as well as triggering an acceleration in the development of Gen AI tools.

Gen AI can be the basis for stand-alone applications such as Microsoft Copilot or Google Gemini or may be incorporated into other applications such as video conferencing apps, content creation apps, or internet search engines.

Examples of what Generative AI can do:

- create new content in response to text prompts, including pictures, sound or video
- search large data sources to produce structured summaries and provide insights
- virtual assistant chatbots can provide a user-friendly interface for complex systems
- create new computer code for automation of tasks or other applications

2. Appropriate use of publicly available GenAI tools at ELFT

GenAI tools available to the public:

- Microsoft Copilot - text AI chatbot
- Google Gemini (previously called Bard) - text AI chatbot
- OpenAI ChatGPT Enterprise - text AI chatbot, also capable of generating images
- Virtual assistants on mobile devices: Alexa, Google Assistant and Siri

The key consideration when using publicly available GenAI tools is the type of data being used or generated by the tool. **ELFT supports the use of these tools only with data that is already available to the public or self-generated data.**

Data that should not be used with AI tools:

- **Service user data**
- **Data about ELFT staff**, for example data which would allow staff members to be identified such as full names, home addresses, phone numbers or email addresses. We must protect staff member's confidential information including their health, financial or other personal information.
- **Data from services that is not available to the public**, for example service performance data, incident-related data or internal email communications not appropriate for sharing with the public.
- **ELFT commercial data**, for example business plans, contracts, budget reports or other financial information which is private to ELFT.
- **Work IDs and existing passwords**

Microsoft Edge Copilot MUST NOT be used within the Edge browser when accessing clinical systems such as the RiO electronic patient record. This is because all the data that is submitted to Copilot and similar tools can be used by companies like Microsoft and shared worldwide. It is therefore important that we do not enter any confidential data into these publicly available GenAI tools.

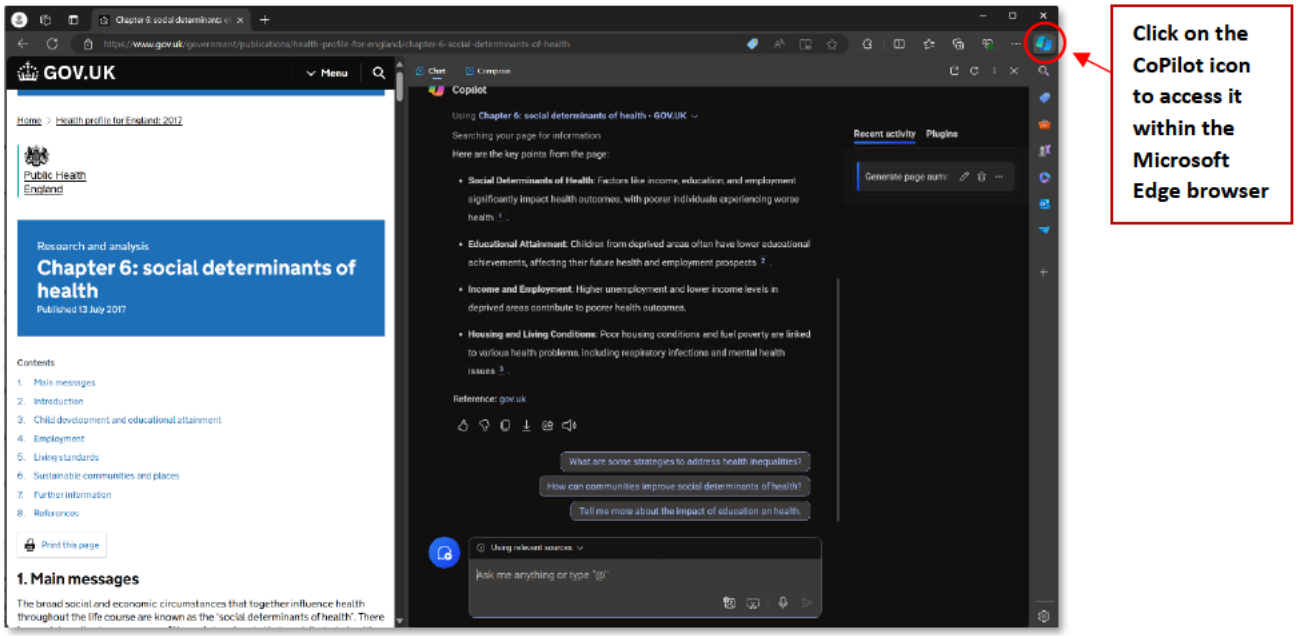
Advice about patient data and confidential patient information can be found at NHS Digital.

In the future, ELFT will be looking for opportunities to develop secure and locally hosted GenAI tools which do not send information entered to private companies.

An example of appropriate GenAI

We asked Copilot to summarise the key points from publicly available data found on GOV.UK. This can provide a helpful starting point for learning about complex subjects.

You can access CoPilot within a Microsoft Edge internet browser by clicking on the icon in the top right corner.



Other suggested uses of publicly available GenAI at ELFT:

- creating an outline structure and suggestions for a report
- summarising non-confidential information from the internet or personal notes for a presentation or paper
- creating a summary of online research sources as an overview of the evidence base
- summarising non-confidential meeting transcripts, provided that the output summary is checked for accuracy
- suggesting creative themed ideas for a workshop session

ELFT Case study: Quality Improvement (QI) testing of GenAI use cases

Our QI department are integrating the use of GenAI within their work and the way we teach QI, and have been gathering feedback on how it's already proving valuable for:

- **writing assistance**: eliminating word repetition, summarising content, and enhancing report quality
- **data analysis and visualisation**: interpreting complex data representations, such as Pareto charts, and creating analytical diagrams like Ishikawa Analysis, and for theming feedback from surveys to generate key insights
- **creative content generation and planning of events**: generating ideas and content for team building and away day activities, designing educational sessions and creating first draft agendas for meetings
- **horizon scanning:** literature scans on specific topics, helping to identify potential change ideas for testing for works areas including equity and system flow

Key QI team learning so far includes:

- **using effective prompts**: successful interactions with AI often involved clear, specific prompts and, in some instances, iterative refinement to achieve the desired results
- **recognising GenAI's limitations**: being prepared to adjust strategies when AI is found to be less useful, for example when dealing with complex data visualisations

3. Potential future uses of GenAI at ELFT

Patient-facing AI could help find and explain information, aid communication with clinical services, and offer guidance or deliver therapy.

Clinician-facing AI could aid in assessment and formulation of patient needs, and present information to guide clinical treatments and management plans.

Administration-focused AI could automatically summarise and document clinical interactions to release time for direct patient care, produce and send clinical documents.

4. Reasons for caution in the use of GenAI tools within the NHS

The following are practical, legal and ethical considerations in the use of Gen AI for healthcare:

AI data privacy and confidentiality: information entered into public GenAI tools may be used to train that AI model and then appear in the content created by other users worldwide, breaking confidentiality. GenAI tools within the NHS will need to be secure and use of the data must be tightly controlled. We will need clear processes for gaining patients' informed consent before their information could be used, even for secure AI models.

AI cybersecurity: malicious cyber threat actors can exploit GenAI to create deceptive content for phishing attacks or other malicious purposes. Cyber security events may be hidden and only identified after the event.

Incorrect or copyright AI outputs: AI-generated content may be wrong or inaccurate. Outputs created by GenAI tools may provide fictitious answers that are sometimes referred to as 'hallucinations' or may contain copyrighted information or others' intellectual property. Staff should therefore review all the content generated by AI and be alert for information which needs to be removed.

Biased AI outputs: GenAI tools incorporate the biases of the data that is used to train them. This can cause them to systematically and repeatedly discriminate against minority groups who are not accurately represented within the training data. Biased AI models can be disproportionality harmful to vulnerable groups and if used across a whole organisation could negatively affect vast numbers of service users and staff.

AI transparency and responsibility for decisions: GenAI models are complex and it can be challenging or impossible to understand how they arrive at the outputs they produce. This lack of transparency may cause issues with identifying who is responsible for the output of a GenAI model and any clinical use of AI will be require a human to check its output and take responsibility for using this output appropriately.

AI implementation in healthcare organisations requires specialist skills and resources: appropriate technical resources and trained professionals who can oversee the AI system, tracking its development, assuring the quality and safety of its outputs, and also ensuring the system is only used for what it has been designed to do.

Human interaction with AI: AI-generated content is not thoughtful or compassionate. If we are providing AI generated content to others, we must be mindful of the recipient and ensure the content is appropriate for them. If communicating with service users, then any AI-generated content used should be clearly identified as such because failure to disclose this may create mistrust when a human interaction would reasonably have been expected. We must also review the content to ensure it is not superficial, critical, dismissive or otherwise negative in its effect on others.

Potential moral objections to use of AI: Many will feel excited and hopeful about the use of GenAI, but some will feel concerned about aspects of AI such as:

- the massive climate impact of operating them
- the potential to unintentionally stigmatise and discriminate
- the potential to influence cultural and political change
- the potential to intentionally deceive with deepfakes

The UK government hasn't yet produced legislation to regulate the use of AI and relies on existing laws and regulations including the UK GDPR and Data Protection Act 2018, Equality Act 2010, and the Computer Misuse Act 1990. In the absence of dedicated AI regulation, the NHS will continue to develop best practice guidance for the ever-changing state of GenAI.

5. How ELFT is preparing to adopt new GenAI technologies in the future

We're enthusiastic about the potential benefits to be gained from AI and believe that ELFT has an obligation to engage with the opportunities that AI offers, to improve the experience and outcomes of the care we deliver. We also need to guard against the harms that could come from inappropriate or unsupported use of GenAI. We want to avoid getting carried away by the hype of AI, always ensuring that we have clearly identified the problem that we need AI to solve first, then find the best AI solution, rather than trying to implement an AI solution just because it's new and exciting.

We will work with NHS partners and system suppliers to introduce safe and effective use of GenAI and we will engage with requests for use of AI across ELFT so that we can better understand the problems which AI could solve. ELFT does not yet have AI tools for use by staff to deliver clinical care, but we are actively exploring potential uses of AI including Natural Language Processing to summarise clinical information, and ambient speech-to-documentation solutions. We are engaging with NHS England to look at the use of Microsoft's AI offerings within the NHS Microsoft shared tenant (e.g. NHS Mail).

Current preparations at ELFT to prepare for use of GenAI

- **Governance:** The ELFT AI and Automation Steering Group has been established to help drive our understanding and use of AI.
- **New projects:** we will use ELFT's existing governance processes for approval of all new digital systems including AI (see below for more details).
- **Engaging with NHS England:** interest expressed in use of Copilot for NHS-hosted MS Office 365 suite of products
- **Engaging with commercial suppliers:** options appraisal of ambient dictation and documentation solutions
- **Developing ELFT digital skills and knowledge in AI:** For ELFT to be able to employ best practice in testing and implementing AI solutions, engaging external services where required
- **Developing ELFT staff confidence and experience in use of Gen AI:** increasing our understanding and confidence to adopt new AI solutions as these become available

6. How do I recommend or request use of a new AI tool at ELFT?

If you want to use a new AI tool at ELFT then please contact ELFT's Digital Project Management Office (Digital PMO) by emailing elft.digitalpmo@nhs.net before using the tool, because any new digital system must go through a mandatory approval process.

ELFT's approvals process involves support from the Digital PMO to develop a business plan and project outline which address considerations including cyber security, information governance, system support requirements, financial costs, and clinical safety. This business case must then be presented to ELFT's Digital Solutions Board for approval before any clinical use of the tool is permitted.

Important: If you have already started using an AI tool before this guidance was published, it is essential that you still inform the digital PMO to ensure the correct processes are followed.

To make a request for use of a new AI tool, please email elft.digitalpmo@nhs.net and answer the following prompts to help us understand what is being requested and why.

- The problem we want to solve by using GenAI
- The information to be evaluated or created using GenAI
- The AI tool to be used (if known)
- The benefits that would be delivered for patients and/or staff
- The service lead who would sponsor this AI project