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ChatGPT and the future of legal education and practice

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ABSTRACT

The launch of ChatGPT, a natural language open-source AI platform, in November 2022 has taken the world by storm and artificial intelligence appears to be at a watershed moment in technological advancement. This article explores the emergence of ChatGPT and considers the implications for legal education and practice. It will examine how law schools can develop strategies for assessments to make them more challenging for generative AI while educating students on its potential in the workplace. All legal educators are now on a journey to navigate the complexities of open-source AI technology and comprehend its implications. We should not ignore or underestimate the potential impact on both legal education and legal practice, and we must consider new methods to incorporate AI technology into our teaching.

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KEYWORDS ChatGPT; artificial intelligence (AI); legal education; legal practice; technology

Introduction

ChatGPT is an open-source large language model developed by OpenAI that has generated a considerable amount of interest and excitement since its launch on 30 November 2022. Elon Musk described it as “scary good”¹ and Aaron Levie said “every time you think you know what ChatGPT can do, you realize you know almost nothing yet. The infinite depth of what it means for a computer to understand language is mindboggling and we’re just scratching the surface.”² However, there are others who are less convinced, such as Ian Bogost who suggests that “ChatGPT is dumber than you think”.³ With the advent of any innovative technology there is always paranoia mixed with fear coupled with hype, and ChatGPT is no exception.⁴

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¹Elon Musk, “ChatGPT Is Scary Good” (*Twitter*, 3 December 2022) <<https://twitter.com/elonmusk/status/1599128577068650498>> accessed 13 April 2023.

²Aaron Levie, “What ChatGPT Can Do” (*Twitter*, 12 January 2023) <<https://twitter.com/levie/status/1613409949312327680>> accessed 13 April 2023.

³Ian Bogost, “ChatGPT Is Dumber than You Think” (*The Atlantic*, 7 December 2022) <www.theatlantic.com/technology/archive/2022/12/chatgpt-openai-artificial-intelligence-writing-ethics/672386/> accessed 10 March 2023.

⁴Bob Seidensticker, *Future Hype: The Myths of Technology Change* (Berrett-Koehler 2006).

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As an AI-based chatbot, ChatGPT answers questions using natural language, covering almost every conceivable topic, and engaging with the user in a conversational style through questions and prompts. It is trained through conversations to be able to predict the next word in a sentence given the context of the previous words. It is very straightforward to use and the user can tailor the conversation to generate the types of responses it is looking for. It goes beyond simply answering questions, and can generate code, write poetry, social media posts, blogs, and essays in several languages.⁵ It is powered through OpenAI's language processing technology and uses patterns that it has learned through training to generate a response that looks appropriate in the conversation with the user. It applies algorithms to analyse and understand the meaning of the input and generate a response. The power of ChatGPT is in the speed and quality of its responses. It is very difficult to distinguish what it produces from human text. It has been trained on a huge corpus of open-source data drawn from the internet prior to September 2021, as well as some licensed sources, although the exact data used has not been disclosed by OpenAI.⁶ It is not known whether those licensed sources include comprehensive legal research platforms such as Lexis Library or Westlaw Edge.⁷

ChatGPT is likely to have a significant impact on both work and education, including legal careers and legal education, as it provides easily comprehensible answers to a variety of different questions very quickly. This article aims to explore the issues raised by generative AI for law schools in order to make an early contribution to the conversation about the implications of this technology. It will explain how ChatGPT works and demonstrate its use by describing some research to discover whether ChatGPT could pass the Solicitors Qualifying Examination (specifically SQE1). Given the performance of this technology in professional examinations, the article will also summarise the way in which generative AI is being used within legal careers and how this could develop further. It then goes on to consider the regulation of generative AI before looking at its potential impact on law teaching and assessment.

Generative AI is changing extraordinarily fast, with new versions of ChatGPT being developed and other companies releasing their own versions, such as Google's Bard. This article draws upon information available up until the middle of April 2023. While the detail of the technology is likely to change within the next couple of years, the general principles relating to its operation, regulation and the implications for legal careers and education will therefore remain relevant.

How does ChatGPT work?

ChatGPT is a large language model (LLM), specifically a natural language processing model. This is an adaptive algorithm that tries to predict the next word in a sentence. However, this simple explanation belies the complex nature of its design. It uses gigabytes of data of text to "learn" how to predict which word comes next in a sentence.

⁵Sebastien Bubeck and others, "Sparks of Artificial General Intelligence: Early Experiments with GPT-4" (2023) arXiv preprint arXiv:2303.12712.

⁶Jürgen Rudolph, Samson Tan and Shannon Tan, "ChatGPT: Bullshit Spewer or the End of Traditional Assessments in Higher Education?" (2023) 6(1) *Journal of Applied Learning & Teaching* 1. This article provides more information around the development of OpenAI and GPT-3. For details of GPT-4, see <<https://openai.com/research/gpt-4>> accessed 14 April 2023.

⁷Jonathan Choi and others, "ChatGPT Goes to Law School" (2023) *Minnesota Legal Studies Research Paper No 23-03* <<https://ssrn.com/abstract=4335905>> accessed 10 March 2023.

Given enough gigabytes of text it learns how to predict with high probability what word comes next in a natural conversation, or a specific form of textual document such as a letter, a complaint, a product review, a blog, or a script.

The model takes a sentence input, uses the knowledge gained from processing the vast amount of text to give a likelihood of what the input is about and gives a response that it thinks is most likely to be correct. The bigger the source of data, the better the prediction. This is one of the biggest differences between ChatGPT's third iteration, GPT-3 (or 3.5) and GPT-4: the amount of data parameters that each version has been trained on. It is estimated that GPT-3 was trained on 175 billion parameters (around 570GB of data, and 300 billion words).⁸ While the information regarding the size or the source of the data that GPT-4 was trained on is not publicly available, the estimates are that it is a large multiple of GPT-3.

The prediction-based nature of ChatGPT is its biggest limitation but also a source of strength because as it can only give its best guess as to what the sentence input means, it can only give its best guess as to what the answer should be. This means that it does not "know" when it has made a mistake, because an answer is just a statistical probability of what should come next based on the available data regardless of whether it is factually correct or not. It therefore does not recognise when it provides incorrect information and does not have the ability to check its own truthfulness. It will also produce biased responses if the data it relies upon contains bias. When it does not have the information, it makes things up (or "hallucinates"), which can include inventing references and sources.⁹ As it is finding the next series of plausible words, the answers can sometimes be formulaic and lack depth.

The phrasing of the instructions can improve the quality of the responses produced by ChatGPT. As it is a conversational platform, responses can be interrogated further through follow-up questions. It is capable of combining multiple responses to produce a better response. ChatGPT is not perfect but with significant investment it is evolving rapidly, and we should expect to see more capable versions released in the future. Since the larger the data, the better the prediction, one can reasonably assume that it will only get better at its predictions as more data and more resources are thrown at it. Its interaction with users should only improve its predictive performance because many users will inform it when it is wrong, if not directly, then by posting online.

ChatGPT has had such a significant impact because it is easily accessible; it is an open-source platform that is free to use in its GPT-3 version. Its popularity has been such that users cannot always access the platform because of high demand, as it has reached capacity. It had a million users in its first week and passed the one billion mark in March 2023.¹⁰ There is also a paid version of ChatGPT – ChatGPT Plus, which is currently \$20 per month and gives unrestricted access to GPT-4 and early access to new features.¹¹ Microsoft is investing \$10 billion into ChatGPT and is integrating the

⁸Alex Hughes, "ChatGPT: Everything You Need to Know about OpenAI's GPT-4 Tool" (*BBC Science Focus*, 3 April 2023) <www.sciencefocus.com/future-technology/gpt-3/> accessed 13 April 2023.

⁹Sean Semmler and Zeeve Rose, "Artificial Intelligence: Application Today and Implications Tomorrow" (2017) 16 *Duke L & Tech Rev* 85.

¹⁰Daniel Ruby, "57+ ChatGPT Statistics for 2023 (New Data + GPT-4 Facts)" (*DemandSage*, 28 April 2023) <<http://www.demandsage.com/chatgpt-statistics/>> accessed 13 May 2023.

¹¹OpenAI, "Introducing ChatGPT Plus" (*OpenAI*, 1 February 2023) <<https://openai.com/blog/chatgpt-plus>> accessed 13 April 2023.

technology into its range of software. It started with Bing chat, a feature of its Bing search engine. Bing is theoretically more powerful and more accurate because it can access updated information from web results and has had further training to respond to instructions and complete tasks more effectively.¹² Microsoft announced on 16 March 2023 the introduction of Microsoft 365 Copilot.¹³ This is a version of ChatGPT with its Office suite of applications, such as Word, PowerPoint and Excel. There are other similar platforms in development, including from Google, which launched its own conversational AI service called Bard in March 2023.¹⁴ This opens up a whole new set of challenges and opportunities as LLM technology becomes part of the background of modern life.

ChatGPT and SQE1

One reason why ChatGPT has been making headlines in recent months is because of its performance in a variety of professional exams. For example, Gilson and others¹⁵ and Kung and others¹⁶ (the “others” here include ChatGPT) subjected it to questions from the United States Medical Licensing Exam, whereas other studies have tested ChatGPT on the major US accounting exam¹⁷ and the Multistate Bar Exam.¹⁸ All of these tests were conducted using GPT3/GPT3.5 and showed that it performed consistently around the borderline pass level.

Following this research, one of the authors of this paper carried out the same experiment with the multiple-choice SQE1 using the 90 sample SQE1 questions published by the Solicitors Regulation Authority (SRA) on its website.¹⁹ SQE1 actually comprises 360 multiple-choice questions (MCQs) which test functioning legal knowledge (ie applied legal knowledge). However, while practice SQE1-type MCQs are widely available it was decided to use only the official SRA ones to ensure high fidelity, and the test bank of 90 questions was considered adequate for the purposes of the research.

So, how did ChatGPT do? It scored a pretty decent 50% (45 out of 90), mirroring its US Multistate Bar Exam score.²⁰ As the passing scores for the November 2021, July 2022

¹²Jon Martindale, “ChatGPT v Bing Chat: Which Is the Best AI Chatbot?” (*Digital Trends*, 22 March 2023) <www.digitaltrends.com/computing/chatgpt-vs-bing-chat/> accessed 13 May 2023.

¹³Jared Spataro, “Introducing Microsoft 365 Copilot – Your Copilot for Work” (*Official Microsoft Blog*, 16 March 2023) <<https://blogs.microsoft.com/blog/2023/03/16/introducing-microsoft-365-copilot-your-copilot-for-work/>> accessed 13 May 2023.

¹⁴BBC News, “Bard: Google’s Rival to ChatGPT Launches for Over 18s” (*BBC News*, 21 March 2023) <www.bbc.co.uk/news/technology-65018107> accessed 22 March 2023.

¹⁵Aiden Gilson and others, “How Does ChatGPT Perform on the United States Medical Licensing Examination? The Implications of Large Language Models for Medical Education and Knowledge Assessment” (2023) 9 *JMIR Med Educ* <<https://mededu.jmir.org/2023/1/e45312/>> accessed 13 May 2023.

¹⁶Tiffany Kung and others, “Performance of ChatGPT on USMLE: Potential for AI-Assisted Medical Education Using Large Language Models” (2023) 2(2) *PLOS Digital Health*, e0000198.

¹⁷Jillian Bommarito and others, “GPT as Knowledge Worker: A Zero-Shot Evaluation of (AI)CPA Capabilities” (2023) arXiv preprint arXiv:2301.04408.

¹⁸Michael Bommarito and Daniel Katz, “GPT Takes the Bar Exam” (2022) arXiv preprint arXiv:2212.14402.

¹⁹Solicitors Regulation Authority, “SQE1 Functioning Legal Knowledge Sample Questions” (Solicitors Regulation Authority) <<https://sqe.sra.org.uk/exam-arrangements/assessment-information/sqe1-sample-questions>> accessed 13 April 2023.

²⁰Andrew Gilbert, “Revealed: Could ChatGPT Pass the SQE?” *Law Society Gazette* (19 January 2023) <www.lawgazette.co.uk/commentary-and-opinion/revealed-could-chatgpt-pass-the-sqe/5114840.article?adredir=1> accessed 13 April 2023.

and January 2023 SQE1 sittings were respectively 57%, 56% and 57%,²¹ this meant ChatGPT fell just short of a pass. To put that in context, students in both sittings who had a third-class undergraduate degree averaged scores in the high 40s percent and those with a 2:2 averaged in the low 50s percent.

The same 90 questions were submitted again to ChatGPT following the launch of GPT-4 on 14 March 2023.²² That iteration has been trained up to September 2021 on a significantly larger corpus of publicly available and licensed data compared to its predecessor. It is reasonable to assume that the licensed data includes legal databases as its performance on the US Uniform Bar Exam rocketed from the 10th percentile (213/400) to the 90th (298/400).²³ Its improvement on the SQE1 questions was of a comparable magnitude: scoring 70/90 or 78%, which would have put it in the top quintile for the November 2021 and July 2022 sittings.²⁴

Why does any of this matter? The SQE is sat in controlled conditions without access to AI chatbots, so there is no risk that the actual exams will be compromised. Rather, the impact of this technology falls either side of professional exams: on legal education and in legal practice. Much has already been written about the profound impact generative AI will have on assessment but that misses an even more fundamental point about what higher education should look like in an age where AI might do to the jobs of knowledge workers what mechanisation did to those of manual workers in previous centuries.

AI in legal practice

AI is already a feature of legal practice.²⁵ Although many doomsday predictions have suggested that technology will replace lawyers with robots, the reality is more complex. Technology will continue to automate routine legal tasks to make the work of lawyers more productive and efficient, but this will free lawyers up to focus on more complex work.²⁶ ChatGPT and other similar platforms provide mechanisms to facilitate collaboration between lawyers and technology to undertake elements of legal work. A lawyer could use ChatGPT to produce first drafts of legal documents and then customise the results, making the drafting process more streamlined and efficient.²⁷ ChatGPT can undertake legal research, as it has the facility to retrieve and analyse legal information (including legal cases and legislation) and summarise research. In February 2023, Mishcon de Reya advertised for

²¹Solicitors Regulation Authority, "Solicitors Qualifying Examination Annual Report 2021/22" (Solicitors Regulation Authority, 16 March 2023) <https://sqa.sra.org.uk/docs/default-source/pdfs/reports/sqe-annual-report-2022.pdf?sfvrsn=ce29cd5c_2> and "SQE1 January 2023 Assessment Report" (Solicitors Regulation Authority, 28 March 2023) <<https://sqa.sra.org.uk/exam-arrangements/sqe-reports/sqe1-january-2023>> accessed 13 April 2023.

²²Andrew Gilbert, "ChatGPT Aces SQE Resit, But It's Back to School for Bard" *Law Society Gazette* (24 March 2023) <www.lawgazette.co.uk/commentary-and-opinion/chatgpt-aces-sqe-resit-but-its-back-to-school-for-bard/5115529.article> accessed 13 April 2023.

²³OpenAI, "GPT-4" (*OpenAI*, 14 March 2023) <<https://openai.com/research/gpt-4>> accessed 10 March 2023.

²⁴Solicitors Regulation Authority, "Solicitors Qualifying Examination Annual Report 2021/22" (Solicitors Regulation Authority, 16 March 2023) <https://sqa.sra.org.uk/docs/default-source/pdfs/reports/sqe-annual-report-2022.pdf?sfvrsn=ce29cd5c_2> accessed 13 April 2023.

²⁵Michael Legg and Felicity Bell, "Artificial Intelligence and the Legal Profession: Becoming the AI-Enhanced Lawyer" (2019) 38(2) *U Tas L Rev* 34.

²⁶*ibid.*

²⁷Jonathan Choi and others, "ChatGPT Goes to Law School" (2023) Minnesota Legal Studies Research Paper No 23-03 <<https://ssrn.com/abstract=4335905>> accessed 10 March 2023.

a “GPT Legal Prompt Engineer” to support the firm in incorporating natural language models into its practice.²⁸ There are also models of AI designed specifically for use in individual law firms. Allen & Overy announced in February 2023 that it was integrating Harvey into its practice. Harvey uses GPT AI technology developed by OpenAI through a collaboration with lawyers, technologists and entrepreneurs.²⁹ The platform can automate and assist with elements of legal work including contract analysis, insights, research and creation of legal documents. Harvey is working with other law firms so we should expect to see further announcements on its adoption in other practices soon.³⁰ It is expected that AI systems comparable to ChatGPT will be integrated into legal practice within a relatively short period of time.³¹

The adoption of AI and emergence of open-source AI platforms such as ChatGPT highlight that students will need to be proficient with this technology when they transition into all forms of work, not just legal work.³² However, when it comes to legal work, technology is changing legal practice and while fewer lawyers may be required in the future, it does not yet render lawyers obsolete. But if technology can complete routine work to allow lawyers to concentrate on more complex tasks, then higher order skills become more valuable.³³ Deep knowledge and judgment remain critical components of a lawyer’s job, and human skills such as empathy are becoming increasingly more important in a technologically enhanced world.³⁴ Technology is not something new; lawyers are already required to understand and engage with technology, as well as collaborate with other professionals such as technologists and data scientists. But as technology becomes more pervasive lawyers need to be confident to speak not only the language of law but the language of “technology”.³⁵ Addressing the implications of ChatGPT in teaching and learning provides an opportunity to consider how we should be preparing students for new ways of working. Law schools cannot afford to ignore the advances in technology, and ChatGPT offers fresh impetus to reflect on our curriculum to ensure it supports students to transition into new ways of working.

²⁸Emily Hinkley, “Mishcon de REYA Is Hiring an ‘Engineer’ to Explore How Its Lawyers Can Use ChatGPT” (*Legal Cheek*, 16 February 2023) <www.legalcheek.com/2023/02/mishcon-de-reya-is-hiring-an-engineer-to-explore-how-its-lawyers-can-use-chatgpt/> accessed 20 March 2023.

²⁹David Wakeling, “A&O Announces Exclusive Launch Partnership with Harvey” (Allen & Overy, 15 February 2023) <www.allenoverly.com/en-gb/global/news-and-insights/news/ao-announces-exclusive-launch-partnership-with-harvey> accessed 10 March 2023.

³⁰Bob Ambrogi, “As Allen & Overy Deploys GPT-based Legal App Harvey Firmwide, Founders Say Other Firms Will Soon Follow” (*LawSites*, 17 February 2023) <www.lawnext.com/2023/02/as-allen-overly-deploys-gpt-based-legal-app-harvey-firmwide-founders-say-other-firms-will-soon-follow.html#:~:text=As%20Allen%20%26%20Overy%20Deploys%20GPT-based%20Legal%20App,Follow%20By%20Bob%20Ambrogi%20on%20February%2017%2C%202023> accessed 10 March 2023.

³¹Robert Hart, “ChatGPT’s Biggest Competition: Here Are the Companies Working on Rival AI Chatbots” (*Forbes*, 23 February 2023) <www.forbes.com/sites/roberthart/2023/02/23/chatgpts-biggest-competition-here-are-the-companies-working-on-rival-ai-chatbots/> accessed 22 March 2023.

³²Kristen Murray, “Take Note: Teaching Law Students to Be Responsible Stewards of Technology” (2021) 70 *Cath U L Rev* 201.

³³Jenna Greene, “Will ChatGPT Make Lawyers Obsolete? (Hint: Be Afraid)” (*Reuters*, 9 December 2022) <www.reuters.com/legal/transactional/will-chatgpt-make-lawyers-obsolete-hint-be-afraid-2022-12-09/> accessed 20 March 2023.

³⁴Charles Towers-Clark, “Human Skills Will Be the Most Important in the Digital Future of Work” (*Forbes*, 10 December 2020) <www.forbes.com/sites/charlestowersclark/2020/12/10/human-skills-will-be-most-important-in-the-digital-future-of-work/?sh=6ad3166d7721> accessed 22 March 2023.

³⁵Kristen Murray, “Take Note: Teaching Law Students to Be Responsible Stewards of Technology” (2021) 70 *Cath U L Rev* 201.

Regulating AI: the AI-Pocalypse?

ChatGPT and other LLM technology poses a number of regulatory challenges,³⁶ aside from those posed to educators and the education sector. The predominant concerns for educators fall in the areas of copyright, both the use of copyright material and the creation of new content using ChatGPT. AI presents some particular challenges when it comes to copyright, especially in an educational context. For instance, there are questions surrounding the ownership of the output from interactions with AI and LLMs. There are also associated issues surrounding the lawfulness of the use of data that the LLM has been fed in order to “train” the algorithm which leads – in the context of legal study – to the “creation” of new potential copyright content.

Artificial intelligence, including LLMs, is incapable of satisfying the requirements to be regarded as a copyright creator in the UK. In order to be an “author” (and therefore presumed owner) of a copyright work (such as an academic article or a university summative assignment), the work must be created by a legal person.³⁷ A legal person must therefore be not a computer! For creations which are produced by computers – or AI – the copyright will vest in the person responsible for the arrangements that led to the creativity by virtue of section 9(3)³⁸ of the Copyright, Designs and Patents Act 1988.³⁹ For outputs produced by ChatGPT, for example, ChatGPT cannot be attributed as the copyright holder or author. Should a student use ChatGPT to produce an essay, the student would in normal circumstances be likely to be regarded as the author of the essay as the person “creating” the literary work in which copyright vests. However, where a student is using ChatGPT to generate an essay or other written form of assessment submission, it is unlikely that this would be the situation as the student is not “creating” the content that forms the essay.⁴⁰ Equally, ChatGPT would also not be regarded as the author of the work. In the context of a student submission, this can – and will – present some difficulties when a submission confirmation requires affirmation that the work is entirely produced by the student themselves. Where a student has used ChatGPT, this is of course not the situation.

This default position adopted by copyright law is complicated somewhat by the OpenAI Terms and Conditions which state explicitly that OpenAI assigns to the user:

³⁶Including but not limited to privacy (uses and abuses), data protection including the processing of data (see eg Uri Gal, “ChatGPT Is a Nightmare. If You’ve Ever Posted Online, You Ought to Be Concerned” (*The Conversation*, 8 February 2023) <<https://theconversation.com/chatgpt-is-a-data-privacy-nightmare-if-youve-ever-posted-online-you-ought-to-be-concerned-199283>> accessed 13 April 2023). Concerns also persist in respect of the transparency and redress options which may or may not exist for algorithms. See eg Lillian Edwards and Michael Veale, “Slave to the Algorithm? Why a ‘Right to an Explanation’ Is Probably Not the Remedy You Are Looking For” (2017) 16 *Duke Law and Technology Law Review* 18. Other concerns also exist over a proposed Bill of Rights for AI and whether this is feasible or not as a form of governance; see eg Janet Haven, “How to Read the White House’s Blueprint for an AI Bill of Rights” (*Data & Society: Points*, 4 October 2022) <<https://points.datasociety.net/how-to-read-the-white-houses-blueprint-for-an-ai-bill-of-rights-bf6cf312544a>> accessed 13 April 2023. The discussion around “AI harms” also continues to unfold at a rapid pace (see eg Devin Coldewey, “Ethicists Fire Back at ‘AI Pause’ Letter They Say ‘Ignores the Actual Harms’” (*TechCrunch*, 1 April 2023) <<https://techcrunch.com/2023/03/31/ethicists-fire-back-at-ai-pause-letter-they-say-ignores-the-actual-harms/>> accessed 13 April 2023), alongside so-called “bans” of ChatGPT over concerns relating to the legality of data processing (see eg Andrew Griffin, “ChatGPT Banned in Italy” *The Independent* (London, 31 March 2023) <www.independent.co.uk/tech/chatgpt-ban-italy-gdpr-data-protection-b2311738.html> accessed 31 March 2023).

³⁷Copyright, Designs and Patents Act 1988, s1(2).

³⁸The so-called “computer generated works” provision.

³⁹Copyright, Designs and Patents Act 1988 (hereafter CDPA 1988).

⁴⁰A more substantive discussion here as to the potential copyright ownership could focus on the originality requirement for copyright works in the UK but the issue would still arise as to the “author” of the content.

- (a) Your Content ... OpenAI hereby assigns to you all its right, title and interest in and to Output. This means you can use Content for any purpose, including commercial purposes such as sale or publication, if you comply with these Terms. OpenAI may use Content to provide and maintain the Services, comply with applicable law, and enforce our policies. You are responsible for Content, including for ensuring that it does not violate any applicable law or these Terms.
- (b) Similarity of Content. Due to the nature of machine learning, Output may not be unique across users and the Services may generate the same or similar output for OpenAI or a third party. For example, you may provide input to a model such as “What color is the sky?” and receive output such as “The sky is blue.” Other users may also ask similar questions and receive the same response. Responses that are requested by and generated for other users are not considered your Content.⁴¹

The terms and conditions positioning in respect of the content entered into and created by ChatGPT is in itself interesting, as even they stipulate that there will be some content which is not considered to be owned by a particular user of the service itself. While this is a derogation of responsibility for content ownership and by extension, liability – something not uncommon with terms and conditions⁴² – it is also a very simple way of indicating to users that they cannot have expectations about content ownership through their engagement with ChatGPT. This simple set of terms and conditions also neatly excludes liability for the content which ChatGPT creates which may otherwise infringe copyright content from other sources.⁴³

Beyond this, there are some wider issues regarding the entering into ChatGPT (or other LLMs) of university educational content. For instance, should a student feed an assessment question into ChatGPT, it might infringe the university’s copyright. As students are given access to university content and are therefore likely to be permitted to “use” the content as part of their educational study material for the duration of their course, it is hard to foresee a situation where a student could be sued for copyright infringement. Even where such an argument is advanced, it will be difficult to overcome the permitted use exception, especially for research and private study.⁴⁴

Where LLMs rely upon huge volumes of text to predict the next words in a sentence or in a pattern of text, the data from which that prediction is formulated is all pre-existing copyright material. As such, there may be some concerns that arise over whether using an LLM infringes copyright. In the UK, text and data mining (TDM) (the underlying data used to train the LLM) is a permitted use for copyright purposes unless and until the owner of the copyright has opted out. Under the current copyright provisions, it is not copyright infringement for someone to make a copy of copyright content assuming that the copied content is used for non-commercial purposes.⁴⁵ This is broadly reflective of the position across the European Union, which also permits text

⁴¹OpenAI, “Terms of Use” (*OpenAI*, 14 March 2023) <<https://openai.com/policies/terms-of-use>> accessed 13 April 2023.

⁴²Kim Barker, “MMORPGing – The Legalities of Game Play” (2012) 3(1) *EJLT* <<http://ejlt.org/index.php/ejlt/article/view/119/194>> accessed 13 April 2023.

⁴³Claims for copyright infringement are beginning to emerge – see eg *Getty Images (US) Inc v Stability AI Inc* (3 February 2023) <www.meshiplaw.com/litigation-tracker/getty-v-stability-ai>; *Andersen v Stability AI* (13 January 2023) <www.meshiplaw.com/litigation-tracker/andersen-v-stability-ai> accessed 13 April 2023.

⁴⁴CDPA 1988, s29(1).

⁴⁵CDPA 1988, s29A(1)(a) and (b).

and data mining via Article 4 of the Digital Single Market Directive.⁴⁶ In short, in both the UK and the EU, the “training” data that ChatGPT has been “fed” is not infringing of copyright. That said, the current UK provisions on text and data mining are on the verge of reform with a recent consultation⁴⁷ by the UK Government suggesting that there may well be legislative reform to the computer-generated works and text and data mining exceptions of the Copyright, Designs and Patents Act 1988.⁴⁸ At present though, none of this addresses the issues surrounding the copyrightability – or otherwise – of ChatGPT fed or generated content.

Despite the uncertainty regarding the copyright of AI produced text, this is unlikely to prevent students from considering the use of ChatGPT (or similar) as part of their legal studies. In the next section this article therefore explores the implications for law schools on teaching and assessment by considering whether ChatGPT should be regarded as a cheating tool or teaching tool.

Cheating tool or teaching tool?

Given the capabilities of generative AI and the speed with which it is being adopted by individuals and employers, inevitably higher education institutions will need to consider their approach to these technologies for teaching and learning.⁴⁹ However, as Dr Kay Hack noted in a blog on ChatGPT, “agreeing the acceptable use of AI in assessment is not going to be straightforward”.⁵⁰ Universities have a history of banning technologies that threaten academic integrity of student assessment and attainment, including computers, mobile phones, access to the internet and more recently essay mills. However, given the adoption of generative AI by legal and other employers this strategy will not prepare our students for their future careers. There are therefore two different issues to consider when looking at the impact of ChatGPT on teaching: how can we make it more difficult for students to use it as a cheating tool in their assessments, and how can we use generative AI in a positive way as a teaching tool to prepare students with the digital skills they will need in their future employment.

Students could use ChatGPT in several different ways, from submitting assessment questions to it and copying and pasting the results into their assignments, to drafting the assignment themselves and asking ChatGPT to improve its written style, spelling and grammar.⁵¹ Is the latter example any different from using a spelling or grammar check, or putting an assignment through existing language tools such as Grammarly

⁴⁶Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC [2019] OJ L130/92, Article 4.

⁴⁷Intellectual Property Office, “Artificial Intelligence and IP: Copyright and Patents” (Intellectual Property Office, 29 October 2021) <www.gov.uk/government/consultations/artificial-intelligence-and-ip-copyright-and-patents> accessed 13 April 2023.

⁴⁸Alina Trapova and João Pedro Quintais, “The UK Government Moves Forward with a Text and Data Mining Exception for all Purposes” (*Kluwer Copyright Blog*, 24 August 2022) <<https://copyrightblog.kluweriplaw.com/2022/08/24/the-uk-government-moves-forward-with-a-text-and-data-mining-exception-for-all-purposes/>> accessed 13 April 2023.

⁴⁹For a review of the literature on educational chatbots, see Mohammad Amin Kuhail and others, “Interacting with Educational Chatbots: A Systematic Review” (2023) 28 *Education and Information Technologies* 973.

⁵⁰Kay Hack, “‘Excited, Concerned and Curious’: Student Perspectives on Learning and Working in the Era of AI” (*Advance HE Blog*, 21 February 2023) <www.advance-he.ac.uk/news-and-views/excited-concerned-and-curious-student-perspectives-learning-and-working-era-ai> accessed 24 March 2023.

⁵¹Reports of its use by students are emerging, eg Bethan Wild, “ChatGPT: Cardiff Students Admit Using AI on Essays” (*BBC News*, 9 April 2023) <www.bbc.co.uk/news/uk-wales-65167321> accessed 13 April 2023.

(particularly as these tools will be incorporated into Microsoft 365 shortly⁵²)? Institutions will therefore need to carefully consider the extent to which they allow students to engage with ChatGPT when writing their assessments and communicate this policy clearly to students.

Generative AI is capable of answering a variety of different assessment types including essay questions, problem solving questions, multiple choice, reflective questions, short answer questions, blogs, scripts for oral presentations or podcasts and image-based questions such as poster design. Having put a variety of our current assessment questions through ChatGPT, we found the output is clearly written and usually meets the learning outcomes, particularly at FHEQ levels 4 and 5. Our informal assessment is that using current assessment questions, ChatGPT3/3.5 would be awarded a 2:2 or third result in a variety of different assessments, and we are aware that this outcome has been replicated among different law schools and other schools and faculties at other universities, and in the SQE1 test referred to above. The University of Minnesota Law School has published the results of its research using generative AI to answer its assessments, and concluded that:

Overall, ChatGPT passed all four classes based on its final exam, averaging a C+ across all exams, an outcome which would earn credit toward the JD but place the student on academic probation. Notably, if such performance were consistent throughout law school, the grades earned by ChatGPT would be sufficient for a student to graduate.⁵³

One of the problems of students using generative AI in their assessments is that it cannot currently be detected by the usual online plagiarism software programs such as Turnitin or CopyCatch. The text produced is individual to each prompt and therefore will not match existing material on the internet or other students' assignments. The QAA briefing paper on the rise of AI software and potential risks for academic integrity confirms this: "due to the way LLMs generate textual responses, work created in this way can be difficult to identify and cannot be picked up by more traditional plagiarism detection tools".⁵⁴

There are AI detector programs, freely available on the internet and also for a fee, which claim to detect text generated by AI on a statistical probabilities basis.⁵⁵ Indeed, Turnitin has indicated it will release a generative AI detector as part of its package later in 2023.⁵⁶ However, there are several problems with relying on technological solutions to detect assignments written by generative AI. First, the programs operate on a statistical probability basis, and will not by themselves provide evidence of plagiarism if denied by the student. As generative AI continues to rapidly evolve, the detectors are constantly playing catch-up; the current detectors are currently having to test their programs against OpenAI's recently released GPT-4, with no indication of how successful they would be in detecting text from this source. As the numbers of generative AI

⁵²Shiona McCallum, "ChatGPT-Style Tech Brought to Microsoft 365" (*BBC News*, 16 March 2023) <www.bbc.co.uk/news/technology-64970062> accessed 24 March 2023.

⁵³Jonathan Choi and others, "ChatGPT Goes to Law School" (2023) Minnesota Legal Studies Research Paper No 23-03 <<https://ssrn.com/abstract=4335905>> accessed 10 March 2023.

⁵⁴QAA, "The Rise of Artificial Intelligence Software and Potential Risks for Academic Integrity: A QAA Briefing Paper for Higher Education Providers" (QAA 30 January 2023) 1 <www.qaa.ac.uk/news-events/news/qaa-briefs-members-on-artificial-intelligence-threat-to-academic-integrity#> accessed 24 March 2023.

⁵⁵See, for example, GPTZero (free) or Originality.AI (paid).

⁵⁶Turnitin, "Turnitin Announces AI Writing Detector and AI Writing Resource Center for Educators" (*Turnitin*, 13 February 2023) <www.turnitin.com/press/turnitin-announces-ai-writing-detector-and-ai-writing-resource-center-for-educators> accessed 25 March 2023.

services increase, it will be difficult for these detectors to remain current and effective. Finally, these detection programs are not infallible, and all have instances of identifying false positives – where text written by a human is wrongly identified as being generated by AI. Research conducted in February 2023 suggested that one program had a rate of around 9.5% of false positives,⁵⁷ while a test involving Turnitin’s proposed AI detector in a secondary school context had a 19% error rate.⁵⁸ Preliminary unpublished research carried out by colleagues within The Open University showed a false positive rate of around 20–30%. Turnitin itself recognises the unreliability of these types of detectors in its announcement of its own paid detector program: “given that our false positive rate is not zero, you as the instructor will need to apply your professional judgment, knowledge of your students, and the specific context surrounding the assignment”.⁵⁹ Finally, all that is needed to avoid detection through these programs is to replace some of the text with synonyms, or to put the text through a re-writer program (again, freely available on the internet).⁶⁰ This will ensure that the detector programs will not flag it as being likely to be written by generative AI.

Universities will not be able to rely on technological solutions to detect assignments written by ChatGPT or similar generative AI. There is therefore a significant risk to academic integrity and the reputation of a university: what happens if a dead cat is registered on to a degree and obtains their law degree through generative AI?⁶¹ However, there are ways of making assessments more difficult to answer through generative AI due to the limitations of current systems. This does come with a health warning though: as the tools continue to improve, universities will need to remain vigilant and review their practices regularly.

Generative AI works best on descriptive questions such as “explain” or “summarise”, shorter answers and simple legal reasoning or problem questions. It is therefore better to avoid these types of questions; incorporating into the question a requirement to analyse, or make a reasoned choice, will make it more difficult for the question to be answered well by generative AI. There is also the limitation noted above that ChatGPT does not have access to data beyond a certain date. Therefore, including in the question a requirement to discuss a recent legal development, or a source found only in one of the licensed legal databases, would again make it (more) difficult to use generative AI.

ChatGPT is not very reliable when it comes to referencing and it can include references that are completely fictional, even though they superficially look like a case reference or journal article. In other instances, correct references are provided, but when those sources are checked they do not support the point which is being made. Requiring students to include references to verifiable sources and quotations would therefore make it easier to detect assignments generated by AI. Generative AI’s

⁵⁷Melanie Deziel, “We Pitted ChatGPT against Tools for Detecting AI-Written Text, and the Results Are Troubling” (*The Conversation*, 19 February 2023) <<https://theconversation.com/we-pitted-chatgpt-against-tools-for-detecting-ai-written-text-and-the-results-are-troubling-199774>> accessed 25 March 2023.

⁵⁸Geoffrey Fowler, “We Tested a New ChatGPT-Detector for Teachers. It Flagged an Innocent Student” *The Washington Post* (3 April 2023) <www.washingtonpost.com/technology/2023/04/01/chatgpt-cheating-detection-turnitin/> accessed 4 April 2023.

⁵⁹Annie Chechitelli, “Understanding False Positives within Our AI Writing Detection Capabilities” (*Turnitin*, 16 March 2023) <www.turnitin.com/blog/understanding-false-positives-within-our-ai-writing-detection-capabilities> accessed 25 March 2023.

⁶⁰See, for example, GPT-Minus1 <gptminus1.com> or TextCortex <<https://textcortex.com/textcortex-browser-extension>>.

⁶¹See Ben Goldacre, “Dr Gillian McKeith (PhD) Continued” *The Guardian* (London, 30 September 2004) <www.theguardian.com/science/2004/sep/30/badscience.research> accessed 25 March 2023.

outputs sometimes lack depth and development; it can identify arguments but does not always support it with evidence or make a reasoned choice between arguments. Answers that require students to use specific examples or evidence and to come to a clear conclusion are helpful to avoid students relying on ChatGPT responses, as well as answers requiring synthesis and more complex reasoning.

As these systems are primarily text-based, any assignments which require students to analyse images, audio or visual materials are more difficult for ChatGPT or other similar services (although not impossible). Oral presentations will also require students to complete the assignment themselves, although with the caveat that they could use generative AI to produce the script. Finally, ChatGPT can write very inventive (and completely fictitious) reflective pieces, so any reflection questions should be linked, if possible, to a known individual experience of the student. For example, requiring students to reflect on an activity they have carried out which is known to the tutor, or specific feedback they received from a tutor. In the short term, one easy action for academics to take would be to put any proposed assessment question through a generative AI service to see how well the technology performs. If necessary, the question can then be adjusted to make it more difficult to answer through ChatGPT before being released to students.

However, as well as the implications of generative AI as a cheating tool, this technology also offers law schools an opportunity to think about the ways in which they teach students. As Sam Illingworth suggested:

This feels like a Pandora's box moment for assessment in higher education. Whether we decide to embrace ChatGPT in our pursuit of authentic assessment or passively acknowledge the ethical dilemmas it might present to academic integrity, there is a real opportunity here.⁶²

As noted above, students will be using generative AI in their future careers, and law schools can therefore incorporate teaching about these tools into their courses as an important employability skill. While there may be some concerns about highlighting the existence of these tools to students, many will already be aware of them and using them.

Communicating with students about these technologies will also allow law schools to emphasise the importance of academic integrity and the implications of using ChatGPT to plagiarise assignments for any future legal career, given the suitability and character requirements of both the Solicitors Regulation Authority and the Bar Standards Board.⁶³ It also enables a discussion with students around the skills individuals can bring to their future career which technology cannot replicate (such as skills of complex reasoning and interpersonal client skills) as well as encouraging students' intrinsic motivation for study. This will enable universities to emphasise student learning and communicate the value of integrity, both of which are suggested by QAA as a response to generative AI.⁶⁴

⁶²Sam Illingworth, "ChatGPT: Students Could Use AI to Cheat, But It's a Chance to Rethink Assessment Altogether" (*The Conversation*, 19 January 2023) <<https://theconversation.com/chatgpt-students-could-use-ai-to-cheat-but-its-a-chance-to-rethink-assessment-altogether-198019>> accessed 25 March 2023.

⁶³See respectively <www.sra.org.uk/solicitors/standards-regulations/assessment-character-suitability-rules/> and <www.barstandardsboard.org.uk/training-qualification/becoming-a-barrister/joining-an-inn/info-for-students-fit-and-proper-person-checks.html>.

⁶⁴QAA, "The Rise of Artificial Intelligence Software and Potential Risks for Academic Integrity: A QAA Briefing Paper for Higher Education Providers" (QAA 30 January 2023) <www.qaa.ac.uk/news-events/news/qaa-briefs-members-on-artificial-intelligence-threat-to-academic-integrity#> accessed 24 March 2023.

Conclusion

ChatGPT and other generative AI technologies will continue to develop and generate more realistic and accurate text. Already they are capable of passing professional examinations and academic assignments. Inevitably these technologies will start to be used in the workplace and have already been incorporated into legal practice. The conversation about how to respond to ChatGPT with regard to teaching and assessment will develop as the capabilities and use of these technologies become clearer. However, what is apparent is that “trying to hold back the tide” like King Canute will lead to significant issues around academic integrity and the development of students’ employability skills. Law schools need to develop strategies which cover the dual aims of making it more difficult to use generative AI to pass assessments, while teaching students how they can use it constructively in preparation for the workplace.

Disclosure statement

No potential conflict of interest was reported by the authors.