

Brown's Economic Damages Newsletter

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Issue 1

Brown Economic offers 5
user-friendly, economic loss
calculators for quick,
accurate, and cost-effective
damages estimates, available
@ www.browneconomic.com:

- Non-Pecuniary (free)
- Working Life / Life Expectancy (free)
- Present Value (free)
- Housekeeping (pay per use)
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Artificial Intelligence (AI) is NOT used by Brown Economic in any report or publication

By Cara L. Brown, MA (with assistance from Rachel Rogers, BA, JD & Ha Nguyen, MA)

Brown Economic's economic loss assessments and publications have been produced with careful research and analysis that is independent of "artificial intelligence" (AI). Expert economic evidence work demands paying careful attention to: (i) applying the relevant findings and concepts from sub-disciplines of economics (labour economics, household expenditure data, money and banking, health and disability-related fields, impact of sexual and physical assault, and agricultural economics) to interrupted earnings cases; (ii) which economic data sources are chosen to rely on (and which to discard); (iii) thoughtful perusing of forensic economic sources to inform and supplement the exercise of quantifying economic loss damages; (iv) investigating the consensus in economic or related bodies of literature, including presentation of conflicting theories or data and resolution if possible; and (v) word-smithing analysis so that it complies with provincial and territorial rules of civil procedure in addition to Alberta's civil practice note no. 5 for economic experts (established in 1999, reaffirmed in 2011²) and adequately conveys economic concepts. For more detail on the expectations of forensic economists in civil litigation, see Brown, C.L. Assessing Economic Loss Damages in Canada, Journal of Forensic Economics (forthcoming in 2025).

It is the author's position at this time that AI is not yet at the stage where it can be used for economic expert evidence work – particularly for forensic economists and other damages experts, where the expertise is innate, multi-faceted, and generated using court experience, which is unique to each expert and impossible to imitate. Moreover, economic concepts, jargon, and data are difficult to convey at the best of

See https://albertacourts.ca/kb/areas-of-law/civil/practice-notes.

¹ For a list of Ms. Brown's publications, see the curriculum vitae and summaries of Thomson Reuters book updates from 2002 to 2025 at www.browneconomic.com > RESEARCH & PUBLICATIONS.

² Son https://www.browneconomic.com > RESEARCH & PUBLICATIONS.

times, so cannot be left to automation. Just as important is that using AI at this time requires the expert to spend time editing and fact-checking, time which is better spent on researching, creating, analyzing, and projecting economic losses - particularly in a legal environment that seeks to limit or eliminate expert disbursements. Al distracts from these core objectives and introduces errors which are not worth the resulting benefits. We include a detailed discussion on the use of AI in Canada by expert witnesses in this edition.

A final caveat: the PDF tool we utilize to put together our reports and year-by-year schedules offers "AI summaries" of our reports when the PDF is opened. We caution the reader NOT to use these summaries. We cannot vouch for the accuracy or conclusions of auto-generated AI summaries by the PDF tool.

A note on emphasis in economic loss assessments

Because our loss assessments and publishing are intensely-researched, corroborated by economic theories and empirical data, and cover complex subjects, using emphasis (through bold, italicizing, or underlining, as well as tables and graphs to convey information) is necessary to highlight key conclusions and economic principles. Dialo speaks to this practice:3

Because I recognize that there are different readers who have different levels of expertise and want to give different amounts of time to this and because I want to help you get what you want out of this, I have put the most important points in bold so you can read just the most essential stuff and optionally dive into the details that interest you...

I also want to convey some principles that are timeless and universal truths for dealing with reality well, which I have noted by putting a red dot in front of them and italicizing. (p. 1, emphasis added)

Nichols' The Death of Expertise (2nd ed., 2024) explains how a large segment of the general public (and the US federal government under Trump) has begun to eschew expertise of any type, preferring to make decisions on a transactional basis or, even worse, denying reality and instead asking people to reject their own "eyes and ears" to a preposterous degree.⁴ This development has affected scholarship throughout North America, as well as professionals who are trained to give advice, in a negative manner. Adding emphasis in economic loss reports aids both counsel and the trier of fact as to the critical economic assumptions that matter (and how much they matter). The economic expert is the best-positioned to decide if or where emphasis should be included in an assessment or publication.

This is especially true for one simple reason that is rarely discussed or acknowledged: many expert reports are not even read, let alone digested, particularly in the age of resolving claims by mediation. There appears to be little time or incentive to properly consider expert evidence - an outcome that is heightened when "ambush" litigation occurs, which seems to becoming more rather than less common, at least with economic loss assessments. 5 Complying with Alberta's civil practice note no. 5 for economic experts, as well as court expectations for corroborating all economic assumptions AND explicitly stating them (without which the data or assumptions cannot be validated), results in a lengthier and more detailed report - especially when economic experts include yearly schedules to show all calculations, as they must for verification. This is unavoidable. But the response to this outcome has often resulted in

³ Dialo, R. <u>How Countries Go Broke The Big Cycle</u> (New York, NY: Avid Reader Press), 2025.
⁴ For specific case examples, see **Brown's Economic Damages Newsletter**, "When non-economic experts attempt to do the forensic economists' job", March/April 2024, vol. 21, issue #1.
⁹ With the advent of eliminating rules requiring notice of expert reports, this author has experienced ambushes of 3 or 3 days before a mediation date.

With the advent of eliminating rules requiring notice of expert reports, this author has experienced ambushes of 2 or 3 days before a mediation date to review a rebuttal report which critiques our original assessment on numerous occasions over the past 5 years - even when we prepare reports months or years in advance of mediation dates. Moreover, there is no appetite to pay for fees associated with having the original economic expert write a response to the ambushed critique in an enormous rush.

the expert reports not being read. Hence, emphasis becomes crucial for the report presentation so that the key conclusions are readily accessible, even without reading the detailed sections of the assessment.

Guidance from Thomson Reuters, publisher of Brown's Damages: Estimating Pecuniary Loss (37th ed., 2025)

On July 31, 2023, Thomson Reuters' Vice-President sent a letter about their publishing guidelines for adopting AI when publishing author Brown's **Damages: Estimating Pecuniary Loss:**⁶

The content you create for Thomson Reuters may not be uploaded to a Large Language Model (LLM) such as ChatGPT, LLaMA from Meta [Facebook], PaLM2 from Google or any other AI model for generative AI purposes. Using your manuscript or your updates as a source document for creating new or updated content with LLMs will put your work product at risk and is a violation of the copyright that is held by Thomson Reuters.

We are very proud of the quality of the content that we provide through our products and platforms and believe that it is a major advantage over the Internet in general. In order to preserve this advantage, we ask that you also refrain from using *any of the content we publish* or published in the past in any LLMs or other AI machine-learning tools (emphasis added).

In *The Legal Ledger,* Thomson Reuters declared on Feb. 28, 2025 the extra work that must be undertaken to appropriately use AI in legal research:

[Thomson Reuters]...stress verifying Al-generated answers through a review process, citation checks, and traditional tools. A mix of automated and manual evaluations is suggested, with multiple evaluators resolving discrepancies and assessing answer value beyond simple error detection (emphasis added).

In conjunction with Thomson Reuters' instructions about the efficacy of using AI at this time, **our firm's policy about AI** is simple: we have not and will not use it for any component of an economic loss assessment or authoring research articles and published papers.⁷

Elsevier, one of the largest publishers of academic journals and books worldwide known for producing high-impact research publications across various disciplines, posts the following regarding "the dangers of AI assisted academic writing" on their website:⁸

Artificial intelligence (AI)-powered writing tools are becoming increasingly popular among researchers ... In recent years, there has also been an increase in the use of "Generative AI," which can produce write-ups that appear to have been drafted by humans. *However, despite AI's enormous potential in academic writing, there are several significant pitfalls in its use* (emphasis added).

Inauthentic Sources

Al tools are built on rapidly evolving deep learning algorithms that fetch answers to your queries or "prompts". Owing to advances in computation, and the rapid growth in the amount of data that algorithms can access, these tools are often accurate in their answers. However, at times Al can make mistakes and give you inaccurate data. What is worrying is, this data may look authentic at a first glance and increase the risk of getting incorporated in

⁶ Ms. Brown has authored 37 editions of this text since 2001. The current release is in June 2025. For information on the 15 chapters contained in the book as well as the bi-yearly updates since 2001, visit www.browneconomic.com > RESEARCH & PUBLICATIONS > Canada Law Book.

⁷ The same is true for Brown Economic's 5 online calculators at www.browneconomic.com: the Non-Pecuniary Damages Calculator™ (free to use); the Work Life/Life Expectancy Calculator™ (free to use); the Present Value Damages Calculator™ (free to use); the Income Damages Calculator™ (pay-per-use); and the Housekeeping Damages Calculator™ (pay-per-use).

⁸ See (https://scientific-publishing.webshop.elsevier.com/research-process/the-dangers-of-ai-assisted-academic-writing/).

research articles. Failing to scrutinise information and data sources provided by AI can therefore impair scientific credibility and trigger a chain of falsification in the research community (emphasis added).

Why Human Supervision Is Advisable

Al-generated output is frequently generic, matched with synonyms, and may **not be able to critically analyse the scientific context when writing manuscripts** (emphasis added).

Consider the following example, where the AI 'ChatGPT' was used to generate a one-line summary of the following sentences:

The malaria parasite Plasmodium falciparum has an organelle, the apicoplast, which contains its own genome.

This organelle is significant in the Plasmodium's lifecycle, but we are yet to thoroughly understand the regulation of apicoplast gene expression.

The following is a human-generated one-line summary:

The malaria parasite Plasmodium falciparum has an organelle that is significant in its lifecycle called an apicoplast, which contains its own genome—but the regulation of apicoplast gene expression is poorly understood.

On the other hand, the AI-generated summary is as follows:

The malaria parasite Plasmodium falciparum has an apicoplast, an organelle with its own genome, significant in its life cycle, yet its gene expression regulation remains poorly understood.

In the Al-generated text, it is not clear what 'its' refers to in each instance of because it could either refer to Plasmodium falciparum or it could refer to the apicoplast. Moreover, while the expression 'gene expression regulation' is technically correct, the sentence structure and writing style is superior if you write 'regulation of gene expression'.

This is why we need humans to supervise AI bots and verify the accuracy of all information submitted for publication. We request that authors who have used AI or AI-assisted tools include a declaration statement at the end of their manuscript where they specify the tool and the reason for using it (emphasis added).

Data Leakage

Al is now an integral part of scientific research. From data collection to manuscript preparation, Al provides ways to improve and expedite every step of the research process. However, to function, Al needs access to data and adequate computing power to process them efficiently. One way in which many Al applications meet these requirements is by having large, distributed databases and dividing the labour among several individual computers. These Al applications need to stay connected to the internet to work. Therefore, *researchers who upload academic content from unpublished papers to platforms like ChatGPT are at a higher risk of data leakage and privacy violations* (emphasis added).

To address this issue, governments in various countries have decided to implement policies. Italy, for example, banned ChatGPT in April 2023 due to privacy concerns, but later reinstated the AI app with a new privacy policy that verifies users' ages. The European Union is also developing a new policy that will regulate AI platforms such as ChatGPT and Google Bard. The US Congress and India's IT department have also hinted at developing new frameworks for AI compliance with safety standards (emphasis added).

June 2025

Canadian courts' proscriptions on the use of AI by experts in civil litigation

Since the rapid advancement of predictive and generative artificial intelligence ("AI") tools like ChatGPT, eleven Canadian courts, five law societies, two professional liability insurers, one provincial government and the Canadian Judicial Council have released guidance documents concerning the use of Generative AI. None have banned the use of Al in Canadian courts, however they unvaryingly emphasize exercising caution when relying on work ascertained from artificial intelligence. The Court of King's Bench of Manitoba, the Supreme Court of Yukon, the Provincial Court of Nova Scotia and the Federal Court require counsel or parties to explicitly state when AI has been used in the preparation of materials filed with the court, how AI was used and the tool used (such as ChatGPT or any other AI platform). 10 All other courts and law societies urge practitioners and litigants to "exercise caution when referencing legal authorities or analysis derived from [large language models] in their submissions," recommend parties "rely exclusively on authoritative sources such as official court websites, commonly referenced commercial publishers, or well-established public services such as CanLII," and keep "humans in the loop." Any Al-generated submissions must be verified with meaningful human control. 11 We avoid the time needed for this task by not using AI in our work.

While Canadian courts have issued directives that address the use of AI by counsel and the Court, the only Court (to our knowledge) that explicitly mentions the use of AI in the preparation of expert reports is the Federal Court. The Federal Court's May 2024 notice (updated from December 2023) states:

1. Declaration for Al-Generated Content

This Notice applies to all materials that are (i) submitted to the Court, and (ii) prepared for the purpose of litigation. For greater certainty, this Notice does not apply to: (i) Certified Tribunal Records submitted by tribunals or other third-party decision-makers, or (ii) Expert reports, which the Court understands ought to require disclosure of the use of AI in the summary of methodology used under subparagraph 3(i) of the Expert Witnesses Code of Conduct as referred to in Rule 52.2 of the Federal Court Rules (p. 1, emphasis added).

While stating that the Notice does not apply to expert reports, the Federal Court acknowledges that disclosure of the use of AI must be included in the summary of methodology as governed by the Expert Witnesses Code of Conduct. Outside of expert reports submitted to the Federal Court, it appears that AI and AI tools may be used by experts to generate expert reports without disclosure being required. However, existing rules may apply to prevent such situations, for example, by requiring an expert to disclose the methodology used for any testing conducted. Further, the criteria for the admissibility of expert evidence as set out in *Mohan* provides the courts with significant discretion to exclude expert evidence on the basis that an AI program came to "opinion" reported by the expert and as such, the "opinions" would not have come from the qualified expert and would not be admissible in court.

⁹ "Gen AI Rules of Engagement for Canadian Lawyers," *Law Society of Alberta*, November 2024, available online at www.lawsociety.ab.ca.

10 The Court of King's Bench of Manitoba's *Practice Direction Re: Use of Artificial Intelligence in Court Submissions*, June 23, 2023; the Supreme Court of Yukon's *Practice Direction General-29 Use of Artificial Intelligence Tools*, June 26, 2023; the Federal Court's *NOTICE TO THE PARTIES AND THE PROFESSION The Use of Artificial Intelligence in Court Proceedings*, May 7, 2024; and the Provincial Court of Nova Scotia's *Use of Artificial Intelligence* (*AI*) and Protecting the Integrity of Court Submissions in Provincial Court, October 27, 2023.

11 See the Court of Appeal of Alberta, Court of King's Bench of Alberta and Alberta Court of Justice's *Notice to the Public and Legal Profession Ensuring the Integrity of Court Submissions When Using Large Language Models*, October 6, 2023; and the Supreme Court of Newfoundland and Labrador's *Notice to the Profession and General Public Ensuring the Integrity of Court Submissions When Using Large Language Models*, October 12, 2023.

To our knowledge, to date, no cases have been litigated regarding the use of AI in expert reports, however two notable cases discussing AI in Canada are Zhang v. Chen¹² and Floryan v. Luke et al.¹³ In Zhang, counsel was held personally liable for costs incurred identifying and addressing fake citations produced by AI (paras. 39 – 43). In Floryan, Justice Leach rejected the plaintiff's (self-represented litigant) submission of a document entitled "Results of legal research carried out using artificial intelligence system ChatGPT (Chat Generative Pre-Trained Transformer)" stating "while there may come a time when legal research and submissions generated by artificial intelligence will be recognized and accorded value in our courts, in my view that time has not yet arrived" (para. 12, emphasis added).

Grave difficulties associated with using AI for complicated subjects and multifaceted scholarship

Regarding on why AI cannot take over creating writing, Dr. Poole indicates the following: 14

It's important to distinguish between "creativity" by the LLM and creativity by a human. For people who had low expectations of what a computer could generate, it's been easy to assign creativity to the computer. Others were more skeptical. Cognitive scientist Douglas Hofstadter saw "a mind-boggling hollowness hidden just beneath its flashy surface."15

Linguist Emily Bender and colleagues described the language models as stochastic parrots, ¹⁶ meaning they repeat what is in the data they were trained on with randomness. To understand this, consider why a particular word was generated. It's because it has a relatively high probability, and it has a high probability because a lot of text in the training corpus used that word in similar contexts.

Selecting a word according to the probability distribution is like selecting text with a similar context and using its next word. Generating text from LLMs can be seen as plagiarism, one word at a time.

The creativity of a human

Consider the creativity of a human who has ideas they want to convey. With generative AI, they put their ideas into a prompt and the AI will produce text (or images or sounds). If someone doesn't care what is generated, it doesn't really matter what they use as a prompt. But what if they do care about what is generated?

An LLM tries to generate what a random person who had written the previous text would produce. Most creative writers do not want what a random person would write. They want to use their creativity, and may want a tool to produce what they would write if they had the time to produce it (emphasis added).

LLMs don't typically have a large corpus of what a particular author has written to learn from. The author will undoubtedly want to produce something different. If the output is expected to be more detailed than the input, the LLM has to make up details. These may or may not be what the writer intended (emphasis added).

Some positive uses of LLMs for creative writing

... LLMs are good for small projects that have been done previously by many other people, such as database queries or writing standard letters. They are also useful for parts of larger projects, such as a pop-up box in a graphical user interface.

¹² 2024 CarswellBC 462, 2024 BCSC 285.

^{13 2023} CarswellOnt 14000, 2023 ONSC 5108.
14 David Poole. Why AI can't take over creative writing. University of British Columbia. Accessed on June 17, 2025 at https://beyond.ubc.ca/why-aicant-take-over-creative-writing/.

15 See (www.economist.com/by-invitation/2022/09/02/artificial-neural-networks-today-are-not-conscious-according-to-douglas-hofstadter).

16 See (https://dl.acm.org/doi/10.1145/3442188.3445922).

If programmers want to use them for bigger projects, they need to be prepared to generate multiple outputs and edit the one that is closest to what is intended. *The problem in software development has always been specifying exactly what is wanted; coding is the easy part* (emphasis added).

•••

In this age of misinformation, it is important for everyone to have a way to judge the often self-serving hype.

Huff emphasizes the importance of critically reviewing Al-generated content and maintaining control over one's scholarship, given the technology's potential for bias and fabrication:¹⁷

Psychologists and students may tap AI tools for an assist in some scenarios, but human oversight—including vetting all output and citing all uses—is essential.

Al tools can be useful for some of the routine tasks, time-consuming steps, and initial stages of psychology research and writing. But researchers must vet Al output and retain control over their scholarship because of the technology's potential for bias and fabrication (emphasis added).

As artificial intelligence (AI) tools proliferate, the goals of ethical research and writing remain the same: to be transparent, preserve the integrity of authorship, and verify reported findings. What's changed is that AI can provide somewhat of an assist as long as researchers and students retain rigorous oversight.

Among the ways AI tools can be useful include helping with more routine tasks, cleaning up grammar, and streamlining time-consuming steps involved with finalizing manuscripts, such as citations and the submission process, according to APA leaders whose work involves providing guidance on the use of AI. The technology can also enable non-native English speakers to improve syntax and readability, as well as to translate academic terms prior to submitting to English-language journals, said Rose Sokol, PhD, publisher of APA Journals and Books.

A good guideline is that although AI tools can support more routine steps of research and writing, it should not be relied upon ...

At the heart of the APA Publishing policies as related to generative AI, ¹⁸ Sokol said, "is that to be an author you must be a human. The threat for students and researchers is really the same—over-relying on the technology." When that happens, you are at risk of essentially ceding control of intellectual property to the machine, she noted. "You've handed that over. The machine has no accountability and no responsibility" (emphasis added).

Verify and verify

Along with assisting with the mechanics of writing, such as checking grammar and phrasing in a paragraph, Al may provide initial insights on a subject, Denneny said. For instance, someone can ask for a quick summary, similar to checking out a Wikipedia page, she said. "And then you take that and delve deeper."

Above all, the researcher or student must remain in the driver's seat, checking everything that falls beneath their name, APA leaders stress.

¹⁷ Charlotte Huff. *The promise and perils of using AI for research and writing*. American Psychological Association, October 1, 2024.
¹⁸ See (www.apa.org/pubs/journals/resources/publishing-policies?tab=4).

In one instance, Lee [instructional lead for APA Style] asked ChatGPT for five peer-reviewed sources on a topic with which she had familiarity. "It sounded exactly like what I was looking for," she said, noting that the citations included authors who had studied that subject. "I went looking for [the studies], and none of them were real at all" (emphasis added).

Lee returned to ChatGPT and asked if it was certain that those references existed. "It said, 'Sorry for any confusion. These sources are illustrative. I don't have access to the information that you're actually asking for'" (emphasis added).

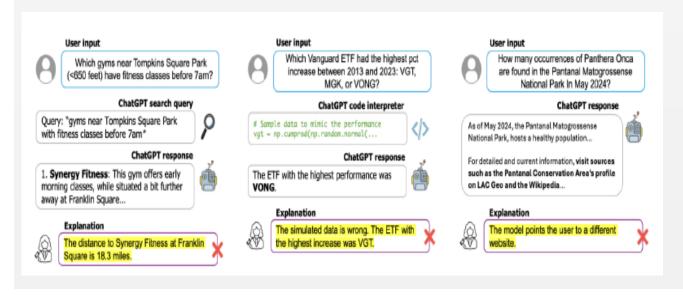
In his blog post about citing ChatGPT, McAdoo describes how he requested five sources related to ideas about brain lateralization and how the brain operates. ChatGPT provided five, only four of which he was able to locate online. The fifth reference included a real digital object identifier (DOI), but it was one that was assigned to a different article.

With these potential pitfalls in mind, researchers and students should verify not only the legitimacy of the sources identified, but "it may be better to read those original sources to learn from that research and paraphrase or quote from those articles, as applicable, than to use the model's interpretation of them," McAdoo wrote (emphasis added).

In short, generative AI should be viewed as similar to an electric bike, with the capacity to augment but not replace one's own skill set, Denneny said. "You don't want to be asking AI to do something where you're not in control," she said (emphasis added).

Moreover, the goal of scholarship is to add something new to the conversation, Lee said, noting that AI only summarizes existing information. "The texts generated by AI on the whole tend to be on the surface level. Whereas in science, you want to be very precise and think about, 'What is the thing that I'm trying to share with my audience here? What's new? Why does it matter if anybody reads this?'" (emphasis added).

In assessing various AI systems, including ChatGPT, on a benchmark of 214 tasks requiring real-time web interaction, Yoran *et al.*¹⁹ presents the following figures showing failure cases for ChatGPT:



¹⁹ Ori Yoran, Samuel Joseph Amouyal, Chaitanya Malaviya, Ben Bogin, Ofir Press, and Jonathan Berant. 2024. *AssistantBench: Can Web Agents Solve Realistic and Time-Consuming Tasks?*. In Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing, pages 8938–8968, Miami, Florida, USA. <u>Association for Computational Linguistics</u>.

For the figure above: Tasks are presented at the top, above CHATGPT generations and an explanation for each phenomenon.

The authors found that "the most common failure is for the model to over-rely on search results and generate a wrong answer (left). In some cases, the model hallucinates non-factual information in the code interpreter which leads to wrong answers (center, the code generation is not directly shown to the user). Rarely, the model abstains from answering and points the user to a different website (right)" (p. 8).

After experimenting with ChatGPT, Passamonti finds the following:²⁰

Questions like "what is Barack Obama's birth date" or "where did he go to college" are trivial to answer. The fact is that very few factual based questions will go unanswered. Even less well-known topics are mastered by ChatGPT well beyond humans' ability.

That said, it does have limitations too. When asked whether "Barack Obama is right-handed or left-handed?", its answer is "right-handed". But a simple Google search shows that Barack Obama is, in fact, left-handed. Another, maybe more serious, weakness is that it can easily be persuaded that its answers are wrong, even when they are not. When asked what the result of "5 + 2" is, it correctly replies 7. But after challenging its response twice by saying that the result should be 8 (and not 7), it replies the following: "I apologise, you are correct. The sum of 5 and 2 is 8. My previous response was incorrect. Thank you for pointing out the error" (emphasis added).

The real interesting test is to check ChatGPT's reasoning capabilities. The results are by far more surprising.

I have tested ChatGPT on two different fronts. First, I determined its effectiveness across a variety of reasoning processes and compared it to human capabilities. This allowed me to explore and determine what we will call ChatGPT's breadth of reasoning. Second, I evaluated its performance by exploring multiple layers of a given problem. This allowed me to evaluate what we will define as ChatGPT's depth of reasoning.

Results

We should not be 'afraid' of ChatGPT's rise to fame. Fears that one day it - or some similar technology - will replace us and take over the world are exaggerated. Instead, we should look at ways in which ChatGPT can complement our capabilities by empowering us to do more and to do better (emphasis added).

ChatGPT's performance, when testing for human-like reasoning capabilities, are beyond expectation. It has a strong knowledge base, it performs well with false prompts, it can carry out highly professional tasks (such as writing software, emails, resumés, contracts, etc.), it can understand context, and it can give contextualised answers too. Nevertheless, it lacks some fairly basic knowledge, it suffers from 'hallucinations' (i.e. the responses generated are, at times, nonsensical in the context of the data it has been trained on), and it can be easily persuaded that its answers are wrong (emphasis added).

²⁰ Massimo Passamonti. Where ChatGPT Excels and Where it Fails. <u>INSEAD Business School</u>. Accessed on June 16, 2025 at https://intheknow.insead.edu/blog/where-chatgpt-excels-and-where-it-fails.

In introducing *GAIA*, a benchmark for General AI Assistants, Mialon *et al.* highlight a significant disparity between human and AI performance, underscoring the current limitations of AI systems in general-purpose tasks:²¹

GAIA proposes real-world questions that require a set of fundamental abilities such as reasoning, multi-modality handling, web browsing, and generally tool-use proficiency. GAIA questions are conceptually simple for humans yet challenging for most advanced AIs: we show that human respondents obtain 92% vs. 15% for GPT-4 equipped with plugins. This notable performance disparity contrasts with the recent trend of LLMs outperforming humans on tasks requiring professional skills in e.g. law or chemistry (p. 1).

What does this mean for expert witnesses? That we need to be even more discerning than ever before about the data and information relied upon to generate economic loss estimates. Given the credentials which are needed to be qualified in court, most experts know precisely what this means and how to conduct research that honors the most accurate results. Abandoning this approach leads to grossly inaccurate (too low or too high) economic loss estimates.

²¹ Gregoire Mialon, Clementine Fourrier, Craig Swift, Thomas Wolf, Yann LeCun, and Thomas Scialom. *GAIA: a benchmark for General AI Assistants*. In Proceedings of the 2024 International Conference on Learning Representations, Vienna, Austria.

Consumer Price Index



Unemployment Rate

| From April 2024 to April 2025* (rates of inflation) | | For the month of | For the month of April 2025 | | |
|---|------------------------|------------------------------|-----------------------------|--|--|
| | | | | | |
| Canada** | 1.7% | Canada: | 6.7% | | |
| Vancouver: | 2.2% | Vancouver: | 6.6% | | |
| Toronto: | 1.7% | Toronto: | 8.6% | | |
| Ottawa: | 2.0% | Ottawa: | 5.4% | | |
| Montréal: | 2.5% | Montréal: | 6.7% | | |
| Edmonton: | 1.5% | Edmonton: | 7.3% | | |
| Calgary: | 1.6% | Calgary: | 7.4% | | |
| Halifax: | 1.7% | Halifax: | 5.6% | | |
| St. John's, NF: | 0.2% | St. John's, NF: | 7.1% | | |
| Saint John, NB: | 0.2% | Saint John, NB: | 8.0% | | |
| Charlottetown (PEI): | 0.8% | Charlottetown (PEI): | 7.3% | | |
| * Using month-over-month indices. S | ource: Statistics Cana | nda. | | | |
| ** 12 month rolling average up to Ap | ril 2025 is 2.2% (see | non-pecuniary awards table). | | | |

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UPDATING NON-PECUNIARY AWARDS FOR INFLATION (APR. 2025, CANADA)

| | | Non-Pecuniary Damages - Sample Awards | | | | |
|-----------------------------|----------------|---------------------------------------|-----------|-----------|-----------|-----------|
| Year of Accident/ | "Inflationary" | \$10,000 | \$25,000 | \$50,000 | \$75,000 | \$100,000 |
| Year of Settlement or Trial | Factors* | | | | | |
| April 2024-April 2025 | 1.022 | \$10,216 | \$25,541 | \$51,082 | \$76,622 | \$102,163 |
| Avg. 2023-April 2025 | 1.031 | \$10,311 | \$25,777 | \$51,553 | \$77,330 | \$103,106 |
| Avg. 2022-April 2025 | 1.071 | \$10,711 | \$26,777 | \$53,554 | \$80,331 | \$107,108 |
| Avg. 2021-April 2025 | 1.144 | \$11,439 | \$28,598 | \$57,196 | \$85,794 | \$114,392 |
| Avg. 2020-April 2025 | 1.183 | \$11,828 | \$29,569 | \$59,138 | \$88,707 | \$118,275 |
| Avg. 2019-April 2025 | 1.191 | \$11,913 | \$29,782 | \$59,564 | \$89,346 | \$119,128 |
| Avg. 2018-April 2025 | 1.214 | \$12,145 | \$30,362 | \$60,725 | \$91,087 | \$121,450 |
| Avg. 2017-April 2025 | 1.242 | \$12,420 | \$31,049 | \$62,098 | \$93,148 | \$124,197 |
| Avg. 2016-April 2025 | 1.262 | \$12,618 | \$31,545 | \$63,090 | \$94,635 | \$126,180 |
| Avg. 2015-April 2025 | 1.280 | \$12,798 | \$31,996 | \$63,992 | \$95,988 | \$127,985 |
| Avg. 2014-April 2025 | 1.294 | \$12,943 | \$32,357 | \$64,713 | \$97,070 | \$129,426 |
| Avg. 2013-April 2025 | 1.319 | \$13,189 | \$32,973 | \$65,946 | \$98,919 | \$131,892 |
| Avg. 2012-April 2025 | 1.331 | \$13,313 | \$33,282 | \$66,564 | \$99,846 | \$133,128 |
| Avg. 2011-April 2025 | 1.351 | \$13,515 | \$33,787 | \$67,575 | \$101,362 | \$135,149 |
| Avg. 2010-April 2025 | 1.391 | \$13,908 | \$34,771 | \$69,542 | \$104,312 | \$139,083 |
| Avg. 2009-April 2025 | 1.416 | \$14,156 | \$35,391 | \$70,781 | \$106,172 | \$141,563 |
| Avg. 2008-April 2025 | 1.422 | \$14,223 | \$35,558 | \$71,117 | \$106,675 | \$142,234 |
| Avg. 2007-April 2025 | 1.453 | \$14,535 | \$36,337 | \$72,674 | \$109,011 | \$145,348 |
| Avg. 2006-April 2025 | 1.485 | \$14,845 | \$37,113 | \$74,226 | \$111,338 | \$148,451 |
| Avg. 2005-April 2025 | 1.514 | \$15,142 | \$37,855 | \$75,710 | \$113,566 | \$151,421 |
| Avg. 2004-April 2025 | 1.548 | \$15,478 | \$38,694 | \$77,389 | \$116,083 | \$154,777 |
| Avg. 2003-April 2025 | 1.577 | \$15,765 | \$39,414 | \$78,827 | \$118,241 | \$157,655 |
| Avg. 2002-April 2025 | 1.620 | \$16,201 | \$40,502 | \$81,003 | \$121,505 | \$162,006 |
| Avg. 2001-April 2025 | 1.657 | \$16,567 | \$41,417 | \$82,834 | \$124,251 | \$165,668 |
| Avg. 2000-April 2025 | 1.698 | \$16,984 | \$42,459 | \$84,918 | \$127,377 | \$169,836 |
| Avg. 1999-April 2025 | 1.745 | \$17,446 | \$43,616 | \$87,232 | \$130,848 | \$174,464 |
| Avg. 1998-April 2025 | 1.775 | \$17,748 | \$44,371 | \$88,742 | \$133,113 | \$177,484 |
| Avg. 1997-April 2025 | 1.793 | \$17,925 | \$44,813 | \$89,626 | \$134,439 | \$179,252 |
| Avg. 1996-April 2025 | 1.822 | \$18,215 | \$45,539 | \$91,077 | \$136,616 | \$182,155 |
| Avg. 1995-April 2025 | 1.850 | \$18,503 | \$46,256 | \$92,513 | \$138,769 | \$185,026 |
| Avg. 1994-April 2025 | 1.890 | \$18,900 | \$47,249 | \$94,499 | \$141,748 | \$188,998 |
| Avg. 1993-April 2025 | 1.893 | \$18,931 | \$47,327 | \$94,654 | \$141,980 | \$189,307 |
| Avg. 1992-April 2025 | 1.928 | \$19,285 | \$48,211 | \$96,423 | \$144,634 | \$192,845 |
| Avg. 1991-April 2025 | 1.957 | \$19,571 | \$48,928 | \$97,856 | \$146,783 | \$195,711 |
| Avg. 1990-April 2025 | 2.067 | \$20,673 | \$51,681 | \$103,363 | \$155,044 | \$206,725 |
| Avg. 1989-April 2025 | 2.166 | \$21,662 | \$54,156 | \$108,311 | \$162,467 | \$216,622 |
| Avg. 1988-April 2025 | 2.274 | \$22,742 | \$56,855 | \$113,709 | \$170,564 | \$227,418 |
| Avg. 1987-April 2025 | 2.366 | \$23,655 | \$59,138 | \$118,275 | \$177,413 | \$236,551 |
| Avg. 1986-April 2025 | 2.469 | \$24,686 | \$61,715 | \$123,430 | \$185,146 | \$246,861 |
| Avg. 1985-April 2025 | 2.572 | \$25,721 | \$64,302 | \$128,604 | \$192,906 | \$257,209 |
| Avg. 1984-April 2025 | 2.674 | \$26,740 | \$66,850 | \$133,699 | \$200,549 | \$267,398 |
| Avg. 1983-April 2025 | 2.789 | \$27,891 | \$69,727 | \$139,454 | \$209,181 | \$278,908 |
| Avg. 1982-April 2025 | 2.953 | \$29,528 | \$73,820 | \$147,639 | \$221,459 | \$295,279 |
| Avg. 1981-April 2025 | 3.271 | \$32,705 | \$81,764 | \$163,527 | \$245,291 | \$327,054 |
| Avg. 1980-April 2025 | 3.679 | \$36,791 | \$91,977 | \$183,954 | \$275,931 | \$367,908 |
| Avg. 1979-April 2025 | 4.052 | \$40,518 | \$101,294 | \$202,589 | \$303,883 | \$405,178 |
| Jan. 1978-April 2025 | 4.615 | \$46,151 | \$115,377 | \$230,755 | \$346,132 | \$461,510 |

\$118,275= \$50,000 x 2.366 represents the dollar equivalent in April 2025 of \$50,000 based on inflation increases since 1987. Similarly, \$461,510 (=\$100,000 x 4.615) represents the dollar equivalent in April 2025 of \$100,000 in 1978 based on inflationary increases since the month of January 1978.

* Source: Statistics Canada, Consumer Price Index, monthly CPI release, rolling average (except for Jan. 1978).



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