

***FROM PLAGIARISM TO AN ESSENTIAL TOOL:
ADAPTING CADASTRAL SURVEYING EDUCATION
TO GENERATIVE AI***



FOUR POINT
LEARNING



29th Biennial Conference

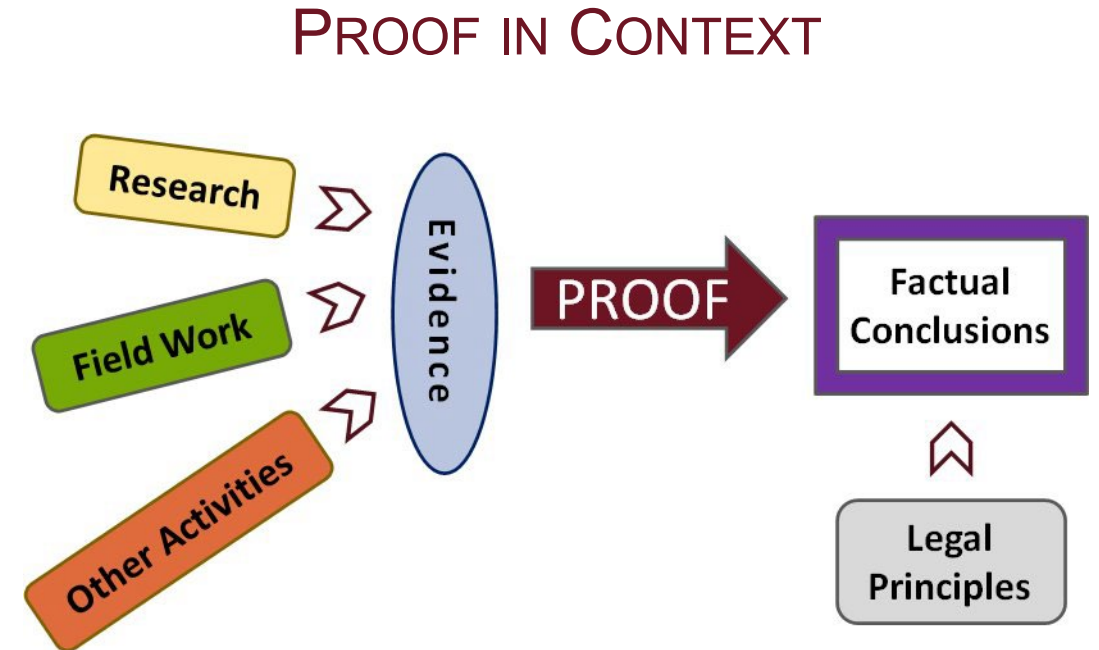
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HARNESSING AN EMERGING TOOL

- Cadastral surveying requires competency in the formation of opinions on boundary location which are most consistent with what a court of law may later decide.
- Honing students' critical thinking skills and ability to evaluate the soundness of their opinions is challenging when AI tools are used.
- What lessons learned from adoption of AI tools in a judicial context can provide useful guidance?
- How might land surveyors use AI responsibly in their work and as a teaching tool?



CAUTIONARY APPROACH FROM THE COURTS

- Several recent cases in which lawyers had submitted AI generated materials that contained references to non existent case law (legal hallucinations) *Zhang v Chen*, 2024 BCSC 285 (CanLII) and *Ko v. Li*, 2025 ONSC 2766 (CanLII).
- The Courts highlighted the professional and ethical duty of all lawyers:
 - *To Faithfully Represent the Law*: Lawyers must ensure that the legal authorities they cite are accurate and genuinely support their arguments.
 - *Not to Fabricate or Mis-cite Cases*: Submitting non-existent cases or misrepresenting the content of real cases is a serious breach of professional ethics.
 - *To Use Technology Competently*: While technology can be a valuable tool, it must be used with care and competence. Lawyers must supervise the use of AI and ensure that all materials prepared for court are thoroughly reviewed by a human.
 - *Not to Mislead the Court*: Perhaps most importantly, lawyers must never mislead the court, whether intentionally or through negligence.

CURRENT USE OF AI IN JUDICIAL DECISION-MAKING

Existing Tools

- COMPAS; Technology Assisted Review [TAR] in Discovery

Emerging Regulatory Approaches

- UK & NZ – Guidance documents for use of AI in judicial settings
- EU – *AI Act* regulates the technology broadly
- Singapore – developing custom model
- Also being used unregulated in some jurisdictions

KEY THEMES

Canadian Judicial Council Guidelines 2024

- Protect Judicial Independence
- Consistent with Core Values and Ethical Rules
- Have Regard to the Legal Aspects of Use
- Stringent Information Security Standards (and Output Safeguards)
- Understandable Explanations for their Decision-Making Output
- Regularly Track the Impact
- Education and User Support

ANALOGOUS DUTIES OF THE CADASTRAL LAND SURVEYOR

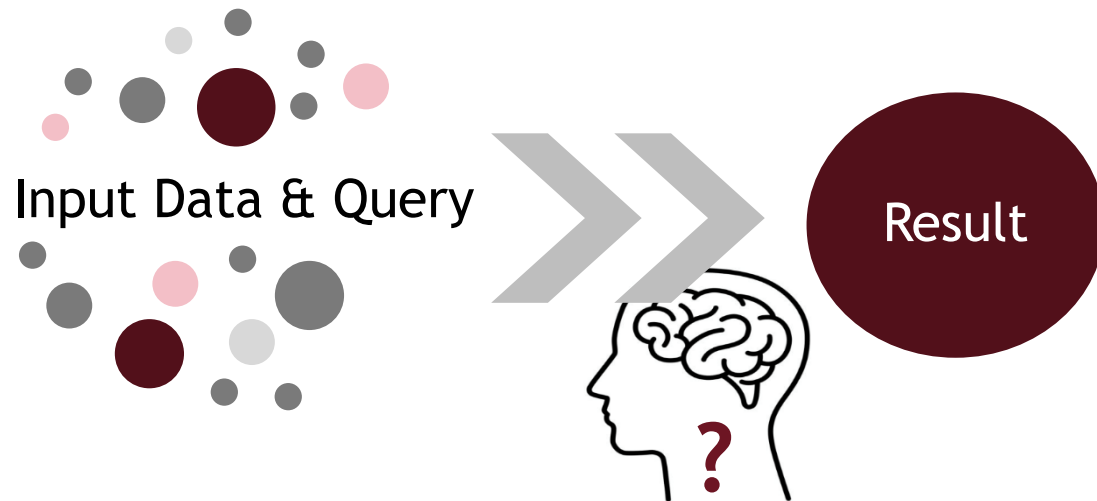
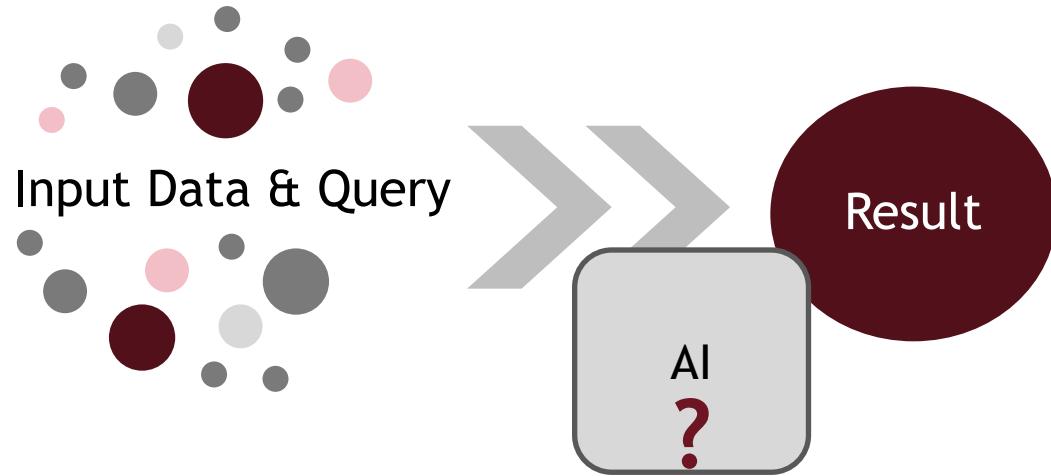
- *Duty to Faithfully Represent the Boundary Principles Applied:* Surveyors must ensure that the legal boundary principles they cite are accurate (not “hallucinations”) and genuinely support their approach to retracement and opinion formation for their jurisdiction.
- *Duty Not to Fabricate or Misstate the Evidence:* Submitting non-existent evidence or misrepresenting the nature or quality of evidence that has been found is a serious breach of professional ethics.
- *Duty to Use Technology Competently:* While technology can be a valuable tool, it must be used with care and competence. Surveyors must only use AI tools if they are understood, must supervise the use of AI and ensure that all materials and survey plans prepared for a client or the public are thoroughly reviewed by a human. Must also ensure that confidential client information is not being put at risk.
- *Duty Not to Mislead the Client:* Perhaps most importantly, surveyors must never mislead their clients or the public, whether intentionally or through negligence.

PROFESSIONAL RESPONSIBILITY AND THE LAND SURVEYOR

Consider how responsible AI use challenges ABCLS' Code of Ethics obligations...

- **Maintain the confidentiality** of all information concerning the affairs of the client or employer acquired through the professional relationship unless disclosure is expressly authorized or required by law;
- Practice and provide services only in those areas where the member has or can acquire the **skills, knowledge, and resources** necessary to complete the assignment;
- **Maintain technological and professional competence** in all areas of practice where services are provided;
- **Observe all relevant provincial and federal legislation and regulations**, including applicable local bylaws, the Survey and Plan Rules, case law, and the common law;
- Provide professional **recommendations that clearly distinguish between facts, assumptions, and opinions**;
- **Give credit where it is due** and accept, as well as give, honest and fair professional comment;

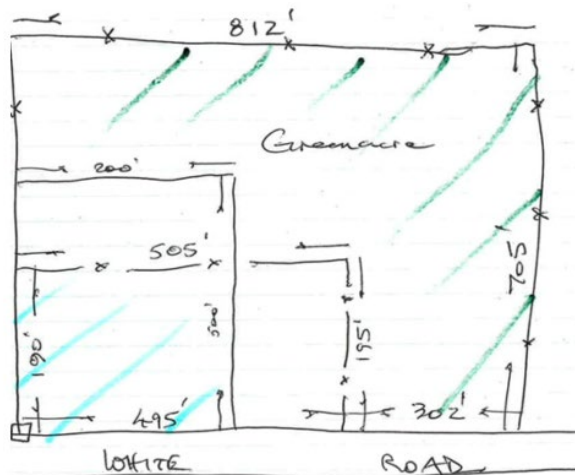
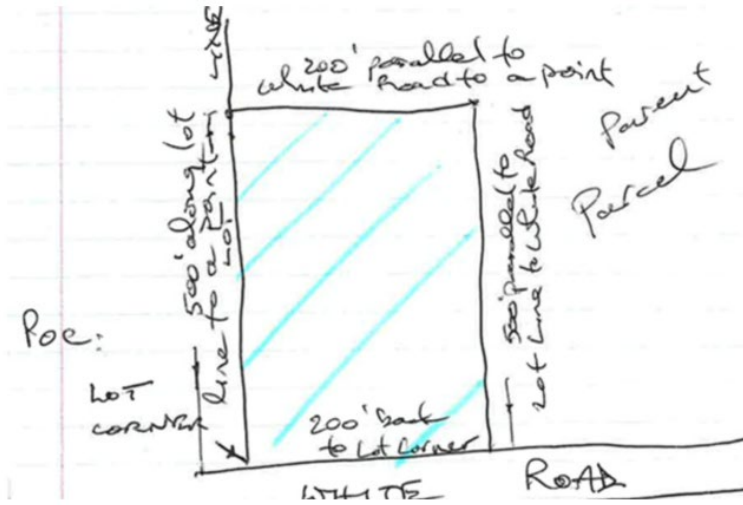
TRANSPARENT DECISION MAKING & THE BLACK BOX PROBLEM



- Decision-making process needs to be **explainable** and **justifiable**
- Can a decision result or process be questioned or appealed?
- Are there similar “opacity” problems with the human mind?
- Is the thought process or reasoning of judges / surveyors just as opaque?

ASSIGNMENTS *REQUIRING* GENERATIVE AI

- Written description and sketches that set out details of fact scenario



- *What are the boundaries of Greenacre today?*
- *Is there further evidence to be searched for to increase confidence in your answer above? If so, what evidence would that be and how would it be helpful? If not, why not?*
- *Configure the problem and the questions above to submit to an AI engine of your choosing. Include your query(s) and the output(s) received. Discuss how the result is useful (or not) and how it differs from your own conclusions in questions 1 and 2 above?*

LEARNING RESPONSIBLE USE OF AI IN CADASTRAL SURVEYING

Key Requirements

- Clearly **disclosing** AI-generated content and explaining the role of AI in the process
- **Validating** AI results for accuracy, biases, reliability and relevance
- Demonstrating **critical analysis**, reasoning and good judgment in a land surveyor's AI-assisted work product
- Understanding the **ethical guidelines and legal obligations** related to privacy, intellectual property and accountability