Artificial Intelligence in Participatory Planning

Early Reflections on Impacts and Ethical Challenges

Plan Canada Webinar | Summer 2025 | Technology





Morgan Boyco MCIP RPP

Planner and Community Engagement Specialist, Dillon Consulting PhD Candidate, University of Waterloo

Dr. Pamela Robinson FCIP RPP

Professor, School of Urban and Regional Planning at Toronto Metropolitan University

Artificial Intelligence: Its potential and ethics in the practice of public participation

A Research Paper by the International Association for Public Participation Canada



A computer chip with a brain in the center to represent artificial intelligence.

Written by:

Morgan Boyco MCIP RPP & Dr. Pamela Robinson MCIP RPP April 2024











IAP2 North America Conference October, 2024

Artifici

Plan Canada June, 2025



28 PLAN CANADA | SUMMER • ÉTÉ 2025

TECHNOLOGY

APPI Workshop November, 2024





CIP/OPPI Conference Workshop July, 2025

Encounters with Al in Planning Practice





Al in Community Engagement



Image created by DALL·E 3
Prompt: Abstract clay robot figures talking to one another in fun colours

- More Accessible, More Visual, More Efficient (?)
- Communications and Visualizations
- Chatbots and Digital Facilitators
- Engagement Data Analysis
- "Personas" for Public Participation
- Empowering Community Members





What will be the impacts on trust between practitioners and the public where Al systems are becoming intermediaries in participatory planning processes?





Near Future: Synthetic Democracy?



"Can Al language models replace human participants?"

Dillion et al., 2023

Image created by DALL·E 3

Prompt: Image of abstract clay robots in fun colours at a public meeting sitting around tables collaboratively working on a planning issue, using sticky notes, drinking coffee, working together.





Risks, Uncertainties, and Al's WEIRD Problem





Al's WEIRD problem

Western

Educated

Industrialized

Rich

Democratic





LLM Risks & Harms

- Discrimination, hate speech and exclusion
- Information hazards
- Misinformation harms
- Malicious uses
- Human-computer interaction harms
- Environmental and socioeconomic harms

Adapted from: (Weidinger et al., 2022)



Image created by DALL·E 3
Prompt: Now in the same style, do an abstract monster robot under the bed.





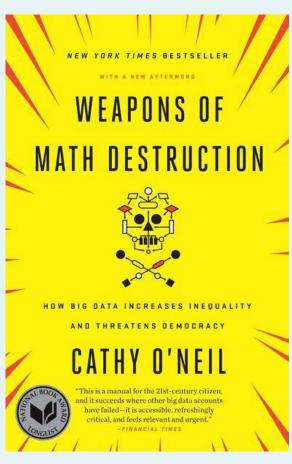
Can professional planners ethically use Al-based tools without a clear line of sight into the relevance, appropriateness, and provenance of Al training data? What is the public interest here?



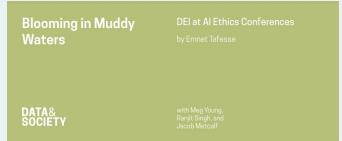


Algorithmic Bias















Guidance for Planning Practitioners





Recommendations for Ethical and Appropriate Use of Al in Planning

EXAMPLES OF GUIDANCE FOR PLANNING PRACTITIONERS FROM 2024/2025

Source	Summary of Guidance
Artificial Intelligence: Its potential and ethics in the practice of public participation (IAP2 Canada) ⁸	Build trust and transparency Be aware of AI risks and remain accountable for its use. Ask participants for their perspectives on AI use disclose how it is used, and only use tools that enhance public trust. Tread carefully Assess tools for bias, promote equity, and understand ethical implications. Use appropriate tools and be skeptical of AI hype. Protect privacy and be cyber secure. Test wisely and assess risks before implementation. Keep a hand on the wheel Don't let AI make decisions that affect people's lives. Don't short-circuit your own thinking or creativity. Always ensure human oversight. Support real democracy, not synthetic Don't diminish the value of individual contributions. Prioritize genuine human interaction over potentially inappropriate automation.
Planning Ethics and Generative AI (American Planning Association) ⁹	Be sensitive to the bias and limitations of AI Recognize embedded bias and contextualize outputs with professional judgement. Systematically check outputs



Image created by DALL·E 3
Prompt: A wise-looking robot owl in a colourful abstract clay style





The Role of Professional Planners





Al in Planning, Planners in Al



Image created by DALL·E 3
Prompt: Fun abstract robot made of clay in fun colors looking at a magical crystal ball



Image created in Pamela's kitchen using tea leaves, crazy glue and plastic wrap

- What's the role of planners in a world that increasingly includes AI?
- What work do we need to do together?
- Should we be exploring new partnerships between researchers and practitioners?
- How do we keep up in real time?





A PLANNER'S CC (1) (S) (O) BY NC SA

Download Your Own Copy!











Morgan Boyco MCIP RPP

Planner and Community Engagement Specialist, Dillon Consulting

PhD Candidate, University of Waterloo

mboyco@dillon.ca



Dr. Pamela Robinson FCIP RPP

Professor, School of Urban and Regional Planning at Toronto Metropolitan University

pamela.robinson@torontomu.ca





References

Boyco, M., & Robinson, P. (2024). Artificial Intelligence: Its potential and ethics in the practice of public participation. *International Association for Public Participation Canada*. https://dx.doi.org/10.2139/ssrn.5015632

Buolamwini, J. (2024). Unmasking Al. Random House.

Broussard, M. (2024). More than a Glitch: Confronting Race, Gender, and Ability Bias in Tech. MIT Press.

Dillion, D., Tandon, N., Gu, Y., & Gray, K. (2023). Can Al language models replace human participants? *Trends in Cognitive Sciences*, 27(7), 597–600.

Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? *The Behavioral and Brain Sciences*, *33*(2–3), 61–83; discussion 83-135.

O'Neil, C. (2022). Weapons of Math Destruction. Allen Lane.

Weidinger, L., Uesato, J., Rauh, M., Griffin, C., Huang, P.-S., Mellor, J., Glaese, A., Cheng, M., Balle, B., Kasirzadeh, A., Biles, C., Brown, S., Kenton, Z., Hawkins, W., Stepleton, T., Birhane, A., Hendricks, L. A., Rimell, L., Isaac, W., ... Gabriel, I. (2022). Taxonomy of Risks posed by Language Models. *Proceedings of the 2022 ACM Conference on Fairness, Accountability, and Transparency*, 214–229.

Young, M., Singh, R., & Metcalf, J. (n.d.). Blooming in Muddy Waters: DEI at AI Ethics Conferences. *Data & Society*. https://datasociety.net/library/blooming-in-muddy-waters-dei-at-ai-ethics-conferences/



