PIA Planning Institute Australia

AI in Planning

Context

The Planning Institute of Australia (PIA) recognises the transformative potential of artificial intelligence (AI) in urban and regional planning. Engagement with PIA's membership shows that planners are eager to embrace AI that streamlines administrative and repetitive tasks. Planners enter the profession to contribute to creating great places and outcomes for communities, and AI used responsibly can help free up more time and capacity to deliver on that purpose.

Delivering on this potential requires strong foundations in governance, investment in innovation and capability, and a continued commitment to ethical and professional responsibility. Since 2015 there has been significant research and work undertaken, including the development and evolution of principles, the establishment of standards to ensure trustworthiness in AI as well as commitments by many organisations to determine how AI will enhance service delivery.

Internationally, the OECD AI Principles[a] and, within Australia, the Australian Government's AI Ethics Principles[b] provide a foundation for the responsible use of AI. In more technical detail ISO/IEC TR 24028:2020[c] provides a global consensus-based standard for trustworthiness in artificial intelligence. In 2021, PIA adopted the 10 PlanTech Principles[d] to guide the adoption of technology in planning and to bring these broader frameworks into a planning context. The PlanTech Principles reflect many of the same core values found in the broader frameworks, emphasising transparency, inclusion, ethical practice, and public trust in how technology is used to support planning and decision-making.

PIA, as an organisation, is not alone in recognising the potential that AI will offer members. Many professional organisations and associations are examining opportunities for their members. PIA's international sister associations, such as the Royal Town Planning Institute (RTPI)[e], the American Planning Association (APA)[f], and others, are also exploring the implications of AI for planning and have provided valuable position statements and resources to assist their members.

PIA is aware that the Australian Government is currently progressing work on national AI guardrails and a risk based regulatory framework. Across Australia, the adoption of AI enabled systems in planning remains uneven, with significant differences in capability, maturity and investment between jurisdictions.

Building on these foundations, this Position Statement on Artificial Intelligence affirms PIA's position on the responsible and purposeful adoption of AI in planning practice. It seeks to ensure broad alignment with other leading planning organisations and is consistent with the PIA's 10 PlanTech Principles[g], PIA National PlanTech Vision and

[a] https://www.oecd.org/en/topics/sub-issues/ai-principles.html
[b] https://www.industry.gov.au/publications/australias-artificial-intelligence-ethics-principles/australias-ai-ethics-principles
[c] https://www.iso.org/standard/77608.html
[d] https://www.planning.org.au/pia/policy-advocacy/plan-tech-principles.aspx
[e] https://www.rtpi.org.uk/new-from-the-rtpi/an-introduction-to-planning-and-ai/
[f] https://www.planning.org/search/?keyword=artificial+intelligence
[g] https://www.planning.org.au/pia/policy-advocacy/plan-tech-principles.aspx

Strategy (2026–2027)[h], Digital Planning Core Competencies[i], PIA's Best Practice Guidelines for Digital Innovation in Planning[j] and PIA's Guidance Note for AI in Development Assessment[k]. Together, these provide a coherent basis for supporting members through professional development, policy and advocacy, and the cultivation of networks and partnerships that strengthen digital capability across the profession.

The Evolving Role of Planners

PIA recognises the need to engage the profession at a high level on the following:

- In a planning system where AI can streamline much of the administrative, research and analytical workload, what remains the unique and irreplaceable value of human planning expertise?
- How can AI be deployed to ease regulatory workload and redirect effort toward strategic, outcome-focused planning, while safeguarding fairness, transparency and accountability to the public?
- How can planning systems adopt AI in ways that elevate professional judgment and deliberative practice, ensuring the planner's role expands rather than narrows to validating AI outputs?

Key perspectives

PIA has identified the following ten key perspectives that need to be considered for AI in planning. Each is linked to relevant PlanTech Principles (noted by number in brackets) to demonstrate alignment with PIA's broader digital planning framework.

1. Augmentation, Not Replacement:
AI is viewed as a tool to enhance planners' capabilities, not replace them. AI lacks understanding of local context and community values, and cannot autonomously make complex trade-offs that underpin fair and inclusive planning decisions. By automating routine tasks, AI allows planners to focus more on complex decision-making, community engagement and long-term outcomes [2, 4].

2. Outcomes Over Efficiencies:
While AI can bring real efficiency gains to planning work, use of AI must focus on delivering fair and sustainable outcomes for communities, not just faster decision making [5].

h https://www.planning.org.au/common/Uploaded%20files/PIA/Policy/PlanTech/PIA%20National%20PlanTech%20Vision%20-%20Designed.pdf

i https://www.planning.org.au/common/Uploaded%20files/PIA/Policy/PlanTech/Digital%20Planning%20Core%20Competencies_Designed.pdf

j https://www.planning.org.au/common/Uploaded%20files/PIA/Policy/PlanTech/PlanTechBestPracticeGuidelines.pdf

k https://www.planning.org.au/common/Uploaded%20files/PIA/Policy/PlanTech/GuidanceNoteAIinDevelopmentAssesment.pdf

3. Learning From, Not Repeating, the Past:
PIA notes that many AI systems are trained on historical data or datasets developed elsewhere. In planning, this creates a risk of reproducing outdated assumptions or overlooking the unique contexts of Australian places and communities. Further, common planning data standards do not yet exist in Australia, and progress will require coordinated cross jurisdictional leadership. Planners should use AI critically to inform better futures, shaping places that reflect contemporary needs, aspirations, and local conditions [4].

4. Authentic Community Dialogue:
AI tools should enhance participation in planning processes, not replace it. PIA emphasises the need to preserve meaningful, two-way dialogue by distinguishing between automated responses and deliberative community input grounded in local knowledge and lived experience. Planners should ensure that the use of AI to analyse or summarise feedback does not amplify bias, erase nuance or diminish deliberation [7, 8].

5. Strategic and Coordinated Adoption of AI in Planning
A strategic approach is needed to guide the adoption of AI in planning. Clear roadmaps should be developed by state governments in partnership with local government, local government associations and industry bodies to align investment, policy, and capability development across the sector prior to substantial AI upgrades or investments. Collaboration should include shared learning, communities of practice, and mechanisms for pooling resources and expertise to accelerate progress and avoid duplication. This coordination will help ensure that AI is implemented in ways that are ethical, consistent, and focused on delivering better planning outcomes for communities [9].

6. Assurance, Accountability and Governance:
AI has significant potential to improve planning processes and outcomes. To build trust among users and communities, AI systems must provide consistently accurate, reliable, and explainable outputs so their reasoning can be understood and challenged when necessary. The use of AI should be governed by rigorous accountability standards and frameworks tailored to planning, with ongoing oversight to ensure assurance and accountability are maintained over time [6].

7. Transparency in Use of AI:
PIA emphasises the importance of transparency in how AI is used within planning processes. Planners and planning authorities should clearly communicate when and how AI tools are applied, explain their role in decision-making, and demonstrate how they improve community outcomes. Open communication, along with opportunities for communities to have a say in shaping how AI is used, will help build public understanding, trust, and confidence in planning systems [6].

8. Data, Document and Workflow Interoperability Standards:
Investment in the development of standards is needed by government and industry to ensure interoperability, enabling AI systems to share information and workflows across jurisdictions without fragmenting planning systems. These standards should support the recording and exchange of AI workflows so that decision processes and reasoning remain transparent and interpretable between systems. Changes may be needed to the way planning data, documents and policies are structured so they can be reliably understood by AI while retaining their intent and meaning. Planners must be involved throughout to ensure context, nuance, and policy purpose are not lost [3].

9. Need for Investment in Education and Continuing Professional Development:
To realise the benefits of AI in planning, investment must extend beyond technology procurement to building professional capability. PIA's PlanTech Core Competencies provide a foundation for ongoing AI capability development across the profession, and PIA is integrating AI into professional development and accreditation initiatives to equip planners with the digital, ethical, and analytical skills needed for effective practice. Many planning agencies currently lack in house AI capability and rely on external vendors, making capacity building essential for independent and informed use of AI. Therefore, this responsibility extends beyond PIA, with governments and industry also needing to invest in education and continuing professional development to ensure planners are prepared to use AI responsibly and confidently [1].

10. Continuous Feedback, Monitoring and Evaluation
The adoption of AI in planning should be supported by continuous feedback, monitoring, and evaluation to understand its real-world impacts. Governments and agencies should establish clear baselines and trial AI tools with planners before large-scale implementation, ensuring benefits and risks are well understood. The outcomes of public sector trials should be shared openly with industry and the profession to support learning, transparency, and continual improvement across the sector [10].

Summary

In summary, PIA promotes a balanced approach to integrating AI into planning practice and systems, focusing on trustworthiness and fairness, ethical use, assurance and accountability, enhancing planner capabilities, and ensuring equitable outcomes for communities. All this while recognising that AI will augment, but not replace, the role of planners in shaping communities – ultimately improving the quality of life in Australian cities, towns and regions.

For more information

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