



COMMUNITY INFORMATION SHEET

Artificial intelligence (AI) explained

What AI is, in plain terms — and why it needs so much computing power

What is AI?

“Artificial intelligence” is software that learns patterns from large amounts of data and uses them to make predictions, generate content, or assist decisions. Modern AI is built on machine learning: instead of being programmed with fixed rules, the software is “trained” on examples until it can recognise patterns on its own.

Generative AI and large models

The recent wave — chatbots, image and code generators — uses very large models (often called large language models). These are trained on enormous datasets and have billions of internal settings. Training them, and then running them for millions of users, takes a great deal of computing power.

Why it connects to local infrastructure

AI runs on physical computers — racks of specialised processors in **data centres**. Training and running big models needs a lot of these processors, which use a lot of electricity and produce heat that must be removed. That is why the growth of AI drives demand for data centres, power and cooling — the subjects of the other sheets in this series.

Term	Plain meaning
Machine learning	Software that learns patterns from data rather than fixed rules
Training	Teaching a model using large datasets (very compute-intensive)
Inference	Using a trained model to answer or generate (done constantly, at scale)
Model	The trained “brain” — a large set of learned settings

Want to know more? The National AI Centre (NAIC) and [industry.gov.au](https://www.industry.gov.au) publish plain-language information on AI. This sheet is general information, not medical, legal or planning advice; figures are indicative and a specific proposal is confirmed by qualified assessment.