

PROMPT

ACTOR

Acting as ... a Marketing Expert | a politician | a sceptic | a CFO

CONTEXT/PURPOSE

I want to ... understand | compare | enhance | analyse | create | test | critique

REFERENCE

With a starting point of ... this example | a new prompt | the previous response | this linked article

FOCUS

Giving me ... a step-by-step guide | talking points | alternative views | emerging trends

CONSTRAINTS

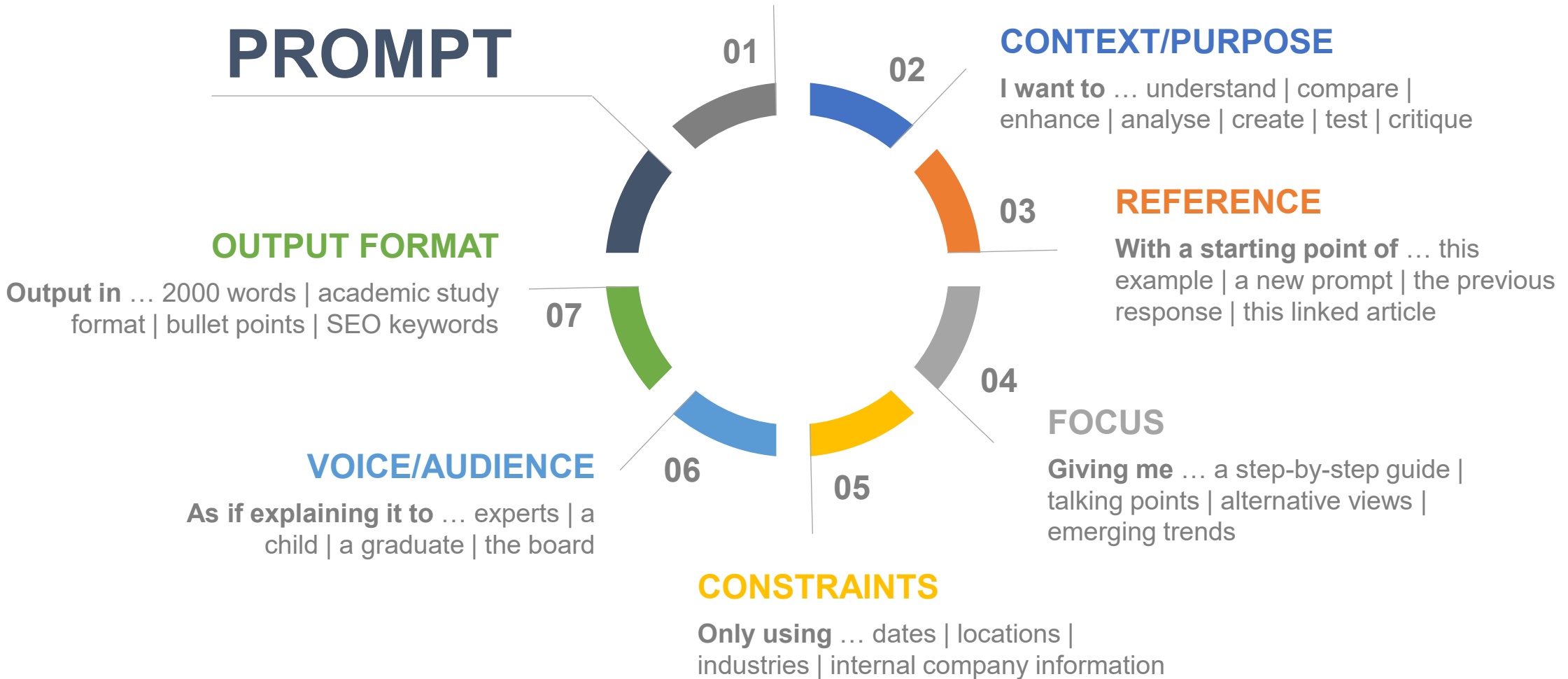
Only using ... dates | locations | industries | internal company information

OUTPUT FORMAT

Output in ... 2000 words | academic study format | bullet points | SEO keywords

VOICE/AUDIENCE

As if explaining it to ... experts | a child | a graduate | the board



Is AI Environmentally Damaging?

There are numerous opinions on the environmental impact of AI; we have collated some relatable facts from reliable sources

Some Comparisons

Reading vs. Prompting: Simply reading a report on a laptop for 20 minutes uses the same amount of electricity as running six ChatGPT prompts.

National Scale Impact: If everyone in the UK made 10 AI queries every single day for a full year, it would add just 0.2% to the country's total electricity consumption—dwarfed by the 1.5% of global electricity already used by video streaming.

Video Streaming Energy: Streaming 4K video for one hour consumes approximately 80 Wh of energy. Even using conservative estimates (3 Wh per query), this is over 25 times the energy of a single AI prompt.

The "10x Less" Reality: While headlines often claim AI uses massive energy, recent analysis suggests modern ChatGPT queries use closer to 0.3 watt-hours (Wh)—ten times less than commonly cited figures and roughly equivalent to a standard Google search.

Netflix Water Usage: You can make about 50 ChatGPT queries for the same water footprint (used for energy generation and cooling) as watching one hour of Netflix.

Space Heater Comparison: If you ask AI questions eight times a day for a full year, the total energy used is equivalent to running a space heater for just two hours in total.

File Uploads: Uploading a single 1GB file to cloud storage uses approximately 35 Wh of energy, roughly ten times the energy of a standard AI prompt.

Training Efficiency: While training a model like GPT-4 is energy-intensive upfront, when averaged across billions of users, the training cost adds only 0.3 watt-hours per search

The "Iceberg" Reality: Consumer chatbots (like ChatGPT) account for only ~3% of AI's total energy consumption; the vast majority comes from "invisible" systems we already use, such as recommendation engines and ad targeting.

Flying vs. A Lifetime of AI: Taking a commercial flight for just one hour increases your carbon emissions more than if you were to prompt ChatGPT 50 times a day for the rest of your life.

Our Recommendations

"Is this a necessity?": Use [all] digital tools in an appropriate way, much like turning off lights when a room is unoccupied, only boiling the amount of water needed in a kettle etc. We would argue that experimentation and learning is also a necessity as in the long-term it learns to optimal usage; however, we recommend various ways to accelerate learning and create reuse

Reduce, recycle, reuse: Most activities have a negative environmental impact (from cooking to education) and thought should be applied to minimise the impact. For example, using Deep Research mode on an AI tool when the required answer is relatively simple is an unnecessary usage. This particularly justifies the need for prompt libraries, shared learning and reuse of successful prompts to minimise iteration, individual learning and one-off/low-value outputs.

There's no "right or wrong": Read the peer-to-peer research about impact and gain a balanced view of impact; some generally agreed comparisons are made below. Awareness that you can offset the incremental negative impact of using AI tools with small tweaks to other areas of lifestyle is often reassuring. Of course, there are numerous considerations including energy sources - say, fossil vs solar or wind - but the majority of suppliers now publish overviews of source impact. Finally, it is possible to "prove" with data completely different perspectives (Google: "dust-to-dust study shows that a Hummer is more environmentally-friendly than a Toyota Prius" which was enormously damaging to electric vehicle adoption)

Overall benefits: Balance the positive and negative impacts of using AI, for example, does it allow you to do more with the same budgets? If so, is that a financial, operation, environmental or social good? If these are difficult to identify then question your usage of AI