Using AI

A guide for bid writers

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About this guide

This guide is for bid writers that know that AI matters and want to know how to get more out of it.

It doesn't promise one-click bids, or require you to invest tens of thousands in bid writing software. Using simple language and practical advice, we show how bid writers can use large language models to write better bids with less effort.

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Introduction

ChatGPT is less than two years old, and already it has changed bid writing. Large Language Models (LLMs) like ChatGPT offer unparalleled efficiency for bid writers but using an LLM comes with risks, including data security concerns and the possibility of AI 'hallucinating' and confidently stating inaccurate facts.

This document demonstrates that the skilled use of AI can improve the outputs from LLMs and help bid writers to create winning bids.

Open Opportunities. June 2024.

Benefits of LLMs for bidders

Multi-faceted tool

LLMs can support writers throughout the bidding process, from search to bid evaluations, writing responses and then scoring of bids.

Fine tuning

Skilled users of LLMs can direct them to produce outputs to match their company's voice and style, ensuring consistency across bids.

Greater efficiency

From ‘bid’ or ‘no bid’ decisions to compelling first drafts, LLMs can significantly reduce the time spent on bidding.

Research assistance

AI can rapidly analyse large volumes of data, skilled use of LLMs can be really efficient at finding and summarising relevant information for bids.

Data insights

LLMs can analyse past bids and outcomes, provide insightful challenge and identify strategic insights to improve win rates.

Compliance

LLMs can be used to validate and score bids, raising the quality of bids and reducing the risk of submitting non-compliant bids.

Better bids

AI supported bidding means combining the bid writer's traditional skills with new skills that give bid writers the ability to direct and control LLMs in a way that best supports their work. That's not just about creating copy, it's about supporting the whole bidding process, to create better bids more often, with less effort.

It is fair to say that most bid writers engagement with LLMs has been underwhelming, a quick test of ChatGPT and it isn't hard to conclude that humans are better. But a lot of that's because almost everyone uses LLMs in the wrong way, we ask impossible tasks or don't lead the LLM in the right direction. At best you will generic outputs this way, more commonly you'll give up and go back to the writing yourself.

A skilled use of LLMs can lead to much better bids, using LLMs the correct leads to better written copy, but more importantly it leads to better planning of bids, greater awareness of errors and less non-compliant bids.

Greater efficiency

Skilled use of LLMs makes previously complex tasks routine which frees up experienced bid writers to focus on strategy and high-value activities.

Rudimentary time consuming tasks such as proofreading are significantly reduced, but redrafts, scoring and compliance checks are all changed by this technology.

At the same time, acquiring the skill to direct LLMs and to use them to create better quality outputs, enhances bid writer's value to the organisation and develops their careers.

A team of six bid writers can have full access to a state of the art LLM for just $1,800 a year. With just a 10% increase in productivity, that represents a greater than 10x ROI.

Ai is easy to use badly

We need to move beyond the notion that AI will create one-click bids. Using AI effectively and safely requires knowledge and skill. Bid writers should learn how to use AI's full capabilities across the entire bid process.

The best bids have always been human bids, and this won't change but, we can expect more bids, improved compliance and less time to write bids. Buyers will change how they approach the market, increasing competition for bidders.

But much of the benefit from using AI comes from planning, evaluating and scoring bids. The actual task of writing the bid is much less demanding once the planning has been done correctly. This is where AI can really excel, helping bidders to plan and structure a bid and then to act as an adversary and use it to score the bid.

Using AI to develop winning bids starts with understanding AI's shortcomings.

Understanding shortcomings

Hallucination

AI can make up facts, requiring users to be vigilant and adapt their work methods to frame the work that the LLM does so that risks are minimised.

Logic problems

AI can fail to solve common-sense problems and may respond with incorrect answers. Using techniques and methods outlined in this paper can help reduce errors.

Freshness

AI models have fixed training points and may not be aware of recent events. Understanding what we can ask the LLM is vital for bidders.

Short term memory

AI's recall is different from human memory and can become confused with lengthy conversations, so we need to take care to direct their attention correctly.

Strange language patterns

AI can develop strange linguistic traits that sound non-human. Uncommon words like “delve”, “tapestries” and other terms can appear frequently.

Safety

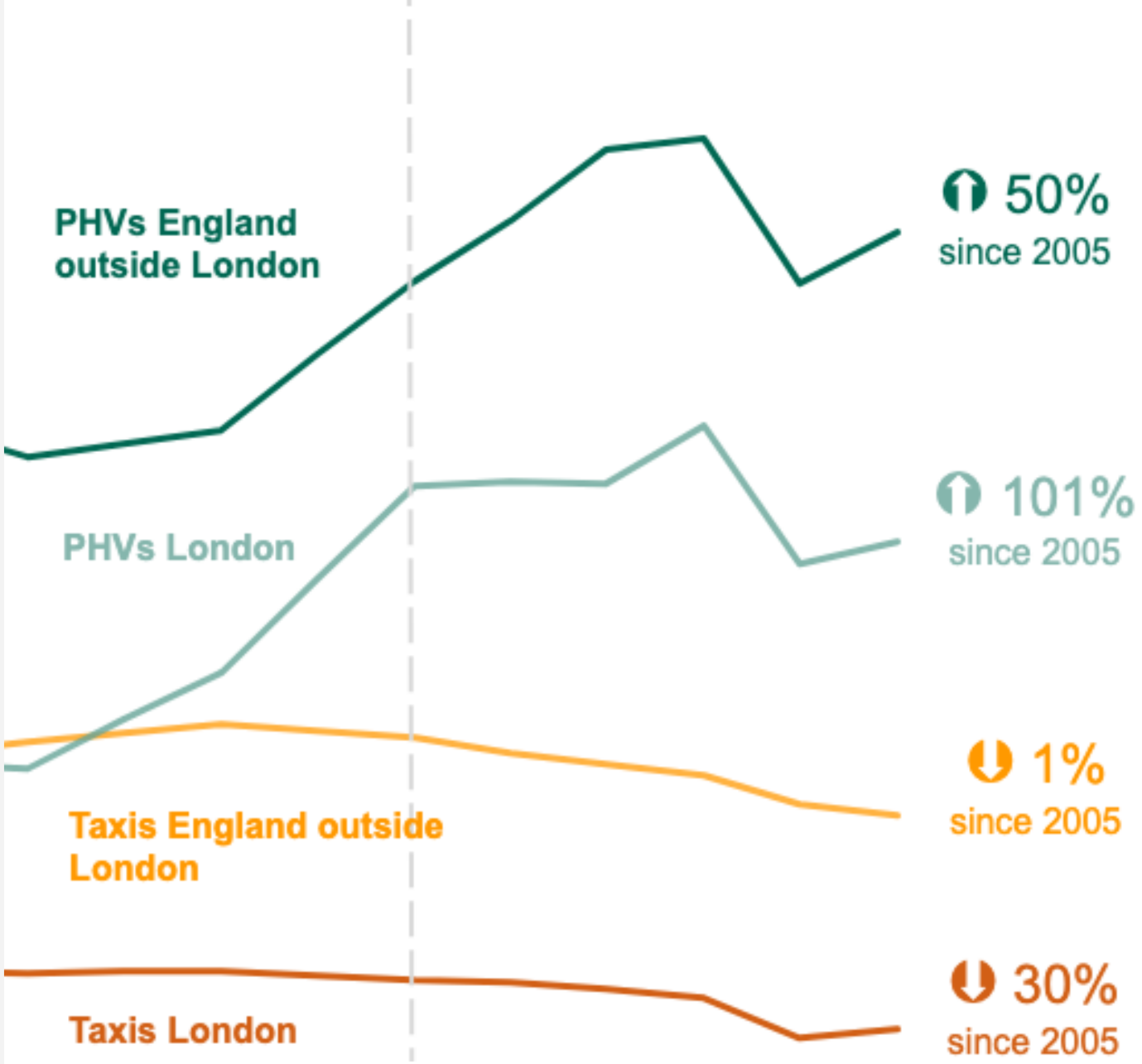
Some AI companies may store and reuse entered data, which can then be reproduced by other users of their LLMs, making them unsuitable for proprietary information.

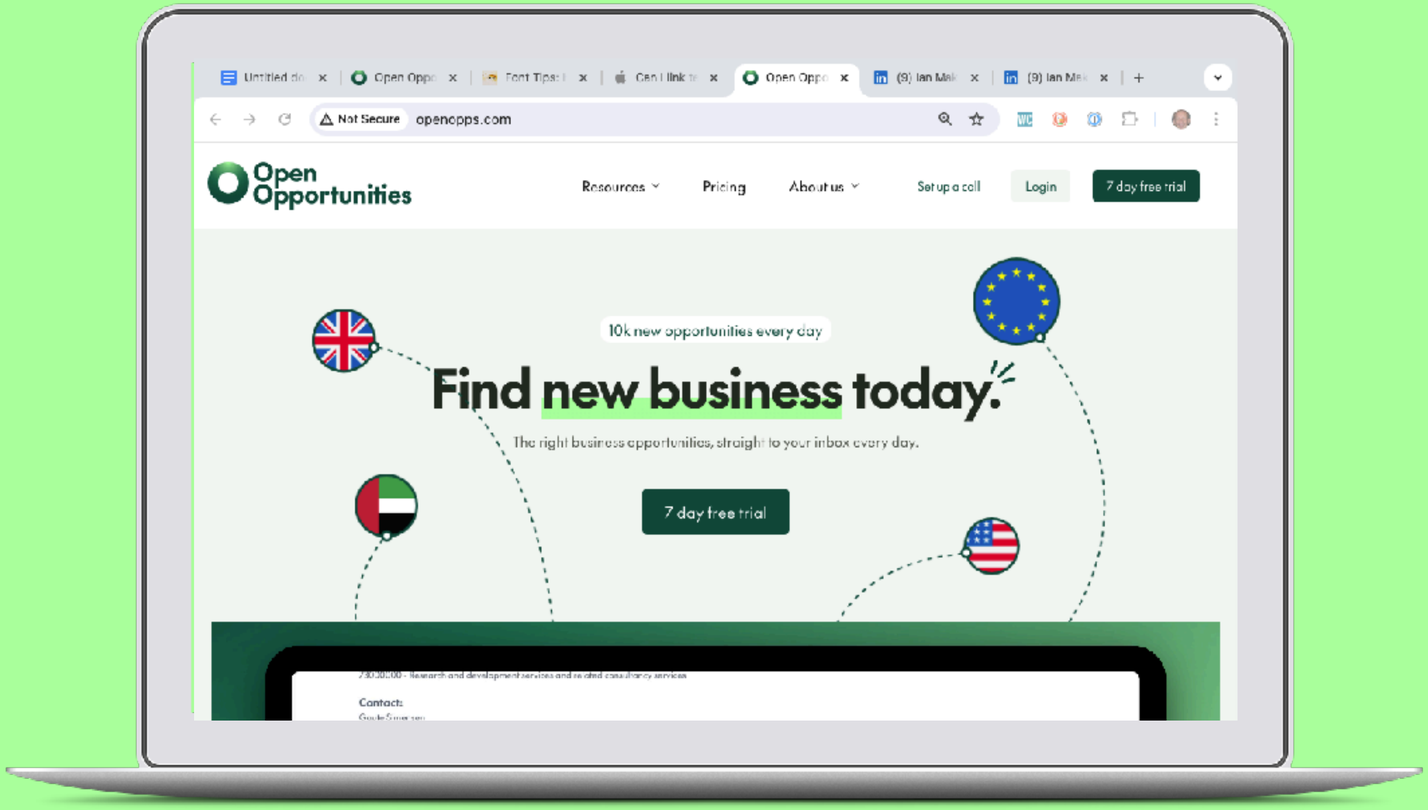
Why AI = more bids

When we apply new, disruptive technologies to activities that require human reasoning we typically see an increase in the number of people working in the market. A good example is licensed taxis and drivers after the introduction of GPS mapping. The wide scale adoption of GPS meant we have more taxis, more drivers and more journeys taken by taxi. The constraint on the market turned out to be parking and congestion fees.

In bid writing the constraint is currently the resources required to bid, but in a scenario where it is easier to write compliant bids, that constraint will fall away and the main constraint will be the number of tenders.

Reducing the friction on bidding will result in more bids and because it will be easier to create text that responds to the brief, more bidders.





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Options for bid writers

1. Ignore the issue

Bid writers can choose to ignore what is happening with AI, but this approach risks falling behind competitors who are leveraging AI to improve their bid writing processes and outcomes.

2. Use bid writing software

Using pre-configured bid writing software, this option will offer efficiency gains, but the best products require can be expensive and the low cost tools aren't ready for production grade work.

3. Learn to use LLMs

Learning how to use AI to deliver winning bids - This option provides the most potential for long-term success, allowing bid writers to harness the full power of AI while maintaining control over the bidding process.

Writing winning bids

Writing winning bids

Writing a winning bid requires a combination of skills and expertise that AI doesn't have in isolation. Using LLMs successfully requires the user to apply the right context to the task and to define the task in such a way that the LLM can execute the required task. We will cover technical skills for using LLMs and how to apply them to the bidding process:

Understanding AI parameters
Prompt skills
Improving outputs
Finding opportunities
Evaluating tender documents
Responding to a bid
Avoiding hallucination
Quality
Evaluating your outputs
Multilingual bidding
Safety

Understanding parameters

Tokens

Basic units of text processed by LLMs, where 100 tokens roughly equal 75 words. Tokenisation effects model performance and input handling.

Context window

Refers to the maximum tokens processed at once, impacting how much context the model can consider. Larger windows allow more comprehensive responses.

Temperature

Controls output randomness. High temperatures produce creative responses, while low temperatures yield focused, predictable text. For factual text, set temperature to 0.

Top K

Limits token selection to the top K probable tokens, balancing creativity and coherence by focusing on high-probability options.

Top P (Nucleus Sampling)

Selects tokens based on a cumulative probability threshold, offering flexibility and diversity while maintaining control over relevance.

Max Tokens

Sets an upper limit on response length, ensuring outputs stay within desired bounds, useful for concise and focused responses.

Prompt skills

Roles

Always assign a role to your prompts, make them appropriate to the task.

Test roles

Test which roles perform different tasks best. Keep a reference.

Provide context

Give the model context to work with, use the context window to ‘ground’ the LLM.

Be clear and direct

Don’t be polite, be demanding and clear, state what you expect.

Use line breaks

Breaking up your prompt with line breaks helps the model to understand.

Repeat important phrases

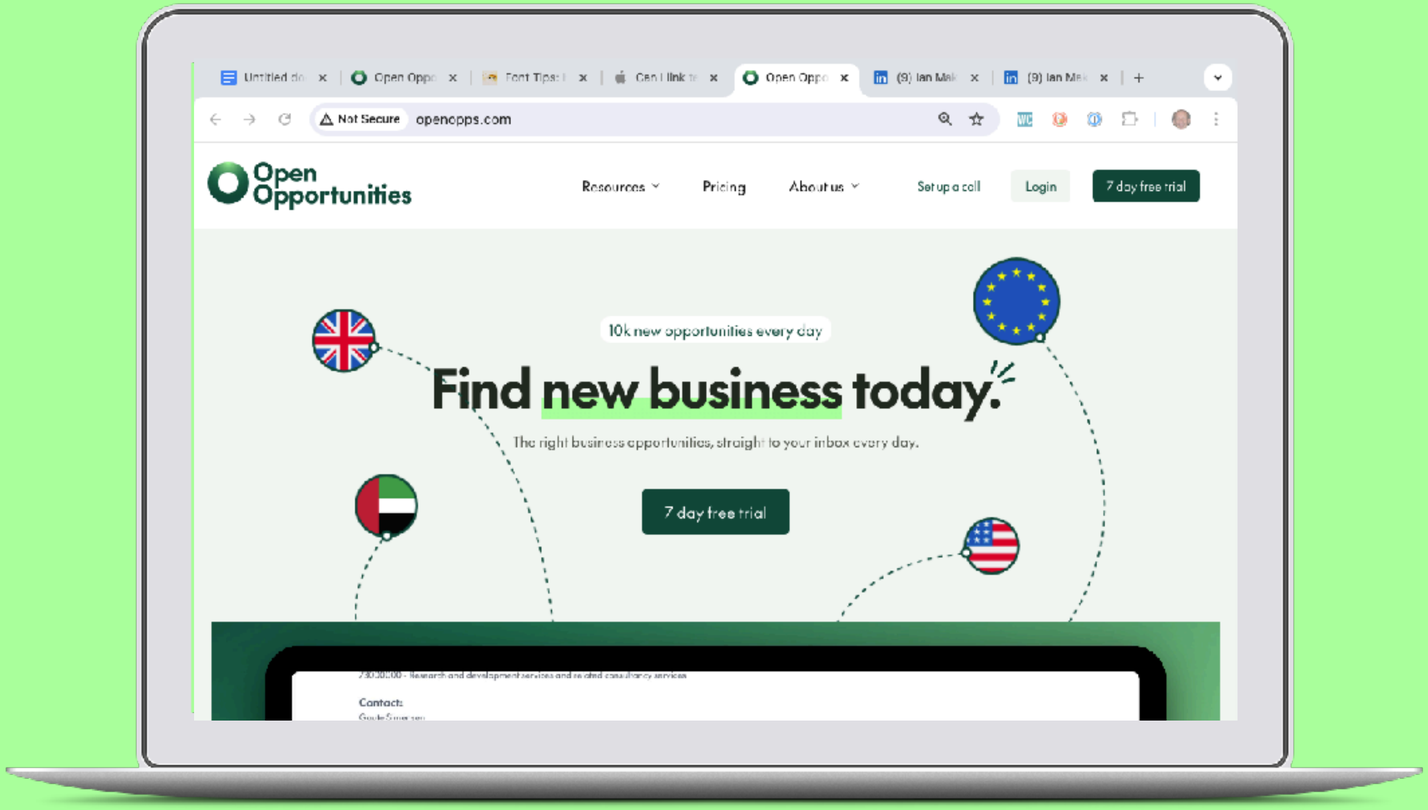
Repeat words and phrases for greater emphasis and to attract attention.

Demand detail

Demand a ‘detailed’ response, it will improve the model’s focus and output.

Don’t use “don’t”

Avoid telling LLMs what not to do, use positive instructions to avoid confusion.



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Prompt skills

Direct attention

Demand the model pays attention to issues that are important to you.

Offer incentives

Models can perform better if you offer to reward them for better results.

Say you’re being scored

Remind the model that their output is being scored to improve precision.

Iterate and refine

Tell the model you will iterate and that you need their help to do so.

Label instructions

Indicate what is an instruction, make it clear with titles and line breaks.

Self criticise

Ask the model to criticise its own output, ask where the model could improve.

Use examples

This is especially important when asking for non obvious or multifaceted tasks.

Define output

Show the model what you need in the output, preferably using examples.

Improving outputs

Few shot prompting

Use multiple prompts, e.g. use one prompt to create text and another to summarise that text for the word limit.

Progressive refinement

Ask a series of simple questions to ground the LLM's focus before requesting the final output.

In-context learning

Provide useful contexts to direct the LLM's attention to a particular subject.

Add multiple examples

Especially when the task is complex, provide examples within the prompt to get the LLM to create consistent responses.

Part of your bid process

These techniques needn't be applied in isolation; combining these techniques can significantly improve the accuracy and precision of LLMs and reduce the likelihood of hallucination. For instance, before asking the LLM to score your output, you might want to consider a series of questions that reinforce the model's expertise before requesting a score.

Uploading documents, extracting features, setting roles are all repeatable tasks that can become part of your bid process. For instance, adding all the documents to the context window is like setting up an "information space" for your bid, you will need to do this for each bid.

Familiarise yourself with this process and record the steps so that you can quickly prime your LLM for every new bid. Turn this set up into a repeatable process that others can do for you. Ask them to 'prime' multiple LLMs so that you can test the effectiveness of different LLMs.

Conducting reviews

Feature review

Use the LLM to extract key features such as dates, time periods, values and organisations from the documents, explaining what each one is.

Specification review

Ask the LLM to identify any thresholds, or other pieces of information that are required to bid or to achieve compliance.

Legal review

Identify contractual red lines by asking the LLM to identify and summarise critical legal issues such as indemnity. Demand references to make it easy to check issues manually.

Supplier questions

Ask the LLM to detect any anomalies or inconsistencies in the tender documents, so that you can raise issues before the supplier questions deadline.

Social value

Check for any social value commitments that will be expected of suppliers. Create a summary to better understand the impacts.

Others

Consider additional reviews for common patterns in the specifications, scoring procedures, KPIs and penalties.

The bid process

The bidding process.

AI can be used in all areas of the bidding process, from helping teams to find opportunities, through to bid evaluation, developing the overall bidding strategy and submitting a compliant response.

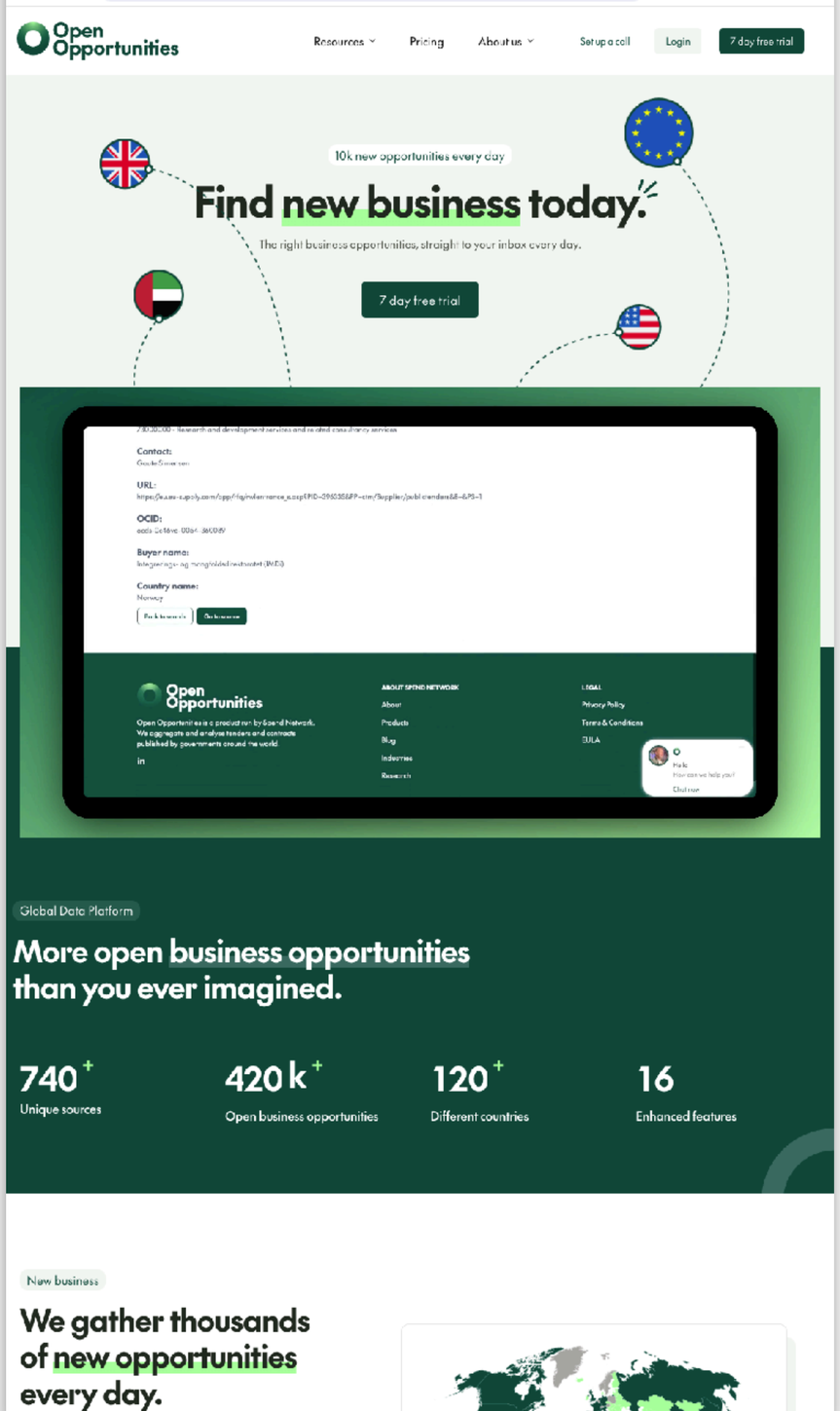
By using AI, businesses can improve their approach, ensuring they submit high-quality bids that meet requirements. This section explains how LLMs can support evaluating tenders, defining bidding strategies, writing bid responses, conducting thorough bid evaluations.

Finding opportunities

AI is changing our search engines, new database technologies are making it easier for bidders to find and sort opportunities relevant to their business. Open Opportunities is a leading global tender source, offering AI-enhanced search capabilities and over 250,000 new opportunities every month.

Traditional search methods rely on keywords, which can lead to irrelevant results due to a lack of understanding of term meanings. AI-enabled search assesses document content for meaning, ensuring more accurate results. Open Opportunities uses these advanced tools to help businesses find the right opportunities efficiently, providing powerful search capabilities and valuable data insights.

Our customers can expect a range of new tools and features over the coming months, including translation, market analysis and more.



Adding context

Skim read your documents

Skim-read documents to understand broad themes and so that you can direct the LLM's attention.

Ground the documents

Upload the documents then ask the LLM to explain their purpose and key sections.

In-context learning

Ask the LLM to summarise each document, this helps you check if they LLM has understood the document.

Extract features

Ask the LLM to extract features from the documents, items like dates, values and names are useful.

Evaluating opportunities

Tender documentation can run to hundreds of pages, with limited time to respond, bidders can be caught in a race against time to properly evaluate a tender before committing to submitting a bid. Deciding whether or not to bid can require both bid teams and legal teams to conduct careful reading of hundreds of pages of dense documentation.

AI can make this process much more efficient and allow the bulk of the work to be done by less skilled teams. Simple evaluations can be done in seconds with the right prompts. Evaluation is a good example of how we need to adapt our work to use AI's strengths. Even with decent amount of context, AI will give a terrible response to the question "should I bid on this tender?", however, using a systematic approach to reviewing and summarising documents is a valuable use of AI's capabilities.

We recommend that bid writers undertake different reviews of tender documentation using AI. Multiple AI reviews allows bidders to quickly build a case for bidding on a tender. Different reviews should use different roles that are specific to the review being conducted. For instance a legal review should be conducted when the LLM has been given the role of a "legal researcher" or a "paralegal".

Training for bid teams:

Using LLMs for bid writing.

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Responding to bids

Simply plugging in a question and then pasting content from your website and expecting a high quality bid is futile. As before we need to warm up the LLM, that means defining the information space that we're going to work in by providing the information that is relevant to the overall bid. Typically this will include key details from the specification, as well as any supporting materials from the tender documents, combined with your own case studies and product specifications.

As before, we want to make sure that these items are grounded in the conversation with the LLM, so with each document you upload we need to establish the information space for that document before we define the goal to be achieved.

Once that is established we can propose the bid strategy that we want to adopt and start to set out which queries and questions we want to answer and how to answer them so that they align with your strategy.

Information spaces

Establish the information space by uploading documents and asking the LLM to summarise and extract key features. Define the goal and set the role for the LLM, ensuring it understands the bid strategy before writing responses.

Once the information and workspaces are established, ask the LLM how to respond to specific questions. Get suggestions for structure and strategy, then have the LLM write responses based on these guidelines.

Having invested in the set up phase, developing a first draft response to your questions can be relatively trivial, you can copy and paste each question and ask the LLM to develop the response. Make sure to keep your thread live, you can return to it at any point and all of the grounded information will still be relevant to bidders.

Hit rewind

If you need to add data later, you can either start a new thread or refocus the LLM's context by listing existing documents and appending new ones. This process ensures the LLM integrates new information correctly. Remember, LLMs have a poor understanding of the negative concepts, so telling an LLM not to do something can lead to problems and can cause your request to fail.

Starting over

You can tell the LLM to ignore previous instructions including specific instructions, but if the logic of the LLM's thread appears to have broken irredeemably then it makes sense to restart with a new thread, including resetting the information space.

Avoiding hallucinations

Don’t use it for search

Avoid using an LLM as a search engine, sending open-ended or time bound requests can encourage hallucinations or out of date facts.

Set roles for given tasks

Use appropriate roles for tasks, ensuring precision and reminding the LLM that outputs will be scored e.g. use a ‘strict evaluator’ role for scoring your bid.

Step by step

Use discrete tasks as a way to stop the LLM from getting confused. Ask it to write copy first and then add references, or ask it to summarise something before expanding.

Ask for systematic approaches

Ask the LLM to “tick off items as you go” if you’re asking it to do multiple tasks, encourage it to work systematically through your tasks.

Validate outputs

Ask the LLM how it performed in completing your task, did it meet all of your requirements, ask it to show evidence of having completed a task.

Check with another thread

Take the output and ask the LLM in a new thread to validate the work and test for accuracy.

Setting expectations

Using this approach may not create a perfect first draft tender, but it will provide improvements in your outputs

- Finding tenders that suit their business needs.
- Conducting quicker, more efficient tender evaluations.
- Generating more accurate outputs at speed.
- Establishing a repeatable and dependable process.

Used correctly, these techniques should also lead to higher quality bids. Adopting the procedures outlined here forces bidders to plan their bid; collecting the required materials; setting out a bid strategy and refining the case for submitting a bid before writing the bid.

The process of setting up the information space and establishing the bid strategy, also gives bidders a clear definition of what good outputs look like before they start bidding. That in itself will lead to better bids, even when the LLM's output falls short of expectations.

Better quality

These improvements will make writing bids faster, more predictable, and quantifiable. Proper use of these techniques should lead to higher quality bids, as our process encourages planning, collecting necessary materials, setting out a bid strategy, and refining the bid before writing. This ensures bid writers know what good outputs look like and how to achieve them.

Initially, using LLMs may feel slow and cumbersome, but the goal is to develop your skills for increased efficiency and winning bids quickly. Improving efficiency allows you to submit more winning bids.

Evaluating your outputs

Proofreading

Have LLMs check for spelling, grammar, and clarity. Do this at the start of your bid review to ground the context and at the end as a final check.

Compliance

Verify if responses fully answers each question, use progressive refinement to get to a yes / no answer. Test your responses by using different roles and prompts.

Detect anomalies

Identify inconsistencies in your bid response, ask the LLM to extract features from your copy and check for consistencies, ask it to explain what is being communicated.

Fact checking

Extract and verify facts like dates and figures using few-shot prompting.

Score your outputs

Set out the right context and then request scores based on context and specifications to identify strengths and weaknesses.

Improvements

Ask for enhancements to secure higher scores, providing examples of successful improvements from other bids. Ask the LLM to review suggestions.

Working globally

Multilingual search

Open Opportunities are adding multilingual search and translation to make it easier than ever to trade.

Translate documents

Translate key documents and specifications to understand what bidders require before bidding.

Review

Conduct reviews at negligible costs so that you can make a bidding decision instantly.

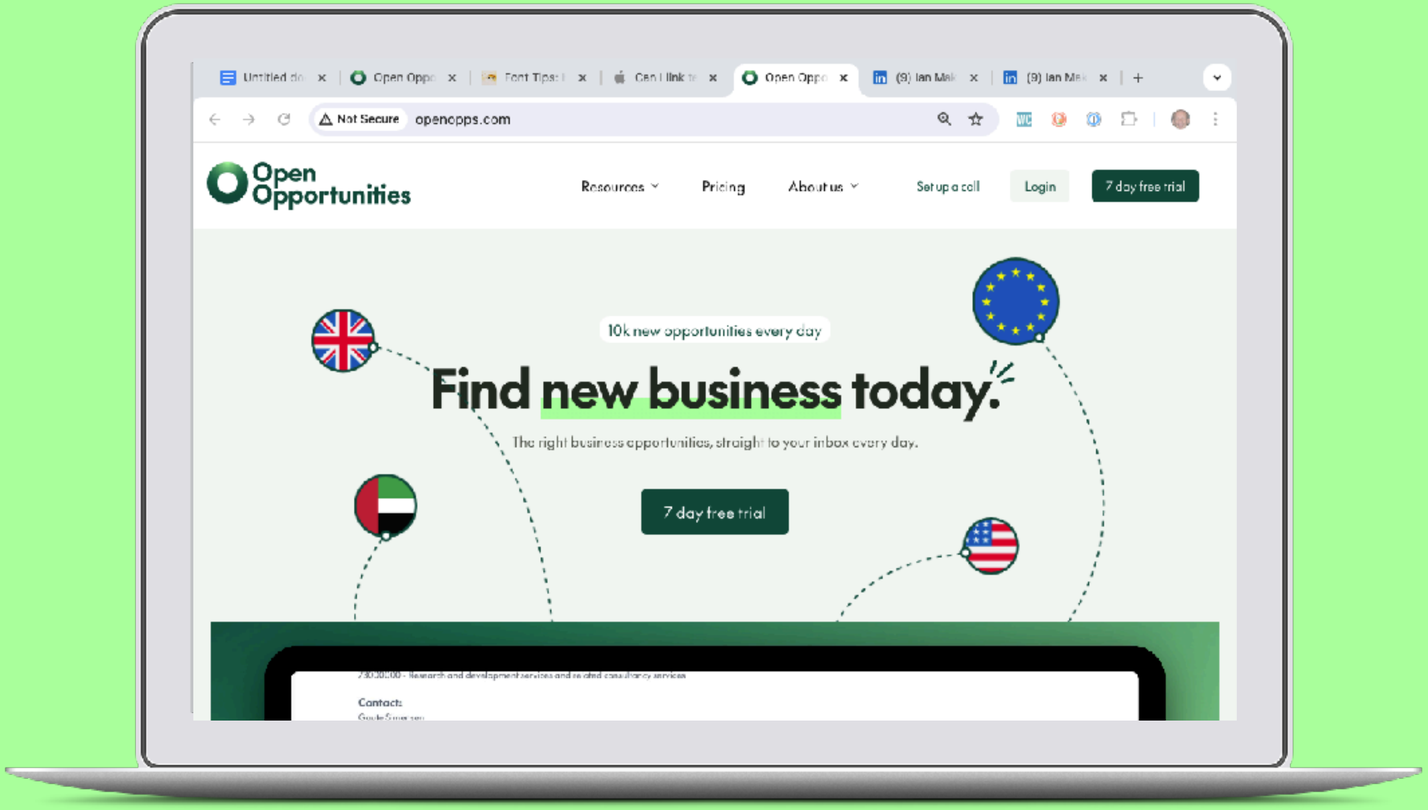
Translate your submission

Ask the LLM to translate your bid into the target language ready for review before sending.

Multilingual Bidding

LLMs don’t immediately open up access to new markets, but they do remove some barriers to trade. The ability to translate, review and assess opportunities in different languages allows you to understand the market better, build new insights and possibly even submit tenders in a different language.

Open Opportunities provides hundreds of thousands of new opportunities every month, companies that are seeking to export goods or services, can use Open Opportunities as a catalyst for growth.



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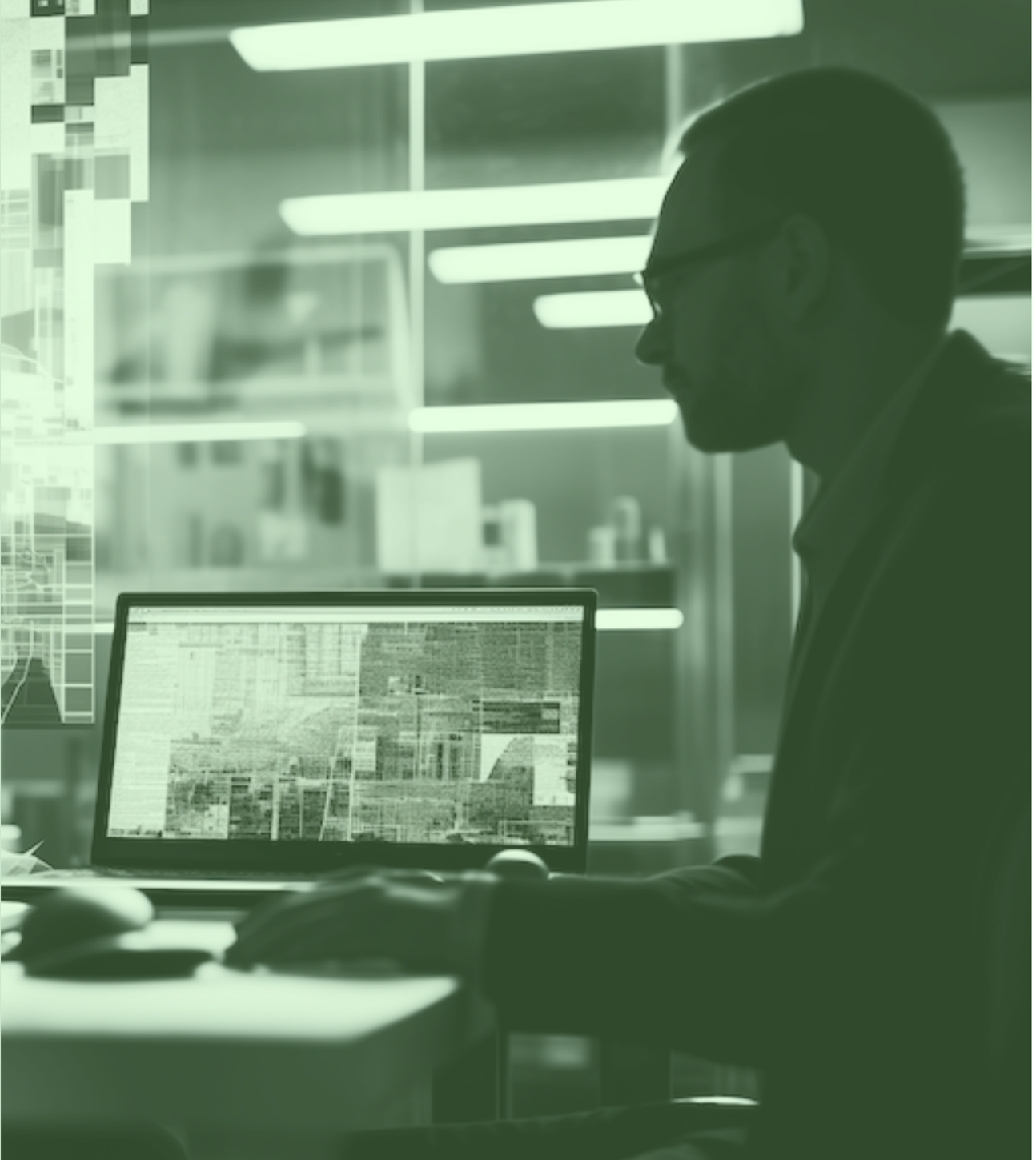

Safety

The companies that run LLMs love data, some will consume the data that you enter into their LLMs and store it for later use. That means you need to check the terms and conditions, if in doubt do not use these public LLM websites if you are handling proprietary data. No ifs, no buts.

Some public tools are safe to use directly through the web, but you can also use cloud services like AWS, Google Cloud and Microsoft Azure to access LLMs safely. These platforms have set out terms and conditions that mean that your data is not retained for reuse.

This is the easiest and safest way to use LLMs right now. Another option is to set up your own bidding database as a private LLM. This approach allows a company to restrict any analysis by the LLM to the data in your database and to use a state of the art LLMs in “walled garden” that prevents any other data getting in or out.

Next steps with Open Opportunities

1. Find opportunities

With 250,000 new opportunities every month any business can find data and opportunities to help them grow. We know that bidders need high quality data every day.

2. LLM bid training

We can provide team training for all your bidders, guiding them on the right models to use, how to create contexts and how to direct LLMs to deliver winning bids.

3. Private LLMs

If you want private LLMs that work just with your data for access by only your team, we can help set up an LLM in a ‘walled’ environment so that your data and team can always be safe.

About Ian Makgill

Ian is the Founder of Open Opportunities. Ian has been working with procurement data for over 20 years. Ian started working with large language models over eight years ago, he has written extensively on the topic of AI in procurement, including academic papers on entity matching and low grade memes that clog up your LinkedIn feed.

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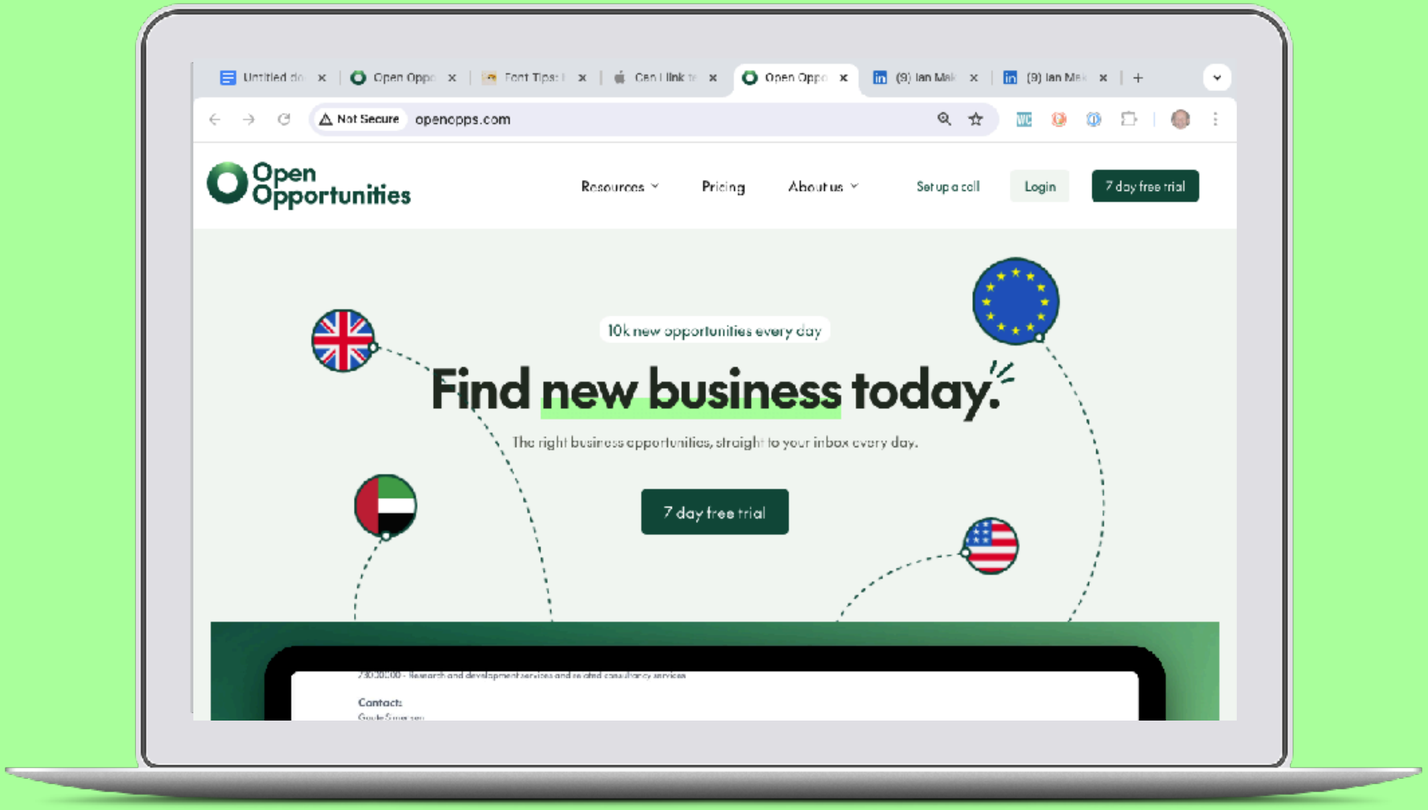

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