CIDM

ConVEx

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Preparing for AI:

Are we ready for what's next?

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Shaping the future of content

Precision Content

Precision Content is shaping the future of content. We transform your complex information into easy-to-understand content, making it accessible and intuitive for everyone. Leverage our expertise in structured authoring and DITA to enhance content quality, streamline workflows, and improve content operations.

Best Workplaces™
Great Place To Work®
CANADA 2025

Presentation agenda

Pressing need for quality

Measuring human performance on content

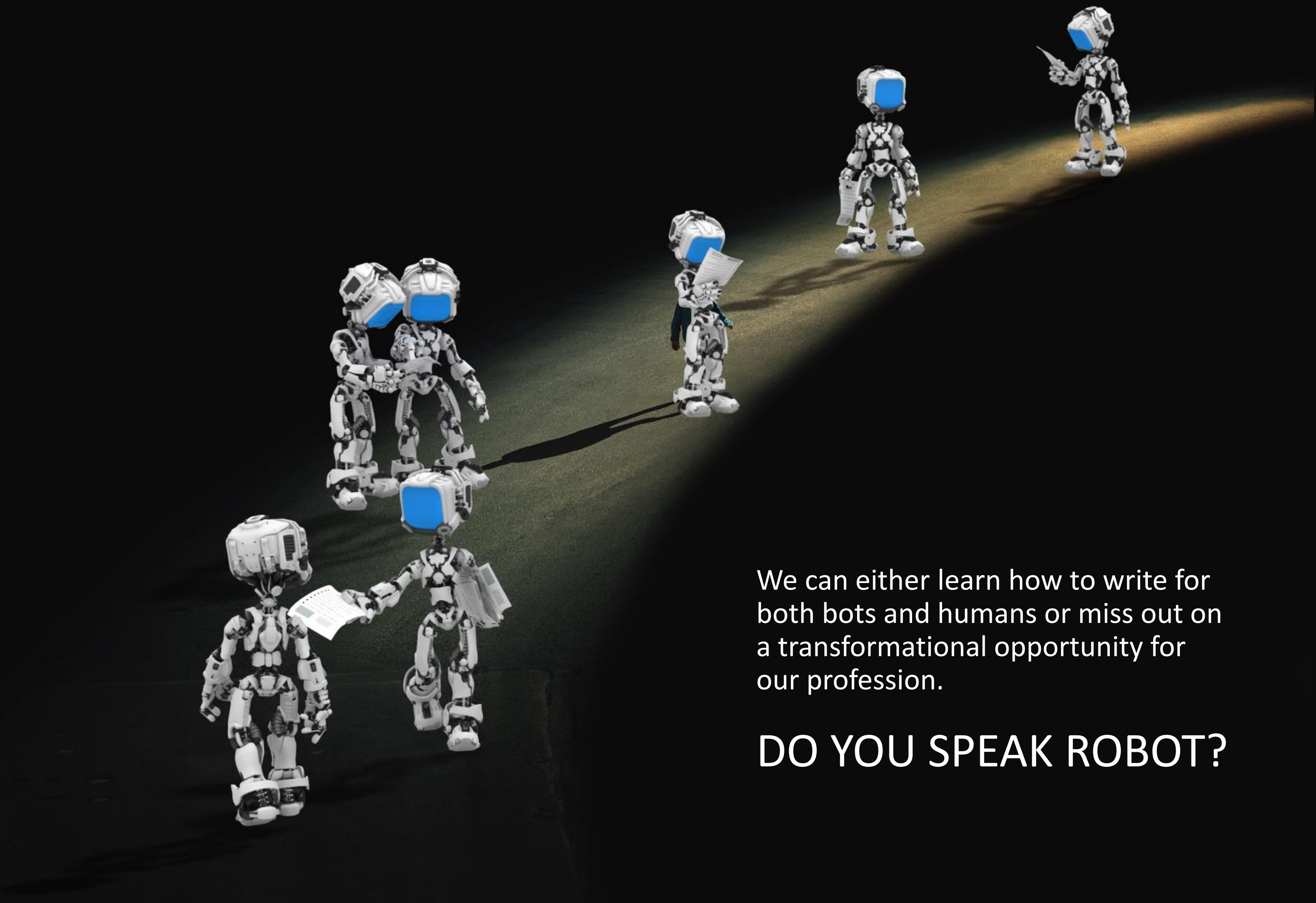
- Creating quality benchmarks
- Usability labs
- Usability lab scenario
- Sentiment analysis

Measuring machine performance on content

Role of microcontent

Conclusions

The robots are coming …



We can either learn how to write for both bots and humans or miss out on a transformational opportunity for our profession.

DO YOU SPEAK ROBOT?

Striving for quality in technical communication

I once had a boss that liked to paraphrase the late Mae West when he said

"When technical writing is good – it's very good!"

"When technical writing is bad – it's good enough."

Why does it matter (now)?

Quality, consistency, and precision matter now more than ever with the increasing prominence of artificial intelligence and generative AI.

The maxim **“Garbage in: Garbage out”** was never truer than it is today as companies and professionals look to differentiate themselves and compete on a new playing field with machines.

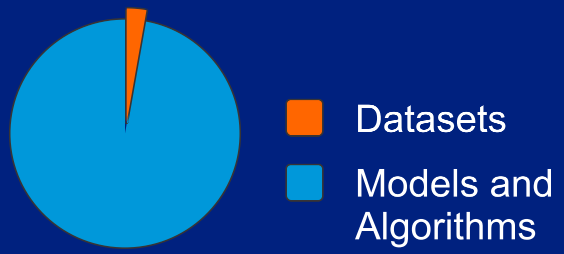
"Data is food for AI" – Andrew Ng

Andrew Ng, Co-founder, Head, Google Brain

Data quality is STILL a big problem:

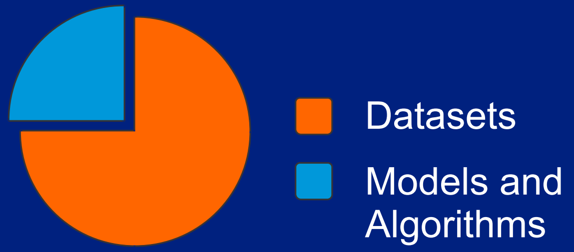
OpenAI has openly stated that one of the biggest issues in training ML models like Dall-E, GPT-3, and ChatGPT were errors in the data and labels.

Academia



Algorithm-centric AI

Industry



Data-centric AI

https://dcai.csail.mit.edu/lectures/data-centric-model-centric/

Focus on enabling technology

Most sessions on GenAI focus on the tools and techniques needed to successfully leverage AI for authoring and delivery. Fewer session talk to the broader success of GenAI across companies. Far fewer deal with the content quality issue as it is a much tougher nut to crack.

How can you measure quality without a benchmark for quality?

This session will detail how we create benchmarks on your content and then test human performance on that content.

Improvements in machine performance is harder to measure. Instead we need to look at the architecture along with the quality of the content for machine performance.

What are you feeding your robot?

Measuring Quality

What is quality in technical communication?

What do we measure?

We look at many facets for measuring value and quality of content. Not all content is evaluated the same way.

For marketing type content, we consider

- activity
- engagement
- voice and tone
- relevancy, and
- user feedback.

These measures are similar yet different for technical communication.

Evaluating technical communication

We need to assess for quality through
- readability and plain language
- accessibility
- consistency
- accuracy
- efficiency, and
- trust.

Creating content quality benchmarks

Measuring human performance on your content

Writing for Humans and Machines

Standardize your writing practices

Separate technical content from narrative content

Evaluate
- The various audiences
- The purpose of the information, and
- The function of the information.

Organize your content by
- Chunking
- Labelling
- Consistency, and
- Relevance

Write for intent
- Concept
- Task
- Reference
- Process, and
- Principle.

Editorial review of titles and structures

Before

The title is vague. A process for what?

The note text is not helpful

Steps are buried

Although titled a "process" this is information is "procedural"

Process

Use Service Portal to determine if the client has Check activity on the account.

Note:

This information will be useful later in this procedure.

Use Service Portal and Access Administration Center (Admin Center) to determine whether the client has positive pay and/or PVE on the account(s) and the status of positive pay.

Use the following tools (in the order listed)	Then follow the steps to verify a client's information
Service Portal	Click the Client Profile tab and select Client Hierarchy from the drop-down list. Search for the client by typing the account number, ECID, client name, or TIN. Click Search . Select the client name and click View Client Hierarchy . Select the Product Setup Summary widget. Select Yes to view the client's Access details by ECID Level or Ultimate Parent Hierarchy. Select the Access ID to view the Access Profile Details . Select the Products tab and locate the Checks Module to verify if the client is has positive pay. Click the Launch Access button to enter Access Admin Center.
Access Admin Center	Search for the client GEID and click GO . Click View . Click Client Profile Products . Select the Products tab then select Checks . Select the Account tab. In the Show menu select Positive Pay . You will see the status of either Pending Positive Pay or Active Positive Pay and whether or not the client has PVE on the account(s).

After

The title is clear. It informs and guides the reader

Clear instructions

Steps and sub-steps are clear

This is task information and follows specific writing rules

Determine the status of Positive Pay or PVE on client accounts

Use Service Portal and Access Administration Center (Access Admin Center) to determine if the client accounts have Positive Pay or PVE and the status of Positive Pay.

Follow these steps to determine the status of Positive Pay or PVE.

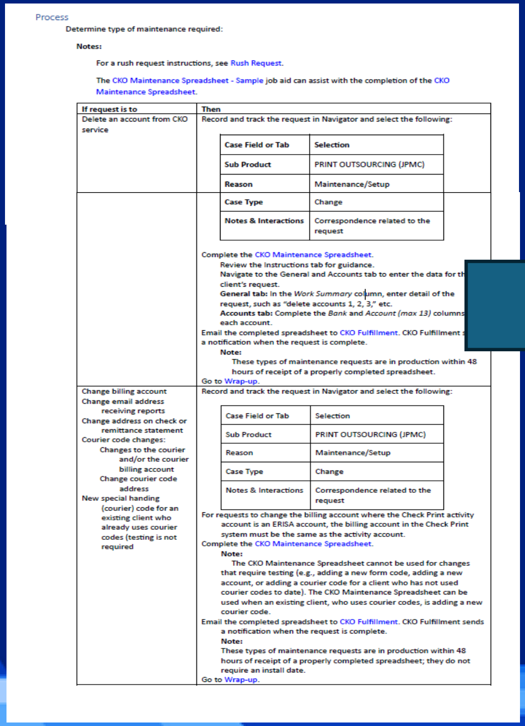
1. Verify the client accounts have Positive Pay or PVE using the Service Portal.
   a. In the Client Profile tab, select Client Hierarchy.
   b. In the Search field, enter the account number, ECID, client name, or TIN.
   c. Click Search.
   d. Select the client name and click View Client Hierarchy.
   e. Select the Product Setup Summary widget.
   f. Select Yes to view the client's Access details by ECID Level or Ultimate Parent Hierarchy.
   g. Select the Access ID to view the Access Profile Details.
   h. In the Products tab, locate the Checks Module to verify if the client's account has Positive Pay.
2. Determine the status of Positive Pay or PVE on the client accounts using the Access Administration Center (Access Admin Center).
   a. In the Checks Module, click the Launch Access button to enter the Access Admin Center.
   b. In the Search field, enter the client GEID number.
   c. Click Go.
   d. Click View.
   e. Click Client Profile Products.
   f. In the Products tab, select Checks.
   g. In the Account tab, under the Show menu, select Positive Pay.
      You can see the status of the client accounts displayed as either Pending Positive Pay or Active Positive Pay and if the client has PVE on the accounts.

Writing Methodology

Precision Content® Writing Methodology™ is a research-based approach for breaking information into smaller components and organizing and structuring information.

Benefits:

- Easier to write and read
- More accurate
- Ideal for Component Content Management Systems (CCMS)
- More reusable



Process

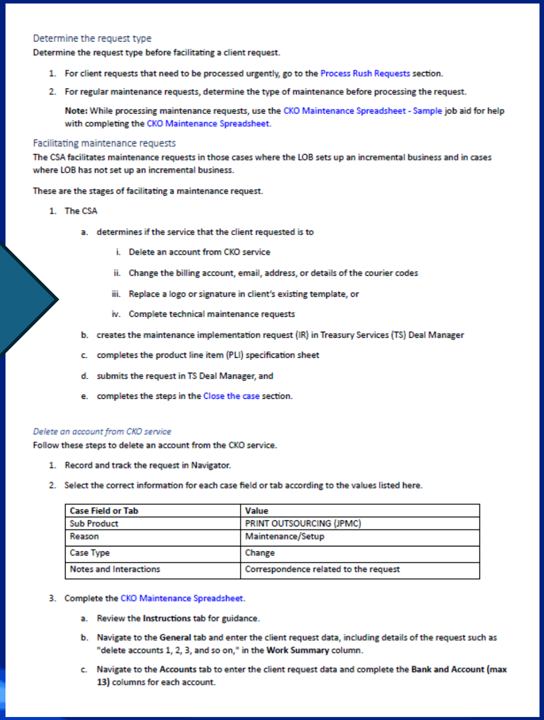
Determine type of maintenance required:

Notes:

For a rush request instructions, see Rush Request.

The CKO Maintenance Spreadsheet - Sample job aid can assist with the completion of the CKO Maintenance Spreadsheet.

If request is to	Then
Delete an account from CKO service	Record and track the request in Navigator and select the following: **Case Field or Tab**: **Selection** **Sub Product**: PRINT OUTSOURCING (JPMC) **Reason**: Maintenance/Setup **Case Type**: Change **Notes & Interactions**: Correspondence related to the request Complete the CKO Maintenance Spreadsheet. Review the Instructions tab for guidance. Navigate to the General and Accounts tab to enter the data for th client's request. **General tab:** In the *Work Summary* column, enter detail of the request, such as "delete accounts 1, 2, 3," etc. **Accounts tab:** Complete the *Bank* and *Account (max 13)* columns each account. Email the completed spreadsheet to CKO Fulfillment. CKO Fulfillment s a notification when the request is complete. **Note:** These types of maintenance requests are in production within 48 hours of receipt of a properly completed spreadsheet. Go to Wrap-up.
Change billing account Change email address receiving reports Change address on check or remittance statement Courier code changes: Changes to the courier and/or the courier billing account Change courier code address New special handing (courier) code for an existing client who already uses courier codes (testing is not required	Record and track the request in Navigator and select the following: Case Field or Tab: Selection Sub Product: PRINT OUTSOURCING (JPMC) Reason: Maintenance/Setup Case Type: Change Notes & Interactions: Correspondence related to the request For requests to change the billing account where the Check Print activity account is an ERISA account, the billing account in the Check Print system must be the same as the activity account. Complete the CKO Maintenance Spreadsheet. **Note:** The CKO Maintenance Spreadsheet cannot be used for changes that require testing (e.g., adding a new form code, adding a new account, or adding a courier code for a client who has not used courier codes to date). The CKO Maintenance Spreadsheet can be used when an existing client, who uses courier codes, is adding a new courier code. Email the completed spreadsheet to CKO Fulfillment. CKO Fulfillment sends a notification when the request is complete. **Note:** These types of maintenance requests are in production within 48 hours of receipt of a properly completed spreadsheet; they do not require an install date. Go to Wrap-up.



Determine the request type

Determine the request type before facilitating a client request.

1. For client requests that need to be processed urgently, go to the Process Rush Requests section.
2. For regular maintenance requests, determine the type of maintenance before processing the request.

   Note: While processing maintenance requests, use the CKO Maintenance Spreadsheet - Sample job aid for help with completing the CKO Maintenance Spreadsheet.

Facilitating maintenance requests

The CSA facilitates maintenance requests in those cases where the LOB sets up an incremental business and in cases where LOB has not set up an incremental business.

These are the stages of facilitating a maintenance request.

1. The CSA
   a. determines if the service that the client requested is to
      i. Delete an account from CKO service
      ii. Change the billing account, email, address, or details of the courier codes
      iii. Replace a logo or signature in client's existing template, or
      iv. Complete technical maintenance requests
   b. creates the maintenance implementation request (IR) in Treasury Services (TS) Deal Manager
   c. completes the product line item (PLI) specification sheet
   d. submits the request in TS Deal Manager, and
   e. completes the steps in the Close the case section.

Delete an account from CKO service

Follow these steps to delete an account from the CKO service.

1. Record and track the request in Navigator.
2. Select the correct information for each case field or tab according to the values listed here.

Case Field or Tab	Value
Sub Product	PRINT OUTSOURCING (JPMC)
Reason	Maintenance/Setup
Case Type	Change
Notes and Interactions	Correspondence related to the request

3. Complete the CKO Maintenance Spreadsheet.
   a. Review the **Instructions** tab for guidance.
   b. Navigate to the **General** tab and enter the client request data, including details of the request such as "delete accounts 1, 2, 3, and so on," in the **Work Summary** column.
   c. Navigate to the **Accounts** tab to enter the client request data and complete the **Bank and Account (max 13)** columns for each account.

For more information about our methodology

To get started, follow this QR code or visit https://pcas.info/ai-ready for more information.

Readability statistics

Writing tools for quality

Technical communication groups will use a variety of tools to measure the quality of their writing. These may include

- Microsoft Word
    - for spelling and grammar
    - passive voice, and
    - readability scores.
- Acrolinx
    - for terminology management
    - voice and tone, and
    - scannability.
- HyperSTE, and
- Grammarly.

Scores and stats

Factors	Before	After	Improvement
Words per sentence	13.5	11.8	12.6%
Passive sentences	8.8%	2.3%	74%
Flesch Reading ease	63.0	59.0	-6.3%
Flesch-Kinkaid Grade level	7.7	7.9	2.6%

Usability labs

Facilitated user study

Both before and after samples are presented to a user in a controlled environment.

The facilitator will

- observe the behaviour of the user
- record the time-to-answer
- assess the confidence level, and
- evaluate the answer.

Test scenario

Your boss has just called you at your desk to ask a question. You’ve placed them on hold while you look up the answer.

Scan the procedure document and find the answer.

Once you have found the answer, pick up the phone and relay the answer to your boss.

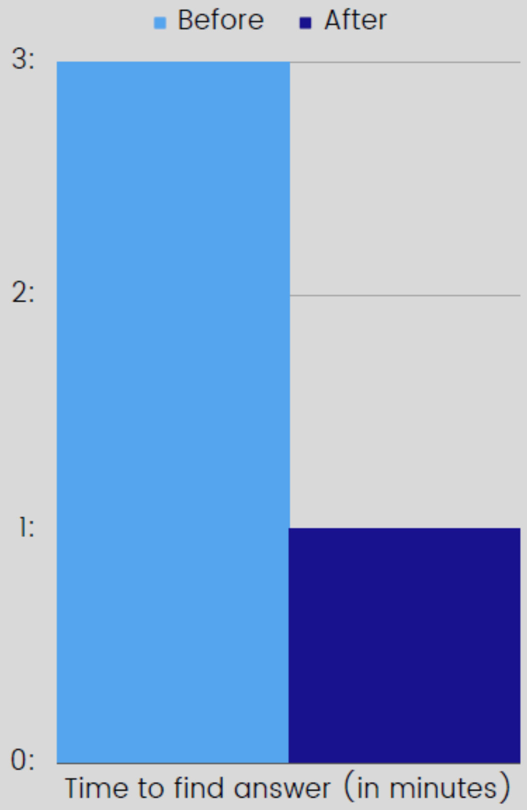
Lab example results

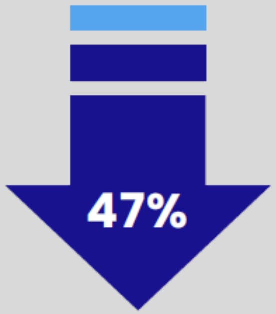
Usability lab test results

		Before Question				After Question				
Participant	Procedure tested	Number	Time	Errors	Confidence	Number	Time	Errors	Confidence	Difference
User 1	FISPAN	#1	04:08	N	80%	#2	01:49	N	100%	02:19
User 2	FISPAN	#1	05:15	N	80%	#2	00:55	N	80%	04:20
User 3	FISPAN	#1	03:12	N	60%	#2	01:41	N	100%	01:31
User 4	FISPAN	#13	02:08	Y	100%	#14	01:29	Y	100%	00:39
User 5	New Cashier's Check Request	#15	07:26	Y	60%	#16	01:25	N	100%	06:01
User 6	New Cashier's Check Request	#3	04:01	Y	60%	#4	00:55	N	100%	03:06
User 7	New Cashier's Check Request	#3	00:58	Y	100%	#4	02:45	N	100%	01:47
User 8	Initiation	#5	04:22	N	100%	#6	02:00	N	100%	02:22
User 9	Initiation	#5	03:20	N	60%	#6	03:01	N	100%	00:19
User 10	Initiation	#11	01:37	N	60%	#12	01:07	N	90%	00:30
User 11	PP/PVE	#7	00:59	N	80%	#8	01:06	N	100%	00:07
User 12	PP/PVE	#7	04:04	Y	100%	#8	01:16	N	100%	02:48
User 13	PP/PVE	#7	02:46	Y	80%	#8	02:29	N	100%	00:17
User 14	Maintenance/Incremental Business	#9	05:11	N	100%	#10	04:32	N	60%	00:39
User 15	Maintenance/Incremental Business	#9	02:47	Y	50%	#10	01:06	Y	80%	01:41
	Averages		**03:29**	**47%**	**78%**		**01:50**	**13%**	**94%**	
		seconds	**209**			**seconds**	**110**			

User Performance Index

Time to find answer - results



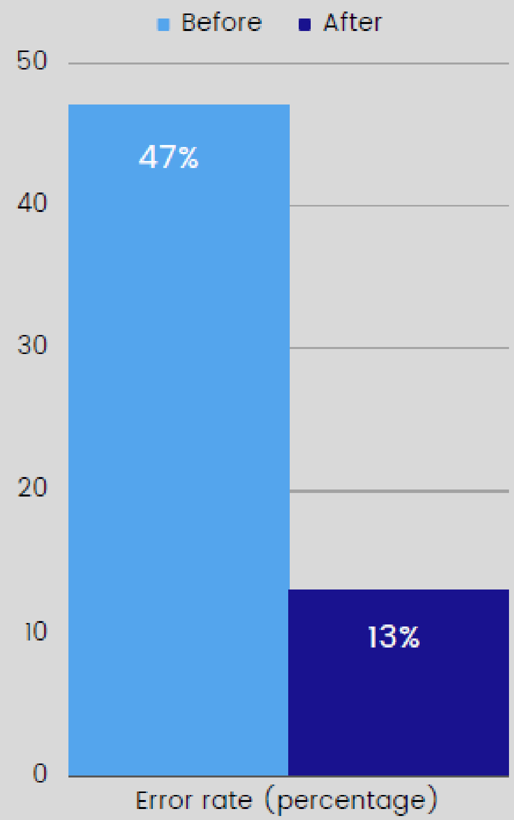


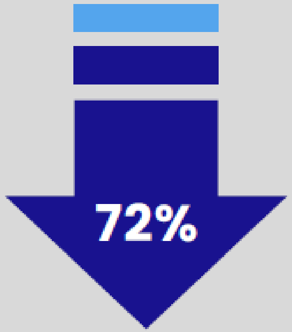
The time it took to find answers improved dramatically, resulting in an average reduction of 47%

TIME TO FIND ANSWERS	BEFORE	AFTER
Minimum time	0:58	0:55
Maximum time	7:28	4:32

User Accuracy Index

Error rate



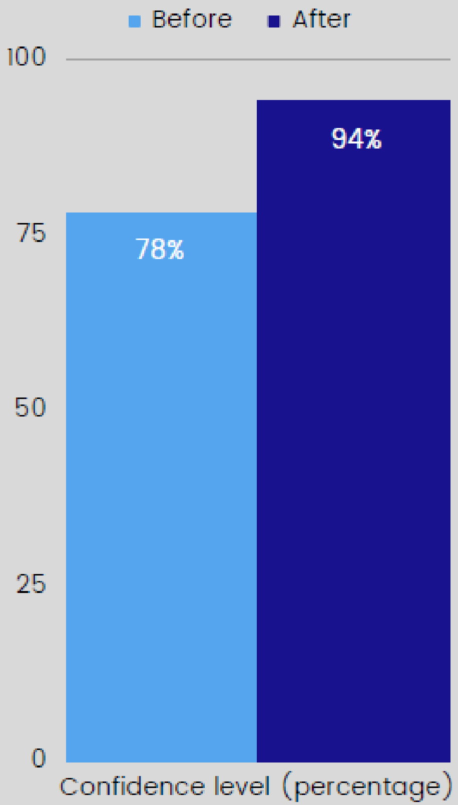


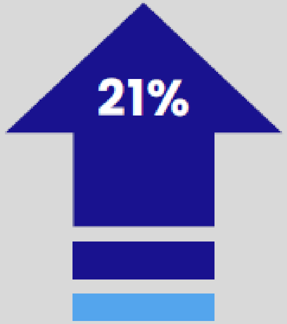
The participants made far fewer errors in finding the information they were looking for in the 'after' document, resulting in a average reduction of 72%

ERROR RATE (OUT OF 15)	# OF ERRORS
Before	7
After	2
Difference	5

User Confidence Index

Confidence level

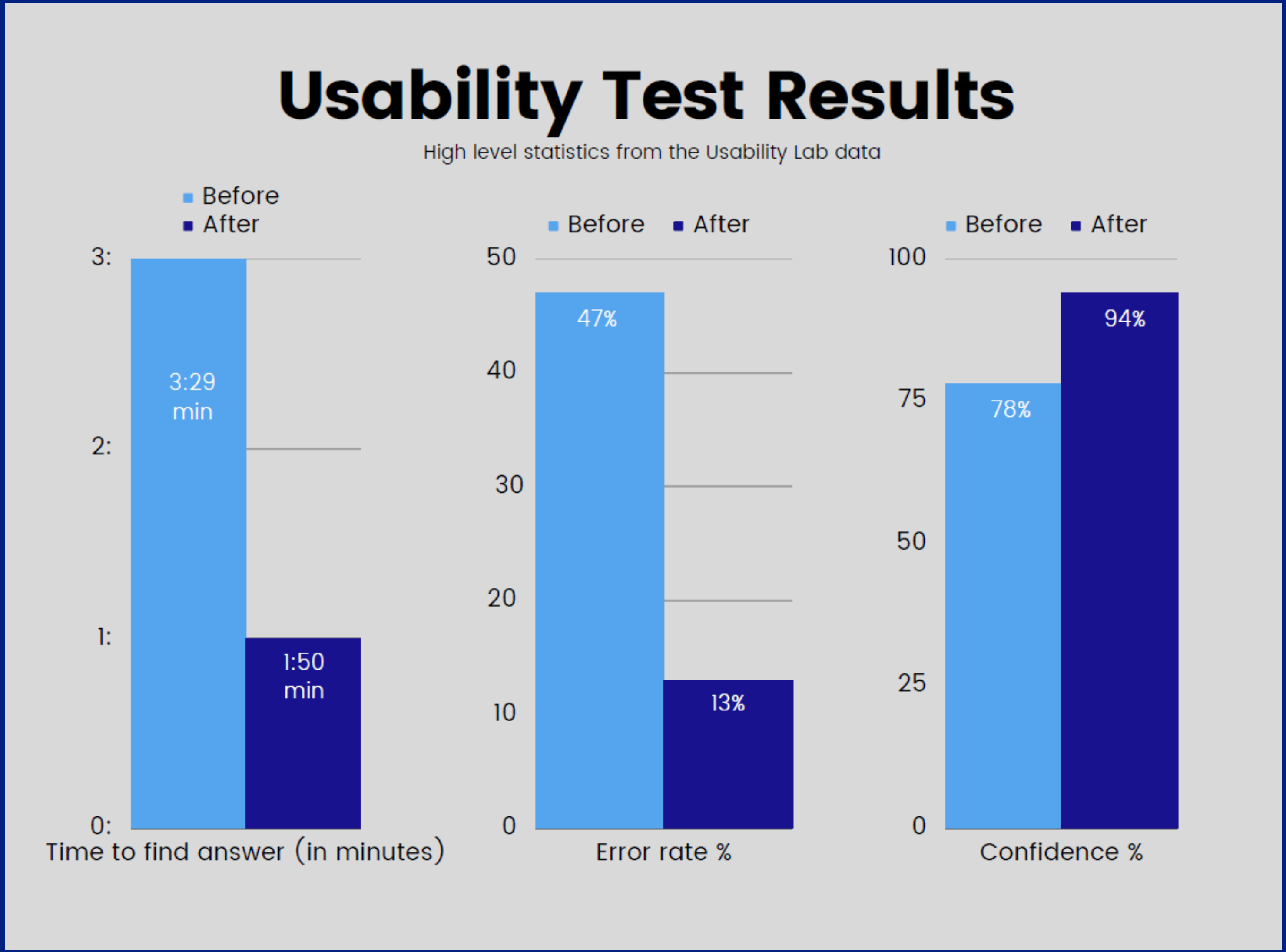




Confidence in finding the right answer improved by an average of 21%.

CONFIDENCE IN ANSWER	BEFORE	AFTER
Minimum	50%	60%
Maximum	100%	100%

Before and After Improvements



Sentiment analysis

Using AI for objective measurement of user sentiment

AI-interpreted sentiment analysis

Trust is of course a subjective measure.

AI can help to remove some of that subjectivity but the technology is still in its early development. While facial expressions and language used by the participants is heavily nuanced, prosody proved to be the most accurate when compared against observed results.

Measuring sentiment

Observed behaviour

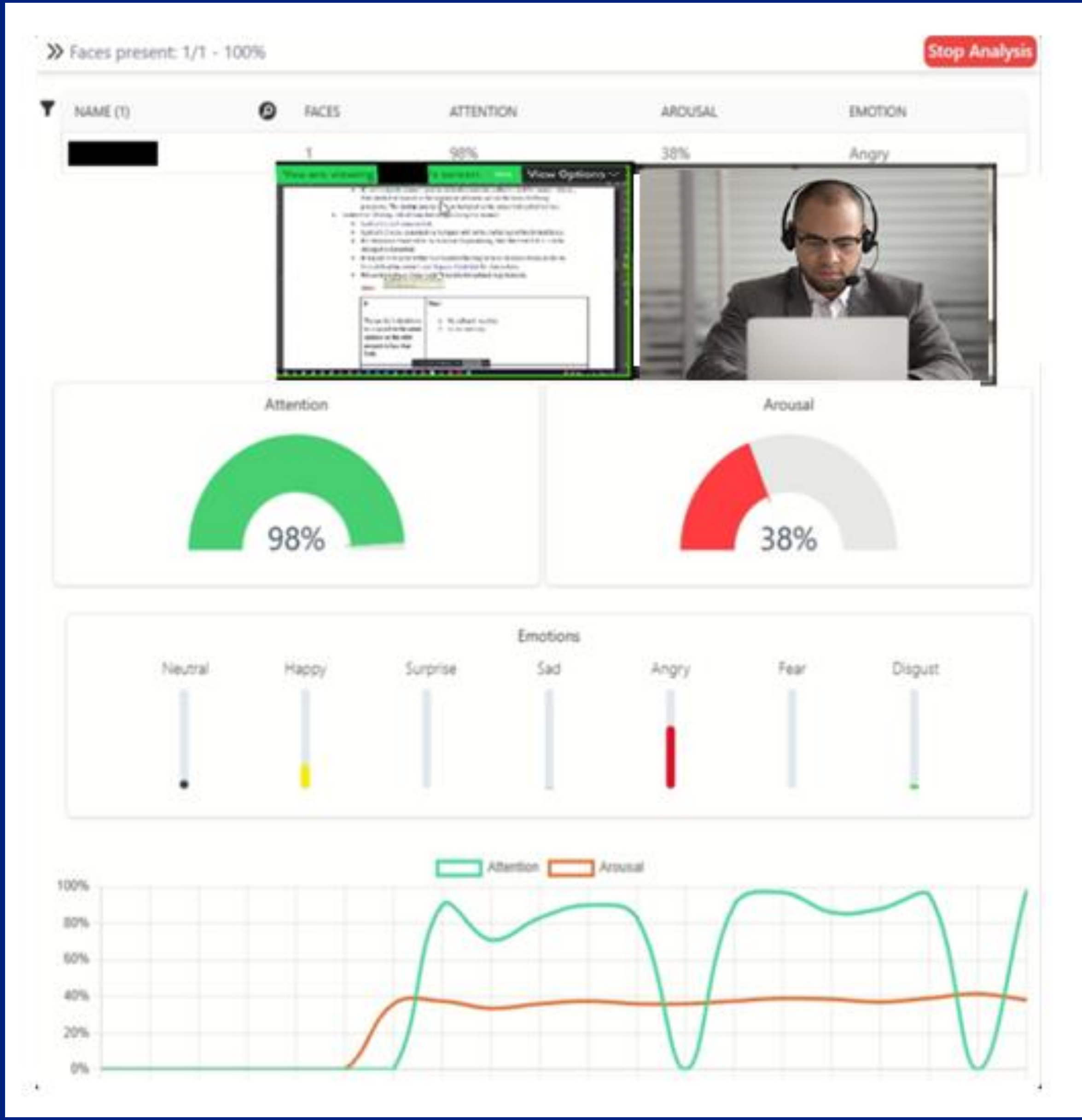
Transcript analysis

Facial analysis

Prosody analysis

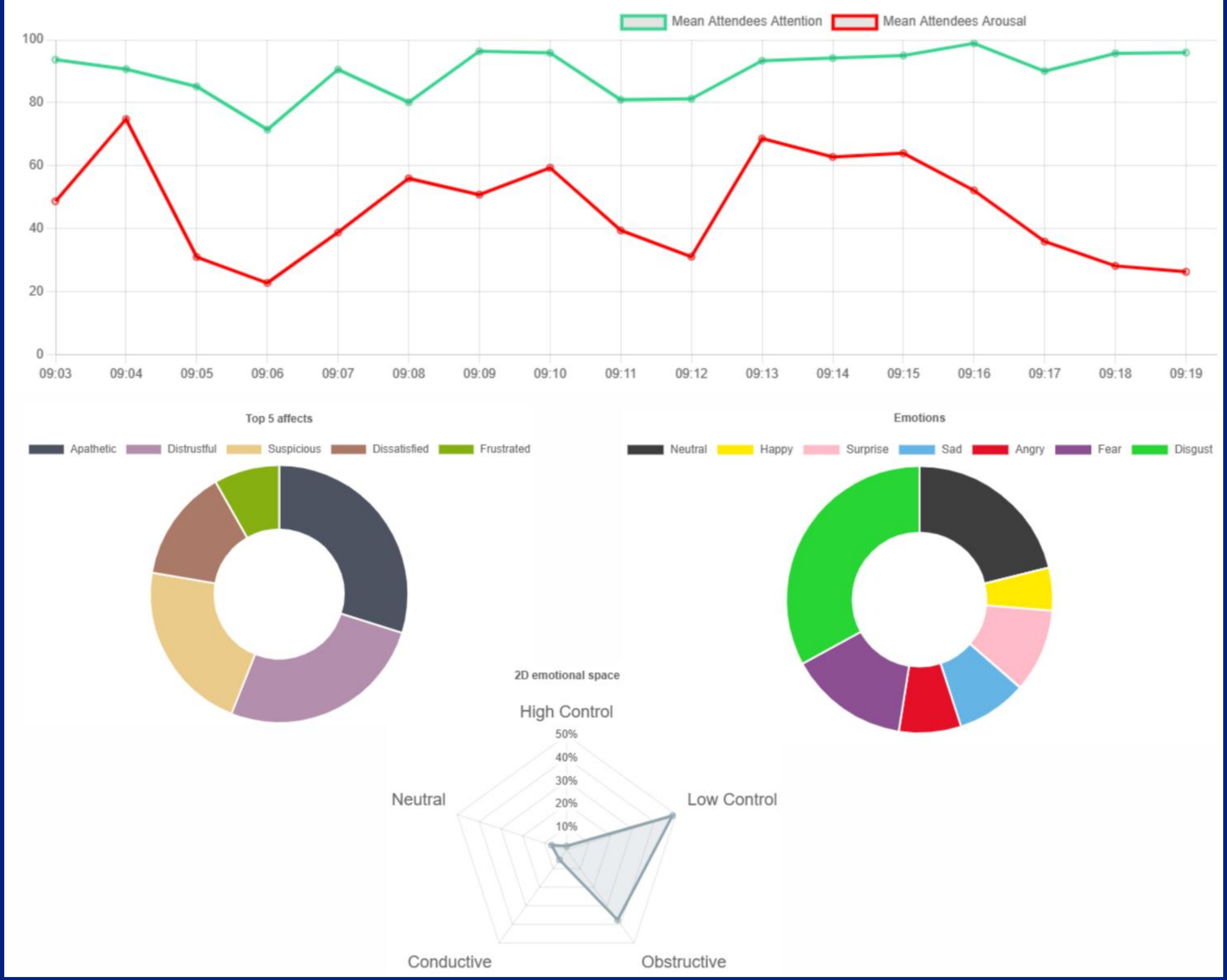
Real-time facial analysis

MorphCast for Zoom



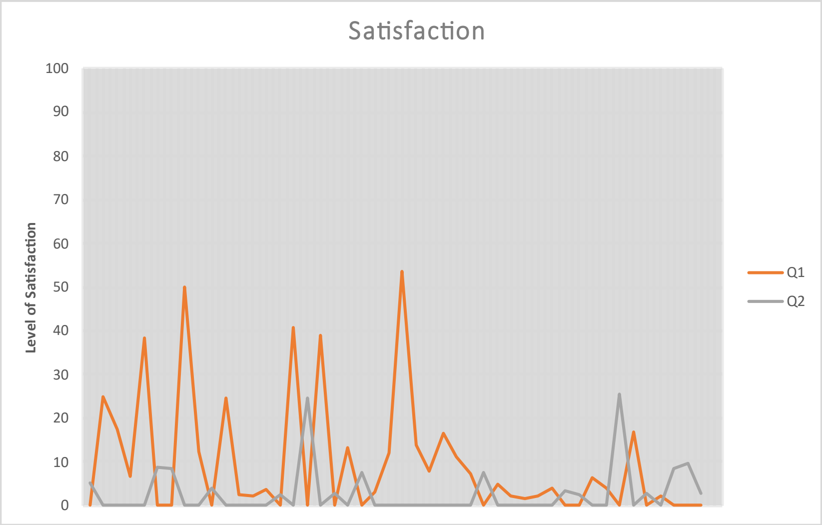
MorphCast for Zoom

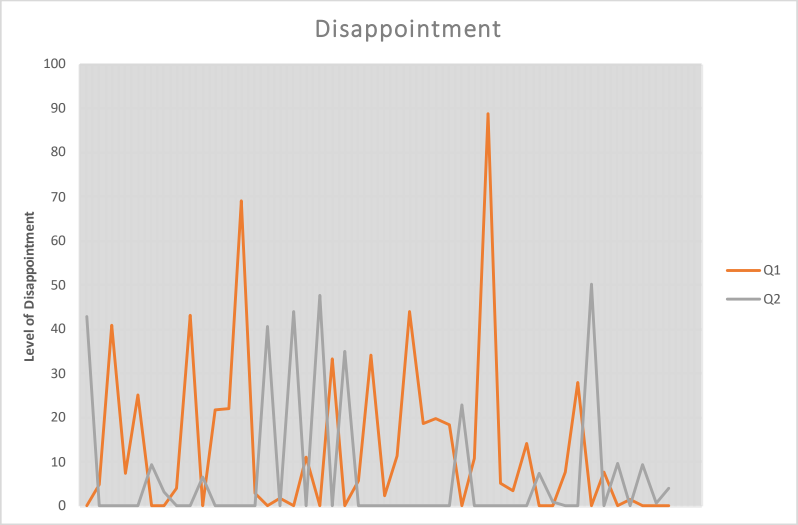
Session summary

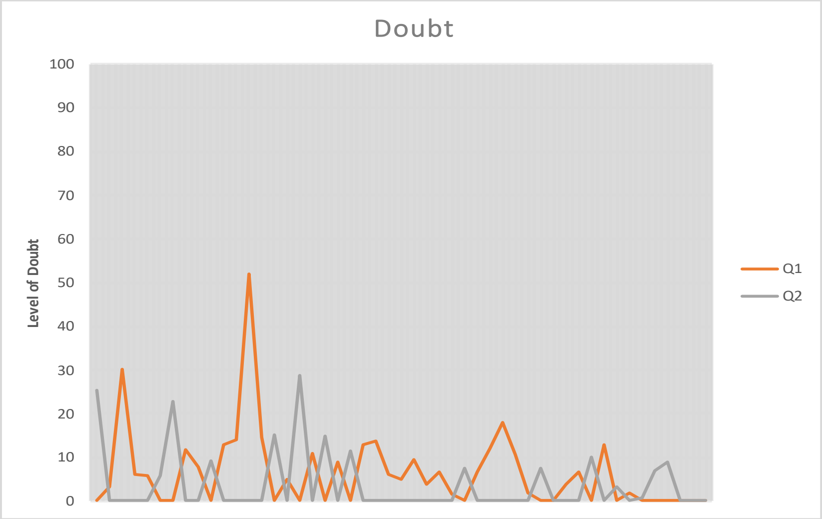


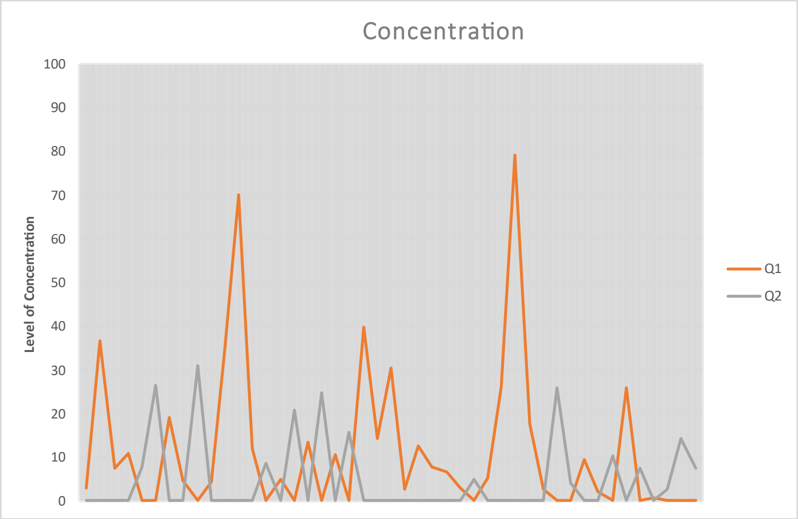
Voice Prosody Results User 1

Hume AI









Measuring machine performance on content

Preparing your quality content for machine consumption

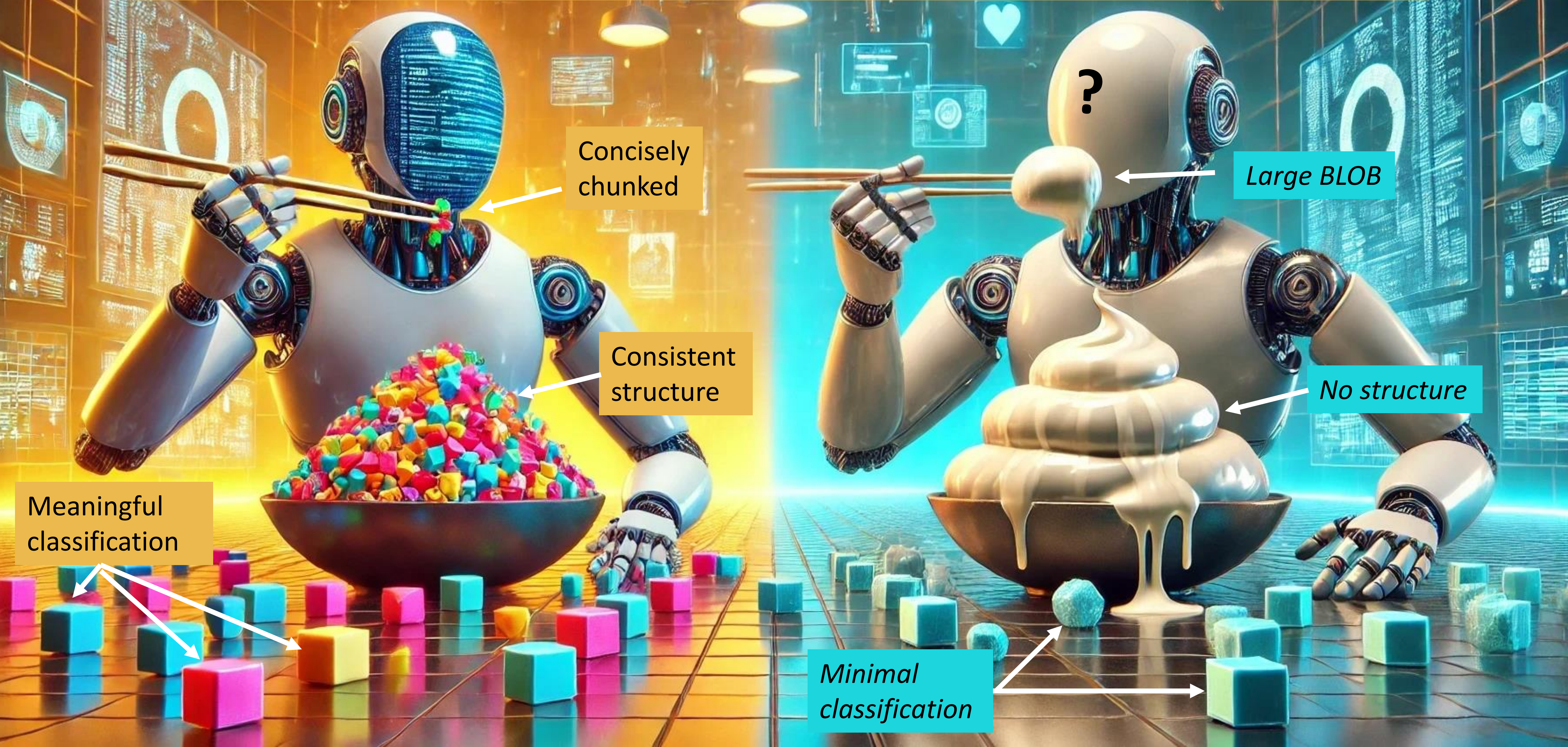
GPTs and RAG use in techcom

Generative Pre-trained Transformer (GPT) models are in widespread use as a writing tool to create text faster and with better consistency when used to re-write text or summarize text.

The retriever may rely on multiple technologies to improve accuracy including natural language processing, elastic search, knowledge graphs, and vector embeddings.

The content matters!

What are you feeding your robot?



What you *should* be feeding your robot

A domain-relevant, accurate, and well-structured corpus is key to maximizing the precision, relevance, and efficiency of RAG solutions.

1. **Relevance and Domain-Specificity**
2. **Data Freshness and Accuracy**
3. **Balanced Coverage with Granularity**
4. **Diversity and Clarity of Language**
5. **Consistent Structure and Formatting**
6. **Noise Reduction with Minimal Redundancy**

Redundancy and reuse

Content reuse is over-emphasized on many CCMS implementations without having a proper strategy and governance around reuse.

Reusing coarser, structured chunks of content rather than reusing anything that can be reused will reduce complexity to the source and redundancy to the output.

Redundancy will make it harder for Gen AI solutions to sort out the facts and bias responses based on the matching frequency of segments of text.

Feeding a model with discrete blocks of microcontent instead of larger topics or pages of content will reduce this redundancy while also supporting context

Diversity of language

While diversity of terminology, phraseology, and language is important to meet the needs for diversity in the prompt queries, it works against best-practices for technical content where consistency is key.

To better cope with query diversity, RAG solutions should

- Use Paraphrasing and Query Rewriting Techniques
- Implement Synonym Mapping and Lexical Matching
- Enhance the Query Expansion Techniques
- Implement a Guided Query System with Suggested Queries

Conclusions

Our content isn't ready for generative AI technology to work effectively for enterprise information

While LLMs are getting better at refining general knowledge, they will never possess the subject matter expertise about your products to create better technical content

Fine tuning your model will improve responses and reduce hallucinations but it will never eliminate them

Organizations will need to evaluate the ROI for content transformation versus costs for fine tuning and coping with the consequences of hallucinations

A microcontent strategy can improve performance for both humans and machines

A well-fed robot …

Is a smarter, more helpful robot.

Find out if your content is ready

Follow this QR code or visit https://pcas.info/usabilitylabs.