

Overview

Who are we?

Tigim is an Irish company developing a linguistic analysis tool (beta) to measure the accessibility of language and content used by companies in seconds. We use a datadriven approach to demonstrate where and how there can be disconnect with customers who have varying cognitive, literacy and language needs.

The name, Tigim, is a play on an Irish phrase that means 'I understand'.

Mission

It is our mission to give a voice to the unheard so that everyone has the opportunity to access products and services without restrictions.

Goal

To be the data-driven solution that supports companies on their path to achieving a communication style that is understandable and accessible to all.

How we do it

We believe the key to knowing if information will be understood is to focus on (1) the audience and (2) the purpose of the content.

In our analysis, companies set out:

- 1: The profile of the audience and their abilities
- 2. The targets they want to achieve based on the audience and purpose of document

This allows us to measure if the content is at an acceptable level of understanding for the end user.

Anything that will impact on understanding, based on the profiles given, will be flagged with suggestions on how to improve it.

The audience profile and targets can be customised for different types of content and end users.

Permission granted by Tigim to share this information within the COGA/AG public domain



What you can do

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Features coming soon

- ✓ Abstract vs literal language
- ✓ Double negatives
- ✓ Metaphors and Idioms
- ✓ Adding own word watch lists



1. Create an audience profile

Audience profiles can be created, stored and edited for easy access and customisation.

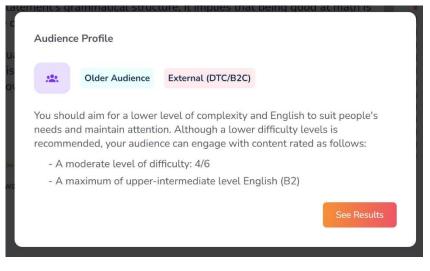
Create a audience profile	Students	teenage	rs 🏩 U	Iniversity group
Teenagers3	Older Audience	Employe	25	
Audience Profil	le Name			
Teenage customer	S			
Audience Profil	le Target			
People in your comp	oany (internal) O	People outside yo	ur company (external)	\odot
		0		
Audience sub-o	category			
Audience sub-c		eral Public (DTC,	′B2C) 🗌 A r	nix
			/B2C) 🗌 A r	nix
General Busi	ness (B2B) 🦳 Gen		′B2C) 🗌 A r es No	nix I'm not su
General Busi	ness (B2B) Gen			
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General Busi	ness (B2B) Generation Gene			
General Busi Are the member All native Englis All experts in th All university gr Neurodivergent (Do any of them ha	ness (B2B) Generation Generatio Generation Generation Generation Generation Generation G			

Customising an Audience Profile

Suggestions given:

Based on the profile and assumed abilities of the group (as it may not always be possible to know), we suggest a level of difficulty and English to aim for.





Suggestions given on what level to aim for based on audience profile

2. Customise targets

Create a document purpose	IBM Cor	ntracts		
Create your own Document Purpose Name		Targets		3
IBM Contracts				
Document Purpose Audie	nce			
People in your company (internal)	O Pe	ople outside your comp	any (external) 🥥	
Main characteristics of be	st practices			
short pol		rustworthy	informal	emotive
unambiguous low use o		direct	engaging	concise
detailed consis		thankful	explicit	
Processing level	Low	Moderate	High	
Readability level	Low	Moderate	High	Unknown
🛪 Word Complexity level	Low	Moderate	High	Unknown
Use of Jargon	Low	Moderate	High	Unknown
Diversity of words	Low	Moderate	High	Unknown
Engagement level	Low	Moderate	High	Unknown
Empathy level	Low	Moderate	High	Unknown
Formality level	Low	Moderate	High	Unknown
Directness level	Low	Moderate	High	Unknown
5	Low	Moderate	High	Unknown
V Sentiment level			Positive	Unknown
 Sentiment level Sentiment type 	Negative	Neutral		

Customising targets for the purpose of the document and audience



3. Measure Targets

When the audience profile and targets are set, content can be added to analyse. The results are returned in seconds.

cutty	rating Langu	lage level	Reading time	P Difficult Words 8 Words 10.26%		
		C1	Less than 1			
	0/6	Advanced	minute	Difficult Sentences		
				4 Sentences 57.14%		
esults	Compliments Recomme	endations 17 Difficult	words Difficult sentences	5)		
				<i></i>		
	Feature	Target	Score	Result	Value	C L
٩	Processing level	Low	Moderate	Higher than expected	22 pts	ĥ
竭	Readability level	High	S Low	A Lower than expected	37.10 pts	X
XA	Word Complexity level	Low	O Moderate	Higher than expected	5 pts	1
Ģ	Use of Jargon	Low	A High	A Higher than expected	7.29%	ŝ
٢	Diversity of words	Low	S Low	 Appropriate 	88 pts	Į,
Tap	Engagement level	High	S Low	▲ Lower than expected	3 pts	8
Field State	Empathy level	Moderate/High	S Low	A Lower than expected	0.00%	2
ī	Formality level	Low	O High	A More formal than expected	71 pts	2002
	Directness level	High	ligh	 Appropriate 	0.60	Ű.
0		1.P.sk	Moderate	Lower than expected	7.81%	
•	Sentiment level	High	- Hoderate			

Results showing what targets have been achieved and what needs attention



4. Measure Word Levels

4.1 English Level

The Common European Frameowrk of Reference (CEFR) is used to categorise and measure the level of words in the English language.

These are categorised based on what level words would be learned by learners of English. Not all words have been categorised as they are likely to be subject or industryspecific words that learners would not engage with in an educating setting. This means that for non-native English speakers, the chances of understanding words at an advanced level are reduced if they have not achieved fluency.

Beginner level words start at A1, moving to more advanced words that would be known by fluent speakers at a C2 level.

Well-absorbed curcumin support for joint stiffness, muscle soreness, and a healthy inflammatory	Word Level	(CEFR)	
response .*	Category	%	#
	A1	30.21	29
Thorne's Curcumin Phytosome is the most clinically-studied curcumin on the market, helps	A2	11.46	11
maintain a healthy inflammatory response in the joints, muscles, GI tract, liver, brain, and nerves *	B1	15.63	15
Curcumin Phytosome (formerly Meriva) Details	B2	20.83	20
Curcumin Phylosome (Tormeny Menva) Details	C1	9.38	9
Turmeric is widely studied for its health-promoting properties. It has been used in Traditional	C2	2.08	2
Chinese Medicine, as well as Ayurvedic medicine, for more than 2,000 years. Curcumin is	Other	10.41	10
turmeric's most active component and provides numerous health benefits, including support for		More Deta	ils →
joint function and mobility, liver and gut health, cardiovascular function.* Curcumin is also a potent			

Categorising words based on the Common European Framework of Reference (CEFR)

The 'Other' category includes words that are no classified, jargon, acronyms, numbers and proper names. These are further analysed and segmented.

Unclassified	Numbers	Names
Total: 2.08% Hide A	Total: 3.12%	Hide ^ Total: 5.21% Hide
List	List	List
gi	2	curcumin
overused	29	Curcumin
	000	Thorne's
		Phytosome
		Meriva

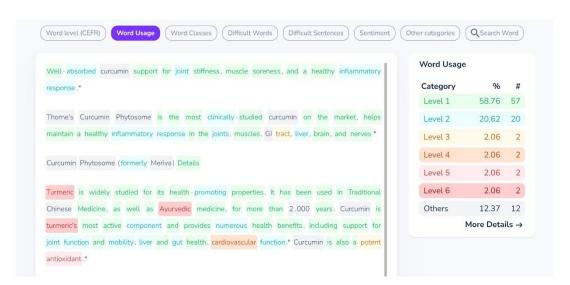


4.2 Word Frequency Level

This categorises words based on how often they are used in everyday life. Looking at the frequency level of a word tells us how difficult that word would be to understand. Words that are commonly used (or most frequent) are assumed to be easier as people would encounter them more often. Less frequent words have a higher degree of difficulty. There are 25 ranges that are based on the classification of words from large language databases; the BNC (British National Corpus) and the COCA (Corpus of Contemporary American English). We have classified them into 6 levels:

- Level 1: contains the 2,000 most frequent word families in the English language that are likely to be used every day, and so it continues with each level.
- Level 2: contains the 2,001 4,000 most frequent word families.
- Level 3: contains the 4,001 6,000 most frequent word families.
- Level 4: contains the 6,001 8,000 most frequent word families.
- Level 5: contains the 8,001 10,000 most frequent word families.
- Level 6: contains the 10,001 25,000 less frequent word families.

Reference: Nation, I.S.P. (2017). The BNC/COCA Level 6 word family lists (Version 1.0.0)



Categorising words based on their frequency of use. Level 1 contains the 2,000 most common word families.

Note: The 'Others' category contains words that have not been classified the National Corpora. This includes numbers, acronyms, abbreviations and words that are industry or subject-specific. We use our own modelling to categorise words that have not been included in the corpora.



4.3 Difficult Words

Words can add difficulty to a text based on being advanced level words or containing more than 3 syllables.

Having a text with a high proportion of long words (with many syllables) impacts readability and cognitive load.

We show all words that can make the text more challenging for readers with different levels of literacy.

It is possible for words to be both long and advanced.

Well-absorbed curcumin support for joint stiffness, muscle soreness, and a healthy inflammatory	Difficult	words (12)	
response.*	Advanc	ced	11
	Long W	Vords	12
Thorne's Curcumin Phytosome is the most clinically - studied curcumin on the market, helps maintain a	a	More Deta	ails -
healthy inflammatory response in the joints, muscles, GI tract, liver, brain, and nerves*			
Curcumin Phytosome (formerly Meriva) Details			
Curcumin Phytosome (formerly Meriva) Details			
	e		
Turmeric is widely studied for its health - promoting properties. It has been used in Traditional Chinese			
Turmeric is widely studied for its health-promoting properties. It has been used in Traditional Chinese Medicine, as well as Ayurvedic medicine, for more than 2,000 years. Curcumin is turmeric's mos	st		
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Curcumin Phytosome (formerly Meriva) Details Turmeric is widely studied for its health-promoting properties. It has been used in Traditional Chinese Medicine, as well as Ayurvedic medicine, for more than 2,000 years. Curcumin is turmeric's mos active component and provides numerous health benefits, including support for joint function and mobility, liver and gut health, cardiovascular function.* Curcumin is also a potent antioxidant.* Because curcumin supports a healthy inflammatory response it is beneficial for anyone experiencing the bodily discomforts of life.* Curcumin can provide relief for overused muscles and joints.* In	st d		

Highlighting words that can cause difficulty based on level of English and number of syllables.

For each of these words, we make suggestions to use easier words by showing alternative words that are more commonly used.

Definitions:											
Give a practical exhibit	ition and e	xplanation o	of (how a ma	achine, skill, o	or craft works	or is perfo	ormed)				
Alternative Words:											
Common words:	show	express	indicate	determine	establisi	h provi	e signal	evide	ence pri	otest	
	march										
Less Common words:	reveal	confirm	display	exhibit	manifest	rally	validate	verify	parade	signify	
	denote										
Rare words:	substan	tiate cor	roborate	bespeak	evince						

Providing alternative suggestions to use more commonly used words



4.4 Acronyms/Abbreviations

Any detected acronyms and abbreviations are detected and stored in 'Other'. These can be checked to ensure there is an explanation for each.

4.5 Context-specific/Jargon words

Words that have not been categorised are detected as industry or subject-specific terminology.

An opportunity is given to inform the system of analysis that these words are not jargon if required for a particular industry. On subsequent analyses, they will not be detected as jargon.

otential Jargon List	Word Bank		
	at are not jargon, as they could be sp		ach one, you can decide if it is Jargon Υ^{\prime} (yes) or not $_{0}$ your Word Bank List. They will not be detected as
, oten dat songon in your it	and your		Hide A
Word -	Jargon	Hide A	
Curcumin	YN		
GI	Y		
Meriva	YN		
Phytosome	Y		
Thorne's	Y		
curcumin	Y N		

Informing the system on what words can be considered as jargon or not

Type a word	Add New Word	×
Jargon Y N	Control	
ies	Cancel	Add Word

Adding company-specific terminology that should not be classed as jargon



Companies can create their own word lists with necessary words for their industry.

etential Jargon List My Word	Bank		
			being detected as Potential Jargon. It also works for words ir future analyses. You can add new words in time, and edit Hide \sim
Word -	Jargon	Hide 🔨	New Word +
JK	No		
CD	No		
DPO	Yes		
AGREEMENT	No		
iability	No		
ARIA	No		
VCAG	× N		

Building industry-specific words lists



5. Measure Sentence Structures

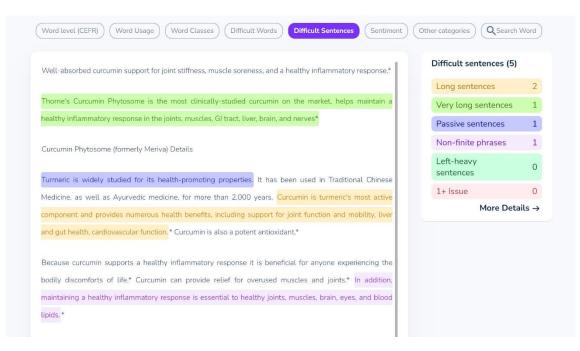
5.1 Difficult sentences

We detect 5 different types of grammatical structures that can increase cognitive load.

	as 'difficult' when it is has a particular structure n the reader to understand the meaning. We	Category	Frequency (%)	Sentence count (#)
cus on length and ı tegories:	use of grammar and organise them into 6	Long Sentences	14.29%	2
ong Sentences	More than 20 words	Very Long Sentences	7.14%	1
/ery Long Sentences	More than 30 words	Passive Sentences	7.14%	1
Passive Sentences	Hard to know who is taking action	Non-finite Phrases	7.14%	1
Non-finite Phases	Hard to know who/when things happen	Left-Heavy Sentences	0.00%	0
eft Heavy Sentences	A lot of info before the key point	1+ Issue	0.00%	0
+ Issue	Contains more than one problem	Difficult Sentences	35.71%	5

Categorising the frequency of difficult sentences in a text

Each sentence is highlighted in the text with suggestions on how to improve it given in the recommendation section.



Highlighting the difficult sentences within the text



5.2 Use of Tense

We look at how verb tenses are used and their frequency. This can used to show how much of the text refers to past, present or future events.

This category is called 'Temporal Focus'. It can have an impact on the audience if the best tense is not used to achieve the purpose of the text.

present and future tense	ol that can provide information about the use of tense. With the help of our algorithm e of the document.	ns we can identify the proportion of past,
Temporal Focus can hel	p us identify patterns and trends that would otherwise be difficult to detect.	
Normally to write report	ts (or descriptions) for a given period of time you would see a greater use of past tense	25.
o describe a current sta	ate, the present is used.	
And to inspire and make	e projections the future is mostly applied.	Hide 🔨
And to inspire and make	Present Tense	Hide A

The proportion of verb tenses signalling events in the past, present and future.

6. Measure Structural Composition

Looking at the structure of the text.

Category	Frequency	per Word	
Characters	4155	Category	Frequency
Letters	3396	Letters	5.89
Words (tokens)	577	Syllables	2.05
Unique Words	292		Hide >
Lexemes (unique base forms)	289		
Sentences	88	per Sentence	
T-units	93	Category	Frequency
Clauses	113	Words (tokens)	6.56
Dependent clauses	17	T-units	1.06
Complex noun phrases	118	Clauses	1.28



7. Compare Documents

After implementing any changes to make the text easier to understand for the audience, comparisons can be made in seconds.

This can help to see how things have changed in a quantifiable way. As well as highlight what additional improvements need to be made to meet targets.

ore Afte				
t 59 ↔ Te>	ct 58			
Feature	Before	After	Change	Comments
Difficulty rating	5/6	4/6	0 1 level	Awesome! You just made it 1 level easier by lowering your difficulty ranking!
English level (CEFR)	C1	B2	0 1 level	Great! Your English text level just got 1 level easier.
Reading time	2 min	1 min	O 1 min	Fantastic work! You've cut down your document reading time by 1 min!
rain processing				
eature	Before	After	Change	Target
ocessing level	Moderate (23)	Low (15)	0 34.8%	 Low. Congratulations, your score its on target.
oun/Verb ratio	High (1.74)	High (2.34)	3 4.9%	Low. Your score is too high, try to get it lower.
clusion Word	High (18.0%)	Low (0.00%)	0 100%	Cow. Congratulations, your score its on target.
ong Sentences	Low (5)	Low (1)	0 80.0%	Cow. Congratulations, your score its on target.
ery Long Sentences	Low (0)	Low (0)	le No	Low. Congratulations, your score its on target.
assive Sentences	Low (4)	Low (0)	0 100%	Low. Congratulations, your score its on target.
on-finite Phrases	Low (9)	Low (2)	0 77.8%	Low. Congratulations, your score its on target.
ft-heavy Sentences	Low (1)	Low (1)	le No	Low. Congratulations, your score its on target.
lissue	Low (4)	Low (1)	0 75.0%	Low. Congratulations, your score its on target.
fficult Sentences	Low (13)	Low (3)	0 76.9%	Low. Congratulations, your score its on target.
eadability level	Low (20.9)	Moderate (57.7)	176%	• High. Try to higher your score a little bit more.
vg. sentence length	Low (6.56)	Low (7.73)	0 17.9%	Low. Congratulations, your score its on target.
Readability level Avg. sentence length Total Sentences				

Comparing two documents to see changes made relative to targets



We are constantly working to add features that will help to measure if content is understandable in an objective and quantifiable way.

At present, we analyse English. However, we will extend this level of analysis into other languages.

We are always open to feedback and ideas on how to improve.

Our goal is to be the data-driven solution that supports companies on their path to achieving a communication style that is understandable and accessible to all.

Features coming soon

- ✓ Abstract vs literal language
- ✓ Double negatives
- ✓ Metaphors and Idioms
- ✓ Adding own word watch lists

Thank you.

If you have any questions or suggestions, please feel free to me, Niamh Kelly, CEO, at Tigim.

I would love to talk and share ideas.

Manh Kelly

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