

Visualizing the Length of the Fine Print, for 14 Popular Apps

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Terms of Service: The Length of Common Digital Contracts

Do you take the time to read the terms of service before you agree to when downloading the latest app or software?

Of course you do...

The world is awash with **apps and internet services** that ask potential users to agree to a service agreement. Most people click on ‘agree’ and move on, knowing that reading the service agreements could put them to sleep and defer their favorite internet fix.

Taking inspiration from designer Dima Yarovinsky’s project titled **I Agree**, today’s post visualizes the length of service agreements, by counting the words and calculating how long it would take users to read each one.

Ain’t Nobody Got Time for That

The average reading speed of most adults is **200 to 250** words per minute (wpm). College students, probably because they are very studious and not skimming, move that pace up to around 300 words per minute. For the sake of this analysis, we calculated reading times based on 240 wpm.

App/Service	Word Count	How many minutes to read? (240 wpm)
Microsoft	15,260	63.5
Spotify	8,600	35.8
Niantic (Pokemon Go)	8,466	35.2
TikTok	7,459	31.4
Apple (Media Services)	7,314	30.5
Zoom	6,891	28.7
Tinder	6,215	25.9
Slack	5,782	24.1
Uber	5,658	23.6
Twitter	5,633	23.5
Bumble	5,442	22.7
Snapchat	4,935	20.6
Linkedin	4,346	18.1
Facebook	4,132	17.2
Google	3,459	14.4

Amazon	3,416	14.2
YouTube	3,308	13.7
Reddit	3,267	13.6
Dropbox	2,704	11.3
Netflix	2,628	11.0
Instagram	2,451	9.7

The service agreement for Microsoft stands out at the top of the list with an agreement that would take over an hour to read — a bit less time than it would take to read Shakespeare's *Macbeth*. To be fair, this service agreement does seem to cover the company's entire suite of products.

These agreements are an insight into the legal mumbo jumbo that exists when it comes to regulating the use of these apps. There are a multitude of agreements that go even further into depth about what rules govern developers, online cash transactions and much more. The average American would need to set aside almost **250 hours to properly** read all the digital contracts they accept while using online services.

Regardless, users may feel like they are wasting time reviewing a contract that can neither change or refuse—or more vitally, even comprehend.

Not All Text is Equal: The Flesch Reading-Ease Test

Apparently dealing with some of his own textual frustration, a Dr. Rudolf Flesch observed that some text, in particular legal language, appeared to be written to make reading as difficult as humanly possible.

Long sentences filled with arcane words can drag out simple sentences and discourage comprehension. Flesch wanted to measure the variability in reading comprehension — and by

studying different kinds of writing, he developed a formula to determine readability and forever scorn lawyers.

In the Flesch Reading-Ease test, higher scores indicate material that is easier to read. Lower numbers mark passages that are more difficult to read. The formula for the Flesch Reading-Ease Score (FRES) test is:

$$206.835 - 1.015 \left(\frac{\text{total words}}{\text{total sentences}} \right) - 84.6 \left(\frac{\text{total syllables}}{\text{total words}} \right)$$

The readability score uses two metrics:

1. The numbers of words per sentence
2. The number of syllables per word

Based on this score, a text would correspond to a particular education level.

Score	Grade	Avg. Words per sentence	Syllables per 100 words
100-90	5th grade	8	123
90.0-80.0	6th grade	11	131
90.0-70.0	7th grade	14	139
70.0-60.0	8th and 9th grade	17	147
60.0-50.0	10 to 12th grade	21	155
50.0-30.0	College	25	167
30.0-0.0	College graduate	29	192

So how do the service agreements in our sample rank in terms of the Flesch Reading-Ease test?

App/Service	Flesch Reading Ease Score	Equivalent Grade Level
Facebook	56	10 to 12th grade
Google	56	10 to 12th grade
Instagram	54	10 to 12th grade
LinkedIn	54	10 to 12th grade
Microsoft	54	10 to 12th grade
Snapchat	54	10 to 12th grade
Dropbox	51	10 to 12th grade
Bumble	50	College level
YouTube	50	College level
Reddit	48	College level
Apple Media Services	47	College level
Tinder	46	College level
Amazon	45	College level
Netflix	45	College level

TikTok	44	College level
Spotify	44	College level
Zoom	42	College level
Uber	40	College level
Twitter	39	College level
Niantic (Pokemon Go)	39	College level
Slack	36	College level

While not the most difficult to read, they definitely include a fair amount of legalese that helps discourage reading. The length and the difficulty of reading these agreements makes them practically useless to the average person.

This is a problem because it undermines basic concepts of contracts and informed consent. Users are giving up **their rights** without their knowledge.

Terms of Service: You Are the Product

These apps and software are the forefront of the data collection for a **multi-billion dollar industry**.

Individual user activity and information get easily collected and stored, creating databases of user patterns. This type of behavioral information makes marketers salivate, allowing them target their products to their ideal audience at lower costs than traditional advertising.

Do you know what you have **agreed to**?