The Information Structures of *by + V-Ing* in Social Media’s Legal Texts

**Johan Tobias Kristiano**  
Universitas Sanata Dharma  
correspondence: johan.tobi@gmail.com  
DOI: doi.org/10.24071/ijels.v7i1.3174  
received 4 March 2021; accepted 30 March 2021

**ABSTRACT**

The structure of a sentence might be influenced by how information is intended to be delivered. In legal texts, how words are arranged is a crucial factor as it might affect how readers understand the messages in the texts. This study investigates the information structure of a prepositional phrase (PP) namely *by + V-ing* in social media’s legal texts. The data sources of this study were nine legal texts from five social media, namely Twitter, Facebook, Instagram, WhatsApp, and TikTok. The analysis process resulted in the findings that 43% of the phrases were preposed and 57% were in postverbal position. The study also found that every placement of the PP is able to present both given or new information, with introduction of new information dominates the use of the PP. Further, the research also observed several contexts in which the PP is employed. From the research, it is expected that the results could help readers in understanding information delivered in legal texts.

Keywords: information structure, prepositional phrase, legal text, social media

**INTRODUCTION**

In a legal text, such as a privacy policy or terms of services documents, how information is delivered is a crucial factor which may influence the readers’ understanding on the text. Ideally, a legal text should be comprehensible enough as it usually contains regulations or rules that bound the service provider and their users. The information presented in the text, therefore, needs to be clear and unambiguous. Not only should the information be intelligible, but also the sentence structures should be comfortable to be read and able to accommodate the logical flow of ideas. However, legal text has a reputation of being complex and complicated in term of lexical elements and syntactic structure (Coulthard, Johnson, & Wright, An introduction to forensic linguistics: Language in evidence, 2017).

The sentence constructions become influential in delivering information of a legal text. A more common term for how information are packaged or constructed by the grammatical aspects in the clauses or sentences is *information structure* (Zimmerman & Féry, 2010; Brown & Miller, The Cambridge dictionary of linguistics, 2013). A particular information structure can be employed for several purposes, such as introducing a new topic, continuing a previously mentioned topic, or emphasize a certain message of the sentence. Proper structure of sentences would surely ease the reader to grasp the main ideas of the sentences and to create a more accurate inference of the text in a broader context.
One of the purposes of information structure deals with how a writer deliver given and new information in a discourse. Using information structure, a writer might choose to ease the reader following the flow of ideas in the text with an unmarked structure. Meanwhile, the writer might also put more weight on a new information by using a marked structure. The use of a marked structure might signal the reader for the important message in a sentence.

This research aims to explain the use of information structures in social media’s legal texts, particularly in the use of the prepositional phrase (PP) by + V-ing. This research focuses on exploring how by + V-ing phrases are placed in the clauses and the type of information, given vs. new, brought by the PP. This research also discusses briefly the contexts in which the PP is employed. From a brief review of the texts, the researcher notices that the PP are able to be placed in different positions in the clauses. These different placements of the PP might be caused by different purposes of employing the phrase in the clauses. By providing an analysis on the information structure of by + V-ing in social media’s legal texts, it is expected that this research could give helpful insights to the readers in understanding the information delivered by legal texts.

LITERATURE REVIEW

Information structure

Information structure could be described as the organization of utterance elements, such as phrases, clauses, and sentences, done by a speaker or writer in presenting or packaging information to the hearer or reader according to the discourse situation (Dehé, 2002; Brown & Miller, The Cambridge dictionary of linguistics, 2013). Dehé further explain that information structure is the relationship between the speaker’s assumption on the hearer’s knowledge and consciousness at the time and the formal structure of the sentence (2002). Zimmerman and Féry has a more complex definition of information structure, that it is the cognitive domain in which linguistic competence, such as phonology, morphology, and syntax, meets other cognitive faculties which deal with the fixation of belief through information update, pragmatic reasoning, and general inference processes (2010). How words are arranged in a sentence often serves functional reasons. The reasons of the structure could be for presenting given or new information, contrasting, emphasizing, stating overtly or subtly (Brown & Miller, The Cambridge dictionary of linguistics, 2013).

As previously stated, one of the reason of using information structure is to present given and new information. Given information, which is also known as old or background information, is the information about which a hearer or reader could take for granted as it is already mentioned or can be inferred from the utterance context (Brown & Miller, 2013; Culpeper & Haugh, 2014). Meanwhile, new or foreground information which is the focused part of a sentence is unpredictable, thus it cannot be inferred or taken for granted from the preceding context or discourse situation (Dehé, 2002) Additionally, information itself can be old or new with respect to the discourse or to the addressee (Huddleston & Pullum, 2002).

In information structure, there is a tendency that given information is placed in the initial part of a sentence and the new information is placed toward the end (Birner & Ward, 2006). It is the common or unmarked construction of a sentence. The initial part of the sentence is also known as Theme, the starting point of the idea of a sentence (Halliday & Matthiessen, 2014). However, there is also a possibility for new information to be placed in the beginning of a sentence or old information placed toward the end, thus creates a marked construction. Birner and Ward (1998) state that such movements are possibilities in preposing, the movement of a postverbal element to the left or preverbal position, and postposing, which is exactly the opposite of preposing (p. 2; 31). The movement in preposing is not always to the initial
position and the postposing is not always to the end of the sentence. Further, the movement of element is also affected by the weight of the element, with the tendency of heavy element to be placed on the right or the end of the sentence (Huddleston & Pullum, 2002). It is unlikely for the constituent in the initial position to be the longest constituent in a sentence (Culpeper & Haugh, 2014). Related to the effect to the hearer or reader, such use of marked constructions may trigger pragmatic and other cognitive effects in understanding why the speaker uses such construction over other more economical ways (Zimmerman & Féry, 2010).

**By + V-ing**

The phrase *by + V-ing* which is analyzed in this study is classified as a PP with *by* as the head followed by the gerund *V-ing* as the complement (Huddleston & Pullum, 2002). In general, PP has a preposition as its head. The head then is followed by its complement which is usually an NP or WH-clause (Quirk, Greenbaum, Leech, & Svartvik, 1982). PP may function as adjunct, disjunct, conjunct NP postmodifier, VP complement, complement of adjective (p. 136). In this case, *by + V-ing* is classified as an adjunct indicating means from its ability to be questioned, as most adjunct has this characteristic (Huddleston & Pullum, 2002). The function of *by + V-ing* as an adjunct is as an optional modifier of a main verb (Brown & Miller, The Cambridge dictionary of linguistics, 2013). Related with the placement, a PP as adjunct, including *by + V-ing* can be placed in the beginning of a clause or after a VP. However, when it is a PP as a complement, it requires a pragmatic reason to be placed in the initial position of a sentence (Ward, Birner, & Huddleston, 2002).

**Legal text**

The texts which become the sources of data in this research are legal texts. A legal text can be described as a text which serves a legal purpose in a legal setting (Cao, 2010). The form of legal text about which this study focuses on is the written one. There are various types of written legal texts, including law, rule, will, contract, police warning, and so forth (Coulthard & Johnson, 2010).

Besides its function in a legal setting, another distinctive feature of a legal text is the use of legal language style. It usually presents very detailed and precise information and carries unambiguous interpretation (Bhatia, 2010). However, a legal style is also well-known for its formal, archaic, wordy, and complicated structure (Coulthard, Johnson, & Wright, 2017; Gibbons & Turell, 2008). While in one side the complexity of legal style makes it transparent and legally unchallengeable, on the other side it can be incomprehensible for the readers (Malmkjaer, 2002). Therefore, in its development a legal text can be casual, innovative, and even purposively vague (Gibbons & Turell, 2008).

**Related studies**

A study from Lewis (2018) shows the changes of the connective PP *in fact* and *after all* in discourse information structure. In the past, *in fact* is usually placed in the final position of a sentence and it backgrounds and subordinates the second conjunct to the first one. However, at the present, the connective often appears in the initial position and functions as precision, higher scale, and contrastive indicator. The PP *after all* also changes from final position in the past to the initial position at the present. It serves two functions, to express counterexpectation and justification.

Colonna, Charolles, Sarda and Pynte (2014) compare the effects on comprehension of preposed and postposed adverbial phrases. Their study found different roles of spatial
adverbials when they are placed in the initial and final position of a sentence. Preposed adverbials were found to be a stronger linguistic cue than the postposed ones. The preposed adverbials foreground the spatial locations of situations of their host sentences. Moreover, they also affect the reader’s comprehension since the preposed adverbials could attract attention more.

Lastly, a study by Saad (2018) compares the preposing and postposing phenomena between English and Arabic. The study found that the two information structures are influential in both English and Arabic. Preposing and postposing affect the determination of topics, comments, and the distribution of information. The introduction of old and new information is also affected by the movements of constituents from and to preverbal or postverbal position.

**METHOD**

This pragmatic study analyzed the information structures of by + V-ing in the legal texts of social media websites and apps. The study limited only to nine legal texts from five social media as the corpus as seen in Table 1. In selecting the texts, the researcher chose the latest version of the texts which were available when the research was conducted. This selection was due to the fact that the companies always update or revise their policies.

<table>
<thead>
<tr>
<th>No.</th>
<th>Text</th>
<th>Code</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Twitter Privacy Policy</td>
<td>TWPP</td>
<td>18 June 2020</td>
</tr>
<tr>
<td>2</td>
<td>Twitter Terms of Services</td>
<td>TWTos</td>
<td>18 Jun 2020</td>
</tr>
<tr>
<td>3</td>
<td>Facebook Data Policy</td>
<td>FBDP</td>
<td>21 Aug 2020</td>
</tr>
<tr>
<td>4</td>
<td>Facebook Terms of Services</td>
<td>FBTos</td>
<td>22 Oct 2020</td>
</tr>
<tr>
<td>5</td>
<td>Instagram Terms of Use</td>
<td>IGToS</td>
<td>20 Dec 2020</td>
</tr>
<tr>
<td>6</td>
<td>WhatsApp Privacy Policy</td>
<td>WAPP</td>
<td>20 Jul 2020</td>
</tr>
<tr>
<td>7</td>
<td>WhatsApp Terms of Service</td>
<td>WATos</td>
<td>28 Jan 2020</td>
</tr>
<tr>
<td>8</td>
<td>Tik Tok Privacy Policy</td>
<td>TTPP</td>
<td>Sep 2020</td>
</tr>
<tr>
<td>9</td>
<td>Tik Tok Terms of Services</td>
<td>TTTos</td>
<td>Feb 2020</td>
</tr>
</tbody>
</table>

The research data for this research were all the sentences containing the prepositional phrase by + V-ing. The researcher selected the sentences by downloading and copying the texts to Microsoft Word and using the ‘Find’ function. For several texts, the researcher directly took the sentences from the webpages using the ‘Find’ function available on the web browser. In total, 86 sentences containing by + V-ing were gathered.

The data were then analyzed using a table in Microsoft Excel. Columns for the preposed PP and the postverbal constructions of the PP were provided to count the number of the occurrence in the data. The basis of determining the placement of the PP is the main verb of the clause in which the PP is located. Therefore, this research focuses more on the placement of the PP related to clause rather than sentence. Then, two columns were provided to analyze whether given or new information is presented by the PP. For identifying the given or new information carried by each PP, the researcher also paid attention to messages of the neighboring clauses, sentences, or even sections in the texts. Although it is not a major focus of the research, the contexts in which by + V-ing is employed is also reviewed, for instance
whether it is used for explaining features, in examples, or as a part of an agreement. The table used for the analysis process is as in Table 2.

Table 2. Data Analysis Table

<table>
<thead>
<tr>
<th>No.</th>
<th>Sentences</th>
<th>Pre</th>
<th>Post</th>
<th>Given</th>
<th>New</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>By using our services mentioned, you agree with our terms.</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td>Making agreement</td>
</tr>
<tr>
<td>2</td>
<td>You can send a private message by using Direct Message.</td>
<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
<td>Explaining service</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

*Pre: Preposed  Post: Postverbal

FINDINGS AND DISCUSSION

From the analysis of the 86 sentences, the research found that the phrase *by + V-ing* is mostly used in the postverbal position. Related with the information it brings, the phrase also mostly contains new information. Figure 1 and Figure 2 show the findings on the position and information contained by *by + V-ing*.

As it can be seen from Figure 1, the majority of *by + V-ing* phrases are placed after the main verb of the clause. However, the number of the preposed PP is also relatively high. This finding of the PP’s ability to be placed in different position has a similarity with Lewis’ (2018) findings that the two connective phrases she studied could also be employed in different position. The similarity indicates that PP has flexibility in term of placement in a sentence.

While the gap between preposed and postverbal *by + V-ing* phrases was not too significant, a different situation can be observed in Figure 2 which displays that the number of the phrase carrying new information significantly outnumbered those bringing given or old.
information. Almost three quarter of the uses of the phrase are for presenting new information in the sentences. The high number of the phrase carrying new information might be related with the placement of the phrase which mostly in postverbal position. This possibility is supported by Birner and Ward’s (2006) notion that new information is tend to be placed in the end of a sentence. However, the different percentages of the postverbal phrases and new information introduced indicates that there are several preposed phrases that carry new information.

This research also analyzed the contexts in which the phrase is employed for side information of the use of by + V-ing. The researcher categorized the contexts into five groups, namely making agreement, explaining service, providing examples, directing, and explaining law. The distribution of the contexts could be seen in Table 3.

<table>
<thead>
<tr>
<th>No.</th>
<th>Context</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Making agreement</td>
<td>39</td>
<td>45.3</td>
</tr>
<tr>
<td>2</td>
<td>Explaining service</td>
<td>18</td>
<td>20.9</td>
</tr>
<tr>
<td>3</td>
<td>Providing examples</td>
<td>14</td>
<td>16.3</td>
</tr>
<tr>
<td>4</td>
<td>Directing</td>
<td>14</td>
<td>16.3</td>
</tr>
<tr>
<td>5</td>
<td>Explaining law</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>86</td>
<td>100</td>
</tr>
</tbody>
</table>

The by + V-ing phrase is mostly used in stating agreements between the company and the users. The sentences containing agreement are often indicated by the word ‘agree’ or ‘accept’, either as the main verb or as the gerund in the by + V-ing phrase. While the contexts of explaining service and providing example are already clear, the contexts of directing and explaining law need a brief explanation. Due to the nature of the data sources as electronic texts, the companies might provide links to contacts or other website pages which the user could access. The sentences which contain this information is considered having direction contexts. Meanwhile, the context of explaining law was found in Tik Tok’s privacy policy (TTPP62) in which they explain an article from the Data Protection Law in their legal text.

**Preposed by + V-ing**

The research found 37 (43%) by + V-ing phrases which are preposed to the preverbal position of the clauses. This percentage could be considered relatively high as it is close to 50%. The high number of preposed by + V-ing is related with its nature of a non-lexically-governed PP adjunct, which could be fully accepted in a preposed position (Birner & Ward, 1998; Ward, Birner, & Huddleston, 2002). Further, the analysis resulted in the finding that the preposed by + V-ing phrases might carry given information or introduce new information. In this case, the preposed PPs carrying given information dominate with 21 phrases compared with those introducing new information with 16 phrases. This means that the preposing of by + V-ing phrases in the legal texts mostly follow the common information structure with the tendency of given information placed in the beginning of a sentence as Birner and Ward (2006) suggest. The examples of the preposed PPs carrying given information are as in Excerpt 1 and 2.
**Excerpt 1**  
Please note that by withdrawing your consent to the disclosure and/or collection of your personal data, we may not be able to fulfill your requests and you may not be able to use some of TikTok features and functionality. (TTPP60)

**Excerpt 2**  
By using our Products, you agree that we can show you ads that we think will be relevant to you and your interests. (FBToS40)

In Excerpt 1, the by +V-ing phrase is in the context of explaining Tik Tok’s services and is preposed. The PP is preposed to the left of its clause’s modal verb ‘may’, but it is not in the initial position of the clause nor the sentence. This movement is possible as a preposed element does not necessarily occupy the initial position of a sentence (Huddleston & Pullum, 2002). The PP is instead inside a dependent ‘that’ clause which is attached at the back of the imperative clause ‘Please note’. However, judging from the flexibility of an adjunct and the information of the whole sentence, it is also possible to put the phrase in the initial position of the sentence as it would not change the main idea of the sentence.

The phrase in Excerpt 1 brings the information of withdrawing consent on the data collection done by the company. This information has been already mentioned in the previous sentences in the section in which the phrase is located. Therefore, it can be assumed that the readers already have background knowledge on the matter. The reason for using the information structure of preposing could be for emphasizing the importance of the user’s choice of consent withdrawal. Because of the preposing, the phrase becomes a part of the Theme of the clause, a starting point of the clause’s idea (Halliday & Matthiessen, 2014). Since it is the Theme position of the clause, the idea of consent withdrawal is then developed by the rest of the clause by adding information about the consequences of the withdrawal.

Different from Excerpt 1, the position of the by + V-ing phrase in Excerpt 2 is in the initial position of the sentence. It functions as an adjunct of mean for the VP ‘agree that...’ in the sentence. The context of the sentence is about an agreement between Facebook and the user regarding the ads that Facebook show to the user. Again, the phrase also occupies the Theme position, to be precise as a marked Theme. The use of marked Theme might trigger pragmatics reasoning of the reader’s mind why the information is structured in such a way (Zimmerman & Féry, 2010). In this case, the reason is very likely to foreground the notion of using the Products (Facebook’s services) as the prerequisite to agree with the term mentioned.

Besides carrying given information, it was found also that several preposed by +V-ing phrases introduce new information. Below are the examples.

**Excerpt 3**  
By continuing to access or use the Services after those revisions become effective, you agree to be bound by the revised Terms. (TWToS35)

**Excerpt 4**  
By downloading the Platform from the Amazon Appstore (or its successors) operated by Amazon Digital Services, Inc. or affiliates (“Amazon”), you specifically acknowledge and agree that: … (TTToS80)

The by + V-ing phrase in Excerpt 3 is located in the last section of Twitter’s Terms of Services text. To be exact, it is the last sentence of the first paragraph of the section which discusses continuous revisions on the terms. Hence, a chunk of given information ‘revision’
is present in the phrase. The phrase, however, introduces more new information than the given one, which are the action of continuing accessing or using the services after the revision is effective. It is new since the use of the service under that particular condition has not been mentioned in the previous sections of the text. This finding shows that new information could be placed in the Theme position of a sentence as Brown and Miller (2016) suggest. However, it partially infringes Birner and Ward’s (1998) notion that preposed constituent is required to bring given information.

A different case was found in Excerpt 4. Why the information carried by the by + V-ing phrase is considered new can be explained by the position of the sentence relative to the text. The sentence is the first sentence of the only section discussing Amazon Appstore, therefore, it is also the first time the information is mentioned. This finding fits with what Brown and Miller (2016) state that the first sentence of a text typically introduces new information.

The use of preposed by + V-ing phrase seems common for sentences which contain agreement between the companies and the user. The preposed phrases mostly contain information on how the user could agree with the provided terms of the companies. It can be the function of preposing as an information emphasize which makes it suitable for delivering such information. This claim is supported by Colonna, Charolles, Sarda and Pynte’s (2014) research which found that preposing adverbials could foreground the spatial location of a situation and attract attention more than the postposed ones, thus it also affects the reader’s comprehension. In the current research, the preposed by + V-ing phrases also have the similar role. Their placement might be for the sake of the reader’s comprehension as the placement might attract more attention of the reader.

Besides the type of information they introduce, it can be observed that the by + V-ing phrases in Excerpt 1, 3, and 4 are relatively lengthy and detailed. While it is common to place an adjunct in the beginning of a clause or sentence, it can be considered unusual to have a long or heavy constituent in the beginning of a clause or sentence. Even in Excerpt 3 and 4 the phrases outweigh the rest of the sentence. The two PPs clearly flout the tendency in information structure that heavy constituent is placed toward the end of the sentence (Huddleston & Pullum, 2002; Culpeper & Haugh, 2014). The placement of heavy constituent toward the end is very likely for the ease of grabbing and understanding information. By placing the heavy constituents in the beginning of the sentences, the construction in Excerpt 3 and 4 might create difficulties for the readers. Further, it can be assumed that the constructions in Excerpt 3 and 4 are the realization of the legal style which is detailed, lengthy, and complicated (Bhatia, 2010; Coulthard, Johnson, & Wright, 2017). There is also a possibility, although it could not be proven, that such constructions were purposively made as legal texts often purposely vague (Gibbons & Turell, 2008).

**Postverbal by + V-ing**

From the analysis, it was found that 49 (57%) by + V-ing phrases are placed in the postverbal position of the clause in which the phrase is located. By postverbal placement, it means that those phrases are not in the marked Theme position of the sentences. It could be said that those phrases are a part of the idea developed from the sentences’ The research also found that the postverbal by + V-ing phrases carry both given and new information, with phrases introducing new information significantly dominate those with given information.

There are only three postverbal by + V-ing phrases which bring given information. This phenomenon is rather uncommon as usually given information is placed in the beginning of a clause (Brown & Miller, 2013). Excerpt 5, 6, and 7 show the postverbal phrases carrying given information.
Excerpt 5
When you communicate with others by sending or receiving Direct Messages, we will store and process your communications and information related to them. (TWPP4)

Excerpt 6
You can accept the Terms by accessing or using our Services. (TTToS71)

Excerpt 7
If you choose to contribute by sending us or our employees any ideas for products, services, features, modifications, enhancements, content, refinements, technologies, content offerings (such as audio, visual, games, or other types of content), promotions, strategies, or product/feature names, or any related documentation, artwork, computer code, diagrams, or other materials (collectively “Feedback”), then regardless of what your accompanying communication may say, the following terms will apply, so that future misunderstandings can be avoided. (TTTos74)

All the by + V-ing phrases from the excerpts above carries given information carry given information, as the information has been mentioned in the sentences or paragraphs preceding the excerpts. From the three excerpts, it could be seen that the by + V-ing phrases in Excerpt 5 and 7 are not in the end of the sentence, however, they are still in the end of their own clauses. Furthermore, they are located in the clauses which occupy the marked Theme position of the sentences. This explains why the phrases in Excerpt 5 and 7 bring given information: that they are in the beginning of a sentence. The beginning of a sentence is normally the place where given information is provided (Birner & Ward, 2006). Meanwhile, the whole sentence of Excerpt 6 could be said carrying given information and no new information is introduced. The notion of accepting the terms by mean of using the services is already mentioned in several paragraphs preceding the sentence. Therefore, the role of the information structure of this sentence is to restate or reiterate the message. Related with the contexts of the use of by + V-ing phrases, the context in Excerpt 5 is to explain the service provided by the company, while Excerpt 6 and 7 have the same context of agreement.

It is also worth to note that the by + V-ing phrase in Excerpt 7 follows the end-weight maxim. The phrase is extremely long and complex, meaning it is a heavy constituent, and its placement is in the end of the clause. Hence, it follows the maxim which says that there is a tendency to put heavy constituent to the end of a clause for the ease of understanding (Culpeper & Haugh, 2014). Even though it is placed in the end of the clause, the phrase’s position, however, is more on the beginning of the whole sentence. The placement might become a difficulty for the reader in decoding the message of the sentence. It can be said that the placement of the phrase is an example of the complex and lengthy legal style (Coulthard & Johnson, 2010).

While there are only three by + V-ing phrases containing given information, the majority (46 phrases) of the postverbal phrases introduce new information. These phrases serve in various contexts, including giving examples, explaining service, directing, making agreement, and explaining law, with the former three contexts are the most frequent. The examples of the postverbal by + V-ing phrases containing new information are as the followings.
Excerpt 8
This includes analyzing the data we have about our users and understanding how people use our Products, for example by conducting surveys and testing and troubleshooting new features. (FBToS41)

Excerpt 9
You can delete content individually or all at once by deleting your account. (IGToU46)

Excerpt 10
Learn more about the Facebook family of companies and their privacy practices by reviewing their privacy policies. (WAPP49)

The information from Excerpt 8, 9, and 10 is all new information since there are no previous mentions about the information in the legal texts. In excerpt 8, the PP provides new information by examples on how Facebook collect users’ data about which they analyze. The PP in Excerpt 9 provide information about Instagram’s service particularly about how to instantly delete the user’s data. Lastly, the by + V-ing phrase in Excerpt 10 provides a direction for the reader to go to a specific webpage containing Facebook families’ privacy policies. WhatsApp provide the link that can be clicked on the VP ‘learn more’.

Related to the placement, the by + V-ing phrases in the three excerpts above are all put in the final position of the sentence. This placement follows the notion that new information is usually introduced towards the end of a sentence (Birner & Ward, 2006). It also means that the three excerpts have an unmarked information structure. Such construction would likely ease the reader in understanding the message of a sentence because it would not trigger any pragmatic or cognitive effect on the reader’s mind as with the use of a marked information structure (Zimmerman & Féry, 2010).

CONCLUSION
Several conclusions could be inferred from this research. First, the gap between the frequencies of preposed by + V-ing phrases and the postverbal ones in social media’s legal texts is not really significant. This is due to the nature of the PP that is flexible in term of placement. Second, both the preposed PP and the postverbal PP are able to provide either given or new information. In this case, new information is more common to be introduced by the PP. The PP also able to be used in various contexts depending on the legal text writer needs. Lastly, the uses of by + V-ing phrases might contribute or have influence in the complexity of the legal texts.

As this research only observed the information structures of by + V-ing phrases in legal texts, the current research is still too narrow to provide a general notion on how information structure affects the complexity of a legal text. Therefore, the researcher suggests further researchers to conduct study on other grammatical aspects which influence how information is delivered in legal texts. With its unique characteristics and its legal style, it is also interesting to see how information is delivered through the sentence structures of a legal text might have effects on how the reader understands the information.
REFERENCES


