The Essential Role of Objections from Outsiders in Improving the Quality of Information that is Curated and Disseminated by Websites[1]

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Abstract

This paper discusses a practical way to improve the quality of information distributed by websites that curate and disseminate knowledge (hereinafter, "CCWs", an abbreviation of Content Curation Websites).

It is reasonably considered that CCWs greatly contribute to enhancing citizens' knowledge of medicine and healthcare, when CCWs disseminate correct and qualitative information (Teramoto, S. and Haga, Y., 2017, Informed Consent in Building Big Data in Healthcare:The Essential Role of Hubs in Curating and Disseminating Knowledge, RJSH Vol. 4, No. 2, July - December 2017, pp. 69-75).

Unfortunately, the quality of information disseminated by CCWs is not necessarily guaranteed. However, obviously, the viability of prescreening such information is limited. If prescreening is too strict, it is likely to hinder the dissemination of knowledge, while if it is too lax, it is likely to allow the dissemination of low quality information.

For the purpose of improving the quality of information disseminated by CCWs in a practical way, the authors propose utilizing the objections or negative comments raised against such information by ordinary citizens or professionals independent from the editors and distributors of CCWs. Also, the authors propose that CCWs can contribute to improving the information disseminated by peer CCWs and/or Social Network Services (hereinafter, "SNSs") by means of the curation and dissemination of such objections or comments.

The authors assesses the viability of these proposals from three perspectives -- (i) a social network applying graph theory; (ii) empirical discussion; and (iii) comparison with the legal practices utilizing objections from citizens and industries to achieve better results. By these means, the authors found that curating and disseminating objections to existing disseminated information is viable in improving the quality of such information, and CCWs and SNSs are helpful in such activities.

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I.   A Hypothetical Problem and the type of thinking that lawyers are likely to employ

Please consider this hypothetical problem. Suppose that Alice is a twitter user having very large number of followers. One day, she tweeted that drinking 1 liter of saturated salt water helps her to maintain a healthy weight. Many followers of Alice retweeted her tweet on drinking salt water. Naturally, the editors and contributors of a curation media website think that Alice's tweet may attract many page views, which, in turn, will result in higher advertising revenue. Now, Alice's unhealthy tip becomes disseminated through the society, because a curation media website is open to the public and, thereby, the probability that a person will encounter Alice's tip while net surfing increases quickly.

It is no wonder that lawyers consider strategies to prevent the dissemination of such problematic information. Lawyers may have different reasons to consider such strategies. For example, lawyers, who are hired by the operating companies of curation media, may want to prevent or alleviate the magnitude of the liability of their clients to compensate for damages possibly incurred by citizens. Also, many lawyers may want to limit the possible damages incurred by ordinary citizens that are likely to be caused by the dissemination of incorrect or poor quality information.

Whatever the cause, solutions to the said problem that are likely to be proposed by lawyers fall within the following:
(i) to recommend that the operators of curation media to pre-screen each piece of curated information in-house before distributing it through the web so that they can prevent dissemination of incorrect or misleading information;
(ii) to recommend that such operators collectively establish industry standards (so-called soft law) to conduct such pre-screening;
(iii) to introduce new legislation that imposes sanctions on an operator of a curation media that disseminates incorrect or misleading information that is likely to cause harms to citizens; or
(iv) to introduce additional new legislation that obligates such operators to conduct pre-screening of information curated and distributed.

From an economic perspective, the third proposition, above, is considered as a tactic to increase the cost to be borne by the operator who disseminates incorrect or misleading information, which would have been prevented by pre-screening of information. By this way, the operator of a curation media is obliged to compare such cost with the cost of pre-screening. If the latter cost is less, the operator is encouraged to conduct pre-screening to prevent the diffusion of incorrect or misleading information. After all, lawyers are likely to propose pre-screening of information in order to prevent the dissemination of incorrect or misleading information.

II.   The problem of pre-screening information

Of course, we can expect that pre-screening of information will contribute to preventing dissemination of incorrect or misleading information. So, we have no reason to simply object to lawyers who encourage the operators of curation media to conduct pre-screening of information. However, pre-screening cannot guarantee the quality of information curated and distributed by curation media. We have to note that it is very uncertain whether a person or an entity, who

themselves curated and distributed information, is able to adequately and effectively implement such corrective measures.

The typical reasons for this problem are outlined as follows:
(i) If pre-screening is too strict, it is likely to hinder the dissemination of knowledge, even when the relevant information is beneficial to citizens. Such overly strict pre-screening is likely to obstruct curation medium from realizing its intrinsic value that they can improve the knowledge level of citizens by curating and disseminating diversified information through the society.
(ii) In contrast, if pre-screening is too lax, it is likely to allow the dissemination of low quality information as anticipated and experienced by us now and again.
(iii) Even diligent pre-screening is not able to completely prevent the dissemination of inadequate information. The scientific or medical knowledge used for pre-screening may be later found to be incorrect. For example, a Japanese standard issued by the Ministry of Health, Labor and Welfare (Article 4 of the MHLW Ordinance No. 157 of 2007) categorized a male with a waist of 85 cm or greater in circumference, having several other specified symptoms as a "person who is required to make efforts to improve their health." Needless to say, because the said ordinance was issued in 2007, it is based on scientific information concerning metabolic syndrome gained before that time. However, the following academic debates indicate considerable disagreement among definitions of metabolic syndrome[4].

III.　　　Considering the utilization of post objection from third parties

Assuming that pre-screening cannot be perfect, we have to consider some corrective measures that can be employed after the dissemination of incorrect or misleading information. That is, we have to design some measures to locate each piece of incorrect or misleading information after its dissemination, and to correct, delete, or negate it, or, at least, alleviate the negative impact of its diffusion.

There are several reasons for this uncertainty. According to our own experience, we tend to overlook our own mistakes. What is overlooked at pre-screening is likely to be overlooked even at post-review. To let professionals conduct a post-review is the measure that is likely to be proposed or employed by lawyers. However, professionals may make overlook certain things intentionally or unintentionally. Typical examples are the Enron Scandal (2001) and the Toshiba Accounting Scandal (2015).

Presumably, objections from ordinary people can be useful to solve (or, at least, alleviate) the problem. Then, who can make up for the insufficient capabilities of the operators of curation media or professionals hired by them to implement corrective measures? We often notice that a great many readers of curation media contribute objections and negative comments to SNSs. It would make sense to make use of such objections and negative comments to improve the quality of information disseminated by curation media, because even such ordinary readers have access to information contradicting information.

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[4] *See e.g.,* Oda E, Abe M, et al. Considerable disagreement among definitions of metabolic syndrome for Japanese. Circ J 2007; 71:1239-1243, available at
https://www.jstage.jst.go.jp/article/circj/71/8/71_8_1239/_pdf/-char/en.

IV. Discussion from the Perspective of a Social Network

Our society can be represented by a network. According to the practice of social network analysis, a society comprised of multiple actors is represented by a network having multiple nodes, each of which corresponds to an actor. Therefore, each of source of information, curation medium, and their readers can be represented by a node in a network graph.

A. The network structure that promotes diffusion of information

It is known that the spillover of knowledge is most likely to occur in a heterogeneous network (that is, a scale-free network, among the three types of networks - regular, random, and scale-free), and least likely to occur in a homogeneous network (that is, a regular network among the said three types)[5]. In other words, knowledge is likely to spillover from a node with higher centrality (that is, a node connected with a greater number of nodes directly or indirectly) to nodes, each of which has lower centrality (that is, a node connected with a smaller number of nodes directly or indirectly). A new piece of knowledge created by a node with lower centrality is not likely to reach most of the nodes, until it is curated by a node with higher centrality, which, in turn, effectively diffuses the same piece of knowledge through the social network.

This understanding of the mechanism of the spillover of knowledge coincides with our ordinary experience. That is, most of our knowledge is derived from schools, publishers, newspapers, TV programs, curation websites, search engines and Wikipedia, or articles at SNS attracting much attention of followers. Most of us have very low centrality, while each of these sources of information has very high centrality. In order to substantialize the contributors informed consent, we have to rely on such sources of information, or, in other words, hubs in the network to curate and diffuse knowledge.

Assuming that many of the sources of professional information have only low centrality, it makes sense for curation medium to curate and distribute such information in order to effectively diffuse it.

B. The network structure that cooperative behaviors

It is also known that cooperative behaviors between the nodes of a social network are most likely to occur in a homogeneous network (that is, a regular network, among three types of networks - regular, random, and scale-free), and least likely to occur in a heterogeneous network (that is, a scale-free network)[6].

C. The current problem paraphrased by the terms of a social network

A heterogeneous network (*e.g.*, a regular graph network), which is likely to promote quicker and wider diffusion of knowledge, hardly promotes cooperative behaviors. In contrast, a

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[5] *See* Konno, T. 2016. Knowledge spillover processes as complex networks. Physica A 462. 1207-1214.

[6] *See* Konno, .T 2011. A condition for cooperation in a game on complex networks. Journal of Theoretical Biology. Vol. 269. Issue 1. 224–233.

homogeneous network (*e.g.*, a scale-free network), which is likely to promote cooperative behaviors, hardly promotes quicker and wider diffusion of knowledge. The structure of a social network that is convenient for the diffusion of knowledge possibly obstructs the improvement in the quality of information distributed by the nodes having very high centrality (Fig. 1).
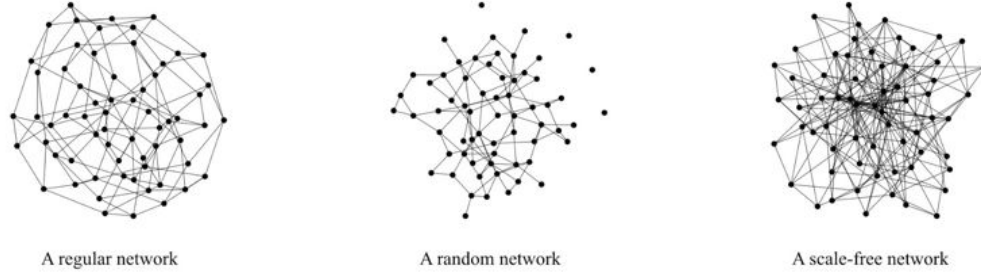

Fig. 1   Homogeneous and heterogeneous networks.

Suppose that both an operator of curation media and a source of professional information choose mutually cooperative behaviors, even if the information distributed by the former and the information transmitted by the latter conflict with each other. That is, the latter enables the former to easily reach the information transmitted by the latter, and the former utilizes such conflicting information to correct or complement the incorrect or misleading information distributed by itself. It is clear that such cooperative behaviors between these parties will improve the knowledge standard of the society. However, it is easily presumed that the centrality of a curation media is very high, while that of a source of professional information is very low. This condition of a social network is likely to promote the diffusion of knowledge transmitted by the curation media, while it is likely to make it difficult for the operator of the curation media and the source of professional information to cooperate with each other. This is the problem that we are facing.

D.   A Clue to Solve the Problem

If we can alleviate the gap of centrality between the curation media and the source of conflicting information, the probability of the said cooperative behavior will be increased. However, it is not reasonable to decrease the centrality of curation media that plays an important role in disseminating knowledge through the society. On the other hand, it is not realistic to increase the centrality of the source of professional information. However, it should be noted that there are several curation medium, each of which has considerably high centrality, and they are competing with each other. Presumably, the source of professional information can alleviate the gap of centrality with the curation media distributing conflicting information, by utilizing another curation media that also has very high centrality (each of curation media is represented as a Hub in Fig. 2).
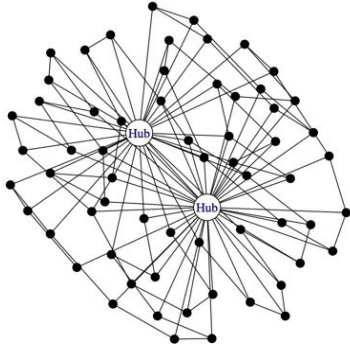
Fig. 2   Multiple hubs in a network.

A network model can provide a clearer picture of the idea. The followings are the essential participants of the model (Fig. 3):

F: A source of incorrect or misleading information.

W_i: A curation media distributing information on the internet. W_i curates the information initially transmitted by F, prepares and edits an article based on it, and distributes such article to the public through the internet.

Q: A source of high-quality information that conflicts with the information transmitted by F and W_i.

O: A subscriber of W_i who has read the said article distributed by W_i. He has knowledge of the information transmitted by Q, and raises an objection to the said article.

W_j: Another curation media distributing information on the internet. Depending on the choice of assumptions, W_j possibly curates the said objection raised by O and redistributes it to the public. Also, W_j possibly prepares and edits an article based on the information initially transmitted by Q and distributes it to the public.
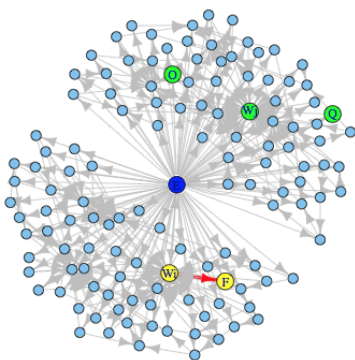

Fig. 3   The essential participants of the model.

The model is made of two parts of the society, and the cases introduced hereinbelow assume certain relationships between the two parts. The authors gave the first part of the society the following characteristics:

i)   The participants of the first part of the relevant society are F, W_i, and its actual or potential readers.

ii)   The number of participants can be arbitrarily defined to the extent it is a substantially large number. Here, the author temporarily assumes that the number is 64.

iii)   The author employed a scale-free network model to denote this part of the society, which is generally considered adequately representing the diffusion of information. This network is a directed graph in order to denote the dependency of one node to another node to reach a piece of information. The receiver of information sends an arc to the transmitter of such information.

iv)   The author employs Pagerank in order to assess the centrality of each node, because it is an algorithm used by Google Search to rank websites in their search engine results, and also a widely employed index to show the impact of respective nodes in an information network[7].

v)   It is reasonably considered that a successful curation media has a very high Pagerank. In the model, the node having the highest Pagerank in the said scale-free network is nominated as W_i.

vi)   In contrast, the majority of the initial source of information has a very low Pagerank. In the model, the node having the lowest Pagerank is nominated as F.

vii)   In the model, it is assumed that W_i distributes an article prepared based on the information initially transmitted by F. Therefore, in the model, W_i sends an arc to F.

The authors gave the second part of the society the following characteristics:

i)   The participants of the second part of the relevant society are Q, O, W_i and the actual or potential readers of W_j.

ii)   Likewise, this part is a scale-free network having 64 participants.

iii)   The node having the highest Pagerank in the said scale-free network is nominated as W_j.

iv)   The majority of the initial source of information has a very low Pagerank. In the model, the node having the lowest Pagerank is nominated as Q, and the node having the second lowest Pagerank is nominated as O.

Then, the authors defined the relationship between the first and second parts of the society. In reality, the readers of W_i and W_j are likely to overlap each other. However, in the relevant model, for the purpose of simplicity, it is assumed that they do not overlap each other. This does not mean that

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[7] *See* https://en.wikipedia.org/wiki/PageRank.

the first part and the second part of the society are isolated from each other. Suppose that there is a very popular search engine such as Google search engine. We can assume that every node depends on such engine, while it possibly establishes a link to every other node. In order to denote this condition, every node of the first and second parts of the network has mutual ties with a specific node denoting such search engine. Namely, the whole model has 129 nodes (= 64 x 2 +1), and one specific node has mutual ties with every other node, as if it is a very popular search engine.

For the purpose of simplicity, the piece of information transmitted by F, the article distributed by W_i, the objection raised by O, the piece of information transmitted by Q, and the article distributed by W_j are respectively called F, W_i, O, Q and W_j. Under the default condition, no node reaches O within 2 degree of distance. Also, No node reaches Q within 2 degree of distance (Fig.4).

Fig. 4   The default condition of the model.

The first case (Case - 1) prepared by the authors assumes that O raises an objection against W_i. It implies that O depends on W_i to reach such article. Therefore, in the model, this behavior of O is denoted by the arc sent by O to W_i. In this case, no node reaches O within 2 degree of distance. Also, No node reaches Q within 2 degree of distance (Fig. 5).
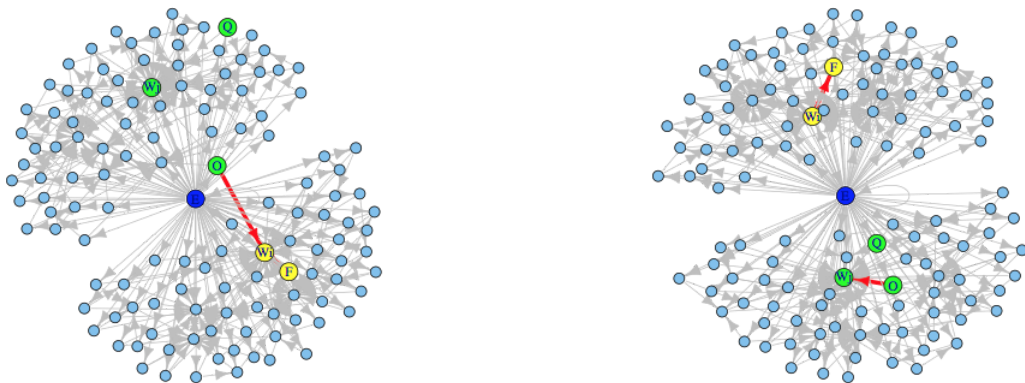
Fig. 5   The network of Case - 1.

The second case (Case - 2) assumes that O raises an objection against W_i, and that O cites Q. This condition is denoted by the arc sent by O to W_i and the arc sent by O to Q. In this case, no node reaches O within 2 degree of distance. Also, No node reaches Q within 2 degree of distance (Fig. 6).

Fig. 6   The network of Case - 2.
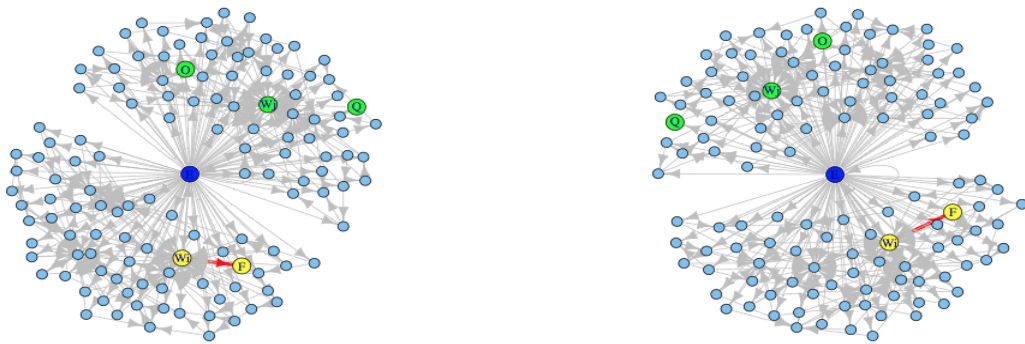
The third case (Case - 3) assumes that O raises an objection against W_i, that O does not cite Q, and that W_j curates and disseminates O. This condition is denoted by the arc sent by O to W_i and the arc sent by W_j to O. However, no arc is sent by O to Q. In this case, considerable number of nodes reaches O within 2 degree of distance, while no node reaches Q within 2 degree of distance (Fig. 7).
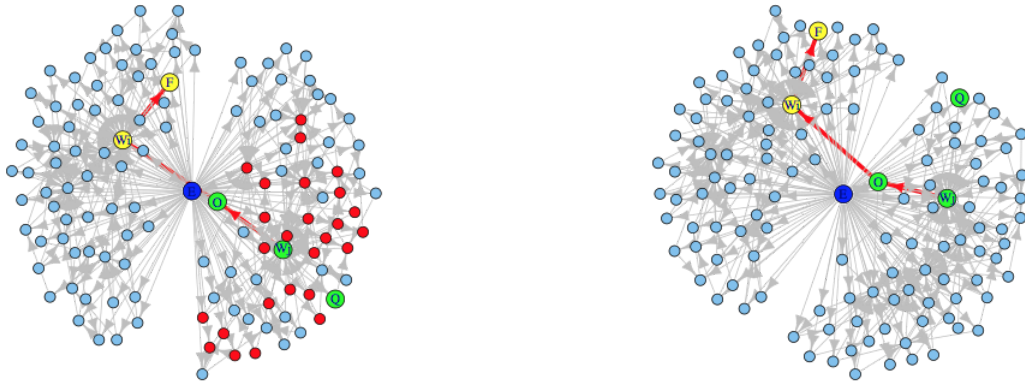
Fig. 7   The network of Case - 3.

The fourth case (Case - 4) assumes that O raises an objection against W_i, that O cites Q, and that W_j curates and disseminates O. This condition is denoted by the arc sent by O to W_i, the arc sent by O to Q, and the arc sent by W_j to O. Note that W_j depends on Q indirectly through O. In this case,

considerable number of nodes reaches O within 2 degree of distance, while no node reaches Q within 2 degree of distance (Fig. 8).
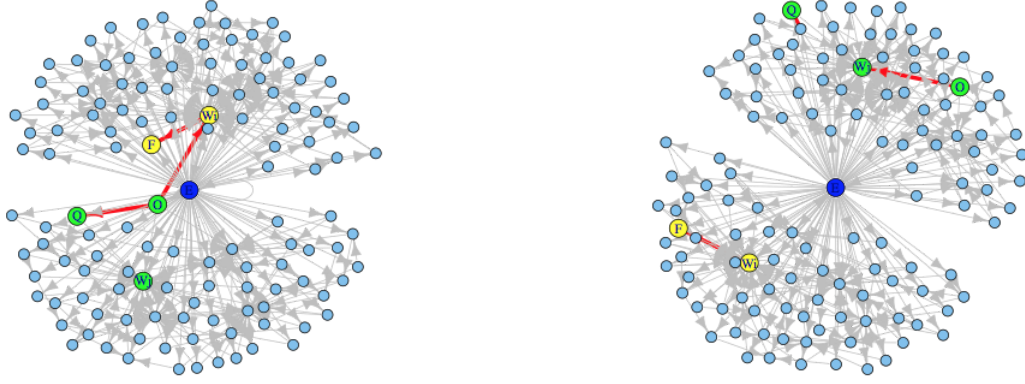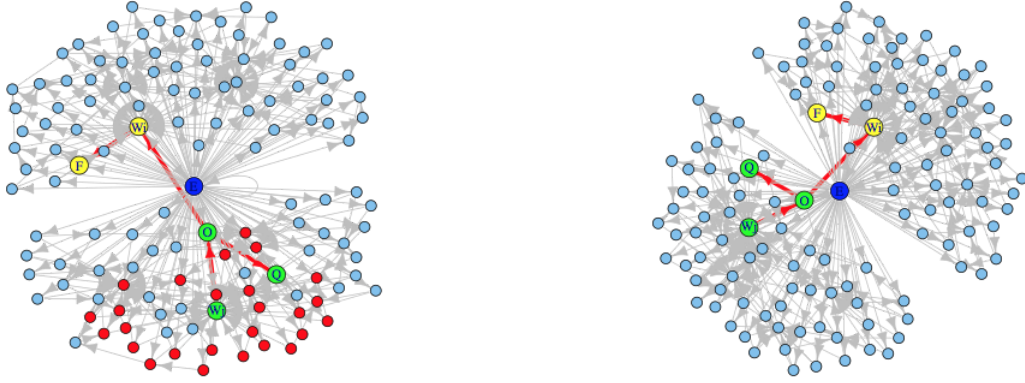

Fig. 8   The network of Case - 4.

The fifth case (Case - 5) assumes that O raises an objection against W_i, that O cites Q, that W_j curates and disseminates O, and that W_j directly cites Q. This condition is denoted by the arc sent by O to W_i, the arc sent by O to Q, the arc sent by W_j to O, and the arc sent by W_j to Q. Note that W_j depends on Q directly. In this case, considerable number of nodes reaches O within 2 degree of distance. Also, Considerable number of nodes reaches Q within 2 degree of distance (Fig. 9).
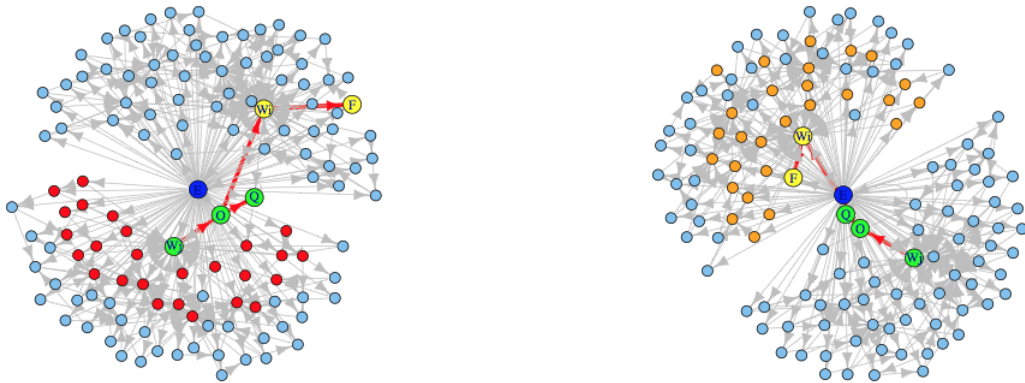
Fig. 8   The network of Case - 5.

The changes of the Pageranks of F, O, and Q in Cases 1 through 5 are illustrated below (Fig. 10). We assumed that W_i and W_j have a very high Pagerank from the beginning. Because F is linked by W_i, F also has a very high Pagerank. In contrast, both O and Q have very low Pagerank. This means that the society is heterogeneous, and therefore, we can hardly expect cooperative behaviors

among nodes. In Cases - 1 and 2, the Pagerank of O and Q remains very low, while that of F remains high. However, in Case - 3, the Pagerank of O greatly increases. Also, in Cases - 4 and 5, the Pagerank of Q also increases, while that of F decreases. By this way, in Cases - 3, 4 and 5, the society becomes more homogeneous, and therefore, we can expect the occurrence of cooperative behaviors among nodes.
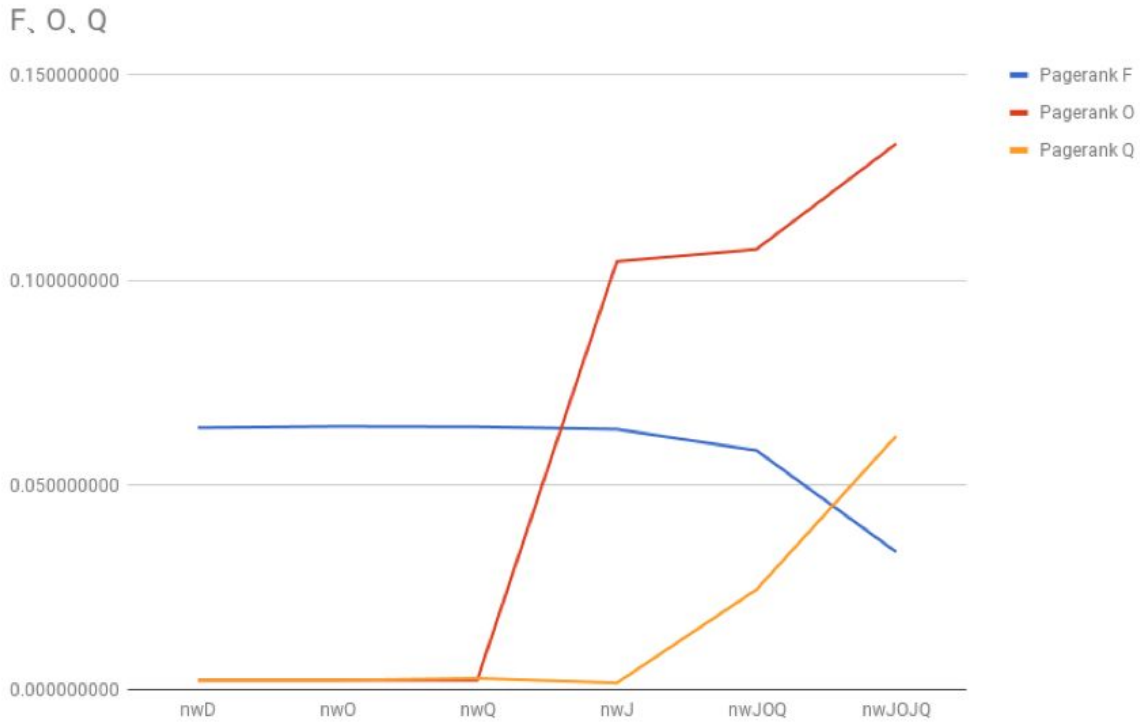
Fig. 10 The change in Pagerank.

These cases suggest that when a curation media distributes poor quality information, disseminating objections to it using another curation media has the potential to make the social structure more homogeneous. By such means, we can expect the improvement in the quality of information distributed by the former curation media.

E.   Discussion from different perspectives

There are advantages and disadvantages of discussion using models. The reality is too complex and it is beyond the capability of us to observe, describe and analyze it, even if it is about only a small part of the society. However, by using a model that represents very limited aspects of the reality, it becomes possible for us to analyze it and predict what will happen in the model. However, we should note that what happens in a model does not necessarily happen in reality, where many of the factors omitted in the model exist and the weights of the respective factors are likely to be much different from those assumed in the model. In consideration of these limitations on the discussion using a model, we have to conduct empirical studies simultaneously.

1.   Discussion from the experience of ordinary citizens

The experience of ordinary citizens plays an important role in lawyers' empirical studies, because laws and regulations are designed for application to ordinary citizens. The following are two well-known Japanese experiences where objections from third parties played major roles in improving the quality of information disseminated through the web and television.

a.   "WELQ"

WELQ was a well-known Japanese website curating and disseminating medical and healthcare information that was owned and operated by DeNA, one of the Japanese IT giants, since October, 2015.

In September 2016, a medical writer, Mr. Sei-ichiro Kuchiki, a medical school graduate, wrote an article criticizing the poor quality of the content of curation websites disseminating medical and healthcare information (https://news.yahoo.co.jp/byline/kuchikiseiichiro/20160910-00062062/).

On the 22nd of the following October, an SEO (Search Engine Optimization) specialist, Mr. Masahiro Tsuji, pointed out in a tweet problems with the quality of the information disseminated by WELQ (https://twitter.com/tsuj/status/789801304243646464). For example, he pointed out that one of WELQ's web pages was displayed at the top of the search results of a major search engine when searching for the words "I want to die." He also pointed out that the said web page contained a hyperlink to the web page of an outplacement company providing self-analysis examinations, showing the archive of the relevant page (https://web.archive.org/web/20161022122045/https://welq.jp/13406) presumably for the purpose of advertisement. He fiercely criticized the operators of WELQ for placing priority on gaining advertisement revenue, and neglecting the value of human life.

Mr. Tsuji's tweet was rapidly disseminated on Twitter and other SNSs (Social Network Services), and not a few medical or healthcare specialists including physicians, medical writers, IT consultants, etc. began publicly criticizing WELQ for various reasons such as the poor quality of information disseminated on WELQ (e.g., articles written by non-professional writers without specialists' supervision), articles simply copied and pasted from other websites, plagiarism, and text or illustrations possibly infringing the copyrights of other websites.

On the 28th of the same October, Buzzfeed Japan, a well-known Internet journal, published a web article on the problems with WELQ (https://www.buzzfeed.com/jp/keigoisashi/welq-01?utm_term=.vfRk1zp6k#.sqvvJMe6v). Presumably, this led to WELQ's problems being well known to the public and discussed and criticized widely even in a general newspaper (for example, see http://mainichi.jp/articles/20161201/k00/00e/040/131000c).

DeNA admitted the problem and took down some of the articles on WELQ in the following November. Finally, DeNA decided to close WELQ at the end of that November, and closed all of its curation websites (http://dena.com/jp/press/2016/12/01/1/, http://v3.eir-parts.net/EIRNavi/DocumentNavigator/ENavigatorBody.aspx?cat=tdnet&sid=1424259&code=2432&ln=ja&disp=simple,

http://v3.eir-parts.net/EIRNavi/DocumentNavigator/ENavigatorBody.aspx?cat=tdnet&sid=1424290&code=2432&ln=ja&disp=simple).

b.   TV drama "Black Péan"

The controversy surrounding the TV drama "Black Péan", produced and broadcast nationally by TBS, a Japanese broadcasting company, is also well known in Japan. The drama featured people and events in a medical setting. In this drama, one of the main characters was a Clinical Research Coordinator (CRC).

One of the major roles of a CRC is to examine the condition of a patient to confirm whether he or she is suitable to be an examinee of a clinical trial, to have the examinee informed for the purpose of gaining informed consent, and to help his/her family if they are in need of support.However, the CRC in the drama was characterised as acting for the benefit of the drug or medical device companies that perform the trials, neglecting the interests of the patient examinees and their families.

Very soon after the scenes representing such characterization of CRCs were broadcast on the 29th April 2018, the show was widely criticized by actual CRCs and medical professionals on Twitter and other SNSs. Their tweets and contributions are curated and compiled by a popular curation media service Togetter (https://togetter.com/li/1223780).

On the 2nd May 2018, the Japanese Society of Clinical Pharmacology and Therapeutics (https://www.jscpt.jp/index.html) issued an official protest stating that the characterization of the CRC in the said drama was an affront to the profession (https://www.facebook.com/jscptkoho/posts/419004868578254). The Society sent the letter of protest to TBS on 7th May. The Japan Federation of Medical Devices Associations (http://www.jfmda.gr.jp/) followed by presenting their concerns on the misleading characterization of the clinical trial of medical devices and CRCs in the drama.

These issues were broadly reported and known to the public. Many articles are published on Internet media and also reported in the mass media. On the 30th May, the CEO of TBS was forced to explain the situation and that they were talking with the interested parties such as the Society and the Federation. As one of the reactions to the protest, an article including a detailed explanation of the work of CRC was added to the official website of the drama (http://www.tbs.co.jp/blackpean_tbs/word/). That article was prepared with the support of the Japan Association of Site Management Organizations.

2.   **Discussion from the the existing legal framework.**

The practices under the existing legal framework also constitute a substantial part of lawyers' empirical study. The tables below show two examples of legal framework widely used in Japan utilizing third party's objections in order to achieve better results, with several statistical information (Fig. 11 and Fig. 12). These examples suggest that utilizing third party's objections well fall within the expertise of lawyers, and it is not likely to be a new type of practice for lawyers to design a

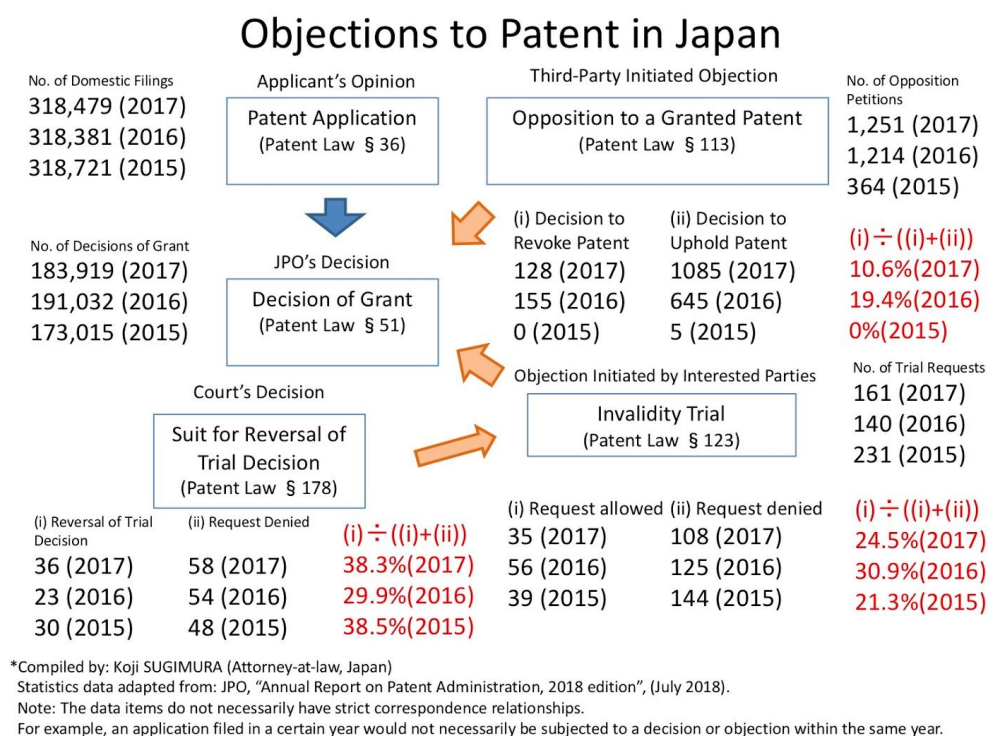method to improve the quality of information curated and disseminated by website using such objections.

Objections to Patent in Japan

No. of Domestic Filings
318,479 (2017)
318,381 (2016)
318,721 (2015)

Applicant's Opinion
Patent Application
(Patent Law §36)

Third-Party Initiated Objection
Opposition to a Granted Patent
(Patent Law §113)

No. of Opposition Petitions
1,251 (2017)
1,214 (2016)
364 (2015)

No. of Decisions of Grant
183,919 (2017)
191,032 (2016)
173,015 (2015)

JPO's Decision
Decision of Grant
(Patent Law §51)

(i) Decision to Revoke Patent
128 (2017)
155 (2016)
0 (2015)

(ii) Decision to Uphold Patent
1085 (2017)
645 (2016)
5 (2015)

(i) ÷ ((i)+(ii))
10.6%(2017)
19.4%(2016)
0%(2015)

Court's Decision
Suit for Reversal of Trial Decision
(Patent Law §178)

Objection Initiated by Interested Parties
Invalidity Trial
(Patent Law §123)

No. of Trial Requests
161 (2017)
140 (2016)
231 (2015)

(i) Reversal of Trial Decision
36 (2017)
23 (2016)
30 (2015)

(ii) Request Denied
58 (2017)
54 (2016)
48 (2015)

(i) ÷ ((i)+(ii))
38.3%(2017)
29.9%(2016)
38.5%(2015)

(i) Request allowed
35 (2017)
56 (2016)
39 (2015)

(ii) Request denied
108 (2017)
125 (2016)
144 (2015)

(i) ÷ ((i)+(ii))
24.5%(2017)
30.9%(2016)
21.3%(2015)

*Compiled by: Koji SUGIMURA (Attorney-at-law, Japan)
Statistics data adapted from: JPO, "Annual Report on Patent Administration, 2018 edition", (July 2018).
Note: The data items do not necessarily have strict correspondence relationships.
For example, an application filed in a certain year would not necessarily be subjected to a decision or objection within the same year.

Fig. 11 Utilization of objections to make once given patent invalid under Patent Act of Japan

Objections to Misleading Representations in Japan

(i) No. of Ex Officio Investigations
93 (2017)
45 (2016)
129 (2015)

Independent Investigation by the Consumer Affairs Agency (CAA)
Ex Officio Investigation by CAA
(See, §29, UPMR Act)

Voluntary Report by the Acting Entity
(§9, UPMR Act)

(ii) No. of Investigations Pertaining to Voluntary Reports
9 (2017)
11 (2016)
0 (2015)

Information Provision by Third Party
(E.g. UPMR Violation Allegation Info. Provision Form, etc.)

(iii) No. of Investigations Pertaining to Info. Provisions
323 (2017)
310 (2016)
301 (2015)

No. of Orders for Action
50 (2017)
27 (2016)
13 (2015)

Final Decision of CAA
Orders for Action
(§7, UPMR Act)

Percentage of Info. Provision Related Cases out of all Investigations
(iii) ÷ ((i)+(ii)+(iii))
76.0%(2017)
87.3%(2016)
70.0%(2015)

* Compiled by: Koji SUGIMURA (Attorney-at-law, Japan)
Statistics data adapted from: CAA, "Report on UPMR implementation and measures geared at normalization of Representations etc. - 2017 Edition", (June 2018).
Note: The data items do not necessarily have strict correspondence relationships.
For example, an investigation launched in a certain year would not necessarily be subjected to an Order for Action within the same year
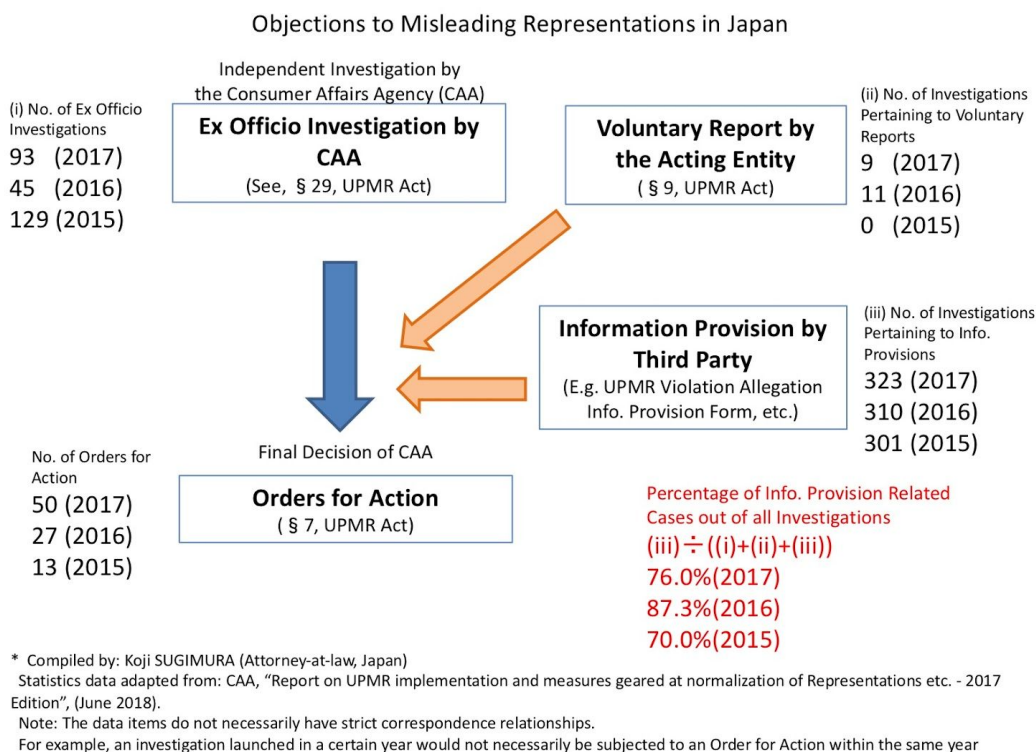
Fig. 12 Utilization of objections to regulate misleading representations under the Act against Unjustifiable Premiums and Misleading Representations of Japan

F. Practical Suggestions

The above discussion from from three perspectives -- (i) a social network applying graph theory; (ii) empirical discussion; and (iii) comparison with the legal practices utilizing objections from citizens and industries to achieve better results -- well supports our proposal that, for the purpose of improving the quality of information disseminated by Content Curation Websites (CCWs) in a practical way, we can utilize the objections or negative comments raised against such information by ordinary citizens or professionals independent from the editors and distributors of CCWs. However, we do not intend to undermine the meaning of pre-screening of information, and that CCWs can contribute to improving the information disseminated by peer CCWs and/or Social Network Services (hereinafter, "SNSs") by means of the curation and dissemination of such objections or comments.

Of course, the applicability of our proposal will be limited depending on the actual situations of respective CCWs and information disseminated thereby. However, it should be noted that lawyers who have expertise in utilizing third party's objections and negative comments in the existing legal system. So, we expect that lawyers can well guide industries to improve information disseminated through the society.