

Date: Thu, 30 May 2019 11:38:07 +0200

From: nkb@algorithmwatch.org

To: ■■■■■■■■@fb.com

Cc: ■■■■■■■■@fb.com, ms@algorithmwatch.org

Dear ■■■■■,

As you will be aware, IEEE published its guidelines for Ethically Aligned Design of A/IS on 25 March 2019. We read them with great interest, especially the General Principles.

IEEE's influence in the world of engineering cannot be overstated. With more than 400,000 members worldwide, it is the largest organisation of its kind, and some of Facebook's directors (e.g. Geoffrey Zweig and Sean-Lee Hsien-Hsin) and senior managers are IEEE fellows or senior members, and some may well have participated in the creation of the report. We would therefore expect that Facebook will not only note but welcome IEEE's General Principles and adhere to them.

Of particular interest are the IEEE guidelines 5,6 and 7:

5. Transparency: The basis of a particular A/IS decision should always be discoverable.
6. Accountability: A/IS shall be created and operated to provide an unambiguous rationale for all decisions made.
7. Awareness of Misuse: A/IS creators shall guard against all potential misuses and risks of A/IS in operation

Several examples show beyond any doubt that Facebook is not currently adhering to them.

Point 5 (Transparency) requires that the basis of a particular A/IS decision be "discoverable". On Facebook and Instagram, the reasons why a particular item is shown on a user's feed are all but discoverable. Facebook's "Why You're Seeing This Post" feature explains that "many factors" are involved in the decision to show a specific item. The help page purposed to clarify the matter fails to do: Many sentences there use opaque wording

(users are told that “some things influence ranking”, for instance) and the basis of the decisions governing the news feed is impossible to find.¹

Instagram makes even less efforts at expliciting the basis for the decisions governing its users feed. It states that it “uses different ways ... to determine the order of posts”.² None of the information given allows for reproducibility.

Transparency is all the more important as the items displayed in the feeds of Facebook users are mentioned as the key drivers behind some social unrest, such as the Yellow Vests in France, which, some argue, became popular only after Facebook changed its news feed algorithm.³

Point 6 (Accountability) requires autonomous systems to “provide an unambiguous rationale for all decisions made.” However, users of Facebook are presented with advertisements without being informed of the rationale that led to their being chosen for a particular message. The “why am I seeing this ad?” feature provides very fragmentary information. In particular, that it states that an ad be shown “based on [one's] activity on Facebook” without further details is antithetical to the requirement for explicitness.

Point 7 (Awareness of Misuse) requires that creators of automated systems “guard against all potential misuses” of their operations. While Facebook's advertising policy can be said to implement this point, in practice, the company fails to enforce it in its advertising validation process, even when the steps required to prevent misuse are technically straightforward. Cloaking, for instance, the practice of displaying different messages based on the IP address of the browser, was said to be “addressed” in 2017 by Rob Leathern, Facebook's product management director.⁴ In 2019, the practice is still rampant on the platform, exposing users to scams.⁵

¹ What influences the order of posts in my News Feed? (2019) Facebook. Archive at <https://i.imgur.com/ijpLpoD.png>

² How does Instagram determine the order of posts in my feed? (2019) *Instagram*. Archived at <http://web.archive.org/web/20190420192946/https://help.instagram.com/1066482030107872>

³ Seibt, Sébastien (2018). *Gilets jaunes : de l'algorithmie Facebook à la rue*, France24. Archived at <http://web.archive.org/web/20190524150721/https://www.france24.com/fr/20181203-reseaux-sociaux-gilets-jaunes-algorithme-facebook-diffusion-groupes-colere>

⁴ Leathern, Rob and Chang, Bobbie (2017). *News Feed FYI: Addressing Cloaking So People See More Authentic Posts*, Facebook Newsroom. Archived at <http://archive.fo/rlhaj>

⁵ Wordpress cloaking plugins sell for less than \$100 and their use is attested regularly, for instance in this 2019 investigation: <https://www.youtube.com/watch?v=gbYdQOde6EU>

We therefore would like to hear from you how Facebook intends to prioritise implementing the recommendations from the world's most important engineering association:

1. What measures is Facebook undertaking to ensure principles 5, 6 and 7 will be observed throughout the organisation or its subsidiaries or subcontractors, from the conception to the evaluation and ongoing monitoring of its systems and products?
2. Has Facebook published or will Facebook publish the basis and rationale for its automated systems in a way that satisfies the IEEE's General Principles? If so, please point us to specific documents.
3. Will Facebook address any of the specific issues listed above (transparency of news feeds, accountability towards users regarding the choice of advertisement shown to them, awareness of misuse by some advertisers)? If so, when and how?
4. If you are not planning to make changes in response to IEEE's recommendations, why not?

We contacted other organisations, such as Google and Twitter, and plan to publish responses on our website. Your contribution will help strengthen transparency in this field which will be crucial for the future development of our digital society.

We look forward to hearing from you.

Best wishes,

AlgorithmWatch

Date: Mon, 17 Jun 2019 09:35:04 +0200

From: nkb@algorithmwatch.org

To: ■■■■■■■■@google.com

Cc: ■■■■■■■■@google.com, ■■■■■■■■@google.com, ms@algorithmwatch.org

Dear ■■■■■■■■,

As you will be aware, IEEE published its guidelines for Ethically Aligned Design of A/IS on 25 March 2019. We read them with great interest, especially the General Principles.

IEEE's influence in the world of engineering cannot be overstated. With more than 400,000 members worldwide, it is the largest organisation of its kind, and several high-ranking Googlers, such as Vint Cerf, are members of the IEEE and some may well have participated in the creation of the report. We would therefore expect that Google will not only note but welcome IEEE's General Principles and adhere to them.

Of particular interest are the IEEE guidelines 5,6 and 7:

5. Transparency: The basis of a particular A/IS decision should always be discoverable.
6. Accountability–A/IS shall be created and operated to provide an unambiguous rationale for all decisions made.
7. Awareness of Misuse: A/IS creators shall guard against all potential misuses and risks of A/IS in operation.

We focus on these three principles because we view them and their interplay as absolutely essential to ensure that algorithms play a positive role in society: without knowing the basis and rationale for a decision, society cannot guard against its potential dangers.

Several examples show beyond any doubt that Google is not currently adhering to them.

Point 5 (Transparency) requires that the basis of a particular A/IS decision be “discoverable”. Google Search's autocomplete algorithm regularly made headlines in the

past after it associated (or failed to associate) public figures with various slurs.^{6,7} While the issues were solved in a timely fashion, Google always referred to its autocomplete decisions as purely algorithmic.⁸ However, to the best of our knowledge, no information was ever released regarding the reasons that led to the failures of the autocomplete feature and the details of how it operates. A help page simply states that “The [autocomplete] algorithm is based on several factors,”⁹ which falls far short of any level of transparency that would allow for discoverability.

Point 6 (Accountability) requires autonomous systems to “provide an unambiguous rationale for all decisions made.” However, Google’s advertising systems do not provide an unambiguous rationale when explaining why a particular advert was shown to a user. A click on “Why This Ad” states that an “ad *may* be based on *general* factors ... [and] *information* collected by the publisher”¹⁰ (our emphasis). Such vagueness is antithetical to the requirement for explicitness.

Point 7 (Awareness of Misuse) requires that creators of automated systems “guard against all potential misuses” of their operations. Since at least 2016, YouTube’s recommendation engine, which is automated,¹¹ has been widely criticized for its propensity to accelerate the spread of falsehoods.^{12,13} A recent investigation by Bloomberg’s Mark Bergen shows that several Googlers took up the matter to their managers, only for their concerns to be brushed aside under the pretext that viewing time was the main goal to pursue.¹⁴ In other words, guarding against misuse was much less a priority than viewing time.

⁶ Graves, Allison (2016). *Did Google adjust its autocomplete algorithm to hide Hillary Clinton's problems?* PunditFact. Archived at <http://archive.fo/rSaGp>

⁷ Lischka, Konrad (2013). *Urteil zu Google-Algorithmus: Mehr Macht für die Verleumdeten*, Der Spiegel. Archived at <http://archive.fo/VoYyK>

⁸ See Konrad, *op. cit.*, for the 2013 case in Germany and Yehoshua, Tamar (2016) *Google Search Autocomplete*, archived at <http://archive.fo/0Qt1m>, for the 2016 case.

⁹ *How search predictions are made* (2019). Archived at <http://archive.fo/xcKPX>

¹⁰ *How Google shows you ads* (2019) Archived at <https://i.imgur.com/BJyq4EZ.png>

¹¹ Covington, P., Adams, J., & Sargin, E. (2016). Deep neural networks for YouTube recommendations, *Proceedings of the 10th ACM conference on recommender systems*.

¹² Tufekci, Zeynep (2016). *YouTube, the Great Radicalizer*, New York Times. Archived at <http://archive.fo/E5Gvw>

¹³ Nicas, Jack (2018). *How YouTube Drives People to the Internet’s Darkest Corners*, Wall Street Journal. Archived at <http://archive.fo/tp8gP>

¹⁴ Bergen, Mark (2019). *YouTube Executives Ignored Warnings, Letting Toxic Videos Run Rampant*, Bloomberg. Archived at <http://archive.fo/qHH6p>

We therefore would like to hear from you how Google intends to prioritise implementing the recommendations from the world's most important engineering association:

1. What measures are you undertaking to ensure principles 5, 6 and 7 will be embedded across your organisation, from conception to evaluation and ongoing monitoring of systems and products at Google LLC and its subsidiaries?
2. Have you published or will you publish the basis and rationale for the algorithms in use at Google LLC and its subsidiaries?
3. Will Facebook address any of the specific issues listed above (transparency of the autocomplete feature, accountability towards users regarding the choice of advertisement shown to them, awareness of misuse on YouTube)? If so, when and how?
4. If you are not planning to make changes in response to IEEE's recommendations, why not?

We contacted other organisations, such as Facebook and Twitter, and plan to publish responses on our website. Your contribution will help strengthen transparency in this field which is crucial for the future development of our digital society.

We welcome your response in advance, and we look forward to hearing from you.

Best wishes,

AlgorithmWatch

Date: Thu, 30 May 2019 11:45:17 +0200

From: nkb@algorithmwatch.org

To: ■■■■■■■■@twitter.com

Cc: ■■■■■■■■@twitter.com, ms@algorithmwatch.org

Dear ■■■■■■■■,

As you will be aware, IEEE published its guidelines for Ethically Aligned Design of A/IS on 25 March 2019. We read them with great interest, especially the General Principles.

IEEE's influence in the world of engineering cannot be overstated. With more than 400,000 members worldwide, it is the largest organisation of its kind, and some of Twitter's engineers are members. Twitter employees may well have participated in the creation of the report.

Of particular interest are the IEEE guidelines 5,6 and 7:

5. Transparency: The basis of a particular A/IS decision should always be discoverable.
6. Accountability–A/IS shall be created and operated to provide an unambiguous rationale for all decisions made.
7. Awareness of Misuse: A/IS creators shall guard against all potential misuses and risks of A/IS in operation.

We focus on these three principles because we view them and their interplay as absolutely essential to ensure that algorithms play a positive role in society: without knowing the basis and rationale for a decision, society cannot guard against its potential dangers. Several examples show beyond any doubt that Twitter is not currently adhering to them.

Point 5 (Transparency) requires that the basis of a particular A/IS decision be “discoverable”. Twitter has a history of abusively blocking accounts,¹⁵ including accounts of

¹⁵ Klöckner, Jürgen (2019). "Verliert Glaubwürdigkeit": Twitter nach Anhörung im Bundestag weiter in der Kritik, Focus Online. Archived at <http://archive.fo/7CBOW>

major institutions which have been encouraged to see Twitter as a primary channel for their public statements. While Twitter does not explain how it comes to such decisions, some talk of semi-automated processes¹⁶ and it is very likely that A/IS are involved. As it stands, it is impossible to discover the basis for these automated decisions.

Point 6 (Accountability) requires autonomous systems to “provide an unambiguous rationale for all decisions made.” Twitter’s timeline, starting in 2016, shows users content based on deep learning.¹⁷ However, the reasons why a particular tweet is shown to a user remain opaque. Users are told that they “may see ... content powered by *a variety of signals*”¹⁸ (our emphasis). This falls far short of providing an unambiguous rationale explaining the choice of tweets in a user’s timeline.

We therefore would like to hear from you how Twitter intends to prioritise implementing the recommendations from the world's most important engineering association.

In particular, we would like you to answer the following questions:

1. What measures are you undertaking to ensure principles 5 and 6 will be embedded across your organisation, from conception to evaluation and ongoing monitoring of systems and products?
2. Have you published or will you publish the basis and rationale for the algorithms in use at Twitter?
3. Will Twitter address any of the specific issues listed above (transparency of the blocking of accounts, accountability towards users regarding the tweets shown to them)? If so, when and how?
4. We understand that the Machine learning Ethics, Transparency and Accountability (META) team of the Cortex department will address some of the issues listed above. Could you detail the team’s size, budget, first priorities and geographic coverage?
5. If you are not planning to make changes in response to IEEE’s recommendations, why not?

¹⁶ Dieter Janecek in Klöckner, *op. cit.*

¹⁷ Koumchatzky, Nicolas ; Andryeyev, Anton (2017). *Using Deep Learning at Scale in Twitter’s Timelines*, Twitter Insights. Archived at <http://archive.is/gy0vl>

¹⁸ *About your Twitter timeline* (2019). Archived at <http://archive.fo/MYOf8>

We contacted other organisations, such as Facebook and Google, and plan to publish responses on our website. Your contribution will help strengthen transparency in this field which is crucial for the future development of our digital society.

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