Appendix

Overview of pages used for the content analysis

Page	Page Followers	discipline	type
氣象達人彭啟明	257088	STEM	Individual scientist
陳建仁 Chen Chien-Jen	241099	medicine and health	Individual scientist
Puma Shen	98557	social science	Individual scientist
菜市場政治學	85706	social science	science communication collective
巷仔口社會學	56836	social science	science communication collective
陳宜民教授	56223	medicine and health	Individual scientist
招名威教授 毒理威廉	51459	medicine and health	Individual scientist
芭樂人類學	47413	social science	science communication collective
歷史學柑仔店	33863	humanities	science communication collective
謝伯讓的腦科學世界	25838	medicine and health	Individual scientist
葉教授的國際事務學院	22292	social science	Individual scientist
林志潔 LIN Chih-Chieh - Carol Lin	17798	Law	Individual scientist
植物生理學	17775	STEM	Individual scientist
台大教授孫中興	13680	social science	Individual scientist
魏崢心臟外科醫師	10982	medicine and health	Individual scientist
遠得要命的數學王國	9947	STEM	Individual scientist
謝明哲教授-台灣保健營養開拓者	9410	medicine and health	Individual scientist
吳焜裕教授	8497	medicine and health	Individual scientist
李筱峰教授專頁	7772	humanities	Individual scientist
陳瑞麟的科哲絮語	7166	humanities	Individual scientist
王道一 Joseph Tao-yi Wang	6654	social science	Individual scientist
法學叫獸的 x 話群組	4067	Law	science communication collective
地理角 GeoCorner	3721	social science	Individual scientist

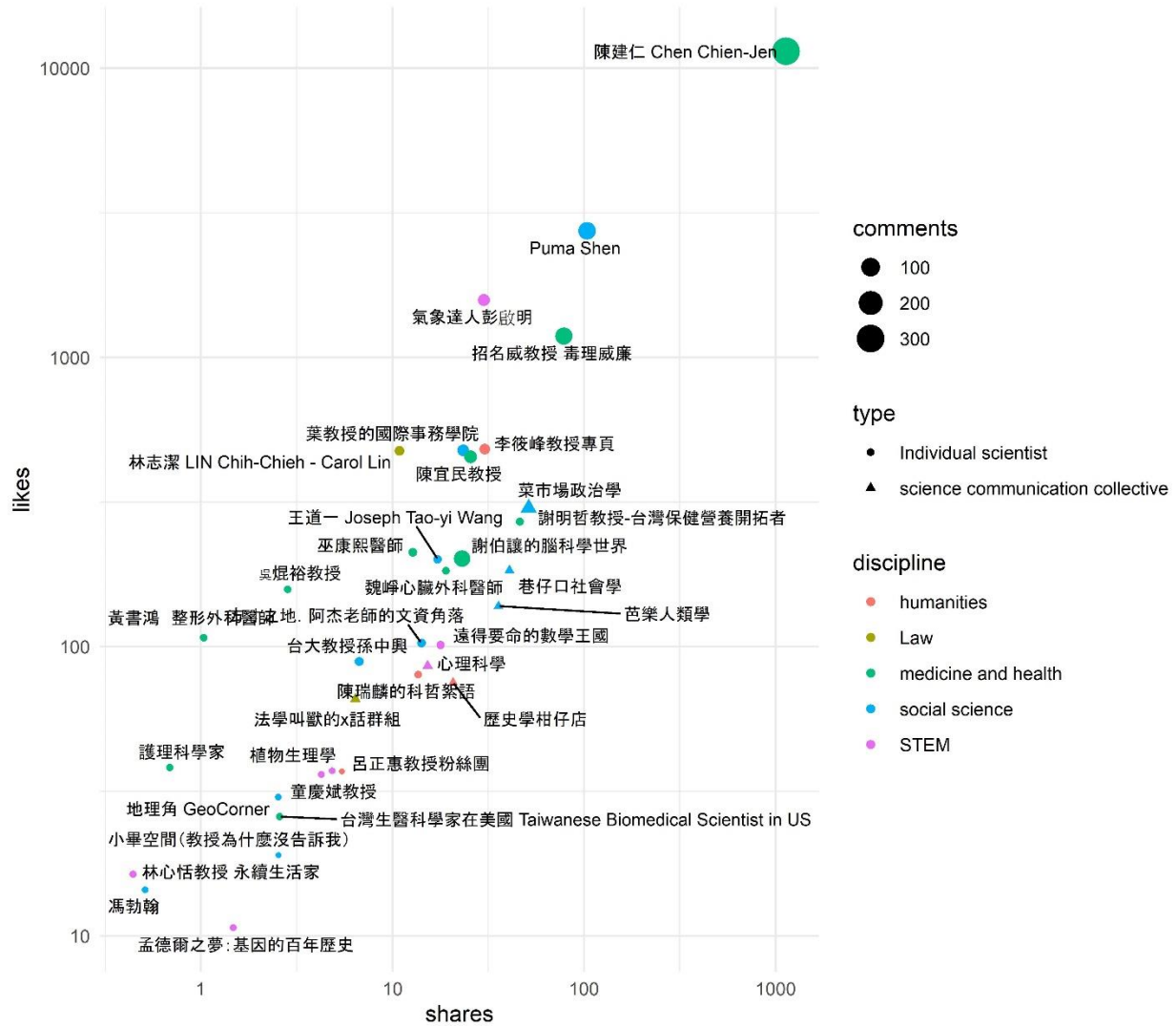|			
心理科學	3550	STEM	science communication collective
巫康熙醫師	2623	medicine and health	Individual scientist
護理科學家	2511	medicine and health	Individual scientist
台灣生醫科學家在美國 Taiwanese Biomedical Scientist in US	2439	medicine and health	Individual scientist
方寸之地‧阿杰老師的文資角落	2334	social science	Individual scientist
小畢空間（教授為什麼沒告訴我）	1524	social science	Individual scientist
馮勃翰	1208	social science	Individual scientist
黃書鴻　整形外科醫師	1053	medicine and health	Individual scientist
呂正惠教授粉絲團	816	humanities	Individual scientist
林心恬教授 永續生活家	719	STEM	Individual scientist
童慶斌教授	524	STEM	Individual scientist
孟德爾之夢：基因的百年歷史	443	STEM	Individual scientist

Figure: All pages used for our analysis with the average number of shares, likes, and comments. The shape indicates whether it is an individual scientist or a collective of scientists. Colour indicates to which discipline the page belongs. The x and y axis are both shown as a log scale.

Codebook

Our unit of analysis is Facebook posts. When coding, we consider all visible information. This also includes the content in pictures. If it is a video, ignore the content of the video but code it, if there is text in the post - focus on the text itself.

If the post is a shared post or only includes an URL without any additional text from the page owner, code 3 for the first variable and jump to the next post.

Science-related post
-post is science-related

Does the post have any connection to any science-related issue? It can also be personal, but there still has to be some connection to a scientific topic, institution, clinical trials, etc. We code' no' if there is no reference to anything science-related. Reference to science has to be explicit.
"[1] 'no'",
"[2] 'yes'",
"[3] 'post cannot be coded - next'"

Only code the following section if there a science-related issue is covered in the post
Use of data
-use of data/statistics
Includes any form of science-related statistic (incl. percentage etc.)
"[1] 'no'",
"[2] 'yes'",

-use of infographic or data visualization
 "[1] 'no'",
"[2] 'yes'",

-use of original scientific source
Is there a reference to a paper published in an academic journal/ to an academic book? Even just mentioning the journal name is enough. E.g., "New study in the journal of…. shows…"
"[1] 'no'",
"[2] 'yes'"

Communication style

-humorous
If a meme is used or any other obvious form of humor. Just one single expression is not enough - it should be at least one sentence. It can also be sarcasm. Check also pictures whether any visual memes are used.
"[1] 'no'",
"[2] 'yes, single expression'"
"[3] 'yes, major share of post'"
Note: 3 and 2 were later merged to '2 yes'.

-scaremongering or fear
If the post tries to scare people - e.g., climate change, disinformation, etc. Has to be at least one sentence with a strong expression that includes scaremongering language.
"[1] 'no'",
"[2] 'yes, single expression'"
"[3] 'yes, major share of post'"
Note: 3 and 2 were later merged to '2 yes'.

-engagement-related audience interaction

The audience is directly addressed in the post. E.g., OP asks about opinions, gives them advice, etc. The reference to the audience has to be explicit. Engagement-related means that the post has to mention "liking", "sharing", or "commenting" as specific actions.
"[1] 'no'",
"[2] 'yes'"

-Audience call to action
We code a call to action if there is a direct call to do something. We focus only on calls that relate to something in connection with the page (page owner). The call to action has to be explicit. Just posting an URL without any further call is not a call to action. The call to action addresses the audience (can also be implicit). If the government or institutions are mentioned, we do not code it as a call to action. The audience also includes citizens.
"[1] 'no'",
"[2] yes"

-promotional
If a product, service, event, or specific publication is promoted. Does not have to be commercial, can also be about any science-related issue (e.g., lecturer, talk, podcast, journal paper).
"[1] 'no'",
"[2] 'self'",
"[3] 'other'",
Note: 3 and 2 were later merged to '2 promotional'.

-Privatization (later relabeled as personal self-disclosure)
Personal stuff is shared from private life. That can include travel, sports, hobbies, family, etc.
"[1] 'no'",
"[2] 'yes'",

-opinion
A post has an opinion if the page owner expresses an opinion about any political or science-related issue. The opinion can be science-related or not science-related. Opinion can be about any political issue - can also include long-term issues.
"[1] 'no'",
"[2] 'opinion'",

-sentiment
-3=negative; 3=positive
-complexity
1=extremely simple; 10=extremely complex

-comment
If you have any additional comments, leave them here (e.g., post we should use as an example later, etc.)