

Supplementary Data file for Science in the social media age: Profiles of science blog readers

The follow sections provide supplementary data for “Science in the social media age: Profiles of science blog readers” in JMCQ.

Supplementary Methods & Materials

Survey Questionnaire

1. Please select the blog for which you are currently filling out this survey from the box below. The blogs are in alphabetical order by blog name. [drop-down menu]

- ACGT (Keith Bradnam's blog)
- Alien Plantation (Kathryn Turner's blog)
- The Artful Amoeba (Jennifer Frazer's blog)
- Athene Donald's blog on Occam's Typewriter
- Astroquizzical
- Biodiversity in Focus (Morgan Jackson's blog)
- Cause Science
- Christine the Astrophysicist
- Control Freaks (Andrew and Brian's blog)
- Core Genomics (James Hadfield's blog)
- Critical Angle (Andy Skuce's blog)
- Culture of Chemistry (Michelle Francel's blog)
- Curious Meerkat (Claire Asher's blog)
- Endless Forms Most Beautiful (Kim Moynahan's blog)
- The Extremo Files (Jeffrey Marlow's blog)
- The Flying Trilobite (Glendon Mellow's blog)
- Heather Doran's blog
- History of the Earth Calendar (Richard Gibson's blog)
- Ice Doctor (Victoria Metcalf's blog)
- Inkfish (Elizabeth Preston's blog)
- Knoepfler Lab Stem Cell Blog
- Lunchbox Science (Maren Hunsberger's blog)
- Nanoscéal
- Oakland Geology (Andrew Alden's blog)
- Ocean of Hope (@protectoceans's blog)
- PLOS Public Health Perspectives Blog
- Pseudoplocephalus (Victoria Arbour's blog)
- Roots of Unity (Evelyn Lamb's blog)
- Sciencemimicsart (Jenni Barclay's blog)
- Science & Enterprise
- Skeptical Science
- Southern Fried Science

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- Symbiartic (at Scientific American)
- The Tenacious Telomere (Susan Swanberg's blog)
- Tree Town Chemistry (Jimmy Branch's blog)
- Uganda Sciegirl (Esther Nakkazi's blog)
- Uncertain Principles (Chad Orzel's blog)
- Vintage Space (Amy Shira Teitel's blog)
- Volcan01010 (John Stevenson's blog)
- What's in a Brain? (Rose Hendricks's blog)

2. Have you completed this same readership survey previously for a science blog other than the one you selected above? [yes/no]

[If YES: Only show blog-specific questions]

Blog-specific Questions. The following questions refer to your patterns of engagement with the blog for which you are filling out this survey, i.e. the blog that you selected above.

3. How often do you read this blog? (This could be on the blog site itself or through another social media dashboard or RSS reader. Just estimate how frequently you read the content of this blog.)
 - Daily
 - 2-3 times a week
 - About once a week
 - 2-3 times a month
 - About once a month
 - Every few months
 - A few times a year
 - I've only read 1 or 2 posts on this blog
4. [if only 1 or 2 posts] How did you first learn about [this blog]? How did you come to read it the first time?
5. [if only 1 or 2 posts] What motivated you to read the post(s) from this blog that you have read?
6. [if a few times a year or more] How, primarily, do you learn of new posts/updates on [this blog]? (select all that apply)
 - I subscribe to the blog via e-mail
 - I subscribe to the blog via a subscription/curation tool such as Feedly or an RSS feed service
 - I visit the blog site directly to learn of new posts
 - I learn of new posts/updates via Twitter
 - I learn of new posts/updates via Facebook
 - I learn of new posts/updates via Tumblr
 - I learn of new posts/updates via Google+

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- I learn of new posts/updates via Instagram
 - I learn of new posts/updates via another social media platform
 - Other [please describe]
7. [if a few times a year or more] How often do you share links to or content from [this blog] on your personal social media channels (for example, sharing on Facebook, reblogging on Tumblr, tweeting links to blog posts, etc.)? [Never, rarely, occasionally / sometimes, often, very often / always]
8. **Blog reading motivations and perceptions:** The following questions refer to your motivations to read / engage with [this blog]. Please indicate your level of agreement with the following statements: I read/use this blog... [strongly disagree, disagree, neither agree nor disagree, agree, strongly agree]
- to keep up with current events in science
 - to keep up with scientific research
 - for information I don't find in traditional news media
 - to check the accuracy of other media
 - for information for my own blog
 - to feel involved in an online community
 - for the author(s)'s perspective
 - for expert opinions on science issues of the day
 - because of the good writing
 - for advice or emotional support
 - for entertainment
 - because it stimulates my curiosity
 - as an educational tool, to increase my scientific knowledge
 - to research for work or school
 - because my friends/colleagues do
9. Are there other reasons not listed above for why you continue to read updates from [this blog]? Please describe them below.
10. Please indicate your level of agreement with the following statements, which refer to your perceptions of [this blog]. [strongly disagree, disagree, neither agree nor disagree, agree, strongly agree]
- This blog is overly technical
 - I intend to continue reading/using this blog in the future
 - I encounter views opposing my own when reading/using this blog
11. **Blogging Roles:** The following questions refer to your perceptions of the ROLES that the author(s) of [this blog] engage in. Please indicate how often, in your opinion, the author(s) of this blog engage in the following roles when creating content for this blog. If you are unable to answer because you don't understand the description of the role, please check "I'm not sure." However even if you don't read this blog often, please try to answer these questions

according to the posts on this blog that you HAVE read. [Never, rarely, sometimes, often, always]

- [Explainer / science communicator] The author(s) of this blog explain or translate scientific information in ways most readers can understand
- [Public intellectual] The author(s) of this blog use their specialized knowledge to synthesize and comment on a range of complex information about science and its social implications
- [Agenda-setter] The author(s) of this blog identify and call attention to important areas of research, trends and issues
- [Watchdog] The author(s) of this blog hold scientists, scientific institutions, industry and policy-orientated organizations to scrutiny
- [Investigative reporter] The author(s) of this blog carry out in-depth journalistic investigations into scientific topics of public concern
- [Civic educator] The author(s) of this blog write/talk about the methods, aims, limits and risks of scientific work
- [Curator] The author(s) of this blog gather science-related news, opinion and/or commentary and present it in one place, for example through link-fests
- [Convener] The author(s) of this blog connect and bring together scientists and various non-specialist publics to discuss science-related issues in public, either online or physically
- [Advocate] The author(s) of this blog report on behalf of an issue or idea, such as sustainability or environmentalism.
- [Media critic] The author(s) of this blog take news reports about science and show where they were right, where they were wrong, what else is important to the conversation, etc.

Default Question Block. In this short section, you will answer general questions related to your media use, your perceptions of scientists and your scientific knowledge. These questions are not tied to any particular blog.

[If respondent hasn't taken this survey before for another blog.]

12. How often do you read news stories (stories in newspapers, in news magazines, on online news sites, etc.) related to science? [Never, rarely, occasionally / sometimes, often, very often / always]

13. How often do you actively seek out science-related information online? (for example, searching or browsing for particular science-related information online) [Never, rarely, occasionally / sometimes, often, very often / always]

14. Please enter the number "1" in front of the item below that is your primary source of science-related information. Enter the number "2" in front of the item that is your secondary source of science-related information.

- Traditional print news media (newspapers and magazines)
- Online news media (online newspapers and magazines)
- Books
- Television

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- Radio
- Podcasts
- Blogs
- Facebook
- Twitter
- Tumblr
- Reddit
- YouTube
- Email newsletters or listservs
- Scientific organization or government websites
- Wikipedia
- Academic journals
- Family / friends
- Other (please indicate)

15. Do you follow science blogs other than [this blog]? [yes/no]

16. [If yes] Approximately how many other science blogs do you follow or read on at least an occasional basis?)

- 1-2
- 3-5
- 6-10
- More than 10
- More than 20

17. Please list up to three other science blogs (blog name and/or blogger name) that you read on a regular basis. [open-ended]

18. How often do you create your own science-related social media content for any social media site?

- Daily
- 2-3 times a week
- About once a week
- 2-3 times a month
- About once a month
- Every few months
- Less often/Never

19. [If more than “less often/never”] Do you...

- Maintain a Twitter account where you post science-related material at least occasionally? [yes/no]
- Maintain/write a science-related blog? [yes/no]
- Create science-related videos? [yes/no]
- Create science-related visual content (e.g. photographs, artwork)? [yes/no]
- Contribute answers to science-related questions on sites/forums like Reddit, Quora, etc.? [yes/no]

20. Do you plan on creating science-related social media content in the future? [yes, maybe, no]

21. On the scales below, please indicate your feelings about scientists. Select the circle between the adjectives which best represents your feelings about scientists. Selecting the circle closest to an adjective indicates you have very strong feelings. Selecting the circle in the middle indicates you are undecided.

- Sociable – Unsociable
- In touch with the average person – Out of touch
- Untrustworthy – Trustworthy

22. Please participate in the following short science knowledge quiz:

- Lasers work by focusing on sound waves (true/false)
- Antibiotics kill viruses as well as bacteria (true/false)
- All radioactivity is man-made (true/false)
- It is the father's gene that decides whether the baby is a boy or girl (true/false)
- Electrons are smaller than atoms (true/false)
- Oxygen makes up most of the Earth's atmosphere (true/false)
- Water boils at higher temperatures in the mountains than at sea level (true/false)

Demographics. In this final section we will ask you a few demographic questions. Thank you, only a few more questions!

23. What is your sex?

- Male
- Female
- Other [open-ended]
- Prefer not to answer

24. What is your age?

- Under 15 years
- 15-19 years
- 20 to 24 years
- 25 to 29 years
- 30 to 34 years
- 35 to 39 years
- 40 to 49 years
- 50 to 59 years
- Age 60 or older

25. Please indicate your ethnicity (i.e. peoples' ethnicity describes their feeling of belonging and attachment to a distinct group of a larger population that shares their ancestry, colour, language or religion)

- Caucasian
- Latino/Hispanic
- Middle Eastern

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- African
- Caribbean
- South Asian
- East Asian
- Mixed
- Other
- Prefer not to answer

26. Where do you currently reside?

- United States
- Canada
- United Kingdom
- Europe
- Other

27. What is the highest degree or level of education you have completed?

- Completed some high school
- High school graduate - high school diploma or the equivalent
- Completed some college
- Associate degree (for example: AA, AS)
- Bachelor's degree (for example: BA, BS)
- Completed some postgraduate
- Master's degree (for example: MA, MS, MEng, MBA)
- Doctorate degree (for example: PhD)
- Professional degree (for example: MD, DDS, DVM)

28. [If at least an associate degree] Do you have a degree in a science-related field? [yes/no]

29. What best describes your current occupational status? (Select all that apply)

- Employed for wages
- Self-employed/Freelance
- Student (high school / undergraduate)
- Student (graduate)
- Military
- Retired
- Other
- Prefer not to answer

30. Are you interested in pursuing a career in science? [yes, no, maybe, I am already pursuing or have pursued a career in science)

Supplementary Data

Table S1. Topline Demographic Descriptives.

Variable	n (%)
<i>Age</i>	
15-19	50 (1.7%)
20-24	170 (5.8%)
25-29	327 (11.2%)
30-34	355 (12.2%)
35-39	313 (10.7%)
40-49	478 (16.4%)
50-59	486 (16.7%)
Age 60+	518 (17.8%)
<i>Employment Status</i>	
Employed for wages	322 (49.5%)
Self-employed/Freelance	78 (12%)
High school/undergrad	25 (3.8%)
Grad student	55 (8.5%)
Retired	89 (13.7%)
<i>Education</i>	
Some high school	6 (.9%)
High school graduate	13 (2%)
Some college	68 (10.5%)
Bachelor's degree	122 (18.8%)
Some postgraduate	58 (8.9%)
Master's degree	151 (23.2%)
Doctorate	181 (27.8%)

Note: Where percentages do not add up to 100%, remaining percentages represent system missing values or “prefer not to answer” responses.

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Table S2. Correlation Matrix for Blog Use Motivation Items

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 to keep up w events in sci														
2 to keep up with research	.62**													
3 for info I don't find in trad media	.27**	.27**												
4 to check accuracy of media	.33**	.4**	.2**											
5 for info for my own blog	.09**	.12**	.1*	.26**										
6 to feel involved	.14**	.12	.12**	.24**	.36**									
7 for the author's perspective	.005	-.04*	.16**	.06**	.03	.18**								
8 for expert opinions	.48**	.47**	.25**	.39**	.1**	.17**	.16**							
9 because of the good writing	.07**	.05*	.17**	.05*	.04*	.16**	.36**	.19**						
10 for entertainment	-.06**	-.09**	.06**	-.14**	-.01	.07**	.16**	-.12**	.23**					
11 for advice / support	.09**	.003	.07**	.29**	.3**	.41**	.2**	.16**	.13**	.02				
12 as an educational tool	.35**	.51**	.36**	.22**	.09**	.06**	.003	.27**	.15**	.05*	-.1**			
13 to research for work / school	.22**	.29**	.11**	.31**	.35**	.31**	.08**	.23**	.09**	-.1**	.31**	.19**		
14 bc my friends/colleagues do	.08**	.11**	.04	.24**	.34**	.36**	.18**	.11**	.15**	.08**	.33**	.05*	.33**	
15 bc it stimulates my curiosity	.14**	.16**	.27**	.02	-.004	.1**	.14**	.09**	.29**	.3**	-.01	.34**	.004	.04

Table S3. Correlation Matrix for Blog Use Motivation Factors

	1	2	3	4
1 Unique Info Seeking				
2 Community Seeking	.306**			
3 Ambiance	.147**	.220**		
4 Entertainment	.063**	.036	.301**	