

Appendix

Facebook-primary pages included in the study

1. [IFLScience](#): science Facebook page founded in March 2012 by British blogger Elise Andrew
2. [Health Digest](#): self-described “wellness” page for the website [HealthDigezt.com](#) that offers food and health tips
3. [David Wolfe](#): entrepreneur and author known for promoting raw foods and natural health treatments
4. [ScienceAlert](#): science website founded in 2007 based in Australia with a [team of writers and editors](#)
5. [Hashem Al-Ghaili \(@ScienceNaturePage\)](#): page run by a science communicator based in Germany that is aimed at educating “the public through social media and video content”
6. [Interesting Engineering](#): media company aimed at “connecting likeminded engineers around the globe”
7. [Smart is the New Sexy \(@enjoy.science\)](#): general science page owned by [TheSoul Publishing](#), which also runs sites such as [5-Minute Crafts](#) and [Bright Side](#)
8. [Dr. Mehmet Oz](#): surgeon and author who has hosted a daily television show since 2009
9. [Bill Nye](#): TV host and author commonly known as “the Science Guy” who produced a series for Netflix in 2017
10. [Neil deGrasse Tyson](#): astrophysicist, author and head of the Hayden Planetarium in New York who hosts the radio show StarTalk
11. [Stephen Hawking](#): theoretical physicist, author and former Director of Research at the Centre for Theoretical Cosmology at the University of Cambridge
12. [ScienceDump](#): general science page that serves as a curator of news that aims to “[deliver science](#) in a fun and entertaining way to millions every week”
13. [mindbodygreen](#): a lifestyle media brand founded by Jason Wachob that takes “a [360 degree](#) approach to wellness”
14. [Daily Health Tips](#): page run by [healthcaremagic.com](#), a company that claims to be the [largest](#) paid health Q&A site in the world
15. [Dr. Michio Kaku](#): theoretical physicist, professor at [The City College of New York](#) and author who makes frequent television appearances

Multiplatform pages included in the study

1. [National Geographic](#): founded in 1888, the non-profit National Geographic Society published its first magazine issue that year and currently runs its own television channel
2. [Discovery](#): page for the Discovery Channel, a cable station founded in 1985 that has focused on popular science and reality programming, owned by Discover Communications Inc.
3. [Animal Planet](#): cable television channel owned by Discovery Communications Inc. launched in 1996
4. [NASA](#): page for the National Aeronautics and Space Administration, a U.S. government agency
5. [NASA Earth](#): page run by NASA that “uses the vantage point of space to increase our understanding of our home planet”
6. [Women’s Health](#): founded in 2005, the magazine focuses on nutrition, health and lifestyle stories for women
7. [Psychology Today](#): magazine that is devoted to new developments in the field of psychology first launched in 1967
8. [Science Channel](#): cable television channel owned by Discovery Communications Inc. that features shows on popular science
9. [MythBusters](#): television show featuring various experiments that debuted on the Discovery Channel in 2003 and was relaunched in November 2017, owned by Discovery Communications Inc.
10. [BBC Earth](#): brand used by the British Broadcasting Company to distribute natural history and science content
11. [Health](#): Facebook page focused on women’s health and connected with the monthly Health magazine and website [health.com](#)
12. [New Scientist](#): weekly magazine founded in 1956 that focuses on developments in science and technology
13. [Science magazine](#): peer-reviewed academic journal of the American Association for the Advancement of Science (AAAS) first published in 1880
14. [Popular Science](#): bimonthly magazine first published in 1872 that features articles on science and technology aimed at a general audience
15. [Physics Today](#): magazine founded in 1948 and published by the American Institute of Physics

The most popular science-related Facebook pages had 3 million to 44 million followers

Figures for each Facebook page as of June 2017

Facebook-primary	Number of page likes	Number of posts Jan. 2014 – June 2017	Sample size of coded posts Jan. – June 2017	Multiplatform	Number of page likes	Number of posts Jan. 2014 – June 2017	Sample size of coded posts Jan. – June 2017
IFLScience	25.6 million	12,431	250	National Geographic	44.3 million	11,541	250
Health Digest	11.1 million	26,233	250	Discovery	39.0 million	10,720	250
David Wolfe	10.9 million	8,853	250	Animal Planet	20.0 million	13,650	250
ScienceAlert	9.1 million	12,657	250	NASA	19.4 million	7,977	250
Hashem Al-Ghaili (@ScienceNaturePage)	8.4 million	2,234	250	NASA Earth	9.6 million	2,718	250
Interesting Engineering	7.4 million	7,355*	250	Women's Health	8.2 million	48,202	250
Smart is the New Sexy (@enjoy.science)	7.3 million	8,353	250	Psychology Today	7.5 million	5,432	250
Dr. Mehmet Oz	6.0 million	2,657*	250	Science Channel	7.4 million	9,743*	250
Bill Nye	4.8 million	262	42	MythBusters	6.8 million	2,505	194
Neil deGrasse Tyson	4.0 million	675	65	BBC Earth	6.8 million	5,421*	250
Stephen Hawking	3.9 million	112	12	Health	6.6 million	36,494	250
ScienceDump	3.6 million	12,775	250	New Scientist	3.6 million	21,323	250
mindbodygreen	3.2 million	36,160	250	Science magazine	3.5 million	3,590	250
Daily Health Tips	3.1 million	3,051	250	Popular Science	3.5 million	22,394	250
Dr. Michio Kaku	3.0 million	275	19	Physics Today	3.0 million	4,540	250

* indicates that some information about posts was missing from the Facebook API and are not included in this study.

Note: Number of page likes as of June 12, 2017. Hashem Al-Ghaili's Science Nature Page began posting on July 29, 2015, and Smart is the New Sexy began posting on April 29, 2016. Data for posts on Interesting Engineering were not available from Jan. 1 to April 13, 2014. Posts on Dr. Mehmet Oz's page were missing from Jan. 1 to April 29, 2014. Posts from Science Channel were missing from Jan. 1 to Sept. 19, 2015. Posts from BBC Earth were missing from Jan. 31 to March 27, 2014. "Facebook-primary" consists of Facebook pages from individuals or organizations that have a large social media presence on the platform but are not connected to any offline, legacy outlet. "Multiplatform" includes Facebook pages from established outlets or organizations, such as magazines, TV programs or government agencies.

Source: Pew Research Center analysis of all Facebook posts from 30 science-related pages, January 2014 to June 2017. Data collected from the public Facebook Graph API.

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Volume of posts for each of these Facebook pages 2014-2017

The annual number of Facebook posts from each page, January 2014 to June 2017

Facebook-primary	2014	2015	2016	2017 estimated	Multiplatform	2014	2015	2016	2017 estimated
IFLScience	4,539	4,172	2,523	2,394	National Geographic	2,472	3,324	3,803	3,884
Health Digest	7,144	6,561	8,358	8,340	Discovery	2,813	3,178	3,949	1,560
David Wolfe	105	2,230	3,423	6,190	Animal Planet	1,618	4,366	4,959	5,414
ScienceAlert	2,812	3,607	4,491	3,494	NASA	2,018	2,210	2,406	2,686
Hashem Al-Ghaili's (@ScienceNaturePage)	NA	489	837	1,816	NASA Earth	647	617	955	998
Interesting Engineering*	1,081	1,561	2,983	3,460	Women's Health	8,312	11,764	18,822	18,608
Smart is the New Sexy (@enjoy.science)	NA	NA	4,198	8,310	Psychology Today	1,456	1,594	1,586	1,592
Dr. Mehmet Oz*	480	758	896	1,046	Science Channel*	1,169	986	5,075	5,026
Bill Nye	59	89	72	84	MythBusters	943	771	591	400
Neil deGrasse Tyson	234	223	153	130	BBC Earth*	354	1,975	1,994	2,196
Stephen Hawking	20	41	39	24	Health	6,592	9,927	13,253	13,444
ScienceDump	3,375	3,444	3,228	5,456	New Scientist	3,434	5,287	7,287	10,630
mindbodygreen	9,244	11,466	10,384	10,132	Science magazine	641	773	1,433	1,486
Daily Health Tips	1,803	729	119	800	Popular Science	2,705	4,254	10,327	10,216
Dr. Michio Kaku	195	33	28	38	Physics Today	1,595	1,307	1,099	1,078

* indicates that some information about posts was missing from the Facebook API.

Note: The number of posts for 2017 is estimated based on doubling the amount of posts that appeared in the first six months of the year because of missing data in Facebook's API. NA indicates data not available. Data for posts on Interesting Engineering were not available from Jan. 1 to April 13, 2014. Posts on Dr. Mehmet Oz's page were missing from Jan. 1 to April 29, 2014. Posts from Science Channel were missing from Jan. 1 to Sept. 19, 2015. Posts from BBC Earth were missing from Jan. 31 to March 27, 2014. "Facebook-primary" consists of Facebook pages from individuals or organizations that have a large social media presence on the platform but are not connected to any offline, legacy outlet. "Multiplatform" includes Facebook pages from established outlets or organizations, such as magazines, TV programs or government agencies.

Source: Pew Research Center analysis of all Facebook posts from 30 science-related pages, January 2014 to June 2017. Data collected from the public Facebook Graph API.

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Facebook-primary pages: Many science-related pages publish posts on just one or two topics

% of each Facebook page's posts about each topic

	Health/ medicine	Food/ nutrition	Engineer- ing/tech	Behavior- al sciences	Energy/ environ- ment	Animal science	Astronomy /physics	Neurology	Archeology	Geology	Math	Chemistry	Spiritual- ity	Para- normal	Travel	Feats/ phenom- ena	General	Non- science
Daily Health Tips	65	27	0	2	0	0	0	4	0	0	0	0	0	0	0	0	<1	3
Health Digest	59	30	1	<1	<1	0	0	6	<1	0	0	0	0	0	0	0	1	3
Dr. Mehmet Oz	48	31	1	3	0	0	0	5	0	0	0	0	1	0	<1	0	6	5
mindbodygreen	27	22	0	15	1	0	0	12	0	0	0	<1	9	1	2	0	6	5
David Wolfe	26	10	6	12	4	4	1	4	<1	<1	<1	0	1	<1	<1	1	2	28
Hashem Al-Ghaili (@ScienceNature Page)	26	1	24	1	13	9	10	5	2	1	1	2	0	0	<1	0	4	1
ScienceAlert	17	<1	14	1	8	8	27	6	4	4	<1	3	0	1	0	0	5	<1
ScienceDump	16	5	14	6	9	8	9	13	2	1	2	1	0	0	2	2	6	6
Smart is the New Sexy (@enjoy.science)	14	6	12	5	1	3	2	2	0	0	2	1	0	<1	2	5	13	32
IFLSscience	11	2	5	4	17	18	19	5	7	3	1	<1	0	1	0	<1	4	1
Interesting Engineering	3	1	70	1	6	0	12	0	<1	0	<1	0	0	0	0	<1	3	2
Bill Nye	2	0	3	2	14	0	5	0	0	2	0	0	2	0	0	0	67	2
Neil deGrasse Tyson	0	2	2	2	2	0	48	0	0	0	0	0	0	0	0	0	37	9
Stephen Hawking	0	0	8	0	0	0	58	0	0	0	0	0	0	0	0	0	25	8
Dr. Michio Kaku	0	0	0	0	0	0	58	0	0	5	0	0	0	0	0	0	32	5
Total	27	12	13	4	5	4	9	5	1	1	1	1	1	<1	1	1	6	8

Note: "Facebook-primary" consists of Facebook pages from individuals or organizations that have a large social media presence on the platform but are not connected to any offline, legacy outlet.

Source: Pew Research Center analysis of a random sample of Facebook posts from 30 science-related pages, January to June 2017. Data from the public Facebook Graph API.

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Multiplatform pages: Many science-related accounts publish posts on just one or two topics

% of each Facebook page's posts about each topic

	Health/ medicine	Food/ nutrition	Engineer- ing/tech	Behavio- ral sciences	Energy/ environ- ment	Animal science	Astronomy /physics	Neurology	Archeology	Geology	Math	Chemistry	Spiritual- ity	Para- normal	Travel	Feats/ phenom- ena	General	Non- science
Women's Health	48	12	1	24	0	0	0	2	0	0	0	0	<1	0	0	1	<1	12
Health	47	29	<1	3	0	0	<1	6	0	0	0	0	0	0	1	0	1	13
Science magazine	24	2	7	4	7	16	8	4	4	1	0	2	<1	0	0	<1	20	0
New Scientist	16	1	14	2	8	18	19	8	3	2	0	1	0	0	1	0	7	0
Popular Science	12	4	34	1	8	10	18	3	2	<1	0	2	0	0	0	0	5	1
Animal Planet	8	<1	2	0	<1	75	0	0	0	0	0	0	0	5	<1	0	8	<1
BBC Earth	4	0	1	<1	13	56	5	2	8	4	0	0	0	1	1	0	4	0
National Geographic	3	<1	1	2	14	50	4	2	8	1	0	0	0	0	8	<1	4	1
Psychology Today	2	0	1	73	0	2	0	21	0	0	0	0	0	0	0	0	<1	<1
MythBusters	2	3	19	1	4	5	24	3	0	0	1	0	0	0	0	0	34	5
Science Channel	1	2	23	0	8	6	37	1	4	1	<1	1	<1	1	0	<1	11	2
Discovery	1	<1	6	0	7	28	7	0	2	<1	1	<1	<1	0	2	2	43	0
NASA	1	<1	3	0	10	1	80	0	0	1	0	0	0	0	0	0	4	1
Physics Today	1	0	4	<1	7	3	64	1	1	<1	4	2	0	0	0	0	13	<1
NASA Earth	<1	0	2	0	73	<1	12	0	<1	9	0	0	0	0	1	0	2	1
Total	11	4	8	8	11	18	19	3	2	1	<1	<1	<1	<1	1	<1	10	2

Note: "Multiplatform" includes Facebook pages from established outlets or organizations, such as magazines, TV programs or government agencies.

Source: Pew Research Center analysis of a random sample of Facebook posts from 30 science-related pages, January to June 2017. Data from the public Facebook Graph API.

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Facebook-primary pages: The frame of most posts tends to vary among science-related pages

% of each Facebook pages' posts using each frame

	New discoveries	Explanations of concepts	'News you can use'	Promotions /ads	Visual	Calls to action	Profiles of scientists	Conflicting findings	Research misconduct /bias	Media coverage of science	Research funding	Education issues	Travel	Archived reposts	Topic is not science-related
ScienceAlert	72	10	4	4	1	1	1	2	0	0	<1	0	0	3	<1
IFLScience	68	6	5	4	1	2	1	2	0	0	6	<1	0	4	1
Hashem Al-Ghaili (@ScienceNaturePage)	50	30	2	5	5	0	2	0	<1	0	0	<1	<1	4	1
ScienceDump	47	20	5	1	3	1	1	<1	0	0	<1	0	2	14	6
Interesting Engineering	35	27	7	12	7	1	4	0	1	<1	<1	1	0	2	2
Daily Health Tips	0	1	96	0	0	<1	0	<1	0	0	0	0	0	0	3
Health Digest	1	2	85	0	<1	<1	0	0	0	0	0	0	0	8	3
Mindbodygreen	6	1	69	2	0	1	<1	<1	0	0	0	0	2	15	5
David Wolfe	12	8	37	5	3	2	<1	0	0	<1	0	0	<1	4	28
Smart is the New Sexy (@enjoy.science)	4	14	29	5	6	1	1	0	0	0	0	0	2	6	32
Dr. Michio Kaku	0	5	0	79	5	0	0	0	0	0	0	5	0	0	5
Neil deGrasse Tyson	0	0	0	78	2	2	2	0	0	0	3	2	0	3	9
Bill Nye	5	17	0	64	5	5	0	0	0	0	2	0	0	0	2
Stephen Hawking	0	0	0	58	0	17	8	0	0	0	0	0	0	8	8
Dr. Mehmet Oz	4	6	26	39	0	10	<1	0	0	<1	0	0	<1	8	5
Total	26	11	32	10	3	2	1	<1	<1	<1	1	<1	1	6	8

Note: "Facebook-primary" consists of Facebook pages from individuals or organizations that have a large social media presence on the platform but are not connected to any offline, legacy outlet.

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Multiplatform pages: The frame of most posts tends to vary among science-related pages

% of each Facebook pages' posts using each frame

	New discoveries	Explanations of concepts	'News you can use'	Promotions /ads	Visual	Calls to action	Profiles of scientists	Conflicting findings	Research misconduct/ bias	Media coverage of science	Research funding	Education issues	Travel	Archived reposts	Topic is not science-related
NASA Earth	71	10	0	5	1	4	<1	0	0	0	<1	0	1	7	1
New Scientist	69	8	3	5	<1	2	3	1	<1	0	6	0	1	2	0
Science magazine	61	4	3	12	0	2	4	<1	2	<1	5	1	0	4	0
NASA	54	12	2	20	2	5	1	<1	0	<1	1	<1	0	<1	1
Physics Today	40	15	1	2	<1	1	29	1	1	1	2	4	0	2	0
National Geographic	39	26	0	11	3	4	1	0	0	1	1	0	8	5	1
Popular Science	37	13	14	2	0	<1	2	<1	0	<1	2	0	0	27	1
BBC Earth	27	23	1	16	5	3	1	2	0	2	<1	0	1	20	0
Science Channel	24	26	1	40	2	2	2	<1	0	0	0	0	0	1	2
Health	12	4	56	2	0	1	0	0	<1	0	0	0	1	11	13
Psychology Today	10	9	67	<1	0	0	0	<1	0	0	0	0	0	12	<1
Women's Health	8	7	40	2	0	1	<1	0	0	0	0	0	0	30	12
MythBusters	6	21	1	54	5	3	2	0	0	3	0	0	0	2	5
Discovery	5	10	2	65	14	1	<1	0	0	<1	0	0	2	<1	0
Animal Planet	5	3	6	79	2	4	<1	0	0	0	0	0	<1	0	<1
Total	32	13	13	21	2	2	3	<1	<1	<1	1	<1	1	8	2

Note: "Multiplatform" includes Facebook pages from established outlets or organizations, such as magazines, TV programs or government agencies.

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