

Table 3. Important predictors for high attention scores, downloads and citations were derived from the random forest models, based on feature importance. Article characteristics with the highest feature importance were identified, reflecting both univariate effects and the interaction with other article characteristics. Moreover, univariate effects of the article characteristic were highlighted using their individual effect sizes (N=negligible, S=small, M=medium, L=large).

Category	Attention score				Downloads				Citations			
	Feature	Feature importance	Effect size	95% CI	Feature	Feature importance	Effect size	95% CI	Feature	Feature importance	Effect size	95% CI
Title	number of words	0,2	N (-)	-0,12 – 0,04	nouns (%)	10,5	S (+)	0.24 – 0.36	adpositions (%)	0,7	N (+)	-0,02 – 0,09
	determiners (%)	0,2	N (+)	-0,08 – 0,09	proper nouns (%)	4,7	S (-)	-0.5 – -0.35	number of characters	0,6	N (+)	0,09 – 0,20
	nouns (%)	0,2	N (+)	-0,03 – 0,14	number of words	4,6	N (+)	0.06 – 0.17	top25 nouns (%)	0,5	S (+)	0,24 – 0,36
Abstract	top25 nouns (%)	0,6	N (+)	0,11 – 0,28	coordinating conjunctions (%)	28,1	S (+)	0.14 – 0.27	sentence length SD)	5,5	N (-)	-0,10 – 0,03
	symbols (%)	0,4	N (+)	0,10 – 0,27	determiners (%)	27,7	N (-)	-0.18 – -0.05	adjectives (%)	3,6	N (-)	-0,10 – 0,03
	adverbs (%)	0,3	N (+)	0,02 – 0,19	adverbs (%)	23	N (+)	-0.02 – 0.11	nouns (%)	3,5	N (-)	-0,07 – 0,05
Collaboration	number of affiliations	0,4	N (+)	-0,06 – 0,15	number of affiliations	28,5	S (+)	0.13 – 0.31	number of affiliations	6	N (+)	0,00 – 0,18
	affiliation to Australia	0,1	S (+)	0,20 – 0,53	number of authors	7,7	S (+)	0.3 – 0.41	number of authors	1,8	S (+)	0,34 – 0,46
	affiliation to UK	0,1	S (+)	0,25 – 0,58	affiliation to USA	1,4	N (-)	-0.21 – -0.03	number of countries	0,6	N (+)	0,01 – 0,21
Publication	year in print	1,9	N (+)	0,08 – 0,24	number of pages	78,8	M (+)	0.53 – 0.65	year in print	100	M (-)	-0,86 – -0,73
	issue	0,4	N (-)	-0,17 – -0,01	number of references	63,8	M (+)	0.47 – 0.59	number of pages	15,6	M (+)	0,51 – 0,63
	human study	0,4	M (+)	0,46 – 0,64	year in print	43,1	M (+)	0.59 – 0.71	number of references	12,1	M (+)	0,54 – 0,66
Engagement	mentions by scientists (%)	100,0	L (+)	1,32 – 1,50	mentions by the public (%)	100	L (+)	1.08 – 1.21	unique posts (%)	4,3	N (+)	0,13 – 0,25
	mentions by the public (%)	46,9	L (+)	0,72 – 0,91	mentions by scientists (%)	97	L (+)	1.15 – 1.29	mentions by practitioners (%)	2,2	S (+)	0,23 – 0,38
	mentions by practitioners (%)	46,7	L (+)	1,21 – 1,39	mentions by practitioners (%)	43,6	L (+)	1.12 – 1.28	mentions by scientists (%)	1,8	N (+)	0,02 – 0,15
Keywords	mitochondria	0,2	S (+)	0,19 – 0,74	exercise	2,1	M (+)	0.66 – 0.84	cerebral blood flow	0,1	S (+)	0,06 – 0,57
	exercise	0,1	S (+)	0,07 – 0,36	respiratory physiology	0,4	N (-)	-0.16 – -0.02	exercise	0,1	S (+)	0,09 – 0,34
	spaceflight	0,1	N (+)	-0,35 – 0,53	inflammation	0,3	S (+)	0.13 – 0.57	skeletal muscle	0,1	S (+)	0,12 – 0,46