

Personality Traits and Social Media Use in 20 Countries: How Personality Relates to Frequency of Social Media Use, Social Media News Use, and Social Media Use for Social Interaction

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Abstract

This study examines the relationship between peoples' personality traits and social media uses with data from 20 societies ($N=21,314$). A measure of the "Big Five" personality traits is tested on key social media dimensions: frequency of use, social interaction, and news consumption. Across diverse societies, findings suggest that while extraversion, agreeableness, and conscientiousness are all positive predictors of different types of social media use, emotional stability and openness are negatively related to them.

Keywords: personality traits, "Big Five," social media use, social media news use, social media for social interaction

Introduction

SOCIAL MEDIA PLATFORMS are among the most frequently visited web sites online, and they are the primary way people around the world connect to their digital environment.^{1,2} The interactive nature of these platforms has led to a boom in scholarship on the role of internal aspects of personality in predicting behaviors on social media.³⁻⁷ Personality traits are reflected in people's communication habits and pathologies, and are therefore directly related to patterns of media consumption.⁸⁻¹¹ Although evidence suggests that personality traits are universal across cultures,^{12,13} the study of how personality traits relate to social media use outside the United States is still in its infancy. In addition, people use social media for different purposes, namely to interact with friends, read the news, create identities, or participate in politics.¹⁴⁻¹⁷ Only a handful of studies have taken into account specific affordances of social media.¹⁸ In general, information seeking online has been associated with extraversion and openness,^{4,19} while uses of technology for social interaction tends to be explained by extraversion and neuroticism.²⁰⁻²² Whether or not these patterns of interaction translate to an international context is an open research question.

Drawing on a representative online survey in 20 countries, the current study tests the relationships between personality traits and (a) overall social media use, (b) social media use for news and public affairs, and (c) social media use for interpersonal interaction.

Social media and personality traits

Social media is the core of an increasingly personalized media environment. Because they are governed by hybrid media logic, these platforms are interactive, self-directed, and offer multiple types of user experiences.²³⁻²⁵ In contrast to broadcast communication technologies, the agency of the individual user is central to understanding motivations and effects of social media use. Therefore, personality traits have become a leading conceptual framework for media effects researchers.²⁶ Most personality traits can be categorized as neuroticism (inversely coded as emotional stability), openness to new experiences, extraversion, agreeableness, and conscientiousness²⁷ (for exception, see Ref.²⁸).

Extraversion is a socially oriented set of characteristics related to general needs for belonging, and is associated with talkativeness and adventurousness.²⁷ Since extroverts have many friends and tend to be more outgoing, it is no surprise that (with exception) it is the most consistent predictor of active social media use in the literature. For example, extroverts tend to use messaging applications and social media overall more,⁴ use Facebook for communicating with others more,^{20,21} have more friends online than other groups,^{19,29} and seek information on Facebook (but not on Twitter).³⁰ These findings have been partially confirmed in China.⁷ This is likely due to extroverted people seeking out opportunities to socialize and connect with others online. Therefore, the study hypothesizes the following:

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Extraversion will be positively related to general frequency use of social media (H1a), to social media news use (H1b), and to social media social interaction (H1c).

Agreeableness refers to the tendency to defer to others, especially during conflict, and the construct includes attributes of friendship and trust.²⁷ Although agreeableness should lend itself to maintaining friends online, most studies have found little evidence for this.^{4,29} However, agreeableness was a strong predictor of need for cognition in at least one study.³⁰ In another study, agreeableness was related to needs for belonging (connection and caring), communication uses of social media, self-presentation online, and marginally related to acceptance-seeking behavior on social media.²¹ The theoretical taxonomy of agreeableness should predict overall social media use.³¹ Previous studies relating agreeableness to needs for cognition and social acceptance also lend support for a positive hypothesis between agreeableness and social media for news and social interaction. Therefore, we propose the following:

Agreeableness will be positively related to general frequency use of social media (H2a), to social media news use (H2b), and to social media social interaction (H2c).

Conscientiousness. Striving for achievement, work ethics, and sense of purpose are characteristics of the group of variables related to conscientiousness.²⁷ People who score high in this category tend to become nodes in networks and display leadership and organizational skills.³² In theory, these people may avoid social media for purposes other than organizing and work, because these habits are a distraction from other goals.³³ Thus, several scholars have found no relationship,²⁹ or a negative relationship, between conscientiousness and social media uses.²⁰ Another study found mixed results: conscientiousness was negatively correlated to information seeking on Facebook, but positively correlated to information seeking on Twitter.³⁰ Since there is no clear theoretical or empirical pattern in the literature, the following research questions are posed:

How does conscientiousness relate to general frequency use of social media (RQ1a), to social media news use (RQ2b), and to social media social interaction (RQ2c)?

Emotional stability (often reverse coded as neuroticism) reflects emotional control, and is the opposite of depression and pessimism.²⁷ Those low in emotional stability display borderline pathological traits of anxiety and worry, and are thought to use media technologies depending on their level of extroversion or loneliness.¹⁹ In contrast, emotional stability may lead one to use less social media, because they do not need extra attention or validation from the network, at least compared to those with neuroticism tendencies.³³ This finding was confirmed in a sample of Polish, Turkish, and Ukrainian social media users.³⁴ Based on this evidence, the following hypotheses are proposed:

Emotional stability will be negatively related to general frequency use of social media (H3a), to social media news use (H3b), and to social media social interaction (H3c).

Openness. The need for novelty and change are behavioral tendencies associated with openness to new experiences.²⁷ Since those who score high on openness scales tend to be more curious, in theory they should also be willing to seek out new information and pursue new communication technologies.^{33,35} Empirical results offer mixed support for this hypothesis. Some studies have found positive relationships between openness and

overall social media use.⁴ Others have found relationships for social interaction uses, but not expressive behaviors (such as posting),²⁹ no relationship for social or information seeking uses,^{20,21} or mixed results, depending on the platform.³⁰ Thus, the following are posed as research questions:

How does openness to new experiences relate to general frequency use of social media (RQ2a), to social media news use (RQ2b), to social media social interaction (RQ2c)?

Methods

Sample

This study relies on survey data from 20 countries around the world (see Appendix Tables A1, A2, and A3). As the goal of the study is to obtain the most comparable and reliable data set across different cultures, with different languages, researchers developed a sizeable group of collaborating scholars from each country involved to perform the translation of all items. Afterward, the surveys were translated using either back-translation with a team approach,^{36,37} or the committee approach.³⁸ The data were gathered concurrently in all countries from September 14 to 24, 2015. Research partners contracted Nielsen, a reputed media polling company based in the United States, which curates a massive pool of potential respondents that encompasses more than 10 million individuals. From this pool, Nielsen generated the final sample in each country based on stratified quota sampling techniques to create samples whose demographics closely matched those reported by official census agencies.³⁹

The largest sample size was collected in Ukraine ($n=1,223$) and the smallest in Korea ($n=943$). Overall, the cooperation rate was relatively high, averaging 77% across the panel.⁴⁰ Since Nielsen generates its own sample procedures, relying on panel and probability-based sampling methods, the limitations of web-only survey designs are minimized.⁴¹ Nevertheless, some specific parameters of the panel invites are unknown to the authors, and therefore, traditional response rates are not calculated (See Gil de Zúñiga and Liu's work [2017] to learn more about this data).^{40,42}

Measures

Social media use. Three types of social media use are measured (Table 1 for all individual countries centrality measures and reliability test coefficients). Building on prior research,⁴ the *frequency of social media use* was measured by using an additive scale of two items that tapped people's frequency of "social media use" and "instant messaging" (Spearman-Brown coefficient = 0.63, $M=4.89$, $SD=1.51$). Also relying on previous work,^{43,44} *social media news use* was assessed by asking people how frequently they used social media to stay informed about "current events and public affairs," news in their "local communities," and "current events from mainstream media" (Cronbach's $\alpha=0.87$, $M=4.23$, $SD=1.55$). Following prior research,⁴⁵ for *social media social interaction*, respondents were asked how often they use social media to "stay in touch with family and friends," "to meet new people who share my interests," and to "contact people I wouldn't meet otherwise" (Cronbach's $\alpha=0.80$, $M=4.15$, $SD=1.49$).

Personality traits. This study focuses on the Big-Five dimensions: *Extraversion*, *agreeableness*, *conscientiousness*,

TABLE 1. DESCRIPTIVE AND RELIABILITY STATISTICS FOR INDIVIDUALS' SOCIAL MEDIA USES ACROSS 20 COUNTRIES

Country	SM overall frequency			SM news			SM interaction/relational			
	M	SD	(SB-coef)	M	SD	α	M	SD	α	N
All	4.89	1.51	0.63	4.23	1.55	0.87	4.15	1.49	0.80	21,688
Argentina	5.78	1.15	0.50	4.52	1.44	0.84	4.48	1.35	0.72	1,132
Brazil	5.78	1.19	0.50	5.08	1.26	0.80	5.13	1.20	0.71	1,071
Chile	5.77	1.17	0.50	4.77	1.32	0.81	4.49	1.24	0.61	949
China	5.23	1.09	0.65	4.97	1.07	0.83	4.66	1.01	0.72	993
Estonia	4.09	1.41	0.50	4.10	1.54	0.86	3.58	1.37	0.76	1,157
Germany	4.28	1.73	0.64	3.55	1.71	0.83	3.57	1.70	0.84	1,039
Indonesia	5.62	0.99	0.44	4.99	1.12	0.84	4.97	1.07	0.75	1,064
Italy	5.12	1.34	0.56	4.38	1.46	0.87	4.31	1.45	0.82	1,030
Japan	3.43	1.57	0.57	3.21	1.48	0.87	2.83	1.40	0.82	964
Korea	4.65	1.41	0.62	3.82	1.40	0.84	3.77	1.37	0.75	925
New Zealand	4.51	1.52	0.61	3.62	1.58	0.78	3.51	1.45	0.78	1,148
Philippines	5.79	0.99	0.55	5.21	1.04	0.84	4.78	1.08	0.67	1,036
Poland	4.81	1.33	0.59	3.93	1.41	0.84	4.24	1.43	0.83	1,044
Russia	4.53	1.32	0.45	4.32	1.48	0.90	4.40	1.45	0.84	1,129
Spain	5.26	1.31	0.51	4.17	1.56	0.90	4.18	1.47	0.79	1,012
Taiwan	5.29	1.14	0.52	4.28	1.12	0.76	4.45	1.07	0.70	992
Turkey	5.28	1.17	0.45	4.88	1.24	0.75	4.73	1.24	0.70	945
United Kingdom	3.93	1.79	0.67	3.01	1.75	0.91	3.12	1.66	0.83	1,052
Ukraine	4.30	1.29	0.47	4.14	1.27	0.80	4.21	1.31	0.74	1,205
United States	4.17	1.74	0.64	3.41	1.72	0.90	3.32	1.51	0.78	1,152

All items measured on 7-point scales, from 1=strongly disagree to 7=strongly agree.

Reliability coefficient for overall frequency social media use is calculated using Spearman-Brown coefficient since there are only two items in the construct.

emotional stability, and *openness to new experiences*. They were measured by including several of the instruments previously developed in the literature⁴⁶⁻⁴⁹ (for an overview of the measurement, see Appendix Table A4; for all individual countries centrality measures and reliability test coefficients, see Table 2).

Control variables. The study controlled for an array of variables that prior studies have identified as having an influence (demographics, sociopolitical variables, and life satisfaction; for details see Appendix Table A4).

Results

This study aimed to test the relationship between people's personality traits and different ways of social media use. As mere descriptive comparisons, people tend to use more frequently social media in Argentina, Brazil, and Chile, and less frequently so in Japan and the United Kingdom (Tables 1 and 2 for all countries social media and distinct personality trait constructs' central tendency, dispersion, and reliability measures).

Beyond these descriptive differences, the main hypothesis and research questions centered on the effects of people's personality traits over the different uses of social media. Based on the overall primary model tested in the study, the introduced variables predicted similarly portions of the total variance for general social media use (Table 3). The first three hypotheses, extraversion will be positive related to general frequency of media use (H1a), to social media news use (H1b), and to social media social interaction (H1c), were supported. That is, more extraverted people tend to more frequently use social media generally, for news, and for relational goals.

Similarly, Table 3 shows that agreeableness was a positive predictor of all the different social media uses. Reporting higher levels of agreeableness will be positively related to using social media more frequently, as well as using it for obtaining information and interacting with others. Thus, H 2 (a-c) was supported. Conversely to extraversion and agreeableness, emotional stability negatively predicts all uses of social media, supporting H 3 (a-c). That is, the more emotionally stable persons tend to be, the less time they will spend on social media and the less they will do so to consume information and/or socialize.

Finally, we posed two research questions: RQ1 (a-c) asked how conscientiousness relates to the three forms of social media use. Results in Table 3 show that conscientiousness is positively related to all three forms of social media use, that is, people who are more conscientious are more likely to use social media generally, for news, and for relational goals. The last set of research questions RQ 2 (a-c) dealt with whether people's level of openness would influence social media uses. Results presented in Table 3 indicate that people more open to new experiences will be positively associated to more frequent social media use. On the contrary, this openness predicts that people will not use social media to consume information and interact with others as much.

Discussion

This study investigated the relationships between people's personality traits and different ways of social media use in a large, 20 country sample. Overall, our results show a mild but consistent relationship between people's personality traits and the way they use social media in general, to consume information, and to socialize. In the whole sample

TABLE 2. DESCRIPTIVE AND RELIABILITY STATISTICS FOR INDIVIDUALS' PERSONALITY TRAITS ACROSS 20 COUNTRIES

Country	Extraversion			Agreeableness			Conscientiousness			Emotional stability			Openness to experiences			
	M	SD	α	M	SD	α	M	SD	α	M	SD	α	M	SD	α	N
All	4.24	1.23	0.81	5.14	0.96	0.75	4.78	0.92	0.72	4.34	1.04	0.72	4.99	0.96	0.69	21,423
Argentina	4.51	1.22	0.77	5.39	0.92	0.71	4.83	0.85	0.64	4.46	1.09	0.70	5.26	0.95	0.60	1,116
Brazil	4.38	1.28	0.79	5.23	0.99	0.72	4.99	0.92	0.68	4.23	1.12	0.70	5.32	1.05	0.73	1,044
Chile	4.48	1.19	0.78	5.33	0.92	0.71	4.94	0.84	0.63	4.57	0.94	0.60	5.25	0.97	0.64	937
China	4.47	0.99	0.77	4.90	0.84	0.71	4.71	0.88	0.77	4.35	0.88	0.71	4.70	0.82	0.66	975
Estonia	3.87	1.11	0.79	5.14	0.80	0.74	4.65	0.84	0.69	4.51	0.97	0.75	4.94	0.83	0.66	1,150
Germany	4.36	1.34	0.85	5.34	0.91	0.77	4.71	0.94	0.74	4.48	1.08	0.75	5.19	0.97	0.74	1,034
Indonesia	4.44	1.05	0.76	5.35	0.89	0.79	5.14	0.88	0.77	4.35	0.96	0.71	4.94	0.91	0.71	1,043
Italy	4.42	1.27	0.84	5.31	0.99	0.78	4.67	0.88	0.68	4.42	1.12	0.78	5.30	0.97	0.74	1,018
Japan	3.51	1.31	0.87	4.17	0.97	0.79	4.25	0.86	0.72	4.14	1.07	0.81	4.22	0.85	0.67	960
Korea	3.98	1.09	0.84	4.67	0.77	0.67	4.30	0.96	0.81	3.90	0.87	0.69	4.59	0.87	0.72	917
New Zealand	4.17	1.29	0.84	5.31	0.90	0.76	4.81	0.94	0.76	4.43	1.08	0.79	5.07	0.91	0.70	1,136
Philippines	4.44	1.07	0.73	5.40	0.83	0.72	5.39	0.81	0.74	4.80	0.92	0.67	5.26	0.92	0.74	1,017
Poland	4.14	1.17	0.85	5.07	0.89	0.79	4.86	0.83	0.76	3.97	1.03	0.80	4.89	0.83	0.71	1,036
Russia	4.13	1.19	0.81	4.95	0.96	0.79	4.73	0.84	0.68	4.28	0.99	0.70	4.88	0.92	0.63	1,111
Spain	4.26	1.15	0.80	5.29	0.93	0.77	4.82	0.77	0.64	4.37	1.03	0.72	5.16	0.94	0.70	998
Taiwan	4.09	1.09	0.82	4.84	0.84	0.72	4.23	0.74	0.60	4.08	0.94	0.71	4.54	0.87	0.68	978
Turkey	4.56	1.07	0.70	5.05	0.81	0.63	4.79	0.88	0.66	—	—	—	5.19	0.99	0.67	915
United Kingdom	4.12	1.46	0.88	5.18	1.03	0.80	4.85	0.97	0.77	4.37	1.20	0.82	4.95	1.00	0.74	1,041
Ukraine	4.36	1.17	0.77	5.17	0.91	0.74	4.58	0.92	0.69	4.38	1.06	0.75	4.98	0.70	0.63	1,192
United States	4.12	1.38	0.85	5.39	1.00	0.79	5.11	0.94	0.76	4.59	1.12	0.79	5.15	0.95	0.70	1,123

All items measured on 7-point scales, from 1 = strongly disagree to 7 = strongly agree.

Turkey: item sympathize with others feelings was dropped from scale of agreeableness.

Argentina: item "don't like paying attention to details (recoded)" was dropped from scale of conscientiousness.

Ukraine: item "take a long time to learn anything new (recoded)" was dropped from the scale of openness to experiences.

TABLE 3. PERSONALITY TRAITS PREDICTING DIFFERENT SOCIAL MEDIA USES (ALL COUNTRIES)

	<i>Social media general frequency</i>	<i>Social media news</i>	<i>Social media interaction</i>
Block 1—demographics			
Age	−0.298***	−0.185***	−0.220***
Gender (female)	0.120***	0.045***	0.025***
Education	−0.054***	0.004	−0.026***
Income	0.004	−0.032***	−0.034
Race (majority = 1)	−0.053***	−0.047***	−0.042***
ΔR ²	14.7%	5.1%	7.4%
Block 2—sociopolitical antecedents			
Media trust	0.107***	0.194***	0.141***
News use	0.079***	0.098***	0.068***
Political interest	−0.059***	0.037***	−0.073***
Network size	0.099***	0.076***	0.081***
Political discussion	0.168***	0.226***	0.256***
Life satisfaction	0.074***	0.003	0.010
ΔR ²	13.3%	22.2%	17.7%
Block 4—moderation effects			
Extraversion	0.076***	0.100***	0.142***
Agreeableness	0.116***	0.050***	0.073***
Conscientiousness	0.036***	0.059***	0.062***
Emotional stability	−0.097***	−0.056***	−0.066***
Openness	0.056***	−0.018*	−0.017*
ΔR ²	3.4%	1.6%	3.1%
Total R ²	31.4%	28.9%	28.1%

N = 21,314. Cell entries are final-entry ordinary least squares (OLS) standardized coefficients (β). * p < 0.05; ** p < 0.01; *** p < 0.001.

TABLE 4. PERSONALITY TRAITS PREDICTING DIFFERENT SOCIAL MEDIA USES BY COUNTRY

Countries	<i>Extraversion model</i>			<i>Agreeableness model</i>			<i>Conscientiousness model</i>		
	<i>SM general</i>	<i>SM news</i>	<i>SM interaction</i>	<i>SM general</i>	<i>SM news</i>	<i>SM interaction</i>	<i>SM general</i>	<i>SM news</i>	<i>SM interaction</i>
Argentina	0.043	0.055#	0.062#	0.137***	0.038	0.055#	0.032	.044#	.064*
Brazil	0.054#	0.101***	0.152***	0.136***	0.060#	0.171***	0.031	.094***	.055#
Chile	0.057#	0.028	0.015	0.143***	0.078*	0.035	0.023	.047	.025
China	0.027	0.108***	0.159***	0.209***	0.146***	0.139***	0.052	.124***	.156***
Estonia	0.147***	0.158***	0.214***	0.003	−0.022	0.002	−0.006	.023	.080**
Germany	0.081**	0.08**	0.072*	0.045	0.034	0.044	−0.055#	.002	.064*
Indonesia	0.034	0.015	0.042	0.193***	0.066*	0.097**	0.091**	.169***	.184***
Italy	0.081**	0.065#	0.080*	0.117***	0.059#	0.115***	0.032	.075**	.050#
Japan	0.091*	0.096*	0.140***	0.151***	0.107**	0.136***	0.001	.041	.064*
Korea	0.038	0.056	0.118***	0.097**	0.063*	0.023	0.022	.085**	.061#
New Zealand	0.085**	0.074*	0.139***	0.149***	0.078*	0.057#	0.003	.008	−.031
Philippines	0.009	0.056#	0.129***	0.143***	0.084*	0.023	0.119**	.157***	.129***
Poland	0.082**	0.135***	0.131***	0.091**	0.018	0.094**	0.026	.021	.017
Russia	0.059*	0.060*	0.103***	0.027	0.002	0.070*	0.070*	.058*	.086**
Spain	0.020	0.044#	0.041	0.169***	0.070*	0.028	0.039	.018	.083**
Taiwan	−0.006	0.050	0.089**	0.230***	0.126***	0.162***	0.104***	.090**	.047
Turkey	−0.030	0.087**	0.046	0.050	0.067*	0.075*	0.097**	.107***	.103**
United Kingdom	0.100***	0.099***	0.154***	0.133***	0.008	0.041	0.019	.031	.029
Ukraine	0.058#	0.036	0.095**	0.010	−0.004	0.079*	0.047	.071**	.092***
United States	0.061*	0.068*	0.132***	0.128***	0.046	0.072*	−0.042	−.057*	−.066*

Cell entries are final-entry ordinary least squares (OLS) standardized coefficients (β). All models include same control variables as in Table 2.

p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001.

TABLE 5. PERSONALITY TRAITS PREDICTING DIFFERENT SOCIAL MEDIA USES BY COUNTRY

Countries	<i>Emotional stability model</i>			<i>Openness model</i>		
	<i>SM general</i>	<i>SM news</i>	<i>SM interaction</i>	<i>SM general</i>	<i>SM news</i>	<i>SM interaction</i>
Argentina	-0.093***	-0.038	-0.021	0.065*	-0.098***	-0.056#
Brazil	-0.120***	-0.026	-0.054#	0.079*	-0.062*	-0.017
Chile	-0.056#	-0.058#	-0.045#	0.046	-0.050	-0.060#
China	-0.053	-0.008	-0.021	0.033	0.014	-0.035
Estonia	-0.072**	-0.045	-0.067#	0.003	-0.030	-0.050#
Germany	-0.133***	-0.111***	-0.103***	0.046	-0.029	-0.006
Indonesia	-0.051	-0.043	-0.024	-0.025	0.060#	0.022
Italy	-0.050#	-0.028	-0.026	0.056#	-0.045	-0.075*
Japan	-0.048	-0.094*	-0.105***	0.026	0.058	0.039
Korea	-0.045	-0.047	-0.002	0.136***	0.050	0.064#
New Zealand	-0.085**	-0.069*	-0.046	0.033	-0.006	0.015
Philippines	-0.062#	-0.018	-0.012	0.099**	0.049	-0.064#
Poland	-0.087**	-0.084**	-0.085**	0.033	-0.079**	0.005
Russia	-0.062*	-0.104***	-0.076**	0.075**	0.037	0.012
Spain	-0.172***	-0.096***	-0.130***	0.063#	-0.071*	-0.027
Taiwan	-0.077*	-0.045	-0.070*	0.056	0.021	0.051
Turkey	-0.073*	-0.042	0.008	0.094**	0.009	-0.001
United Kingdom	-0.088**	-0.087**	-0.033	0.030	0.006	0.002
Ukraine	-0.108***	-0.025	-0.045	0.048	0.026	-0.035
United States	-0.143***	-0.127***	-0.093***	0.086**	0.016	0.025

Cell entries are final-entry ordinary least squares (OLS) standardized coefficients (β). All models include same control variables as in Table 2. # $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

(Table 3), extraversion, agreeableness, and conscientiousness are all positive predictors of all three types of social media use. Emotional stability negatively relates to all three modes of social media use. Finally, openness positively predicts the frequency of social media use, but is negatively related to news use and relational use in social media. Not surprisingly, and in line with previous studies, extraversion is a consistent predictor of informational and social uses of social media, while conscientiousness and openness are less reliable in country subsamples. Agreeableness is a more consistent predictor of informational uses, but less so for social interaction and news uses (Tables 4 and 5).

Thus, overall results indicate that when an individual tends to feel comfortable talking to others, and striking new conversations, they will also tend to more frequently use social media in general, to consume news, and of course to relate to other people or meet new people with shared interests (*extraversion*). In the same vein, sympathizing with others, feeling concern for other people, and taking the extra mile to comfort others—as well as sticking to plans, liking order, or paying attention to details—are also personality attributes that tend to explain why people use social media in general terms, for news and also to socialize (*agreeableness* and *conscientiousness*). On the contrary, emotionally stable people tend to use social media for all purposes less frequently. Finally, being more open to new experiences predicts that people spend more time using social media overall, perhaps looking for content and connection possibilities that relate to pursuing new things, gathering new ideas, and so on. In any case, openness is associated to using social media less for information about public affairs. It stands to reason that people who score high on openness might be drawn to new experiences, and the information they should be exposed to over social media most likely relates to those purposes, rather

than information about politics and public affairs. Openness will not consistently spark a need for political orientation, supporting previous findings of negative, mixed, or no relationship to information seeking in social media space.^{20,21,30}

Moreover, our results show that younger people tend to use social media for all three patterns more than older counterparts do. Also, minorities and females tend to rely on social media more so for all of the uses (Table 3).

One key finding in the global sample is the role of political interest as an important antecedent for certain types of social media uses. Importantly, being interested in politics makes people use less frequently social media overall, and less likely to use it for relational purposes or interacting with others. However, it will be a positive predictor of using social media to get information about political and public affair issues. Future research should test if there is an interaction between personality traits and political interest, and perhaps explore why people are avoiding social interaction online when they are interested in politics.

These results have greater implications for comparative studies in personality traits and media use. First, it is clear that some factors of the *Five Factor Model* are more consistent than others in predicting media use. Although agreeableness has had mixed effects on media use in the past, the results here indicate that it may be a more reliable predictor than previously thought, and conscientiousness may be less informative. Similarly, the lack of predicative power for openness in the subsamples suggests that as social media becomes more integrated into modern life, they are seen as less novel, and therefore not related to openness at all. Second, and in agreement with others,^{12,13} personality trait measures are sufficiently broad and flexible enough to secure reliable constructs in several languages.

One limitation, as discussed elsewhere,¹² is the danger of conflating differences in personality traits, and effects on media use, with differences in language culture use to describe themselves. In other words, we have no way to verify concrete personality traits. Our study is also based on cross-sectional data and thus does not allow for causal inferences. In addition, it is hard to measure actual behaviors in social media just by relying on self-reported measures.⁵⁰ For instance, recent research shows that people may build the perception they are well informed, and wrongfully estimate the news will find them by relying on social media.⁵¹ Future studies might use a combination of ethnographic or content analysis designs to determine the nature of content and more specific uses of social media.

This study is the first of its kind with data from 20 countries and included a long and broad set of controls to explain the role of personality in media use. Results indicate that personality is a powerful explainer of social media uses outside the West, and around the world. Thus, the study sheds a much needed light on the nature of these relationships beyond western societies. In doing so, it highlights the need for accounting for different uses of the various affordances of social media, since people use these platforms to fulfill different needs. Finally, the findings are an important step for isolating the more reliable, explanatory traits that relate social versus informational uses of social media around the world.

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Appendix

APPENDIX TABLE A1. DEMOGRAPHIC BREAKDOWN BY AGE, GENDER, AND RACE FOR 20 COUNTRY STUDY VERSUS CENSUS DATA

	Age group					Gender		Race	
	18–24	25–34	35–44	45–64	65+	Female	Male	Asian	Black
1. Argentina	15.2 (17.3)	24 (21.4)	20.8 (17.6)	34.2 (28.4)	5.8 (15.3)	51.7 (53.1)	48.3 (46.9)	—	—
2. Brazil	5.7 (8.7)	29.4 (15.7)	29.4 (15.7)	20 (13.5)	3.7 (13)	49.8 (51.4)	50.2 (48.6)	1.7 (.5)	12.6 (7.9)
3. Chile	26.3 (14.8)	30 (21.1)	19.7 (18.4)	20.7 (32.1)	3.2 (13.7)	51.3 (51)	48.7 (49)	—	—
4. China	10.5 (12.7)	31.5 (14.9)	27.9 (18.2)	27.2 (24.3)	2.9 (8.9)	44.4 (48.8)	55.6 (51.2)	—	—
5. Estonia	11.1 (9.7)	17.8 (17.9)	15.1 (17)	33 (32.4)	22 (23)	54.3 (48.2)	50.6 (45.7)	—	—
6. Germany	11 (6.2)	26 (15)	43.8 (24.6)	8.3 (5.1)	10.9 (17)	53.9 (51)	46.1 (49)	—	—
7. Indonesia	19.1 (12.5)	36.9 (24.3)	26.2 (21)	13 (24.2)	0.6 (4.8)	59.6 (49.9)	38.9 (50.1)	76.2 (40.2)	—
8. Italy	10.9 (7.1)	21.9 (11.5)	27.9 (15.1)	34.4 (28.7)	5 (21.9)	54.8 (51.5)	44.2 (48.5)	—	—
9. Japan	4.1 (5.9)	13.4 (13.9)	26.7 (17.8)	45 (32)	10.9 (30)	41.6 (51.3)	57.1 (48.7)	99.3 (98.6)	—
10. Korea	16.7 (11.5)	24.4 (16.1)	24.3 (19.6)	31.7 (36.8)	2.8 (15.9)	46.7 (46.2)	53.3 (53.8)	—	—
11. New Zealand	7.1 (9.4)	13.2 (16.6)	15.2 (18.6)	36.7 (35.5)	24 (19.7)	56 (52.1)	43.2 (47.8)	7.8 (11.6)	—
12. Philippines	17.7 (9.2)	35.3 (16.1)	25.9 (12.4)	15.8 (15.9)	1.3 (4.8)	49.7 (61.2)	39 (50.2)	—	—
13. Poland	13.9 (10.7)	21.4 (19.6)	22.6 (18.1)	34.1 (33)	8 (18.6)	54 (52.3)	46 (47.7)	—	—
14. Russia	18 (13.6)	24.2 (19.7)	26 (16.6)	28.6 (34.3)	2.5 (15.6)	50.2 (53.8)	48.4 (46.2)	—	—
15. Spain	11.7 (7.4)	21.9 (14.9)	26.4 (16.9)	36.8 (25.6)	2.9 (17.3)	51.7 (50.6)	46.5 (49.3)	—	—
16. Taiwan	15.4 (15.5)	30.6 (17.7)	30.6 (18.7)	22.6 (34.1)	1 (13.9)	49.2 (50.1)	50.8 (49.9)	—	—
17. Turkey									
18. United Kingdom	4.3 (8.7)	12.8 (17.7)	17.6 (16.9)	42.7 (33.4)	22.6 (23)	54.1 (51.4)	45.9 (48.6)	3.1 (6.9)	1.2 (2.9)
19. Ukraine	13 (7.8)	38.6 (19.8)	26.6 (17.5)	14.8 (25.5)	1 (19)	44 (54.8)	54.9 (45.1)	—	—
20. United States	8.4 (9.9)	13.5 (13.6)	14.8 (12.8)	42.7 (26.2)	20 (15.5)	59.5 (50.8)	40.5 (49.2)	3.5 (5)	5.8 (12.6)

Census data reported in parenthesis based on official estimates. Dashes indicate demographics not directly comparable. See below for notes.

APPENDIX TABLE A2. DEMOGRAPHIC BREAKDOWN BY EDUCATION, HOMEOWNERSHIP, AND MARITAL STATUS FOR 20 COUNTRY STUDY VERSUS CENSUS DATA

	Education										Homeownership			Marital Status		
	High school or less	Some college	College degree+	Graduate degree+	Own		Rent	Married	Divorced	Single	Widowed					
					Own	Rent										
1. Argentina	54 (85)	13.1 (9.4)	26.7 (5.7)	—	—	—	53.2 (52.8)	12.2 (10.6)	32.4 (28)	2.2 (8.5)						
2. Brazil	52.2 (39.4)	47.8 (60.5)	—	—	—	—	—	—	—	—						
3. Chile	22.8 (80.6)	44.2 (12)	33 (16.6)	—	62.1 (80.6)	37.9 (19.4)	44.7 (44.3)	8.3 (3.1)	46.3 (47.2)	0.7 (5.4)						
4. China	9.3 (15)	23 (5.5)	58.7 (3.7)	7.6 (0.3)	88.9 (85.4)	11.1 (11.9)	76.2 (71.3)	1.4 (1.4)	21.8 (21.6)	0.6 (5.7)						
5. Estonia	44.6 (64)	16.5 (9.4)	14.5 (7.8)	24.2 (17.2)	—	—	—	—	—	—						
6. Germany	60.9 (85.3)	—	7.2 (1.3)	31.8 (14.5)	44.1 (41.3)	55.9 (48.6)	54.5 (54.8)	19.5 (8.5)	21.4 (28.2)	4.6 (8.5)						
7. Indonesia	25.7 (41.6)	13.1 (29.2)	53.9 (18.2)	4.7 (10.9)	—	—	—	—	—	—						
8. Italy	52 (49.7)	—	31.2 (13.5)	—	79.3 (72)	20.7 (18)	56 (48.4)	5.1 (2.2)	37.5 (41.9)	1.4 (7.5)						
9. Japan	44.3 (62.3)	14.4 (16.4)	33.9 (19.5)	7.4 (1.8)	—	—	—	—	—	—						
10. Korea	31.8 (56.5)	11.6 (14.3)	56.6 (29.3)	—	59.4 (53.8)	40.6 (46.2)	51.5 (60.8)	2.5 (4.2)	45 (26.9)	—						
11. New Zealand	33.5 (38.2)	28.3 (8.2)	24.4 (12.1)	13.7 (5.7)	—	—	—	—	—	—						
12. Philippines	5.5 (7.1)	—	70.2 (3.5)	—	66 (61.6)	34 (12.1)	50.3 (45.3)	4.3 (1.2)	43.2 (43.5)	2.2 (4.2)						
13. Poland	48.8 (79.4)	15.4 (7.6)	35.8 (13)	—	80.5 (83.5)	19.5 (16.5)	67 (57.7)	7.5 (5)	22 (27.8)	3.5 (9.5)						
14. Russia	25.4 (64)	10.6 (4.2)	63.9 (30.9)	3.5 (1)	—	—	56.2 (49.7)	6.3 (8.3)	18.4 (20.7)	—						
15. Spain	18.6 (46)	44.1 (22.1)	37 (31.9)	—	77.7 (79.7)	21.4 (20.3)	62.4 (54.6)	6.4 (5.2)	29.6 (32.4)	1.3 (7.6)						
16. Taiwan	21.9 (57)	18.2 (12.2)	46.1 (24.6)	13.8 (6.3)	70.1 (84)	29.9 (16)	41.6 (51.1)	4 (7.9)	50.6 (34.7)	0.3 (6.3)						
17. Turkey	—	—	—	—	—	—	—	—	—	—						
18. United Kingdom	30.2 (29.3)	31.9 (20.5)	38 (27)	—	65.1 (64.8)	35.2 (34.8)	48.5 (41.5)	11.6 (6.6)	31.7 (46.4)	3.7 (5.2)						
19. Ukraine	13.7 (56.5)	—	31 (20.7)	61.7 (14.6)	—	—	—	—	—	—						
20. United States	22.8 (40.8)	33.5 (29.1)	28.3 (18.7)	15.4 (11.4)	67.9 (63.1)	32.1 (36.9)	50.9 (47.7)	12.9 (11)	33.3 (27)	(5.9) 5.9						

APPENDIX TABLE A3. FOOTNOTES ON DEMOGRAPHIC BREAKDOWN OF COUNTRY STUDIES

1.	Argentina	2014 World Values Survey. Other race = Mestizo. Yearly income reported versus Pew 2013: \$19,999 or less 73.3(31.7); 20,000–49,000 21.3(40.3); 50,000–99,000 4.8(19); 100,000 or more .6(9).
2.	Brazil	2013 Brazilian Census data. Numbers for age groups 15–19, 20–29, 30–39, 40–49, 50–59, and 60+. *Census numbers for brown/indigenous (45.3%) categories were not recorded in the first wave and were instead asked in the study as Latino (7.8%); other = American and Pacific Islander. Language in the census differs from the study on race and education items: High School = High School or less, Some College = High School +. In the Brazilian Census, the information available is related to the level that people are studying at the moment. Yearly income categories reported as less than R\$50,000 52.1(79.6); R\$50, 000–100,000 16.3(6.2); R\$100,000 + 13.2(3.1).
3.	Chile	2015 population estimates based on INE data.
4.	China	2010 Chinese Census made by China's Office for National Statistics.
5.	Estonia	2015 population estimates for age and gender; 2011 for ethnicity and citizenship, 2014 for education levels. White = Estonian (official estimates report Russian as 26.1% versus 1% in the study.
6.	Germany	2014 Statista estimates. Age categories are 18–24, 25–39, 40–59, 60–64, and 65+.
7.	Indonesia	2010 BPS estimates. Asian = Java
8.	Italy	2015 ISTAT estimates.
9.	Japan	2010–2014 Japanese Census Estimates. Asian = Japanese. Other = Korean, Chinese, or other. Yearly income categories reported as 1.5 million yen or less 13.3(10.6); 1.5–3.5 million 28.5(24.3); 3.5–7 million 31.7(38); 7–11 million 18(17.8); over 11 million 8.3(9.3).
10.	Korea	2015 population statistics from 2015 resident registration at the Ministry of Government Administration and Home Affairs; 2012 Korea Housing Survey; and 2010 census.
11.	New Zealand	2013 NZ Census. In age groups 18–24 = 20–24. White = European; other = Maori 4.8(12) and Pacific 1.5(5.7). Yearly income categories reported as \$50,000 or less 41.7(32.9); 50,001–150,000 34.7(40.97); over 150,000 2.8(10.1).
12.	Philippines	2015 population estimates. In age groups 18–24 = 20–24.
13.	Poland	Population estimates for 2011 and 2014 by GUS or Eurostat 2012.
14.	Russia	2010 Census estimates.
15.	Spain	2011 Population Census made by the Spanish Statistical Office (INE); 2011 European Union Statistics in Income and Living Conditions (EU-SILC); 2011 Labor Force Survey (EPA).
16.	Taiwan	2014 Department of Statistics, Ministry of Interior.
17.	Turkey	
18.	United Kingdom	2014 UK Census (ONS) estimates for age, homeownership, and marital status, otherwise 2011 Census data are used.
19.	Ukraine	2001 Official Census data. White = Ukrainian; Russian = 10.9(17.3).
20.	United States	2014 U.S. Census American Community Survey (1-year estimates); census asks about Hispanic (16.9%) ethnicity in a separate question, the study offered Latino (5.1%) as an exclusive option in a single race item.

Census data reported in parenthesis, based on official estimates. Dashes indicate demographics not directly comparable. See below for notes.

APPENDIX TABLE A4. MEASUREMENT OF VARIABLES

<i>Variables</i>	<i>Items</i>	<i>M</i>	<i>SD</i>	<i>α</i>
Personality traits	Agreement/Disagreement with the following statements:			
Extraversion	Like to start conversations Don't like to speak in front of groups (recoded) Comfortable introducing themselves to new people Being shy around strangers Talk to a lot of different people at events Find it difficult to approach others (recoded)	4.24	1.23	0.81
Agreeableness	Sympathize with others' feelings Feel little concern for others (recoded) Being indifferent to others' feelings (recoded) Love children Try my best to comfort others Find it tiresome when others ask for my help (recoded)	5.14	0.96	0.75
Conscientiousness	Get chores done right away Don't like to pay attention to detail (recoded) Like order Do things according to a plan Being always prepared Make plans and stick to them	4.78	0.92	0.72
Emotional stability	Frequent mood swings (recoded) Get upset easily (recoded) Obsess over problems (recoded) Rarely get irritated Don't get upset when problems arise Being calm most of the time	4.34	1.04	0.72
Openness to new experiences	Have difficulty imagining things I'm not interested in new ideas (recoded) Don't like to try new things (recoded) Being full of ideas Take a long time to learn anything new (recoded) Being quick to understand	4.99	0.96	0.69
Sociopolitical antecedents				
Media trust	Trust in news from ... Mainstream media Alternative media Social media	3.48	1.11	0.77
News use	Frequency of getting news from... TV news Printed newspaper Radio	4.52	1.31	0.60
Political interest	How "closely" or "interested" respondents are interested in politics and public affairs	4.49	1.46	0.94
Political discussion network size	The number of people with whom they discuss public affair issues "online" and "off" (natural logarithm calculated as the construct was largely skewed; originally, skewness = 138.41).	0.59	0.49	
Frequency of political discussion	Political discussion online and offline with family, relatives, and friends Acquaintances Strangers Spouse and sentimental partners	2.92	1.27	0.89

(continued)

APPENDIX TABLE A4. (CONTINUED)

<i>Variables</i>	<i>Items</i>	<i>M</i>	<i>SD</i>	<i>α</i>
Life satisfaction	Respondents were asked how satisfied they were with their life as a whole their health standard of living safety and security whether they felt harassed online	4.86	1.16	0.86
Demographics				
Age		40.75	14.63	
Education		4.31	1.29	
Income		2.94	1.09	
Gender (51% female)				
Race (84% majority)				