

Social interactions mediated by the Internet and the Big-Five: a cross-country analysis

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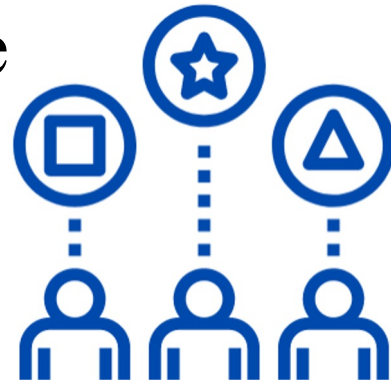
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Introduction

1

Diversity

- Personality traits may play a relevant role in social interactions mediated by technological platforms
- The socio-cultural context may influence the diversity



WeNet Pilots



A self-reported **questionnaire**: to begin modeling and analyzing diversity among students based on their social practices, competencies, knowledge and motivations



A **Chatbot application**: allows participants social interactions requesting and offering help, represented as questions and answers in the application



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Big-Five model



(Goldberg, 1993)

Objective

Analyze the role played by personality in social interaction mediated by a Chatbot. This could inform machine algorithms based on artificial intelligence for recommending persons that could offer better help



2

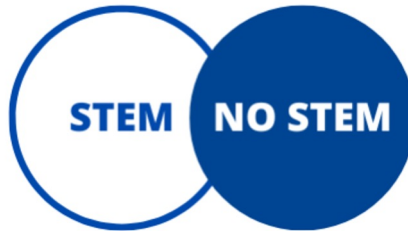
**Data
from
Pilots**

Data collection and processing

- Identically applied in the four pilot sites
 - Translation
 - Localization work
 - Anonymized
 - Voluntary
- sociolinguistic skills



email invitations



questions and answers

Chatbot: Number of participants (P), answers (A) and questions (Q), disaggregated by area of study and sex

	UNITN			LSE			NUM			UC		
	P	Q	A	P	Q	A	P	Q	A	P	Q	A
Male	14	78	443	5	15	117	8	56	432	10	85	234
Female	28	265	593	38	233	608	29	497	2481	10	119	310
STEM	16	100	460	7	120	442	21	496	2379	15	73	196
No-STEM	26	243	576	36	128	283	16	57	534	5	131	348
Total	42	343	1036	43	248	725	37	553	2913	20	204	544

Analysis of results

3

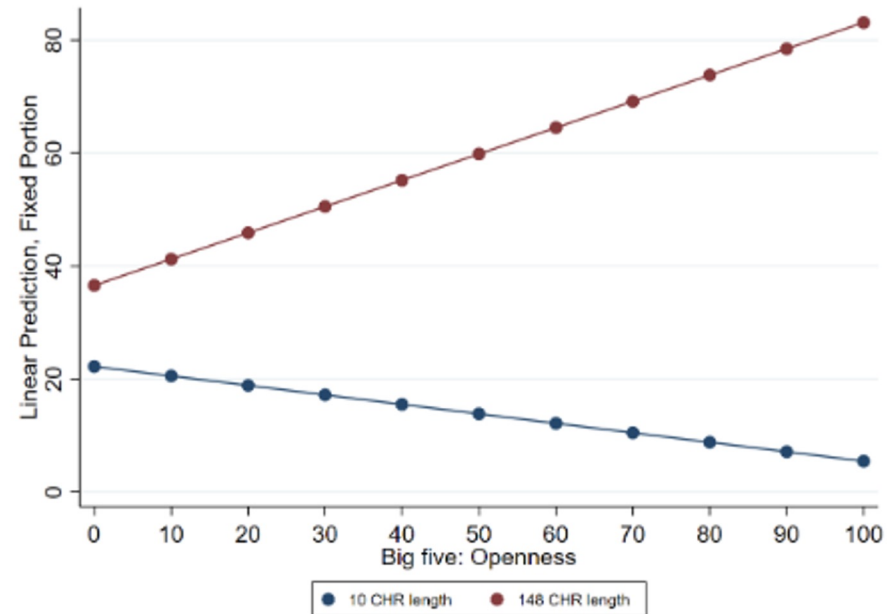
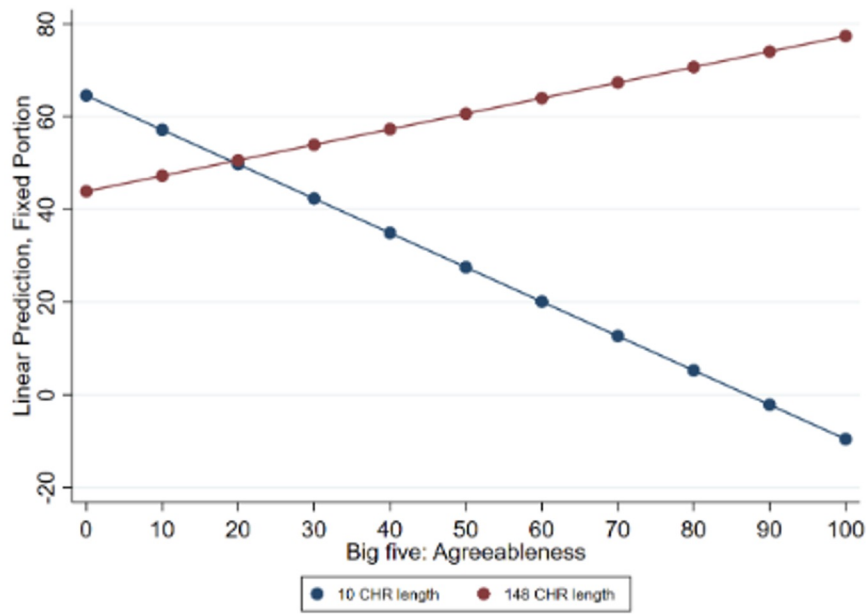
	Total		LSE		NUM		UC		UNITN	
	Corr.	p.	Corr.	p.	Corr.	p.	Corr.	p.	Corr.	p.
Question										
E	0.032	0.249	-0.109*	0.084	0.072*	0.088	-0.013	0.852	0.044	0.456
A	-0.041	0.139	-0.033	0.599	0.043	0.310	-0.314*	0.000	-0.033	0.574
C	0.020	0.474	0.078	0.217	-0.009	0.835	-0.203*	0.003	0.104*	0.081
N	-0.155*	0.000	-0.028	0.660	-0.111*	0.009	-0.290*	0.000	-0.088	0.138
O	-0.019	0.505	-0.008	0.903	-0.022	0.609	0.024	0.734	-0.090	0.130
Events	1306		255		558		207		286	
Answer										
E	0.0930*	0.000	-0.053	0.150	-0.017	0.330	0.0929*	0.021	0.1713*	0.000
A	0.1216*	0.000	0.1840*	0.000	0.004	0.803	0.0671*	0.097	0.036	0.231
C	-0.0375*	0.005	0.005	0.891	-0.0340*	0.053	0.0712*	0.078	0.048	0.114
N	-0.0486*	0.000	0.007	0.845	-0.0626*	0.000	-0.1365*	0.001	-0.0895*	0.003
O	0.0969*	0.000	0.033	0.370	0.0722*	0.000	0.002	0.968	0.0737*	0.015
Events	5688		750		3223		614		1101	

Spearman correlation between logarithmic length of questions and answers and Big-Five

Multilevel multinomial linear regression of question-and-answer length

	Questions		Answers	
	Coef.	p.	Coef.	p.
Length of question			-6.7488	0.463
Big-five				
E	0.0968	0.134	0.0752	0.78
A	-0.2232	0.049	-1.4582	0.001
C	-0.0265	0.727	0.3643	0.26
N	-0.0522	0.452	0.3468	0.242
O	0.1441	0.066	-0.5899	0.051
Big-five*Length of question				
E*lques			-0.0541	0.343
A*lques			0.3586	0
C*lques			-0.0734	0.288
N*lques			-0.1432	0.026
O*lques			0.2111	0.001
pilot (ref.UNITN)				
LSE	-6.5271	0.323	23.5338	0.003
NUM	-1.4537	0.823	-21.0960	0.008
UC	8.1407	0.278	-4.0600	0.649
Sex (Ref. Male)				
Female	-3.9917	0.487	0.1042	0.988
Dep. (Ref.STEM)				
No-STEM	0.9058	0.867	-5.2058	0.434
Cons	72.5146	0.000	84.7309	0.043
Obs.	115		105	
Events	1318		5386	
Wald chi2	16.540		397.9800	
p.	0.0853		0.0000	

Predicted answer characters by Big-five (Agreeableness and Openness) and question length



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Discussion and conclusions

Discussion and conclusions

Personality traits may influence social interactions and active participation in groups

Discussion and conclusions

Some personality traits of participants influence the way they request help and/or contribute to other users through a Chatbot application

Discussion and conclusions

Sociodemographic variables appear to have no effect in predicting questions and answers lengths

Discussion and conclusions

Further analysis may shed more light on the role of personality in characterizing diversity as a factor to improve Internet-mediated social interactions in different contexts

Thank you!

Vielen Dank!

¡Muchas Gracias!

Grazie Mille

Any questions?