THE RELATIONSHIP BETWEEN PSYCHOLOGICAL DISORDERS ASSOCIATED WITH SOCIAL MEDIA USE PERCEPTION AND FAKE PERCEIVED ONLINE PERSONA AWARENESS

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Abstract: *The digital identity, online identity or internet persona, is defined as a social identity, an actively constructed presentation of oneself that an individual creates in online communities and digital environments. Considering social identity theory as an explanatory framework, this paper brings evidence on the dynamic relationship between psychological disorders associated with social media use perception and fake perceived online persona awareness in cyberbullying.The concept of digital wellbeing refers to the overall wellbeing index generated by the interaction between humans with social digital environments, like social media platforms. Rethinking mental illness in the light of digital footprints and traces people leave*

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on social media platforms, encompasses the possibility that an event to become toxic and pathologic is exponentially higher in the digital realm that in the real life, as such developing a pathology associated with the usage of digital environment becomes exponentially higher. The question becomes is this new emerging digital pathology really a psychological pathology or just a response to a digital adversity situation/environment/person? Our research team has developed the projects Keeping youth safe from Cyberbullying and Hate's Journey, aiming to deeper understand the dynamics of different digital aggression aspects in online environments among youth, by creating an online questionnaire composed by single item research questions related to core concepts and perceptions about digital aggression motives and effects. The paper's focus is on analyzing the psychological disorders associated with social media use perception impact on fake perceived online persona awareness in cyberbullying and digital hate speech incidents, in 206 participants residents of Latvia in 24.8%, Romania 24.8%, Spain 24.8%, and Turkey 25.7%, with an age mean of m=30 years, 39.8% males and 60.2% females. Data analysis results depict that when modelling the effect of psychological disorders associated with social media use perception on fake perceived online persona awareness in cyberbullying, the curvilinear model (19%) is more consistent that the linear model (15%), with both models showing statistical significance. Psychological conclusions and implications in regards to digital wellbeing perspective are discussed.

Key words: *digital wellbeing; hate speech; mental health; psychological disorders;fake perceived online persona awareness;toxic digital environments and dynamic relationship.*

1. Introduction

The digital identity, online identity or internet persona, is defined as a social identity, an actively constructed presentation of oneself that an individual creates in online communities and digital environments.

The authentic self-disclosure has been raising important issues that lead to the conclusion that the strategy of digital identity has become vital. With its implicit online community and many alter / egos characteristics, the digitized and networked status continuously encourages user-decisions on digital footprints. The true self holds unique psychological-ontological features inside online communities where the key concept is "whoever is not

available on the internet does not exist". Users combine deliberate decisions with unconscious decisions, which move in the data flow. Responses to real time will not make it: the modern world has evolved exponentially. Social psychology, computer science and management education explore the creation of digital identities and the novel characteristics from egotism to personal brand identity (Andrejevic, M., 2007; Brems, C., Temmerman, M., Graham, T., and Broersma, M., 2016; Brooks, A. K., and Anumudu, C., 2016; Cederberg, C. D., 2017; Chen, C.-P., 2013; Eagar, T., and Dann, S., 2016; Evans, J. R., 2017; Gandini, A., 2016; Gioia, D. A., Hamilton, A. L., and Patvardhan, S. D., 2014; Harris, L., and Rae, A., 2011;Johnson, K. M., 2017). Decisions about in / visibility, boundaries between public / social relations and relationships clash with the self that has to redefine itself in a constantly shifting digital age over and over again in terms of a personal identity. Our aim is to illustrate current and potential trends related to the digital identity.

Considering social identity theory as an explanatory framework, this paper brings evidence on the dynamic relationship between psychological disorders associated with social media use perception and fake perceived online persona awareness in cyberbullying.The concept of digital wellbeing refers to the overall wellbeing index generated by the interaction between humans with social digital environments, like social media platforms. Rethinking mental illness in the light of digital footprints and traces people leave on social media platforms, encompasses the possibility that an event to become toxic and pathologic is exponentially higher in the digital realm that in the real life, as such developing a pathology associated with the usage of digital environment becomes exponentially higher. The question becomes is this new emerging digital pathology really a psychological pathology or just a response to a digital adversity situation/environment/person?

Rethink mental illness in the light of digital footprints and traces people leave on social media platforms. Here the possibility of an event to be become toxic and pathologic is exponentially higher than in the real life, as such developing a pathology associated with the usage of digital environment becomes exponentially higher. The question becomes is this new emergent digital pathology really a psychological pathology or just a response to a digital adversity situation/environment/person.A pathological environment will normally create pathologies. People need to move away from digital pathological environments in order to maintain their mental health, and to sustain their digital wellbeing (Rad, D., & Demeter, E., 2019).Symptoms are an adaptive response that arose at some point for a good reason but is no longer serving them in the way they once needed it. This new behavior is conceptualized as digital emergent behavior.

The basic principle of digital emergent behavior is the one in which the simple digital behavior of the individual components creates a digital behavior that is much more complex than can be estimated of the system. These digital emergent properties are completely unpredictable, without precedent, the manifestation of digital emergent behavior representing a new phase of digital behavior evolution (Rad, D., & Demeter, E., 2020)

Pandemic creates huge psycho-social barriers and thus, owns the potential to develop disruptive digital emergent behavior especially in the vulnerable groups of individuals with low social media context awareness (Rad, D., Balas, V., Lile, R., Demeter, E., Dughi, T., Rad, G. 2020).

2. Research methodology

Our research team has implemented the Erasmus+ funded projects Keeping youth safe from cyberbullying and Hate's Journey, with the aim of in-depth understanding of the dynamics of online hate speech among youth from Spain, Romania, Turkey and Latvia (Rad, D., et al. 2019; Rad, D., et al. 2019; Rad, D., et al. 2020; Rad, D., et al. 2020). Our research's present inquiry is the identification of the existent relationship between psychological disorders associated with social media use perception and fake perceived online persona awareness in digital hate speech incidents. In this regard, our team has designed an online questionnaire composed by descriptive data, and specific single item research questions.

Our hypothesis states that our two research variables: psychological disorders associated with social media use perception and fake perceived online persona awareness are in a curvilinear relationship. In order to test our curvilinear hypothesis, we have used SPSS' multiple linear regression analysis, based on multiple regression analysis for curvilinear effects, where fake perceived online persona awarenesswas the dependent variable and the independent variable psychological disorders associated with social media use perception.

3. Research participants

The research sample was selected based on the opportunistic principle and is comprised of 206 participants from Latvia 24.8%, Romania 24.8%, Spain 24.8%, and Turkey 25.7%, with an age mean of m=30 years, 39.8% males and 60.2% females. As for respondent's educational level, 3.9% absolved primary school, 1.9% have a professional diploma, 29.1% absolved high school, 32% have a Bachelor degree, 29.1% Master diploma and 3.9% have finished PhD. Regarding the professional status, 5.8% are unemployed, 43.7% are students, 1% volunteering and 49.5% employed.

An essential aspect of this research is the online time spent by respondents. 1% responded with never or hardly ever using internet, 8.7%

responded with every week, 20.4% responded with daily or almost daily, 46.6% responded with several time each day and 23.3% responded with almost all the time.

4. Instruments

For the purpose of this research, we have included in our online investigation the following single item research items:

- for psychological disorders associated with social media use perception (M=3.67, SD=1.24 assessment this research used a single item measure – Item 12. Please rate the following statement from 1 to 5 (1 stands for strong disagreement, 2 stands for disagreement, 3 stands for neutral, 4 stands for agreement and 5 stands for strong agreement), according to the level of you agreement: *Psychological disorders may accompany the use of Internet and digital environments*.6.9% of participants declared strong disagreement, 11.6% disagreement, 21.3% neutral, 25.8% agreement, 33.1% strong agreement.
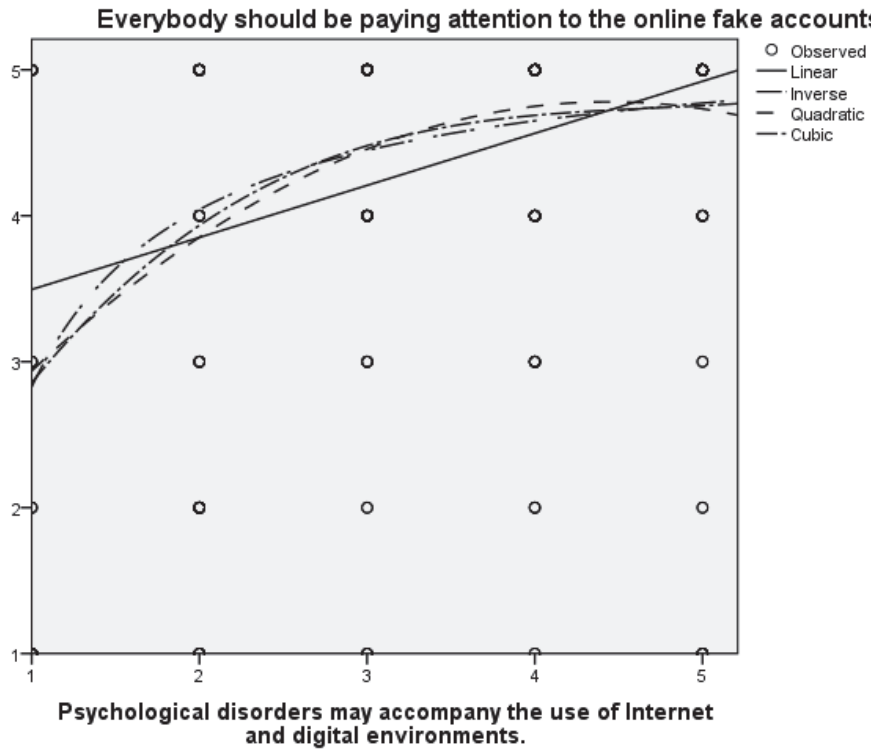
- for fake perceived online persona awareness(M=4.45, SD=1.13) assessment this research used a single item measure – Item 13. Please rate the following statement from 1 to 5 (1 stands for strong disagreement, 2 stands for disagreement, 3 stands for neutral, 4 stands for agreement and 5 stands for strong agreement), according to the level of you agreement: *Everybody should be paying attention to the online fake accounts*. 5.7% of participants declared strong disagreement, 4.3% disagreement, 4.3% neutral, 9.9% agreement, 74.8% strong agreement.

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5. Results

For testing our hypothesis that states that between psychological disorders associated with social media use perception and fake perceived online persona awareness there is a curvilinear relationship, we have used a confirmatory factor analysis, based on multiple regression analysis for curvilinear effects. A curvilinear relationship can be defined as a relationship between two or more variables which can be graphically depicted by anything other than a straight line. A particular case of curvilinear relationships is the situation where two variables grow together until they reach a certain point (positive relationship) and then one of them increases while the other decreases (negative relationship) or vice-versa, the graphically representation of the function being an U or an inverted U shape (Rad, D., Dughi, T., Demeter, E., & Rad, G., 2019).

The curvilinear relationship is easily identified graphically by a Scatterplot, choosing additional representations of the regression line: Linear, Inverse, Cubic and Quadratic models, for depicting curvilinear effects. The Scatterplot diagram presented in Figure 1 indicates the curvilinear relationship between psychological disorders associated with

social media use perception on the horizontal axis and fake perceived online persona awareness, represented on the vertical axis. The sample consists of 206 participants.

Figure 1 - Linear and quadratic curve estimation of psychological disorders associated with social media use perception and fake perceived online persona awareness

There is a very high correlation between psychological disorders associated with social media use perception(m=4.45; SD=1.138) and fake perceived online persona awareness (m=3.67; SD=1.24) of r=.390 significant at a p<.01, which methodologically gives us incentives to compute the multiple linear regression analysis (Rad, D., Dughi, T., Demeter, E., & Rad, G., 2019).

In order to test our hypothesis, the present study proposes a hierarchical multiple regression analysis, the dependent variable being fake perceived online persona awareness, and the independent variable in step 1 psychological disorders associated with social media use perception, and in step 2 psychological disorders associated with social media use perception and squared psychological disorders associated with social media use perception.

Table 2 presents the fitting of the two models, linear – Model 1 and curvilinear/ quadratic – Model 2. As we can see in Model 1 the model that

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supposes linear relationship, fake perceived online persona awareness accounts for 15% of the variance in psychological disorders associated with social media use perception with an $F= 89.080$ significant at a p<.01. In Model 2, the model that supposes curvilinear relationship, fake perceived online personaawareness accounts for 19% of the variance in psychological disorders associated with social media use perception with an $F=60.201$ significant at a $p<.01$.

Table 2. The relationship between fake perceived online persona awareness and psychological disorders associated with social media use perception, model summary, ANOVA and coefficients

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.390 a	.152	.150	1.050	.152	89.080	1	203	.000
2	.442 b	.195	.192	1.024	.043	26.722	1	202	.000

a. Predictors: (Constant), Psychological disorders associated with social media use perception

b. Predictors: (Constant), Psychological disorders associated with social media use perception, PDASMP sqrt

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	98.270	1	98.270	89.080	.000[b]
	Residual	549.378	202	1.103		
	Total	647.648	203			
2	Regression	126.301	2	63.150	60.201	.000[c]
	Residual	521.347	202	1.049		
	Total	647.648	203			

a. Dependent Variable: Fake perceived online persona awareness

b. Predictors: (Constant), Psychological disorders associated with social media use perception

c. Predictors: (Constant), Psychological disorders associated with social media use perception, PDASMP sqrt

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.138	.147		21.417	.000
	Psychological disorders associated with social media use perception.	.357	.038	.390	9.438	.000
2	(Constant)	1.711	.311		5.502	.000
	Psychological disorders associated with social media use perception	1.382	.202	1.509	6.851	.000
	PDASMP sqrt	-.156	.030	-1.139	-5.169	.000

a. Dependent Variable: Fake perceived online persona awareness.

All standardized coefficients of Beta (β= .390; β= 1.509 and β=-1.139) are significant at $p<.01$ which gives a high consistency to our both models. Changing Beta coefficient's sign from + to - means that the effect is growing in the opposite direction, which demonstrates that the relationship between the two variables: psychological disorders associated with social media use perception and fake perceived online persona awarenessis not linear, but curvilinear. The additional incremental predictive capacity of 4 percent, added by including the squared psychological disorders associated with social media use perception variable which is accounting for the band in the regression line, indicates that there is a curvilinear relationship between psychological disorders associated with social media use perception and fake perceived online persona awareness.

This curvilinear relationship demonstrates that extreme aspects, extremely reduced and extremely high levels of psychological disorders associated with social media use perception, significantly influences the fake perceived online persona awareness. Normal levels of psychological

disorders associated with social media use perception triggers an accepted level of fake perceived online persona awareness, meaning that the process of online persona perception functions in an adaptive manner. Thus, a very highlevel of psychological disorders associated with social media use perception and a very low level of psychological disorders associated with social media use perception play an important role in the process of fake perceived online persona awareness, acting like a buffering effect.

6. Conclusions and implications

The present study investigated if psychological disorders associated with social media use perception and fake perceived online persona awareness are in a curvilinear relationship. The obtained results confirm the proposed hypothesis, meaning that extreme aspects, extremely reduced and extremely high levels of psychological disorders associated with social media use perception, significantly influences the fake perceived online persona awareness. Normal levels of psychological disorders associated with social media use perception triggers an accepted level of fake perceived online persona awareness, meaning that the process of online persona perception functions in an adaptive manner.

This inference gives us methodological reasons to believe that between the two concepts either moderation or mediation interaction processes occur, offering incentive for emergent digital behavior. In a further research we will investigate the role of social media context awareness, online time spent and other variables over the relationship between psychological disorders associated with social media use perception and fake perceived online persona awareness.

As a central conclusion of this research, we have to acknowledge that a digital adversity situation/environment/person will led to audience's manifestation of a digital emergent behavior or misbehavior.

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