

## Postmodern Openings

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# Youth Sustainable Digital Wellbeing

Dana RAD<sup>1</sup>, Edgar DEMETER<sup>2</sup>

<sup>1</sup> Assoc. Prof. PhD, Aurel Vlaicu University of Arad, Faculty of Educational sciences, Psychology and Social Sciences, [dana@xhouse.ro](mailto:dana@xhouse.ro)

<sup>2</sup> Assist.Prof. PhD, Aurel Vlaicu University of Arad, Faculty of Educational sciences, Psychology and Social Sciences, [eddemeter@yahoo.com](mailto:eddemeter@yahoo.com)

**Abstract:** Digital well-being emerged as a postmodern concept describing the overflowing daily input of information and social networking options. The theoretical literature frameworks related to digital skills are not specifically considering some particular abilities needed for coping with daily interactions' overwhelming and currently depict two sides of the digital well-being story: as a personal obtainable status through individual digital wellbeing abilities and skills, and on the other hand as a specificity common to a social community where values, norms, and aspirations bring valuable inputs to the safety, comfort, self-satisfaction along with socio-psychological fulfillment of group members. In order to investigate the interactions of the youth digital well-being, our team has implemented the project Hate's Journey funded under Erasmus+. Our research team has designed a multiple specific sections online questionnaire addressing 206 youth from Turkey, Spain, Latvia, and Romania. We have used a SEM analysis approach with the purpose of providing model fit output about the consistency of the hypothesized mediation model: youth online duality, considered a correlate of digital well-being, mediates the relationship between the predictor helpfully perceived network and the outcome, emotional regulation. Consistent with previous research, our results support the hypothesis that youth online duality totally mediates the relationship between the helpfully perceived digital environment and youth digital emotional regulation. Conclusions and implications are discussed.

**Keywords:** *sustainable digital well-being; youth online duality; youth digital emotional regulation.*

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## 1. Introduction

Researchers on the topic of Healthcare and Psychology postulate that individual's wellbeing presence can affect the state of one's mental health in one way or another (Keyes, 2014). Wellbeing is described in literature as a state of being in which individuals can develop their skills, adapt with the daily stresses of existence and have a sense of community contribution (World Health Organization, 2004). In today's society, where the development of digital technologies is emerging, it is important to take into consideration the development of the individual wellbeing when it comes to the engagement with the digital environment. Individuals who are predominantly engaged with the digital environment are youth (Plowman et al., 2012; Bell et al., 2015), but in some manor also the elderly (Richter et al., 2013).

Digital well-being emerged as a postmodern concept describing the overflowing daily input of information and social networking options (Gui et al., 2017). The theoretical literature frameworks related to digital skills are not specifically considering some particular abilities needed for coping with daily interactions' overwhelming and currently depict two sides of the digital well-being story: as a personal obtainable status through individual digital wellbeing abilities and skills, and on the other hand as a specificity common to a social community where values, norms, and aspirations bring valuable inputs to the safety, comfort, self-satisfaction along with socio-psychological fulfillment of group members.

One of the significant abilities discussed in literature regarding a well maintained individual well-being is emotional regulation (Gross & John, 2003; Balzarotti et al., 2006; Schutte et al., 2009). In the literature, emotional regulation is defined as part of all conscious and unconscious behavior that individuals use to reduce, maintain or optimize positive or negative emotions (Thompson, 1994; Gross 2001). Studies from literature suggest that a perceived caring climate is able to foster positive mental wellbeing in youth based on the efficacy of emotional self-regulatory (Fry et al., 2012; Kelemen, G, et al., 2019). As regard to the topic of this article, is there such a thing as a perceived caring environment in the digital world?

Individuals who engage with the digital environment may perceive it as helpful, caring or they may perceive it as being cruel (Lenhart et al., 2011). Young individuals spend a lot of time in the digital world (Bell et al., 2015; Lenhart et al., 2011) and the interactions they have in that environment may affect the perception they have over it (Lenhart et al., 2011). Studies from

literature show that a friendly internet community may encourage the formation of lifelong friendships and may offer the perceived feeling of belonging (Cole, 2007; Oh et al., 2014). Virtual environments allow individuals to self-express in ways that their appearance, race, sexuality, age might not make them feel comfortable doing in real contexts (Cole, 2007). The online environment allows the individual to create and manage a digital identity; therefore actively managing one's digital identity and reputation can represent an essential element for a positive digital wellbeing in today's digital society (*Western Sydney University*, n.d.). Referring to this, the current research will examine if the association between a helpful perceived digital environment and difficulties in emotional regulation is mediated by online identity duality.

Lastly, we will refer to the concept of digital dualism that assumes the fact that online and offline are largely and distinctly separated realities. The term was first introduced in 2011 by Nathan Jurgenson. Rather than placing the digital world and the physical world separately, social media network are mainly used to connect individuals in both the digital and the physical world. Since technology has become part of our regularly lives the two distinct realities overlap and especially youth acknowledge the digital world as part of their reality, rather than a distinct reality (Jurgenson, 2011).

## **2. Objective and Hypothesis**

Our study's focus is to identify the mediating effect of youth online duality to the relationship between helpfully perceived network and youth digital emotional regulation. Our hypothesis states that the relationship between helpfully perceived network and youth digital emotional regulation is mediated by youth online duality (as a potential coping mechanism).

## **3. Research Methodology**

### ***3.1. Participants***

A total of 206 participants from Romania (24.8%), Latvia (24.8%), Spain (24.8%), and Turkey (25.7%), characterized by an average age mean of 30 years, male respondents (39.8%) and female respondents (60.2%), with an educational level, of 3.9% - primary school, 1.9% - professional school, 29.1% - high school, 32% - Bachelor degree, 29.1% - Master degree and 3.9% - PhD level. Regarding professional status, unemployed respondents represent 5.8%, students represent 43.7%, volunteers represent 1% is employed are 49.5%.

The online time spent by respondents was: *never or hardly ever* (1%), *every week* (8.7%), *almost daily* (20.4%), *several times per day* (46.6%) and *almost all the time* (23.3%). As a general picture, the number of constant internet users is superior 69.9% when compared to non-users.

This research has used convenience sampling or consecutive sampling, due to the fact that its purpose was explorative. The total of participants were consecutively selected according to the order of appearance when completing the online questionnaire shared on social media platforms by each of the 4 project partner countries, each country targeting at least 50 respondents, according to the convenient accessibility principle. The sampling process ended by the time each of the 4 project partner countries reached their sample saturation (50) and time saturation (3 months).

### **3.2. Instruments**

In order to investigate the interactions of the youth digital well-being, our team has implemented the project Hate's Journey funded under Erasmus+. Our research team has designed a multiple specific sections online questionnaire addressing 206 youth from Turkey, Spain, Latvia, and Romania. Among other questions that are not being analyzed under current study, our team designed a single item measure aiming to assess youth's online duality and a second single item measure for identifying the level of perceived helpfulness of youth's network. The Difficulties in Emotion Regulation Scale - Short Form (DERS-SF) was used in order to investigate youth's emotional regulation processing (Kaufman et al., 2016).

The total time spent by participants responding the online questionnaire was 15 minutes and they were able to access it from the link shared, after giving their data collection consensus.

#### **3.2.1. Youth online duality**

In order to assess the youth online duality YOD ( $m=2.41$ ;  $SD=0.942$ ) of respondents, a single item was used. Item 8.5 asked respondents the following: *Here are some phrases that people might say when talking about using the internet or going online. Please tell us how much you agree with them. Select one answer for each phrase: Online I discuss about different things than face-to-face speaking to people.* Respondents' answers reflected 1. strongly disagreement (18.4%); 2. disagreement (35.9%); 3. neither agree nor disagreement (32%); 4. agreement (13.6%); 5. strongly agreement (0%). We will further refer to youth online duality as an acting set consisting of two different, sometimes

opposite behavioral elements, as in our case a duality in online and face-to-face communication.

### ***3.2.2. Helpfully perceived network***

With the purpose of assessing youth perception about the perceived social support, helpfulness of their digital network HPN, ( $m=3.11$ ;  $SD=0.789$ ) of respondents, a single item was used. Item 8.4 asked respondents the following: *Here are some phrases that people might say when talking about using the internet or going online. Please tell us how much you agree with them. Select one answer for each phrase: I consider other people helpful and kind in the digital environment.* Respondents' answers reflected 1. strongly disagreement (3.9%); 2. disagreement (12.6%); 3. neither agree nor disagreement (54.4%); 4. agreement (27.2%); 5. strongly agreement (1.9%). There is a vast research analyzing the social support impact, concluding that social resources are important empowerment tools by themselves regardless the context, comforting individuals with positive affect, own value recognition and sense of predictability. Social support is known to directly correlate with lower depression and tendencies of substance use, and higher academic adjustment (Somers, Owens, & Piliawsky, 2008; Graziano, Bonino, & Cattellino, 2009; Dingfelder, Jaffee, & Mandell, 2010; Camara, M., Bacigalupe, G., Padilla, P., 2017).

### ***3.2.3. Difficulties in Emotion Regulation Scale - Short Form***

With the purpose of assessing emotional regulation, the Difficulties in Emotion Regulation Scale - Short Form (DERS-SF) was used. DERS-SF (Kaufman et al., 2016) represents an 18-item scale for identify emotional regulation characteristics. The scale is comprised of 4 dimensions of emotional regulation: 1) emotional awareness and understanding, 2) emotional acceptance, 3) the ability to engage in goal-directed behavior and refrain from impulsive behavior when experiencing negative emotions, and 4) access to effective perceived emotion regulation strategies (Kaufman et al., 2016). The 6 subscales of DERS-SF are the following: lack of emotional awareness (items 1, 4, 6), unacceptance of emotional responses (items 7, 12, 16), lack of emotional clarity (items 2, 3, 5), impulse control difficulties (items 9, 14, 17), restricted availability in accessing emotional regulation strategies (items 8, 11, 13), and difficulty to engage in goal-directed behavior (items 10, 15, 18) (Kaufman et al., 2016). The present investigation will use the summed scores obtained at the short version of emotional difficulty regulation scale.

### ***3.3. Research design***

Current research is a non-experimental mediation analysis. The independent variable (Y) is the difficulty in emotional regulation (DER) and the dependent variable (X) is the helpfully perceived network (HPN). The mediator variable (M) is youth online duality (OD). A 26 items online questionnaire has been administered to a total of 206 participants via social media groups of young individuals who shared a common interest in participating to Erasmus+ projects. The DERS-SF was integrated into a single item. Item 9 asked participant to: *Regarding the fact that people differ from each other and their experiences vary too, we would like to know how much you agree or disagree with the following statements. Select one answer for each phrase (1 - strongly disagree, 2 - disagree, 3 - neither agree nor disagree, 4 - agree, 5 - strongly agree)*. Items 1, 4 and 6 have reversed scores.

In the beginning of the questionnaire, participants were informed about projects' interest, the definition of hate speech was presented to them and they consented on an agreement of taking part of this research with confidentiality terms over individual data.

With the purpose of computing the mediation effect, a series of steps were undertaken (Baron & Kenny, 1986; Shrout & Bolger, 2002; Hayes, 2013; Kahn, 2014). The first step is verifying that study's variables YOD, HPN and DERS correlate in between, statistically significant ( $p < .05$ ). Results are depicted in Table.1. The second step is represented by determining path c – by regressing the dependent variable helpfully perceived network (HPN) on the independent variable difficulty in emotional regulation (DER) with the purpose of confirming that the IV represents a significant predictor of the DV (see Table 2 and Figure 1);

The third step is represented by determining the path a – by regressing the mediator (M) youth online duality on the independent variable difficulty in emotional regulation (DER) to test whether the IV represents a significant predictor of the mediator (M) youth online duality (see Table 2 and Figure 2).

The fourth step is represented by determining the paths b and c', by regressing the dependent variable helpfully perceived network (HPN) on both the mediator (M) youth online duality (YOD) and independent variable difficulty in emotional regulation (DER) in order to confirm that (M) youth online duality the mediator represents a significant predictor of the DV helpfully perceived network (HPN) (path b); path b must be statistically significant; path c' must be non-significant, depicting thus a full mediation (see Table 2 and Figure 2).

The fifth step is represented by using bootstrapping procedures and the Sobel in order to assess the significance of the indirect effect. In order to

calculate this, we have used the PROCESS macro version 2.16 (Hayes, 2013) installed as an extension on the SPSS Statistics 20.

#### 4. Results

We will further present results computed according to the described methodologically steps undertaken.

**Table 1.** Pearson correlation coefficients for HPN, DER and YOD

	DER	YOD
HPN	$r = .260^{**}$	$r = .413^{**}$
DER		$r = .174^*$

helpfully perceived network (HPN); difficulty in emotional regulation (DER); youth online duality (YOD);

\* correlation is significant at the .05 level;

\*\* correlation is significant at the .01 level.

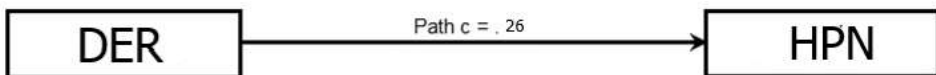
We will further present results computed in order to depict the mediation effect.

**Table 2.** Computed coefficients for the mediation effect.

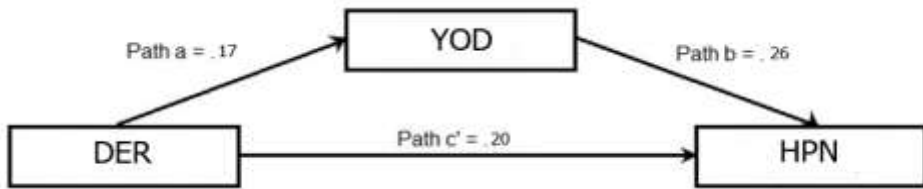
Path	R <sup>2</sup>	F(1, 204)	p	B	SE(B)	β	p	95% CI
c	.06	14.74	< .01	.03	.01	.26	< .01	-.02, .01
a	.03	6.13	< .02	.01	.01	.17	< .02	.01, .03
b & c'	.07	9.04	< .01					
c'				.02	.05	.20	> .01	.00, .01
b				.22	.05	.26	< .01	.00, .01
a*b						.04		

*R<sup>2</sup> = Explained variation / Total variation; F = ANOVA; B = Unstandardized Coefficients; SE = Standard Error; β = Standardized Coefficients; p = level of significance; 95% CI = 95.0% Confidence Interval for B;*

We will further present the graphical depictions of the results computed for c and c' paths.



**Figure 1.** Path c regressing the dependent variable helpfully perceived network (HPN) on the independent variable difficulty in emotional regulation (DER).



**Figure 2.** Paths *a*, *b* and *c'* between the HPN, DER and YOD variables.

As depicted in Figure 2, the standardized regression coefficient between helpfully perceived network (HPN) and difficulty in emotional regulation (DER) was statistically significant, and also the standardized regression coefficient between youth online duality (YOD) and difficulty in emotional regulation (DER) was significant. Thus, the computed standardized indirect effect was  $(.17)(.26) = .04$ . Altogether the result supports the stated hypothesis, the mediating effect of youth online duality to the relationship between helpfully perceived network and youth digital emotional regulation difficulty. After including mediator youth online duality (full mediation), the DER was no longer a significant predictor of HPN. A 20% of the variance in the HPN was accounted for by the predictors in this research. The 5.000 bootstrapped unstandardized indirect effect was  $B = .04$ ,  $SE = .01$  and the 95% confidence interval ranged from .001 and .009. These statistical significant coefficients bring evidence to the fact that the indirect effect is significant. Thus, the mediation analysis facilitated us in the relationship between the independent variable difficulty in emotional regulation (DER) and dependent variable helpfully perceived network (HPN).

## 5. Conclusions and Discussion

The present research focused on identifying the mediating effect of youth online duality to the relationship between helpfully perceived network and youth digital emotional regulation. Our hypothesis states that the relationship between helpfully perceived network and youth digital emotional regulation difficulty is mediated by youth online duality (as a potential coping mechanism). Results show that DER and YOD are important predictors of the HPN. Furthermore, the relationship between DER and HPN was fully mediated by YOD, meaning that this association is explainable by the role of the YOD mediator. These findings are consistent with other reported results. It has been shown that if adolescents perceive a strong social support network together with enough available resources, the



danger for negative psychological associations is lowered (Woods-Jaeger, et al., 2016). The perceived network support along with availability of resources equip youth to better manage adolescence's stressors (Rhodes & Jason, 1990). In another study, results show that the perceived friends' and social network support represents a crucial protective factor for psychological wellbeing and mental health (Pejičić et al., 2018). On the other hand, in 2009, Crowell, Beauchaine, and Linehan have suggested based on research conclusions that youth emotional difficulties enhance and sustain risky behaviours in an invalidating and deterring social network. Similar, the lack of supportive resources are known to enhance the intensity of negative emotions (Klonsky, Muehlenkamp, Lewis, & Walsh, 2011).

Thus, the digital dualism represents a not-to-be-overlooked mediator in the relationship between difficulties in emotional regulation and perceived supportive network (Rad, D., et al., 2019).

Taking into account that this was an internet based research study, respondents have completed measures at various places, this may have affected the results due to less control over environmental factors.

Since the present study has its limitations related to only 4 sample partner countries, additional analysis needs to be employed in other cultural and national settings, with the purpose of extrapolating our research results to worldwide scale.

Therefore, it is essential that researchers continue to refine theoretical frameworks, methodological problems, and evaluation aspects of the youth online duality research, in order to promote these significant findings to everybody interested in the subject.

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