

# Immediacy as news experience: exploring its multiple dimensions in print and online contexts

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# **Immediacy as News Experience: Exploring its Multiple Dimensions in Print and Online Contexts**

## **Abstract**

**Purpose:** News research scholars define immediacy as constant news updating, whereas scholars in other fields conceptualize it more broadly as meaning closeness. The present study explicates the concept of immediacy and proposes a multidimensional notion of news immediacy that reflects physical and psychological closeness to the news.

**Methodology:** A scale for measuring multifaceted immediacy was developed and tested in a between-subjects design experiment. Four dimensions were extracted from the analysis: transportation, involvement, vividness, and timeliness.

**Findings:** The results reveal greater immediacy in online than print news contexts. Involvement is key to the experience of immediacy in both contexts; yet the feeling of being transported to the places of the news events was stronger among online than print news users. The latter relied more on vividness of the news presentation to attain closeness to the news.

**Values:** Implications of the study were discussed.

**Keywords:** immediacy, news consumption, online news, print news, presence

## **1. Introduction**

In today's news media environment, stories are produced immediately and are available in a number of formats. Immediacy is the defining characteristic of online news (Nguyen, 2010a) that markedly distinguishes it from traditional print news media (Karlsson & Strömbäck, 2009; Massey & Levy, 1999). The contemporary news production is characterized by constant delivery of "liquid" news which has drawn researchers' attention to the study of

news flow online (Hermida & Young, 2019; Widholm, 2016). This has resulted in concerns about the erosion of the core values of journalism in favor of easy, fast production and consumption of news; yet Deuze (2008) argues that embracing liquid journalism is what is needed to ensure that journalism can continue to fulfill its functions in a democracy.

Timeliness as a value of news is not new. Traditionally, news values (Brighton and Foy, 2007) include timeliness and proximity (relevance in some studies), and meaningfulness and composition, all of which speak to the way presence is theorized in this paper. Those news values shape the way journalists and, at a macro level, publications approach news stories and, by consequence, how news audiences experience them, yet within the context of online/digital news consumption the issue of speed of news production and consumption has been controversial. The fast pace of news production and concomitant consumption of news, then, is part of this debate.

Much research interest in news immediacy focuses on analyzing the content of news websites and news stories. How immediacy is communicated, implemented and the extent of changes in news content are the main themes (Karlsson, 2011). Research examining the immediacy of news content more often than not involves measuring the occurrence of news updates in order to determine the degree of immediacy. Some researchers have used update counts to show how the updating process occurs (e.g., Lim, 2012; Saltzis, 2012; Xu, 2014), some looked at the types of news being updated (Coutts, 2019), and others examined the types of changes found in the content (Karlsson, 2011; Lim, 2012; Salaverría, 2005; Saltzis, 2012; Tremayne, Weiss, & Alves, 2007; Xu, 2014).

Another strand of research has focused on how journalists and consumers perceive the importance of immediacy. A number of studies on journalists' opinion of immediacy (e.g., (Graham, Jackson, & Wright, 2019; Usher, 2018) and customers' view of the attribute (e.g., (Zhang, Kim, & Goodsir, 2019; Omar, 2014) have suggested that both producers and

consumers of news consider immediacy as a key feature of online news. Consumers regard immediacy as a significant predictor to online news adoption (Mellado, Humanes, Scherman, & Ovando, 2018). Journalists, on the other hand, perceive breaking news practices as “an obsessive quest for traffic, the relentless desire to beat local television and a fear of being irrelevant” (Usher, 2018), p.29). Researchers turn to perception research not only to investigate what people think about news immediacy but also to understand its effects on journalism practices and news audience. One common theme that appears in previous studies is how journalists perceive the effects of immediacy on news accuracy. Several studies (e.g., Fulton, 2011; O'sullivan & Heinonen, 2008) have shown that journalists considered the speed in news reporting as a threat to accuracy. This is because there is a perception that breaking news is produced at the expense of truth, fairness, completeness and balance in news reporting. Audience studies, on the other hand, have suggested the increasing habit of snacking or gazing on the news, enabled by 24-hour news cycle and encouraged by mobile media use for news consumption (Bucy, Gantz, & Wang, 2007). According to Molyneux (2018), people use mobile devices, especially smartphones, to snack on news across the day and across different media and suggested that it is no longer appropriate to single out one or more platforms to understand contemporary news consumption. This is because the trend in news consumption suggests news access from multiple platforms, used by consumers to develop their own multi-faceted view of news issues from different sources. In addition to traditional media use (newspapers, television and radio) for news, social media has become a powerful news referring source (Chung, 2017; Omar, Ismail, & Kee, 2018)) and that messaging apps such as WhatsApp and WeChat have started to gain popularity over social networking sites in some markets for timely news access (Newman, Fletcher, Levy, & Nielsen, 2018).

Past research, however, found some adverse effects of real-time news access on the receivers. Some of the findings suggested that audience tend to value immediacy over quality and favor spectatorship over investigation (Molyneux, 2018). The paralyzing effects, according to Keightley and Downey (2018), were found because most studies failed to acknowledge the complexities of news consumption. Focusing on the news audience, Keightley and Downey analyzed news time as a socio-cultural process and examined how audiences act as active intermediators in producing temporal meaning of the news in its everyday contexts of use. They argued for multiple temporalities of news experience and in doing so they “open up moments of temporal distance and proximity, difference and commonality” (p.106). Keightley and Downey’s work paid attention to the mediated news consumption experience which involves social scientific audience research and ethnographic approaches. Although research examining contemporary news consumption is growing, such an attempt to explore how people experience news consumption is still scarce. The present study aims to add to the understanding of how people experience news consumption, but by adopting a different approach. This study intends to explore dimensions of the experience using an experimental research design that involves statistical analyses and validation.

The present study identifies three shortcomings of prior research that it attempts to address. First, the concept of immediacy seems to be under-developed in news research. More specifically, there are studies (Chung & Yoo, 2008; Massey, 2000; Massey & Levy, 1999) that describe immediacy as instant updating but treat it as a component of interactivity. Yet other studies consider the two constructs as separate concepts with different meanings and attributes (e.g., Karlsson, 2012; Karlsson & Strömbäck, 2009). To address this, the present study treats immediacy as a distinctive construct that has multiple dimensions. Second, there is a lack of theoretical exploration of the concept of news immediacy in prior work, and hence limits the areas of knowledge under investigation. Research until now has been conceptual

because immediacy is considered an attribute of news that denotes its functional utility in delivering news immediately. Hence, its definition specifically suggests timeliness, and a theoretical linkage is often difficult to establish. In this context, this study refers to the scholarly definition deduced from Bolter and Grusin (1999) work on remediation that suggests immediacy as an experience of presence through media. Focusing on the experience opens up some paths for theoretical exploration of the concept of news immediacy which have not been explored in prior work. Third, the concept of news immediacy, so far, ignores human factors and hence fails to capture how people experience immediacy in contemporary news consumption. This is because past research examining news immediacy mainly focused on the practices of immediate news reporting (e.g., Bivens, 2015; Buhl, Günther, & Quandt, 2018) and its effects on news production and news audiences (e.g., Bivens, 2015). Attempts to study news consumption experience in journalism studies is still scarce (exceptions include Keightley and Downey (2018)). Yet, the move towards adopting consumer-centric approaches by news media suggests the growing importance of understanding news audiences and their experiences in news consumption (Kharlamov, 2020).

The need to uncover people's experience of consuming the news from different media platforms is evident because news media are competing for customers amid the availability of abundant news media choices. Print news media is the oldest form of media which is characterized by limited publication (e.g., daily, weekly or monthly editions) and audience reach. Another form of news is electronic media which include radio, television and Internet. Due to the power of digitalization, electronic media offers 24/7 access of information from anywhere, constant updating of the content and unlimited audience reach. The evolution of electronic media has led to the birth of social media which has enabled instant interactions between people and revolutionized news consumption in the digital age. The Internet – and its multiple platforms – has become the main source of news especially for young adults (Pew

Research Center, 2012; RoyMorgan, 2020). The death narrative on print newspapers has been declared as an evidence of a steady decline in revenues and readerships of print newspapers (Gillin, 2014). This includes a decrease in news consumption of newspapers due to the rise of news sites (Westlund & Färdigh, 2011). Past research has revealed conflicting findings. Some studies found displacement effects of digital media on traditional media (e.g., Kayany & Yelsma, 2000) while others established a complementary usage between newspapers and online news sources (Nguyen & Western, 2016). Some studies, on the other hand, suggest a positive outlook for print media. A longitudinal analysis of readership data of 51 US newspapers suggests that print has far more readers than the digital product (Chyi & Tenenboim, 2016). Meanwhile, Fortunati and O'Sullivan (2019) stated that print media continues to be useful and trustworthy. The authors justified this claim by pointing out the spread of fake news on social media networks.

While past studies have relied on news consumption patterns, the present study offers a new angle of looking at the sustainability of print news, that is, by comparing users' immediacy experience with the print newspaper and its online counterpart. To capture the experience, this study adopts the presence dimensions, deduced from remediation work, to demonstrate users' psychological experience of closeness to the news events. In doing so, this study proposes a concept of news immediacy that goes beyond the quality of being timely.

## **2. A multifaceted concept of immediacy**

Immediacy is about the speed of news reporting. The news cycle has been shortened (Singer, 2003) and the driving force is the competition among news organizations to be the first to report an event. The literature suggests a discrepancy in the way immediacy is defined. Yet careful examination reveals some commonalities between the definitions. Firstly, immediacy involves physical and psychological closeness. Reporting the news as it unfolds is

said to increase physical and psychological closeness between the event and the audience, as favorable communication behaviors are said to increase physical and psychological closeness between people. Secondly, both suggest a kind of involvement. Researchers in instructional communication believe that involvement in teacher-student interaction is linked to teacher immediacy (e.g., Woods & Baker, 2004) and those in journalism consider immediacy a dimension of interactivity (e.g., Massey & Levy, 1999). Linking two bodies of literature, this study attempts to re-conceptualize news immediacy as a multifaceted concept referring to users' perceptions of closeness to and involvement with the news.

The concept of immediacy in remediation work (Bolter & Grusin, 1999) resonates with the concept of presence which has been described as a sense of "being there" in a mediated environment. Presence is being taken up by a growing number of scholars in communication, computer science, psychology and cognitive science who want to know how presence can be improved, in order to guide the future of technology. Most often, researchers explicate the concept of presence and provide theoretical evidence to establish its dimensions (e.g., Lee, 2009) and measurements (e.g., Witmer & Singer, 1998). Earlier studies, such as Lombard et al. (2000), identified social richness, realism, immersion, transportation, social actor within the medium and medium as social actor as dimensions of presence. Lee (2009) further explicates the concept by adding subjective or objective feelings and perceptual or psychological attributes to these presence dimensions. Some scholars conducted a factor analysis on the concept and found multiple dimensions such as involvement, natural, interface quality and focus (Oh, Bellur, & Sundar, 2018; Park, Sachar, Diakopoulos, & Elmqvist, 2016) and spatial presence, mental immersion or engagement and perceptual realism (Domínguez, 2017; Kang, O'Brien, Villarreal, Lee, & Mahood, 2019). Presence have been studied by many researchers (e.g., Heeter, 1992; Held & Durlach, 1992; Nichols, Haldane, & Wilson, 2000; Regenbrecht & Schubert, 2002; Sheridan, 1992) to measure the extent to which users find the



virtual environment more engaging than the physical world. Some examine factors influencing presence itself (e.g., Slater, Usoh, & Steed, 1994) and others investigate its effects (e.g., Nichols et al., 2000; Regenbrecht & Schubert, 2002), such as on satisfaction and performance. Generally, these studies test presence dimensions in the immersive environment of virtual reality (Slater, 2018; Peperkorn et al., 2015), but they also do so in the context of different media such as video games (Ivory & Kalyanaraman, 2007), films (Lessiter, Freeman, Keogh, & Davidoff, 2001) and books (Schubert & Crusius, 2002). The notions of immersion and presence are not unique to the virtual worlds created using computer technologies, but have evolved to refer to specific user experiences in relation to media content. Presence and its multiple dimensions demonstrate an experience that is influenced by both the characteristics of the medium and user's perceptions (Gunawardena, 1995; Tu, 2000), hence the evolving body of work focused on presence in the context of VR. Yet, traditional news media's role has always been to create a sense of psychological closeness to news events that may be far-removed from the everyday experience of the audience. Thus, the testing of presence experience in the context of news media is viable and compelling.

The present study infers that presence is a dimension of the immediacy of news. It refers to the experience of "being there" that audiences feel when they read a news story. It involves the experience of using a news medium and how users perceive such an experience. So far, there is one study that investigates audience perceptions of news in high definition and connects the notion of presence with news credibility (Bracken, 2006). The present study extends the application of presence as news immediacy experience and tests it in print and online news contexts. This attempt is expected to be the initial step to uncovering the richer experience of immediacy through the use of social and mobile media in the future. The exploration of multiple facets of immediacy in news consumption brings prospect of research into users' experience in news consumption. This is because the focus here is on how the

news media creates a sense of presence and immersion that transcends traditional notions of mediation. Having established that, this study proposes that news immediacy has presence dimensions and there are different degrees of immediacy experience depending on the types of news media in use. Two different contexts are selected, namely print and online news use, to demonstrate the multidimensionality of news immediacy. The rationale for selecting these contexts is to minimize the problem of content differences between media for comparison purposes in an experimental research. Specifically, this study addresses the following questions:

RQ1: Do print and online news consumption generate differing immediacy experiences?

RQ2: Which dimension(s) is/are the most important in print and online contexts?

### **3. Method**

The study uses data from experimental research to establish the dimensions of news immediacy under both print and online conditions. Development of the immediacy scale progressed through two data sets. The process began with exploratory factor analysis using SPSS with the first data set ( $N = 300$ ), followed by confirmatory factor analysis (CFA) using AMOS with the second data set ( $N = 297$ ). The following sections are organized according to the two processes; Study 1 for scale development and Study 2 for scale validation. The aim is to gauge how users perceive immediacy in news consumption.

#### ***3.1 Study 1: Scale Development***

The current study explores the measurement of two concepts: (1) presence and (2) timeliness, in the attempt to establish a multifaceted concept of news immediacy. First, a number of presence dimensions were deduced from the wide literature on presence (e.g., Newman, Nezlek, & Thrash, 2018; Skarbez, Brooks Jr, & Whitton, 2018; Terkildsen &

Makransky, 2019). These studies use different items to measure various forms of presence experience, often focused on virtual environments. The use of unstandardized self-report measures, according to Lombard, Ditton, and Weinstein (2009), makes comparisons across studies difficult. To overcome this limitation, they developed the Temple Presence Inventory (TPI), “a standardized, cross media measure of presence based on a wide literature that extends beyond the study of virtual environments and relatively narrow conceptualizations of presence” (p.5). In this study, TPI was used to measure presence in news consumption on the basis that (1) it is a cross-media measure and thus suits the present study; (2) it is a comprehensive measure of presence, developed from six prominent questionnaires and (3) it meets the criteria of validity, sensitivity and reliability. In this cross-media measure, this study tests users’ experience with the news in print and online formats.

The second measure is the immediacy of news focusing on timeliness. Existing studies assume that immediacy is a straightforward construct. Nguyen (2010b), for example, uses a single item “I read online news because I can check for updated news whenever I want” to measure news immediacy. Massey and Levy (1999) measure it through the presence of a publication date or an “update ticker” on the news websites. A few previous studies (e.g., (Apablaza-Campos, Codina, & Pedraza-Jiménez, 2018; Blake, 2019) have theoretically assumed a number of dimensions for Web immediacy in news delivery but do not attempt to test its multidimensionality empirically. This study fills this gap by proposing a measure of multifaceted immediacy in news consumption, and later testing it in print and online contexts.

Each item was measured using a 7-point Likert scale ranging from “not at all” (1) to “very much” (7). Items specific to virtual environments were either excluded or modified to suit the context of this study. The initial set of items was pre-tested with 30 undergraduate students. Following the pre-test, unclear items were removed, and others were rewritten. Finally, 30 items were tested using explanatory factor analysis on SPSS. A dataset ( $N= 300$ )

was used to identify items in a smaller set for further testing. In this study, university students from an introductory communication class were involved in the between-subject experiment. Participants were randomly assigned into two conditions; print ( $n = 150$ ) and online ( $n = 150$ ), and later exposed to a national newspaper which has print and online versions.

The material used in this study was a real newspaper; a national newspaper which has both print and online versions. Using a real newspaper is expected to address the problems of artificiality of and unfamiliarity with the materials. Generally, the news reported in the print version of the newspaper can be found in the online version. There was either no change or a very limited change in the content between print and online versions of the newspaper. The news delivery methods used by the selected newspaper are what Stovall (2004) describes as “shovelware” that implies shoveling news organizations’ print content onto their website. Hence, the material used in this study had almost similar content because the source was from the same news organization. Although the news stories were almost identical, additional features (e.g., pictures and images, weather reports, photo galleries, video links, cartoons, RSS Feeds and advertisements) and stories (e.g., breaking news) were found in the online version only. Those exposed to the online version were able to watch videos, listen to podcasts and read breaking news available on the news website.

Support for the use of real newspapers can be found in medium-centered studies (e.g., Opgenhaffen & d’Haenens, 2015; Pethő, 2018) which compared news consumption of different media formats. In this study experiment, there were no directions given on news selection. After exposure to the news, a questionnaire was administered to the two groups. Kaiser-Meyer-Olkin measure of Sampling Adequacy ( $KMO = .857$ ) and Bartlett’s Test of Sphericity ( $p=.000$ ); results were all significant and the requirement for having at least 10 cases per item was also met to run exploratory factor analysis (EFA) in the present study.

### 3.2 Exploratory Factor Analysis (EFA) Results

The results from a principal component analysis (PCA), with a varimax rotation, showed eleven components that meet Kaiser’s criterion of eigenvalues greater than 1.0, explaining 65 per cent of the variance. The selection criterion was to retain factors that have more than three items with factor loadings greater than 0.6. This criterion complies with the minimum standard for establishing a factor (Hair, Anderson, Tatham, & Black, 1998). This study excluded items with a secondary loading greater than half of its primary loading. Of eleven factors that emerged, only the first four have more than three items, while the other seven contained less than three items and added minimally to the variance explained. The analysis of the scree plot also reveals a break in the slope of eigenvalues after the fourth factor. The four factors obtained from this analysis, as depicted in Table 1, explained 43 per cent of variance and hence are a satisfactory estimate of variance explained for an exploratory study.

Table 1. Factor loadings using Principal Component Analysis with Varimax Rotation

Items ( <i>N</i> = 300)	Factor				<i>M</i> ( <i>sd</i> )	$\alpha$
	1	2	3	4		
I felt like the event I had just read about in the news happened before my very eyes	.71				4.74 (1.17)	.87
I felt as if I was there at the location where the news event occurred.	.79					
I felt as if I had been transported to the place where the event occurred	.77					
While I was reading the news stories, I could easily picture the event as it was taking place	.72					
I could picture myself in the scene of the news event	.76					

At times while reading, the event felt close to me	.61		
I was deeply involved with the news stories	.71	5.58	.83
I concentrated on reading the news stories	.78	(0.99)	
I was excited about the things that I had discovered from the newspaper/ news website	.76		
I could connect with the news stories that I read	.61		
I was hooked on the newspaper/news website because of its compelling design features	.71	4.91	.79
		(1.11)	
The visuals used by the newspaper/news website caught my attention	.68		
I found myself immersed with the attractive presentation of the newspaper/news website	.70		
I found news layout in the newspaper/news website interesting	.75		
I could read news stories as they were unfolding	.62	5.81	.86
Reading the newspaper/news website kept me abreast of what was happening in the country	.79	(0.93)	
The newspaper/news website informed me of what was happening around the world	.78		
I could get the latest information from the newspaper/ news website	.87		
I could read breaking news	.77		

*Note.* Loadings below .60 not included, 7-point Likert Scale was used

The four factors were interpreted accordingly. The first, “transportation”, describes a sense of being present at the location of the news event; when readers feel they are transported to the place where the events occur, or other objects and people are brought into their media environment. The second factor, “involvement”, describes the extent to which users focus their energy and attention on the news stories. The third, “vividness”, concerns users’ views of the visual aspects of the news media. The last factor contains “timeliness” items that show how users evaluate the speed of news delivery. Users’ perceptions on the

factors were moderate for transportation and vividness and slightly high for timeliness and involvement.

### ***3.3 Study 2: Scale Validation***

Another post-test only model experiment with two conditions –exposure to print and online news– was conducted to further validate the scale. This study performed a confirmatory factor analysis (CFA) – first and second order – for thorough investigation of the construct’s validity. As this study concerns a newly constructed scale, the second-order form was included. Hair et al. (1998) assert the importance of conducting second-order analysis especially for a newly published scale because it concerns validation of the scale. Following the same procedure and material used in Study 1, participants in Study 2 were randomly assigned to either print or online group. Similarly, participants were instructed to read stories without time restrictions and were free to read the news as they did in natural settings. Upon completion of the reading task, they were asked to fill in post-test questionnaire.

The participants in Study 2 were undergraduate students of a large public university. The study recruited 297 undergraduate students ( $N=297$ ) for voluntary participation in the experiment. The purposive sampling proved useful for achieving homogeneity in student attributes– such as educational background, age and familiarity with the Internet – and is expected to address the problem of individual differences. The average age of participants was 22. On average, these students spent 20 minutes per day reading news.

## **4. Results**

### ***4.1 Print and Online: First Order Model***

The newly developed scale of news immediacy, consisting of 19 items, was then analysed using a CFA. The first step was to perform the first order analysis separately for online ( $N = 149$ ) and print ( $N = 148$ ) news contexts. Goodness of fit indicates that modification was required for online ( $\chi^2 = 294.612$ ,  $df = 129$ ,  $\chi^2/df = 2.284$ ,  $CFI = .899$ ,  $GFI = .821$ ,  $RMSEA = .093$ ) and also for print ( $\chi^2 = 275.709$ ,  $df = 146$ ,  $\chi^2/df = 1.888$ ,  $CFI = .893$ ,  $GFI = .827$ ,  $RMSEA = .078$ ) models. The low CFI and GFI values ( $\leq .90$ ) suggested misfits in the two models. *RMSEA* also indicated almost poor fit for online model and marginal fit for the print model. In a step-by-step progression, items with low factor loadings were removed from the model or co-varied with identified pairs of correlated errors as indicated by the modification index.

After modification, fourteen items were retained for the online model and twelve items for the print model (as shown in Figures 1 and 2). Goodness-of-fit statistics show that both online model ( $\chi^2 = 97.422$ ,  $\chi^2/df = 1.392$ ,  $CFI = .978$ ,  $GFI = .915$ ,  $RMSEA = .051$ ) and print model ( $\chi^2 = 66.988$ ,  $\chi^2/df = 1.396$ ,  $CFI = .975$ ,  $GFI = .929$ ,  $RMSEA = .052$ ) fit the data very well. These indexes suggest that construct validity for both models was achieved. Meanwhile, convergent validity for online and print models was supported in this study ( $AVE > 0.5$ ), and all four dimensions achieved internal reliability ( $\alpha > 0.7$ ) and construct reliability ( $CR > 0.6$ ). This study also tested for measurement invariance to determine that the comparisons are valid and differences/similarities between two groups are meaningful. Two models were tested; the unconstrained or totally free model (configural invariance) and the measurement weights model (metric invariance). The results for the unconstrained model shows a good fit ( $\chi^2 = 274.223$ ,  $\chi^2/df = 1.644$ ,  $CFI = .952$ ,  $TLI = .940$ ,  $RMSEA = .047$ ), suggesting the same factor structure was appropriate for either sample. Next is testing the extent to which parameters (loading) in the measurement components of the model are equivalent across the model.



The results for metric invariance indicate that the factor loadings were significantly different (not invariant) based on the result of Chi-Square difference ( $\Delta\chi^2 = 31.695, p = 0.003$ ). Since full metric invariance was not achieved, this study tested for partial metric invariance (partial loadings equivalence) to identify at least two equal factor loadings between all constructs. It was found that 11 factor loadings were invariant (equivalent) and hence the study establishes partial metric invariance for the print and online models. The differences and similarities between the two models are meaningful as the present study is set to establish the differing immediacy experience between print and online news contexts.

It is worth noting from Figures 1 and 2 that the transportation dimension for the online model differs slightly from the print model. The capacity to picture oneself at the scene of the news event (item 5) is an additional indicator for online context, whereas this capacity does not translate into a feeling of being transported to the news event in the print context. Meanwhile, three identical items (items 1, 2 and 3) are found to represent the involvement dimension for both models. The results suggest that deep involvement with the news stories, concentration on the news stories, and excitement about new things discovered are significant indicators of users' involvement in the stories. The vividness dimension was also indicated by three items in each context. Online vividness was defined by the website's design, presentation and layout; while print vividness was defined by newspaper visuals, presentation and layout. In the online context, users may see the attractiveness of the website design as an important aspect of an immediate news experience. Meanwhile, the use of visuals is an important indicator for vividness in the newspaper experience. As for the final dimension, the results show four items indicating timeliness for the online context and only three items for print contexts. The availability of breaking news adds to the value of timeliness in online news use, while this value was absent in print media news consumption.



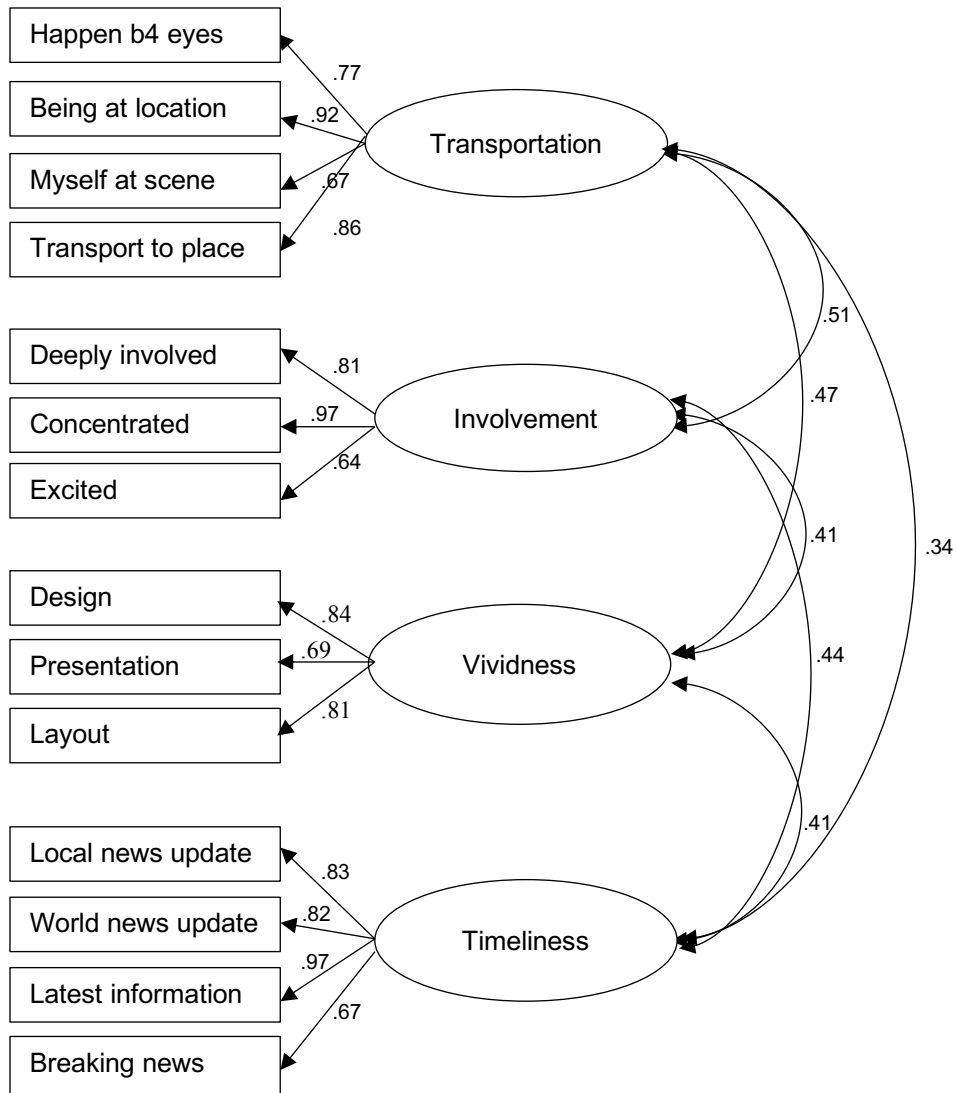


Figure 1: Dimensions of immediacy in online news consumption - First order

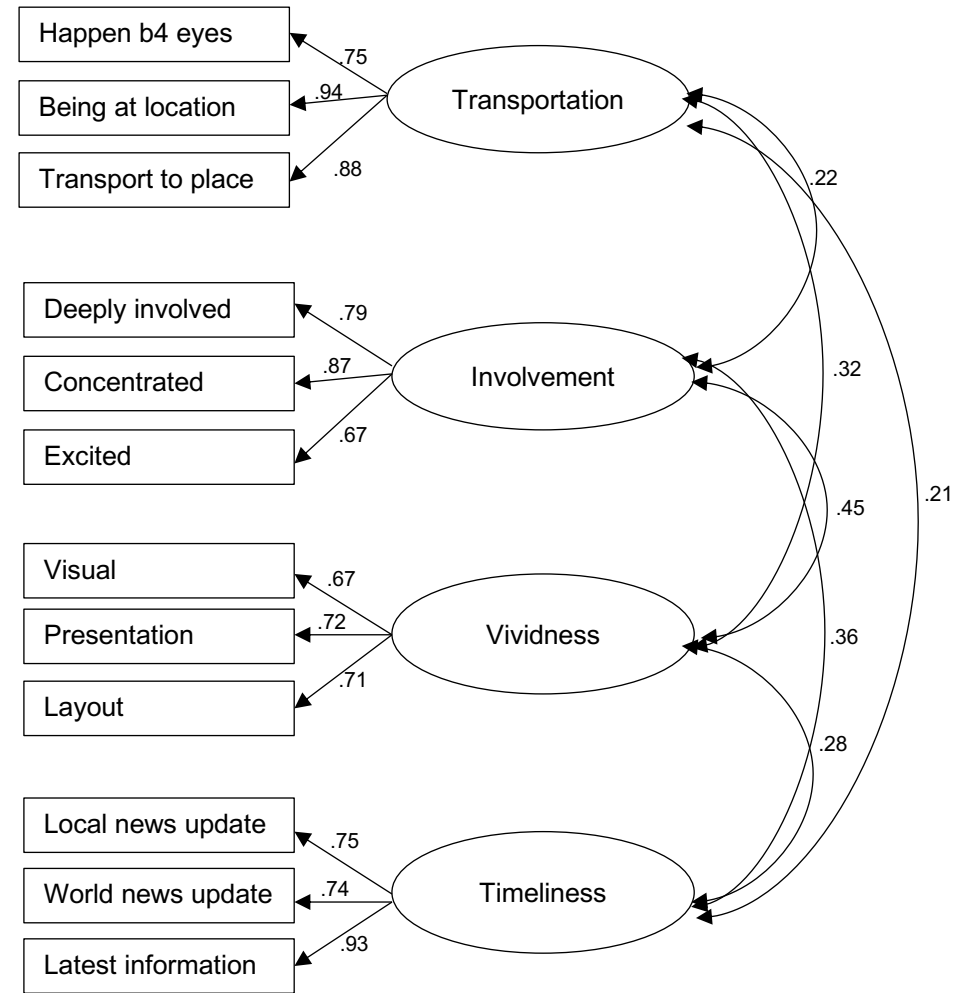


Figure 2: Dimensions of immediacy in print news consumption – First order

Table 2. Discriminant Validity (HTMT .85 Criterion)

	IV	TL	TP	VN		IV	TL	TP	VN
IV					IV				
TL	.474				TL	.355			
TP	.524	.427			TP	.300	.237		
VN	.448	.413	.479		VN	.385	.286	.246	
Immediacy in online news					Immediacy in print news				

The results also show that correlations between each pair of latent variables for both models were small to moderate ( $r < 0.85$ ), indicating no issue of multicollinearity. To further determine that each latent variable is distinct from other constructs in the model, the study ran the heterotrait-monotrait (HTMT) ratio to establish discriminant validity. This study follows the recommended thresholds of 0.85 and 0.9 for HTMT to establish discriminant validity (Henseler, Ringle and Sarstedt, 2015). The results in Table 2 indicate acceptable discriminant validity for both models. The correlation results show that transportation is more likely to be associated with involvement ( $r = .51, p = .000$ ) in the online context but more likely to be associated with vividness ( $r = .45, p = .000$ ) in the print context. Transportation and timeliness are the least correlated dimensions for both online ( $r = .34, p = .000$ ) and print ( $r = .21, p = .000$ ) models. All relationships in both models are significant ( $p < 0.05$ ).

#### ***4.2 Print and Online: Second/Higher-Order Model***

The four factors were allowed to correlate in the first order measurement model. The next step was to modify the model to include a higher-order latent variable representing overall news immediacy experience for both news environments. Results from the first-order CFA were then sent for second-order CFA testing, allowing evaluation of factor structure to be separated from evaluation of the factors' relations to a higher-order latent variable. Thus, it is recommended for concept validation. This study discusses the results of the second-order

CFA in two stages: first, looking at the factor structure according to the importance of news immediacy dimensions for both contexts, and second comparing the second-order model with other models.

As shown in Figures 3 and 4, immediacy of news for both print and online contexts is represented by the four dimensions. The results support the postulation that news immediacy can be explained by multidimensional constructs. The importance of the dimensions, however, varies depending on the contexts. The most important dimension is involvement. The study found, however, that vividness in the print context has an equal weight to involvement: both explain 45 per cent of variance in new immediacy experiences. But this is not the case for online news immediacy. Here, transportation (48 per cent in variance) has greater weight than vividness (41 per cent in variance), while transportation is the least important dimension in print news (16 per cent in variance). Perhaps surprisingly then, the timeliness contributes the least to online news immediacy. Nevertheless, the percentage of variance explained by the experience of timeliness in the online context (34 per cent) is higher than in the print context (24 per cent). Comparing the two models, the study found that immediacy of online news comprises 50, 48, 41 and 34 per cent of the variance associated with the dimensions involvement, transportation, vividness and timeliness, respectively. On the other hand, immediacy of print news explains 45, 45, 24 and 16 per cent of variances associated with the dimensions involvement, vividness, timeliness and transportation respectively.

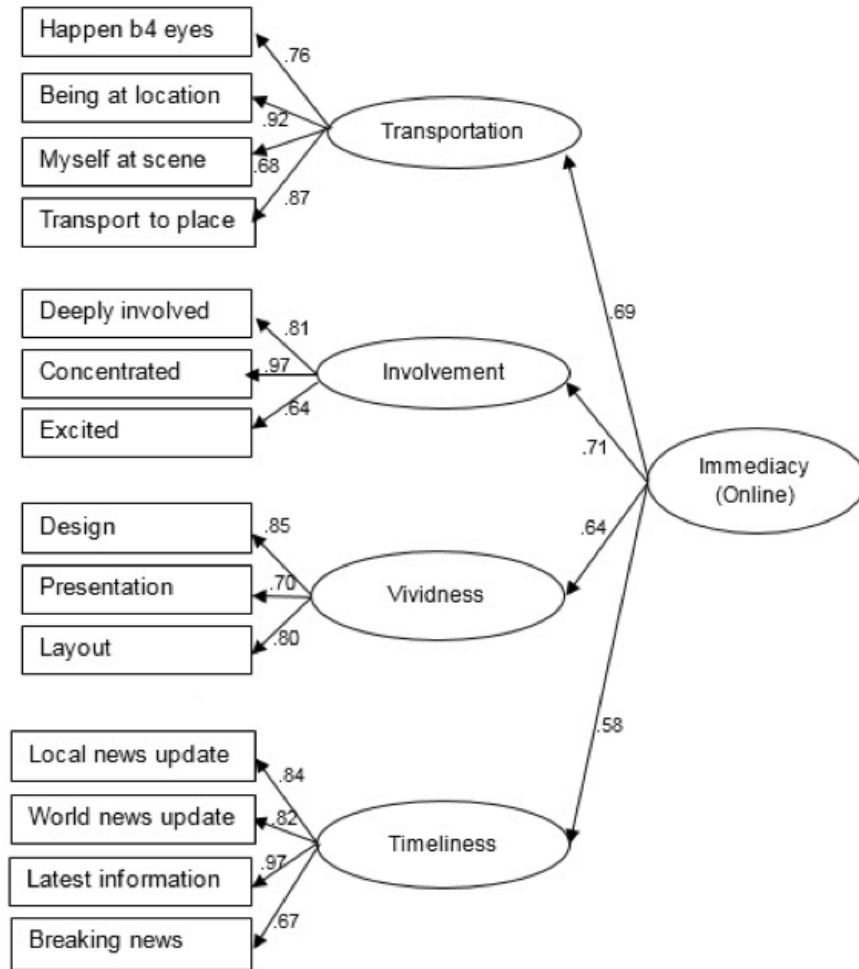


Figure 3: Immediacy in online news-higher/second-order construct

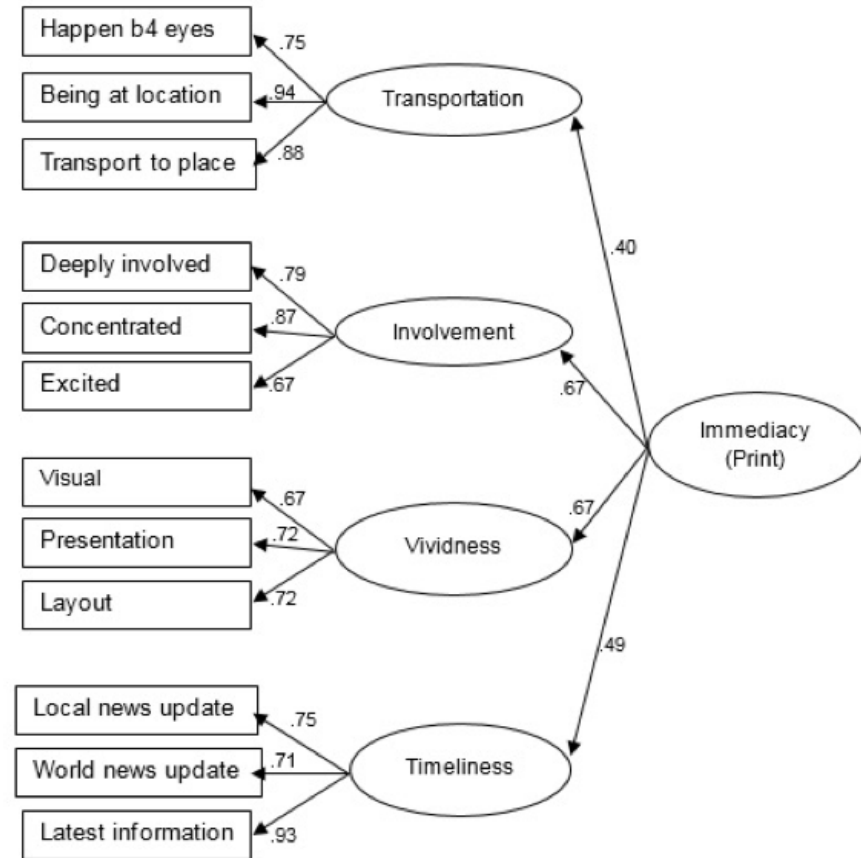


Figure 4: Immediacy in print news-higher/second-order construct

The present study compares the second/higher-order model with two other models (first-order model and single-factor model), recommended as an additional test for common method bias (Hahn, Sparks, Wilkins, & Jin, 2017). The single-factor model is included in the test to allow comparison between unidimensional and multidimensional models. The results of single-factor model do not acceptably fit the data model ( $X^2 = 702.284$ ,  $X^2/df = 9.121$ ,  $CFI = .504$ ,  $GFI = .552$ ,  $RMSEA = .234$ ) for online and for print ( $X^2 = 512.377$ ,  $X^2/df = 9.488$ ,  $CFI = .408$ ,  $GFI = .615$ ,  $RMSEA = .240$ ). Goodness of fit shows the single-factor model is rejected in both contexts. On the other hand, the results do support the multidimensionality of news immediacy experience as depicted in first-order and second-order models.

This study then compared the first-order and second-order models in both contexts and found that they produce near-identical results. Goodness of fit for both models is acceptable. The results of the second-order analysis provide evidence to support the multidimensional concept of news immediacy. This is because use of the second-order model increases the validity of the construct (Hair, Black, Babin, Anderson, & Tatham, 2006) and a good measure for an underlying variable is established when all dimensions measure the same thing and covary at the higher level. The results from the second-order CFA for both contexts offer empirical evidence to support the argument that the immediacy of news is multifaceted.

## **5. Discussion**

The aim of the present study is twofold; to discover whether print and online news consumption produce differing immediacy experiences (RQ1), and to determine which dimensions are more important in which contexts (RQ2). User experience with the media is an increasingly important area of research (Hassenzahl, & Tractinsky, 2006) because it has become an influential determinant for the success (or the failure) of any media in today's saturated media environment. By examining both print and online news contexts, this study

provides some insights into the future of media. The speculation over the death of print media has been debated for decades and yet print media still used widely. Past research has shown that news organizations responded to the technological disruptions by adopting digital distribution (Thurman & Fletcher, 2017) and diversifying their business strategies (Barthelemy et. al, 2011). While past studies tend to introduce some business or communication models for print news media to thrive in the digital environment, we emphasize on users' experience with the media because evidences have shown that users' experience determines continual usage (e.g., Deng et. al., 2010). However, measuring user experience is not a straight-forward process. In this study, we developed a scale for measuring news immediacy that includes various dimensions of presence deduced from telepresence research as well as the timeliness measure used in journalism research. Then, the new measure was tested, and four dimensions of news immediacy were found to represent a unique but interrelated experience of immediacy in news consumption.

The transportation dimension is the core of the presence experience (Agrawal, Simon, Bech, Bærentsen, & Forchhammer, 2019; Khan, Halawani, ur Réhman, & Li, 2018; Skarbez et al., 2018), describing the extent to which users feel as though they are witnessing the events, at the location, picture themselves there, and think of themselves as having been transported to the news world. In the print context, however, users have limitations in visualizing themselves at the scene (item 5: *I could picture myself in the scene of the news event* was absent in the print context), while online news users are able to do so. Users of online news media also have a stronger experience of transportation than traditional print users. Transportation explains 48 per cent of variance in the online news immediacy, but only 16 per cent in the print context. One possible explanation for this is the role of multimedia content in facilitating a transportation experience. The use of other forms such as videos, picture galleries and interactive images in the online context may create the sensation of being



transported to the place of the news event. Without multimedia content, print news creates minimal experiences of transportation, depending solely on the narrative of a news story to generate such a sensation.

Involvement appears to be the most important dimension in the immediacy of news in both contexts. In this study, involvement means the degree of users' involvement with, concentration on and excitement about the news they read. This is consistent with Perse (1990) who conceptualizes involvement as having two orientations, cognitive and emotional. A user's degree of concentration on the news can be linked to cognitive involvement, while the internal feeling of being deeply involved and excited by it is associated with emotional involvement. The study assumes that users feel highly involved if they find the stories engaging and exciting. Hence, involvement depends on the way stories are written and conveyed. The news stories themselves play an important role in creating a feeling of psychological closeness to the news. It should be noted that the nature of each news story as well as the user's existing relationship with the news medium and with the topic of the news reports was not measured. News values shape not only the presentation of news, but its very definition and how this is applied across publications. These factors could also account for levels of involvement. Nevertheless, involvement contributes to the highest percentage of variance in news immediacy for online (50 per cent) and print (45 per cent) contexts. This signals clearly the importance of the core business of news writing, as exciting news stories lead to greater involvement and thus greater immediacy.

A similar argument holds for vividness, whose importance in immediacy is also evident from this research. In the print context, visual aspects of the newspaper have the same degree of influence (45 per cent variance explained) as involvement. In the online context, visual aspects of the website explain a slightly lower percentage of variance (41 per cent) than in print, but their contribution remains. This study conceives of this dimension as the visual

attraction of the medium, including visual images such as pictures and graphics, as well as the design, presentation and layout. Studies generally agree that the visuals contribute to the functionality and aesthetics appeal of news (Udoh, 2017). This study found that online news users may see the look of the web site an important factor in navigation, while for print readers, visual images pull them closer to the news. The findings agree, however, that the visual draws readers into the page or the web page and consequently into stories.

The final dimension, timeliness, is the feeling users have when their need for the latest news and updates is met. Timeliness is an attribute of news which is later conceived as a sensational experience resulting from exposure to up-to-date information about things happening around us locally and globally. Online news is considered more immediate than traditional print news because it can provide breaking news around the clock, so as expected, the provision of breaking news creates the sense of timeliness in the online context but not in print. However, it makes the lowest contribution (34 per cent variance) to explaining online news immediacy yet appears to have a stronger influence in the online context than in the print context (24 per cent variance explained). The results support assertions in earlier studies that online news media are more immediate than traditional print. The study also suggests that immediacy is users' experience of psychological closeness to the news that transcends news media; it is not about timeliness alone.

The results suggest that involvement and transportation are the first and second most important dimensions in explaining news immediacy in the online context, while involvement and vividness are the most important in the print context. Involvement is the strongest predictor of immediacy experience in both contexts. The results, hence, suggest that psychological perception of closeness to the news stories/events seems to be more prominent than physical or functional utility of the news. The importance of presence dimensions in describing news immediacy experience is evident in the present study. It also demonstrates

that the key to succeeding in the competitive news market is the product itself - news stories must appeal to users' cognition and emotion. The order of importance for the other three dimensions reflects the media context: in an online environment, the experience is more likely to be induced by the use of multimedia content, website design, and the provision of breaking news. Immediacy in print news depends on the use of visuals, the news story narrative, and the reporting of current news. Differences between them arise from the interplay of the dimensions and indicators that make up the immediacy experience.

## **6. Implications**

The present study contributes to research in several ways. First, it conceptualizes immediacy as a multifaceted concept suggesting physical and psychological closeness to the news and thus contesting the simple definition of immediacy as an attribute of timeliness. This study finds theoretical support for a multidimensional concept of news immediacy in remediation work (Bolter & Grusin, 1999), from which the logic of immediacy is used to depict a sense of presence, the experience of 'being there'. Although research linking immediacy of news and a sense of presence is scant, there are some evidences in past research that suggest the association. Therefore, treating presence as a dimension of immediacy experience in news consumption makes for a unique theoretical contribution to the journalism literature. This contribution is more significant given that the present study adopts a multidisciplinary approach to offer a new way of understanding immediacy as an experience in news consumption.

Second, this study deduces from a number of presence studies on a multiple-dimension measure for news immediacy. Although the scale has its strengths, it appears to measure different aspects of immediacy experience and at the same time it can be combined into a measure of overall immediacy. More importantly, it contains reliable subscales and is

statistically proven to be a valid measure of immediacy experience in news consumption. This scale was tested in print and online news environments to illustrate how immediacy experience differ according to different contexts. Hence, this study considers the trend of using multiple platforms for news consumption.

Third, the identification of four dimensions of immediacy allows news media to look into strategies to optimize users' experiences of immediacy in different media for news consumption. The findings suggest that both physical and psychological closeness to the news define immediacy experience in news consumption. This study found that the practice of real-time news reporting makes news audience feel physically close to the news event. Such an experience cannot be achieved by merely getting access to the news as it unfolds. There are other aspects of the experience that can induce psychological closeness to the news. The findings suggest that involvement, transportation and vividness are important in describing the experience of immediacy in news consumption. To gain psychological closeness to the news, online journalists should not compromise the quality of news writing to other online attractions, and at the same time should strive to provide an exciting experience of online news use through multimedia content, attractive web design and visuals. In print, the lack of multimedia content may be compensated for by an effective narration of news stories so that the audience has a sense of "being there" when reading the news. It is important to note that the advancement in media technologies and media practices is often linked to the need for improving users' experience in media use. Nowadays, news audience are exposed to abundant and multiple news sources which are competing for their attention and time. Users' positive experience using certain media type is expected to contribute to the extent that they will be hooked to it, which in turn will determine the degree of media stickiness. Hence, news media and journalists should move beyond providing fast news and pay attention to users'

experience of psychological closeness to the news. This is important because enhancing users' experience has become the key for success in today's media environment.

## **7. Limitations and Future Works**

However, one major limitation of the present study is that the online context is not totally reflective of the current news environment that suggests the increasing use of social media and mobile media for news access. Despite this limitation, the scale has heuristic value. It can be replicated and extended to other media contexts. The present study has found correlations indicating different relations and outcomes for the two news environments, and it can guide further research to examine multiple contexts involving different types of social media use for news. Therefore, replication and extension are recommended for future research to provide empirical evidence of how audience experience news immediacy in different media. In addition, this study did not examine the impact of news values on presence and immediacy in the context of news. Further research could compare the framing of news events within the context of identified news values to determine the impact such framing may have on the experience of presence by users. Nevertheless, this study provides a useful starting point for further research that can address these nuances. Another limitation of the present study includes methodological concerns about the generalizability of the findings. Critiques of the experimental method might focus on the lack of external validity – that is, the ability to generalize the findings to events or settings outside of the experiment itself. An alternative procedure would be to conduct surveys to investigate immediacy experiences in a natural environment and thereby to increase the external validity of the results. Moreover, the scales for measuring the multiple dimensions of immediacy experience can be used in survey research in order to examine the effect of each dimension on news consumption in the real setting. Cross validation with other medium types, particularly different types of social media

and mobile devices, to further examine the differences in the experience of news immediacy in contemporary news environment, should be the object of future research.

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