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The Form of Happiness in the Digital Age: Examining the Effect of Internet Usage in Digital Leisure on Flow Experience

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A B S T R A C T

The aim of this study is to examine the effect of internet usage on the flow experience of university students participating in digital leisure activities. The study utilized the relational screening model, one of the quantitative research methods. The demographic information form created by the researchers, the Leisure Internet Usage Scale (LIUS) and the Digital Leisure Flow Experience Scale (DLFES) were used as measurement tools. When the findings were examined, no significant difference was found in leisure internet usage in terms of gender variable, while significant differences were found in terms of digital leisure flow experience. When the participants were examined in terms of digital device usage time, significant differences were found in terms of leisure internet usage, shopping and multimedia usage sub-dimensions, and digital leisure flow experience. A positive relationship was found between digital leisure internet use, social interaction and information/self-improvement sub-dimensions, and flow experience. In addition, it was concluded that the purposes of digital leisure internet usage, social interaction and information/self-improvement, were predictors of flow experience. The results obtained are examined comparatively with different studies in the discussion section.

Keywords: Leisure, digital leisure, digital leisure flow experience

INTRODUCTION

Changes in the dynamics of social life in line with the developments in information and communication technologies have undoubtedly directly affected the leisure experiences of individuals (Blanco, 2015; Er and Cengiz, 2023a). While technological developments have presented solutions and facilitations for daily responsibilities in human life, they have also changed the leisure experiences for the individual and society. Today, individuals spend their leisure on digital platforms for purposes such as games, entertainment, socialization and communication, without time and space limitations, through internet connection, in a more economical and easily accessible way compared to traditional activities (Er and Cengiz, 2023b; Ho and Cho, 2024).

While this situation reveals the concept of digital leisure (Nimrod and Adoni, 2012; Blanco, 2015; Lopez Sintas et al., 2017a; Lopez Sintas et al., 2017b; Er and Cengiz, 2023a), it necessitates examining the changing experiences of individuals and the activities that comprise a significant part of their leisure preferences with their reasons and consequences. The preference for internet-related activities as a leisure experience has been the subject of many studies in recent years (Zhou et al., 2014; Spracklen, 2015; Wang et al., 2015; Gallistl and Nimrod, 2020; Şimşek, 2024). However, it is also possible to say that internet use in leisure is linked to the happiness level of individuals (Viklund and Forsman, 2022; Sui et al., 2023; Mei and Lin,

2023). It is thought that this state of happiness that individuals achieve is related to the flow experience they experience through internet use in their leisure. Individuals who experience flow through digital leisure activities can spend more time on these activities, thus experiencing the process of being happy or staying in the flow more.

It may be useful to examine the general picture in terms of the time individuals spend on internet use and the purposes of use, in terms of scientific studies being addressed with current world data. According to the January-2024 data of We Are Social, one of the most comprehensive studies on digital experiences on a community basis and published at regular intervals, 5.35 billion people between the ages of 16-64 have access to the internet worldwide, and this figure constitutes 66.2% of the total world population. When examined in terms of time spent in this comprehensive report, according to the world average, individuals will spend an average of 6 hours and 40 minutes per day on internet use as of 2024. When the last 10 years are taken as a basis, it is seen that the number of internet users in terms of the world population has almost doubled between 2014-2024, and it is possible to say that the time spent on digital platforms is increasingly covering a large part of daily life.

Table 1. Internet Usage Statistics- 2024

Internet Usage Purposes		Visited Websites & Apps	
Finding Information	%60,9	Chat and messaging	%94,7
Staying in touch with friends and family	%56,6	Social networks	%94,3
Watching videos, tv shows or movies	%52,3	Search engine sor web portals	%80,7
Keeping up to date with news and events	%51,9	Shopping, auctions, or classifieds	%74,3
Researching how to do things	%49,4	Maps, parking, or location-based services	%54,4
Finding new idea sor inspiration	%46,1	Email	%49,5
Accessing and listening to music	%45,1	Music	%48,1
Researching products and brands	%43,7	Weather	%42,2
Filling up spare time and general browsing	%42,6	Entertainment	%40,6
Education and study-related purposes	%38,8	News	%40,3
Researching places, vacations and travel	%37,9	Games	%32,4
Researching health issues and healthcare products	%35,2	Mobility services (e.g. ride-hailing, bike hire)	%28,6
Managing finances and savings	%34,2	Banking, investing, or insurance	%26,6
Business-related research	%29,9	Sports	%25,8
Gaming	%29,3	Travel	%24,5

Source: We are Social, 2024

When this study is examined in terms of the geography where it was conducted, Turkey is seen to be well above the world population with 86.5% of the total population having access to individual internet use. In addition, it is seen that an average of 6 hours and 57 minutes is spent on internet use in Turkey per day, and it is possible to say that this data is also above the world average. When examined in terms of age range, it is seen that women in the 16-24 age group, including university students, spend 7 hours and 32 minutes on internet use, and men spend 7 hours and 7 minutes; and women spend 7 hours and 3 minutes on internet use, and men spend 7 hours and 13 minutes on internet use among individuals between the ages of 25-34. When Table 1 is examined, details are shown in terms of the purposes of internet use presented in the report and the frequency of participation in the websites visited and the applications used (We Are Social, 2024). The specified data show that internet-based activities are preferred significantly in terms of duration and frequency in human life as a leisure activity worldwide. However, it also reveals the need to examine the reasons for individuals' preferences in activities (social interaction, shopping, multimedia use or information/personal development) and the flow experience in terms of the time they spend.

***Digital Leisure and Internet Usage**:* Participation in internet-based activities for different purposes during leisure has become an integral part of daily life today with the influence of popular culture (Spracklen, 2015). This situation is not limited to the home environment (Sintas et al., 2017a), but continues to be used for different purposes such as gaming, entertainment, communication and socialization in the work environment (Coker, 2011; 2013; Kausar et al., 2021; Gellmers and Yan, 2023) or by high school and university students (Wang et al., 2015; Kaas and Uğur, 2017; Wang, 209; Ludvík et al., 2020; Er and Cengiz, 2023a; Sintas et al., 2023). The situation where individuals evaluate their leisure experiences through digital technologies or internet-based activities is conceptually addressed as digital leisure in the literature. The concept of digital leisure is defined by Er and Cengiz (2022) as "the type of leisure in which individuals participate

with free will in digital environments for different purposes such as games, entertainment, socialization and communication without any spatial limitation through the use of digital technologies, or in other words, individuals' evaluation of their leisure experiences through the use of digital technologies."

In the literature on internet use, Zhou et al. (2014) grouped internet users as informative and instrumental users, entertainment users, communication users and advanced users; while Şimşek and Çevik (2023) considered the purposes of internet use in leisure as social interaction, shopping, multimedia use and information/personal development. Şimşek (2024) also states that there are differences in the leisure internet usage habits of different generations X, Y and Z. It can be said that the amount of leisure internet usage, in other words, the duration and frequency of participation, is also an important factor. On the other hand, Lamberti et al. (2023) categorized leisure internet activities in young individuals as information-seeking, social interaction/communication, entertainment and transaction activities. Similarly, Er and Cengiz (2023b) categorized digital leisure participation purposes in a broader sense as gaming, entertainment, socialization and communication. This situation is seen to have negative consequences, especially in adolescents, leading to addiction and social anxiety (Doshi et al., 2024; Moñino-García, 2024). It can be said that other studies in the literature on the subject are addressed as problematic internet use in terms of different age groups or generations. It has been observed that long-term use of the internet as a leisure activity is associated with negative behaviors and outcomes such as lack of sleep and decreased sleep quality in children (Kim et al., 2018), excessive weight gain and obesity due to inactivity and lack of participation in physical activity (Aghasi et al., 2020), and gambling addiction in adolescents (Moñino-García, 2024). Since excessive use of the internet in leisure includes some risk factors in terms of quality of life and mental health, it is recommended that it should be in a controlled structure so that it does not turn into problematic use (Gao et al., 2020).

It is also possible to talk about the positive outcomes of leisure internet usage. There are studies that show that leisure internet use supports subjective well-being by increasing the level of leisure satisfaction and quality of life, especially in older individuals (Choi and Lehto, 2009; Heo et al., 2011; Huang et al., 2023). Although it is considered as a passive leisure activity, there are studies that show that leisure internet use is related to the happiness level of individuals and address the positive outcomes (Wei et al., 2017; *Sun et al., 2023).*

Digital Leisure and Flow Experience*:* The flow experience, which is assumed to be affected by digital leisure internet use in the study, can be expressed as a subjective state within positive psychology that causes individuals to forget everything except the activity itself, such as time and fatigue, when they are fully involved in the activity (Csikszentmihalyi, 2014). The flow experience is a psychological state and reflects the state of consciousness resulting from discipline. Individuals reach a state of balance between the difficulties in the activities and the skills and abilities required to overcome these difficulties within the specified mood (Elkington, 2011). This experience, which is essentially enjoyable, is a state accompanied by loss of self-consciousness and self-empowerment (Hoffmann and Novak, 1996). It is an experience that increases the level of satisfaction beyond the feeling of fun due to the pleasure received from the intensity of the activity (Clarke and Haworth, 1994; Ghani and Dehpande, 1994). The most important function of the flow experience, which is closely related to leisure activities, is to provide enjoyable experiences to its participants (Csikszentmihalyi, 1992). All these definitions about the flow experience are also descriptive of participation in internet-based activities that dominate the majority of leisure in today's societies. It is known that individuals lose their sense of time and participate in these activities for long periods of time while spending a significant portion of their time on these activities.

Individuals can use the internet for different purposes such as communication (Allaby and Shannon, 2020), health (2020), education (Renuka and Grunathan, 2017), personal development (Iemtom, 2019), shopping (Hyun, 2022), socialization (Saleh, 2024) in their leisure. In addition to this situation, examining the studies on the flow experience in leisure internet usage is important due to the size of the time allocated to internet-based activities. Individuals can experience flow through social platforms using the internet for entertainment and socialization purposes, especially when they are bored, looking for a meaningful activity, or want to experience more leisure (Leung, 2020). When individuals use social media applications as an internet-based leisure activity for shopping purposes, they can also reach the flow experience in line with hedonic search (Shahpasandi et al., 2020). Flow experience constitutes an important theoretical framework for understanding information communication systems and technology use in leisure. In line with this conceptual structure of the flow experience, individuals can interact with their skills through digital devices through the use of

the internet, increase their social relationships, and enjoy this situation by concentrating for long periods of time (Kaur et al., 2016).

Digital leisure flow experience was first conceptualized by Er and Cengiz (2023b). Considering that digital leisure participation, which emerged as a result of the evaluation of leisure activities through digital technologies, provides individuals with the experience of flow, the concept of "digital leisure flow experience" was introduced. The Digital Leisure Flow Experience Scale (DLFES) was developed to measure the conceptualized structure. In the conceptual structure of the scale, the following dimensions were used, which express the components of the flow experience; balance of difficulty and skill in the activity, combination of action and awareness, clear goals, instant feedback, focus on the task, sense of control, loss of self-consciousness, transformation of time, and autotelic experience. In line with the given conceptual information and literature; It constitutes the subjective aspect of the study by revealing the necessity of examining the flow experience in terms of the time and frequency allocated to internet use, which is an important preference point for university students in terms of their leisure experiences today. In this direction, the aim of the study is to examine the effect of digital leisure internet usage on the flow experience. The hypotheses and research model related to the study are as follows:

H_1: There is a significant relationship between internet usage and digital leisure flow experience of university students participating in digital leisure activities.

H_2: Internet usage of university students participating in digital leisure activities has an impact on their digital leisure flow experience.

H_3: There is a significant difference in the internet usage and flow experience of university students participating in digital leisure activities in terms of gender variable.

H_4: There is a significant difference in the internet usage and flow experience of university students participating in digital leisure activities in terms of the digital device usage time variable.

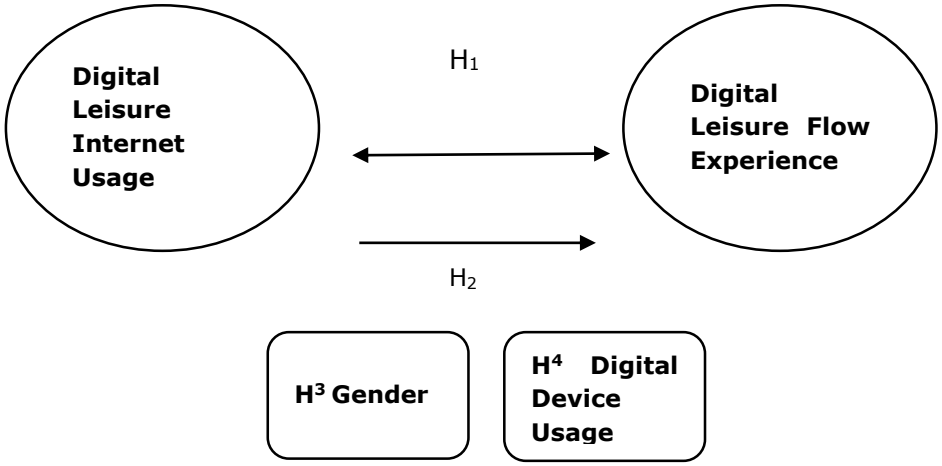

Figure 1: Research Model

METHOD

Study Desing

In the study, the survey design, one of the quantitative research methods, was selected as the research design. The survey design examines the relationship between variables by testing a sample in the universe as a quantitative description of trends, attitudes and thoughts in the universe. The research design also helps researchers answer three questions: a) descriptive questions b) questions about the relationships between variables and c) questions about the predictive relationships that occur between variables over time (Cresswell and Cresswell, 2021:147).

Study Group

The sample group of the study consists of 462 female (55.1%) and 377 male (44.9%) university students with an average age of 24.63±3.671 who use the internet for different purposes in their digital leisure. The reason for choosing university students as the sample group is that individuals in the university student universe in Turkey are the group that uses the internet most intensively for different purposes in their digital leisure (We Are Social, 2024). In the selection of university students who participated in the study, probability-based sampling techniques, simple random sampling technique,

were used. This technique allows each element in the defined universe to have an equal and independent chance of being included in the study. Each sample unit has an equal chance of being included in the study and the selection of one does not prevent the other (Coşkun et al., 2019).

Table 2. Demographic Information of Study Group

Age	$\bar{X}$	S.s.
	24.63	3.671
Gender	N	%
Female	462	55.1
Male	377	44.9
Digital Device Preference	N	%
Computer/Tablet	103	12.3
Mobile Phone/Smart Phone	702	83.7
Television	17	2.0
Game Console	17	2.0
Digital Device Usage Time	N	%
1-2 hours	331	39.4
3-4 hours	276	32.9
5 hours and above	232	27.7
Digital Device Usage Purpose	N	%
Education and/or research (searching for information and doing homework, etc.)	20	2.4
Communication	274	32.7
Playing games	144	17.2
Shopping	44	5.2
Social networking sites (Twitter, Instagram, etc.)	283	33.7
Follow news and/or sports events	8	1.0
Listening to music and/or watching movies, videos, etc.	65	7.7

When Table 1 is examined, it is determined that university student participants prefer phones with a high percentage of 83.7% in digital leisure internet use, while other digital devices are distributed as computers/tablets 12.13%, television 2% and game console 2%. It is seen that participants spend 1-2 hours on these activities with 39.4%, 3-4 hours with 32.9% and 5 hours and above with 27.7% in their daily digital device usage time. In terms of the purpose of digital device usage, the most important preferences of individuals are social networking sites with 33.7% and communication purposes with 32.7%. These purposes are followed by playing games with 17.2%, listening to music and/or watching movies, videos etc. with 7.7%, shopping with 5.2%, education and/or research (searching for information and doing homework etc.) with 2.4% and news and/or sports events with 1%

Data Collection Tools

Demographic information form, Leisure Internet Usage Scale (LIUS) and Digital Leisure Flow Experience Scale (DLFES) were used as data collection tools in the study.

Demographic Information Form: The demographic information form created by the researchers was created to collect data on the participants' age, gender, digital device preference, digital device usage duration and purpose of digital device usage.

Leisure Internet Usage Scale (LIUS): Leisure Internet Usage Scale (LIUS) was developed by Yıldırım Şimşek and Çevik (2023) to examine the conceptual structure of internet usage in leisure and to analyze internet participation. The scale consists of a total of 16 items and 4 sub-dimensions. These sub-dimensions represent the purpose of internet use in leisure time as social interaction, shopping, multimedia source and information/self improvement. The scale, which has a 5-point Likert-type structure, is evaluated as 1-strongly disagree and 5-strongly agree. In the current study, the Cronbach Alpha reliability coefficients of the scale were determined as social interaction α=.71; shopping α=.81; multimedia source α=.71 and information/personal development α=.83. Table 2 shows the mean scores and reliability coefficients for both scales used in the study.

Digital Leisure Flow Experience Scale (DLFES): The Digital Leisure Flow Experience Scale (DLFES) was developed by Er and Cengiz (2023) in order to measure the flow experiences of individuals participating in digital leisure activities. In the development of the scale, the conceptual structure of flow experience (Csikszentmihalyi, 1990; Nakamura and Csikszentmihalyi, 2002; Csikszentmihalyi, 2014) and its relationship with leisure experience (Stebbins, 2010), as well as the studies of Kelly (1990) for his views on the

experience of quality leisure and Nimrod and Adoni (2012), who examined the conceptual dimensions of digital leisure.

The sub-dimensions of the scale were determined as experience, activity, and time in line with these approaches. The scale consists of 17 items and 3 sub-dimensions, and digital leisure flow experience can be measured through the total score. The scale, which has a 7-point Likert-type structure, has options of 1-strongly disagree and 7-strongly agree. When the Cronbach Alpha reliability coefficients of the scale were examined in the current study, it was calculated as α=.94 for experience; α=.91 for activity, α=.91 for time and α=.97 for the total score of DLFES. The data obtained show that the scale has a highly reliable structure (George and Mallery, 2019).

Table 3. Avarage Scores Relating to Scales

		N	X̄	S.s.	α
Leisure Internet Usage	Social Interaction	839	2.0401	.76232	.71
	Shopping	839	2.2726	.86625	.81
	Multimedia Usage	839	2.0679	.68056	.71
	Information/Self-improvement	839	2.0420	.68048	.83
Digital Leisure Flow Experience	Experience	839	4.6500	1.55282	.94
	Activity	839	4.8656	1.56012	.91
	Time	839	4.8019	1.52456	.91
	Digital Leisure Flow Experience	839	4.7454	4.7454	.97

Data Collection

The necessary ethics committee permission for the collection of data and the conduct of the study was obtained from the Istanbul Aydın University Social and Human Sciences Ethics Committee with the commission decision dated 21.12.2023. In this regard, the demographic information form and scales prepared were collected online and face to face. The necessary information about the study was provided to the participants in the data collection forms.

Analysis of Data

SPSS 25 package program was used in the analysis of the data. In the statistical presentation of the obtained data, arithmetic mean, standard deviation and frequency values were presented. In order to examine the normality distribution of the data set, Shapiro-Wilk (Field, 2009) and Skewness and Kurtosis tests (Tabachnick and Fidell, 2013) were used and it was determined that the data showed a normal distribution. In order to examine the differences in digital leisure internet use and flow experience of university student When Table 3 is examined, the results of the independent samples t-test applied to examine the differences in terms of gender variable are shown. According to these results, no significant differences were found in terms of gender variable in the Leisure Internet Usage Scale, social interaction (t=.041; p=.967), shopping (t=-1.110; p=.267), multiple media sources (t=.565; p=.572) and information/personal development (t=1.844; p=.066). Significant differences were found in participants, Independent Samples T-Test was applied to compare the differences in terms of gender variable and Single Factor Analysis of Variance-ANOVA was applied for comparison in terms of digital device usage time variable. Pearson Correlation Test was used to examine the relationship between leisure internet usage and digital leisure flow experience. In line with the results obtained from this test, Multiple Linear Regression Analysis was applied to examine the effects of the sub-dimensions of leisure internet usage, social interaction and information acquisition/personal development, among which a positive relationship was found, on the digital leisure flow experience.

FINDINGS

Terms of gender variable in the Digital Leisure Flow Experience Scale (DLFES) experience (t=5.109; p=.000), activity (t=4.562; p=.000), time (t=4.478; p=.000) and total score (t=4.992; p=.000). In terms of gender variable, it can be said that all the differences in the sub-dimensions and total scores of DLFES are in favor of female participants. This result reveals that female participants have a higher flow experience in their leisure internet use than male participants.

Table 4. Independent Samples T-test Results According to Gender Variable

Variable	Gender	N	X	Sd	t	df	p
Social Interaction	Female	462	2.04	.71	.041	750.096	.967
	Male	377	2.03	.81			
Shopping	Female	462	2.24	.75	-1.110	697.383	.267
	Male	377	2.31	.98			
Multimedia Usage	Female	462	2.08	.63	.565	754.684	.572
	Male	377	2.05	.72			
Information/Self improvement	Female	462	2.08	.61	1.844	723.500	.066
	Male	377	1.99	.75			
Experience	Female	462	4.89	1.43	5.109	754.740	.000*
	Male	377	4.34	1.63			
Activity	Female	462	5.08	1.41	4.562	735.954	.000*
	Male	377	4.59	1.68			
Time	Female	462	5.01	1.39	4.478	745.155	.000*
	Male	377	4.54	1.62			
Digital Leisure Flow Experience	Female	462	4.97	1.36	4.992	746.030	.000*
	Male	377	4.46	1.58			

*<0.05

When Table 4 is examined, no significant difference was found in terms of the duration of digital device usage variable in leisure internet usage, social interaction (F=2.568; p=.077) and information/personal development (F=.241; p=.786). Significant differences were found in the sub-dimensions of the Leisure Internet Usage Scale, shopping (F=23.938; p=.000) and multimedia source (F=5.212; p=.006). As a result of the Tukey Post-Hoc test conducted in order to determine the source of significant differences; it was determined that the significant difference in the shopping sub-dimension was between those whose participation time for shopping purposes was 1-2 hours and 3-4 hours and between those who used 1-2 hours and 5 hours and above. In terms of the multimedia source sub-dimension, it can be said that the significant difference was seen between those whose usage time was 1-2 hours and 3-4 hours and between those who used 3-4 hours and above. The results reveal that as the daily digital device usage time increases in leisure internet usage, individuals engage in more shopping and multimedia source-based participation.

Table 5. Single Factor Analysis of Variance (ANOVA) According to Digital Device Usage Duration Variable

Variable		Sum of Squares	df	Mean Square	F	P	Sig. Dif.
Social Interaction	Between Groups	2.973	2	1.487	2.568	.077	-
	Within Groups	484.009	836	.579			
	Total	486.982	838				
Shopping	Between Groups	34.061	2	17.030	23.938	.000*	1-2 1-3
	Within Groups	594.759	836	.711			
	Total	628.820	838				
Multimedia Usage	Between Groups	4.780	2	2.390	5.212	.006*	1-3 2-3
	Within Groups	383.348	836	.459			
	Total	388.128	838				
Information/Self-improvement	Between Groups	.223	2	.112	.241	.786	-
	Within Groups	387.820	836	.464			
	Total	388.043	838				
Experience	Between Groups	430.140	2	215.070	113.046	.000*	1-2 1-3 2-3
	Within Groups	1590.490	836	1.903			
	Total	2020.631	838				
Activity	Between Groups	367.097	2	183.548	91.743	.000*	1-2 1-3 2-3
	Within Groups	1672.564	836	2.001			
	Total	2039.660	838				
Time	Between Groups	379.851	2	189.926	101.267	.000*	1-2 1-3 2-3
	Within Groups	1567.906	836	1.875			
	Total	1947.757	838				
Digital Leisure Flow Experience	Between Groups	399.878	2	199.939	115.164	.000*	1-2 1-3 2-3
	Within Groups	1451.398	836	1.736			
	Total	1851.276	838				

*<0.05

It was concluded that there were significant differences in the Digital Leisure Flow Experience Scale (DLFES) experience (F=113.046; p=.000), activity (F=91.743; p=.000) and time (F=101.267; p=.000) sub-dimensions and total score (F=115.164; p=.000). As a result of the Tukey Post-Hoc test used to examine the source of significant differences, it was determined that the significant differences in all sub-dimensions and total score of DLFES were between those whose participation duration was 1-2 hours and 3-4 hours; between those whose participation duration was 1-2 hours and 5 hours and above; between those whose participation duration was 3-4 hours and 5 hours and above. In line with the results, it is possible to say that participation in the range of 1-2 hours is more effective than participation in 3-4 hours and above 5 hours; and participation in the range of 3-4 hours is more effective than participation in 5 hours and above in terms of flow experience. Therefore, it can be said that as the time spent using digital devices decreases, the digital leisure flow experience increases.

Table 6. Pearson Correlation Test for the Relationship Between Leisure Internet Usage and Digital Leisure Flow Experience

				Digital Leisure Flow Experience			
		Variable		**Time**	**Activity**	**Experience**	**Digital Leisure Flow Experience**
Leisure Internet Usage		Social Interaction	r	.082*	.042	.105**	.082*
			p	.018	.227	.002	.017
		Shopping	r	-.035	-.001	.020	-.012
			p	.305	.976	.568	.734
		Multimedia Usage	r	.045	.050	.079*	.058
			p	.191	.146	.023	.091
		Information/Self-improvement	r	.268**	.264**	.255**	.274**
			p	.000	.000	.000	.000

**<0.01 *<0.05

When the Pearson correlation test results for the relationship between leisure internet usage and digital leisure flow experience are examined in Table 5; a positive, low-level relationship was found between the social interaction sub-dimension of the Leisure Internet Usage Scale (LIUS) and the Digital Leisure Flow Experience Scale (DLFES) time (r=.082; p=.018), experience (r=.105; p=.002) and DLFES total score (r=.082; p=.017), while no significant relationship was found with the activity (r=.042; p=.227) sub-dimension.

No significant relationship was found between the shopping sub-dimension of the Leisure Internet Usage Scale and the Digital Leisure Flow Experience Scale (DLFES) time (r=-.035; p=.305), activity (r=-.001; p=.976), experience (r=.020; p=.568) and total score (r=-.012; p=.734).

Based on the positive relationship between the sub-dimensions of social interaction and information /self improvement regarding leisure internet usage and digital leisure flow experience, Multiple Linear Regression Analysis was used to test the direct effect. According to the results, the R value showing the value of the relationship between the variables was determined as .082 and .274 as in the correlation test. The R2 value explains how much of the dependent variable, digital leisure flow experience, depends on the independent variable, social interaction and information/self-improvement, and the independent variable, social interaction and information/self-improvement, of leisure internet usage. Accordingly, 7.8% of the digital leisure flow experience depends on the purposes of social interaction and information. The adjusted R2 value shows how much of the dependent variable, digital leisure flow experience, is explained by the independent variables, social interaction and information/self-improvement (Gürbüz and Şahin, 2018). The 7.6% variance in the digital leisure flow experience shows that it is predicted by the social interaction and information /self-improvement sub-dimensions of leisure internet usage.

A positive, low-level correlation was found between the multimedia source sub-dimension of the Leisure Internet Usage Scale and the experience (r=.079; p=.023) sub-dimension of the Digital Leisure Flow Experience Scale. However, no significant difference was found between the multimedia source sub-dimension and time (r=.045; p=.191), activity (r=.050; p=.146) and DLFES total score (r=.058; p=.091).

A positive, low-level relationship was found between the information acquisition/personal development sub-dimension of the Leisure Internet Usage Scale and the time (r=.268; p=.000), activity (r=.264; p=.000), experience (r=.255; p=.000) sub-dimensions of the Digital Leisure Flow Experience Scale and the total score of the DLFES (r=.274; p=.000).

Table 7. Results of Multiple Linear Regression Analysis for Predicting Digital Leisure Flow Experience

Dependent Variable	Independent Variable	B	Standart Error	β	t	p	Binary r	Partial r	Tolerance	VIF
Digital Leisure Flow Experience	Constant	3,645	,171		21,366	,000				
	Social Interaction	-,129	,074	-,066	-1,739	,082	,082	-,060	,764	1,308
	Information/Self-improvement	,667	,083	,306	8,046	,000	,274	,268	,764	1,308
R=,280a R2=,078 Adj. R2=,076 F=35.433 p=.000										

DISCUSSION AND CONCLUSION

This study was conducted to investigate the effects of internet usage purposes on the flow experience of university students participating in digital leisure activities. The hypotheses established within the framework of the research and the results obtained will be discussed in this section together with the relevant literature. It is seen in the literature that the relationship between Internet use and flow experience has been the subject of many studies for a long time (Novak and Hoffman, 1997; Chen et al. 2000; Rettie, 2001; Thatcher, 2008; Voiskounsky, 2012; Yang et al., 2014). In recent years, the existence of studies on internet usage, which constitutes an important choice point in terms of individuals' leisure experiences, is also seen (Er and Cengiz, 2023a; Lamberti et al., 2023; Şimşek and Çevik, 2023). In this study, the relationship between the purposes of internet usage as a digital leisure activity and digital leisure flow experience was examined.

When the results of Hypothesis 1 of the study were examined, it was determined that there was a positive relationship between the social interaction and information/self-improvement sub-dimensions of internet usage purposes of university students participating in digital leisure activities and digital leisure flow experience. In connection with this relationship, the results of Hypothesis 2 concluded that the social interaction and information/self-improvement dimensions of internet usage of university students in digital leisure had an effect on digital leisure flow experience.

When the literature on the social interaction and socialization dimensions of internet-based activities in leisure is examined; Wang et al. (2015) revealed that a positive relationship was detected between the tendency to continue using the internet in leisure and the flow experience in their study conducted with university students. Leung (2020) revealed that individuals experience flow when they are bored, feel the need for meaningful participation, and use the internet for information search, socialization, and entertainment purposes in order to increase their leisure participation. Brailovskaia et al. (2020) examined the relationship between individuals' reasons for social media use, symptoms such as stress, anxiety, depression, and flow experiences and identified five different main reasons for use in their study. These were determined as information search, social interaction search, boredom, escape from negative emotions, and search for positive emotions. The study results draw attention to the relationship between reasons such as escape from negative emotions and search for positive emotions and the flow experience. Valtchanov and Parry (2016) stated in their study on individuals in adolescence that digital leisure activities help individuals to overcome time and space limitations and ensure social interaction. Chang et al. (2023) concluded in their study on elderly individuals participating in digital leisure activities that participation in activities for the purpose of socialization is associated with the flow experience. Er and Cengiz (2023a) concluded that digital leisure participation purposes (gaming, entertainment, socialization, and communication) including internet-based activities have a positive effect on experiencing digital leisure flow. Yao et al. (2023) revealed that the use of social media for the purpose of communication and socialization has a direct effect on the flow experience. In addition, they stated that elderly individuals can be helped to establish a balance between high-level skills and difficulties in experiencing flow by supporting them in seeking social support resources through digital leisure. These results are parallel to the results of the current study.

When the literature on shopping, which is another dimension related to the purposes of internet use in leisure, is examined; Hyun et al. (2022) drew attention to the relationship between social networking sites for shopping purposes and the flow experience and their intentions to shop again. Wang and Wang (2020) concluded that there is a relationship between the information seeking

behavior of online shoppers and the flow experience in their study on university students. While Hsu et al. (2012) revealed that there is a positive relationship between online shopping behavior and flow experience, Xu et al. (2021) similarly found that online shopping behavior has a positive relationship with flow experience in their study on individuals who shop via social media. Özkara et al. (2017) drew attention to the relationships between the dimensions of flow experience such as pleasure, perceived control, and the combination of action and awareness with individuals' online shopping and purchasing intentions. While the mentioned studies draw attention to the positive relationship between the use of the internet for online purchasing services and flow, this study concludes that shopping-oriented internet use has no relationship with experiencing flow.

When studies on the flow experience created by participation in internet-based activities for gaming purposes in digital leisure are examined, it is possible to say that the use of the internet for gaming purposes is an important source for experiencing flow (Takatalo et al., 2015; Kaye, 2016; Er and Cengiz, 2023a). Kim (2022) argues that with the widespread use of technology, social media platforms have significantly changed individuals' experiences in real life and on the internet with participation for shopping, socializing, entertainment, work, and health-fitness purposes. In a study examining how fitness YouTube channel attributes and fitness YouTuber attributes affect the flow experience, satisfaction, and behavioral intention of YouTubers who exercise at home through a fitness YouTube channel, it was revealed that individuals' flow experience is significantly affected by information quality, visual content, and physical attractiveness. Xu et al. (2023) emphasized the flow experience of individuals in their study on individuals who use the internet for listening to music on online music platforms. Yang and Lee (2018) examined television platforms that are accessed through internet connection instead of traditional media within the framework of streaming experience and drew attention to the direct relationship between content quality and flow experience, while it was concluded that functionality and ease of use in terms of experiences indirectly affect the perceived benefit through streaming experience. Based on the results of this study in the literature, it is possible to talk about the direct and indirect relationships or effects of flow experience with purposes such as listening to music, watching videos, playing games or watching television, which are multimedia sources of the internet. However, in this study, no relationship was found between digital leisure internet usage and digital leisure flow experience in terms of multimedia sources.

When the literature on the dimension of information and self-improvement in terms of leisure internet usage is examined, there are studies focused on online learning, as well as studies on experiencing flow through leisure internet-based activities. Pilke (2004) revealed the opportunity to experience flow in information and communication technologies, especially in internet browsers, in the behavior of information search/acquisition. Similarly, Chen et al. (2000) revealed that internet use can provide enjoyable experiences through the flow state, and this can positively affect an individual's subjective well-being and increase the person's happiness and life satisfaction. The study emphasizes that internet use is an activity that directly produces extremely pleasurable experiences such as the combination of action and awareness, loss of self-consciousness, feeling of time distortion, and enjoyment, which constitute the dimensions of flow, and facilitates flow. Esteban-Millat et al. (2014), in their study examining the effect of flow experience on student behavior in virtual learning environments, revealed that as the process in which students experience flow in the online learning process increases, the positive effects and outcomes they obtain increase at the same level. Mak et al. (2019) examined the effects of a gamified online learning platform on students' flow experience through their leisure reading habits and revealed that many students initially experienced flow through extrinsic motivation, and later in the study, they enjoyed the reading process because the online reading activity itself became a pleasure (autotelic experience) and even the perception of time disappeared. These preferences of individuals regarding internet browsers have also led to the emergence and proliferation of social media applications over time, and they have turned to this area and offered the opportunity to experience flow (Kaur et al., 2016; Pelet et al., 2017; Cuevas et al., 2021; Zhou et al., 2024).

When the results of Hypothesis 3 are examined, no significant difference was found in the dimensions of social interaction, shopping, multimedia sources and information/self-improvement in internet use of university students participating in digital leisure activities in terms of gender variable, while significant differences were found in the digital leisure flow experience total score and time, activity and experience sub-dimensions in terms of gender variable. In line with this result, while leisure internet use does not create any difference in terms of women and men; that is possible to say that women experience flow more than men when their mean

scores in terms of time, activity, experience and digital leisure flow experience total score are examined.

In previous studies, Ono and Zavodny (2003) examined the differences in men and women's internet use and the changes in these differences, and as a result, they stated that women were significantly less likely to use the internet than men in the mid-1990s, but this gender difference in being online disappeared by the 2000s. They stated that women continued to use the internet less frequently and less intensively than men. While no problem was detected in terms of access in terms of the gender variable in terms of the period, it was suggested that there were differences in terms of participation duration and frequency. In a similar study, Wasserman and Abbott (2005) stated that women had a higher frequency of access than men but preferred to use the internet less. They also revealed that participation purposes and preferences differed. Bujala (2012) stated that women spent less time using the internet and had less online experience. Basically, it is emphasized that gender differences are changed by participation purposes or content, men prefer games, music, movies and humorous content more, and in addition, gender differences are not significant. Thanuskodi (2013) examined the gender differences of university students who use the internet for purposes such as information search, communication, education, and multimedia, and revealed that there is no dominant difference in internet use by any gender. He showed that users have equal access, but some usage differences occur, and this is due to the fact that individuals are exposed to technological devices at a high rate due to their educational experiences, regardless of gender. Lamberti et al. (2023) examined internet use and traditional leisure activities in young people according to gender and age and revealed that there is a difference in leisure internet use according to gender variable. The study argues that as women's leisure increases in terms of duration, their satisfaction levels decrease. Sultana and Imtiaz (2018) examined the differences in the internet usage patterns of university students and found that men preferred female participants more for gaming purposes, while women used it more for commercial purposes compared to men.

When digital leisure flow experience examines, Stavropoulos et al. (2013) concluded that men experience a higher level of flow in the study in which they examined the flow experience in internet use according to gender differences. Yang and Quadir (2018) reported that women experience a higher level of flow than men in the study in which they examined the flow experience and gender differences in digital game-based learning, although their motivational factors are similar. Wang et al. (2015) reported that no difference was detected in the flow experience for male and female participants in the study they conducted on university students' leisure internet use. Er (2023) found significant differences in the digital leisure flow experience sub-dimensions of time, activity, experience and total score in the study in which he examined the relationship between university students' participation purposes in digital leisure activities, flow experience and satisfaction levels. It was concluded that male participants had a higher flow experience in digital leisure activities compared to women.

When the results of Hypothesis 4 are examined, it is concluded that there is a significant difference in terms of internet usage purposes and usage time variable in flow experience of university students participating in digital leisure activities. It is seen that these differences are in the dimensions of shopping and multimedia use in terms of internet usage in digital leisure. In terms of flow experienced in digital leisure, it is concluded that flow experience increases as the time spent in digital environment decreases in time, activity, experience and total flow experience. This situation can be summarized as flow experience increases as digital device usage time decreases. It can be said that the most up-to-date and concrete data on the subject is We Are Social 2024 reports. According to the report created from different sources and data providers, it is seen that individuals between the ages of 16-64 spend 6 hours and 40 minutes per day in internet-based activities according to the world average as of 2024. As presented in the literature section of the study, the main reasons for individuals to use the internet during this period include many areas of life such as information search, communication, following multimedia sources, searching for entertaining activities, searching for products and services for shopping, education, health, finance, games. These results support the fact that individuals spend a significant portion of their lives using digital devices for different purposes (We Are Social, 2024). On the other hand, no studies have been identified in the literature on the differences created by digital device usage time in terms of flow experience. In this study, it was determined that as the duration of digital device usage decreases in terms of internet use in digital leisure, the flow experience increases.

This study has revealed that internet use as a digital leisure activity is associated with the flow experience, and that internet participation in leisure for social interaction and information/self-improvement affects the flow experience. The study

has not determined that the gender variable is a factor that creates a difference in terms of the purposes of leisure internet use, but it has revealed differences in terms of the flow experienced in digital leisure. Similarly, the duration of digital device use stands out as a variable that creates a difference in terms of shopping, multimedia use and experiencing flow in digital leisure. The results obtained are important in terms of explaining the enjoyable aspect of digital platforms, which constitute an important preference point in terms of individuals' leisure experiences, and therefore the flow experienced in leisure by the internet. It is thought that the study will contribute to the literature as an enlightening study in terms of determining the differences, positive and negative aspects of digital leisure experiences of individuals and societies in every way. However, the study has some limitations in terms of the university student sample group, internet usage preferences and motivational factors that individuals prefer more in terms of duration-frequency. In this direction, experimental studies can be conducted on different groups within different theories and conceptual approaches. In addition, considering the results of the hypotheses tested in the study, it can be recommended that the internet, which is used intensively and frequently by individuals especially in university years in their leisure, be supported with training or applications that guide conscious use.

REFERENCES

Allaby, M., & Shannon, C. S. (2020). "I just want to keep in touch": Adolescents' experiences with leisure-related smartphone use. *Journal of Leisure Research, 51*(3), 245–263. https://doi.org/10.1080/00222216.2019.1574542

Aghasi, M., Matinfar, A., Golzarand, M., Salari-Moghaddam, A., & Ebrahimpour-Koujan, S. (2020). Internet use in relation to overweight and obesity: A systematic review and meta-analysis of cross-sectional studies. *Advances in Nutrition, 11*(2), 349–356. https://doi.org/10.1093/advances/nmz098

Blanco, A. V. (2015). The transformation of leisure in the digital age. in *Social media and social movements: the transformation of communication patterns* (pp. 165–179). Lanham: Lexington Books.

Brailovskaia, J., Schillack, H., & Margraf, J. (2020). Tell me why are you using social media (SM)! Relationship between reasons for use of SM, SM flow, daily stress, depression, anxiety, and addictive SM use – An exploratory investigation of young adults in Germany. *Computers in Human Behavior, 113*, 106511. https://doi.org/10.1016/j.chb.2020.106511

Bujała, A. (2012). Gender differences in Internet usage. *Acta Universitatis Lodziensis. Folia Sociologica, (43)*, 49–67.

Chang, L. C., Dattilo, J., & Huang, F. H. (2023). Digital leisure among older adults: Connections to social support, flow, and social inclusion. *Leisure Sciences*, 1–20. https://doi.org/10.1080/01490400.2023.2191873

Chen, H., Wigand, R. T., & Nilan, M. (2000). Exploring web users' optimal flow experiences. *Information Technology & People, 13*(4), 263–281. https://doi.org/10.1108/09593840010359473

Chen, J., & Wang, Y. (2021). Social media use for health purposes: Systematic review. *Journal of*

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B.E & R.C.: data collection. B.E.: data analysis and original draft preparation. R.C.: review and editing. All authors have read and agreed to the published version of the manuscript.

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The research was conducted in accordance with the ethics committee permission for the collection of data and the conduct of the study was obtained from the Istanbul Aydın University Social and Human Sciences Ethics Committee with the commission decision dated 21.12.2023. In this regard, the demographic information form and scales prepared were collected online and face to face.

Informed Consent Statement

Informed consent was obtained from all subjects involved in this study.

Data Availability Statement

Datasets are available through the corresponding author upon reason-able request.

Conflicts of Interest

The authors unequivocally assert that this research was undertaken while devoid of any commercial or financial affiliations that might be perceived as potential conflicts of interest.

Medical Internet Research, 23(5), e17917. https://doi.org/10.2196/17917

Choi, S., & Lehto, X. Y. (2009). Internet use as a leisure pastime: Older adults' subjective well-being and its correlates. *International Journal of Tourism Sciences, 9*(3), 49–72.

Coker, B. L. (2011). Freedom to surf: The positive effects of workplace Internet leisure browsing. *New Technology, Work and Employment, 26*(3), 238–247. https://doi.org/10.1111/j.1468-005X.2011.00269.x

Coker, B. L. (2013). Workplace internet leisure browsing. *Human Performance, 26*(2), 114–125.https://doi.org/10.1080/08959285.2013.765877

Cuevas, L., Lyu, J., & Lim, H. (2021). Flow matters: Antecedents and outcomes of flow experience in social search on Instagram. *Journal of Research in Interactive Marketing, 15*(1), 49–67. https://doi.org/10.1108/JRIM-08-2020-0161

Doshi, D., Sukhabogi, J. R., Kumari, V. S., & Reddy, Y. P. (2024). Impact of self-reported leisure Internet usage on social interactions. *Journal of Datta Meghe Institute of Medical Sciences University, 19*(1), 57–65.

Esteban-Millat, I., Martínez-López, F. J., Huertas-García, R., Meseguer, A., & Rodríguez-Ardura, I. (2014). Modelling students' flow experiences in an online learning environment. *Computers & Education, 71*, 111–123. https://doi.org/10.1016/j.compedu.2013.09.012

Er, B., & Cengiz, R. (2022). Purposes of participation in digital leisure activities: A scale development study. *International Journal of Bozok Sports Sciences, 3*(3), 11–28.

Er, B. (2023). *Examining flow experience and leisure satisfaction in digital leisure activities* (Doctoral dissertation). Manisa: Celal Bayar University, Institute of Social Sciences.

Er, B., & Cengiz, R. (2023b). Digital leisure flow experience: A scale development study. *SPORMETRE Journal of Physical Education and Sport Sciences, 21*(2), 48–62. https://doi.org/10.33689/spormetre.1259344

Er, B., & Cengiz, R. (2023a). The effect of digital leisure participation purposes on flow experience and leisure satisfaction. *Journal of ROL Sport Sciences*, 544–565.

Gallistl, V., & Nimrod, G. (2020). Media-based leisure and wellbeing: A study of older Internet users. *Leisure Studies, 39*(2), 251–265. https://doi.org/10.1080/02614367.2019.1701474

Gao, L., Gan, Y., Whittal, A., & Lippke, S. (2020). Problematic internet use and perceived quality of life: Findings from a cross-sectional study investigating work-time and leisure-time internet use. *International Journal of Environmental Research and Public Health, 17*(11), 4056. https://doi.org/10.3390/ijerph17114056

Gellmers, J., & Yan, N. (2023). Digital leisure engagement and positive outcomes in the workplace: A systematic literature review. *International Journal of Environmental Research and Public Health, 20*(2), 1014. https://doi.org/10.3390/ijerph20021014

Heo, J., Kim, J., & Won, Y. S. (2011). Exploring the relationship between internet use and leisure satisfaction among older adults. *Activities, Adaptation & Aging, 35*(1), 43–54. https://doi.org/10.1080/01924788.2011.545970

Ho, C. H., & Cho, Y. H. (2024). Social media as a pathway to leisure: Digital leisure culture among new mothers with young children in Taiwan. *Leisure Sciences, 46*(4), 532–550. https://doi.org/10.1080/01490400.2023.2256492

Hsu, C. L., Chang, K. C., & Chen, M. C. (2012). Flow experience and internet shopping behavior: Investigating the moderating effect of consumer characteristics. *Systems Research and Behavioral Science, 29*(3), 317–332. https://doi.org/10.1002/sres.1102

Huang, L., Liang, X., Li, L., Xiao, H., & Xie, F. (2023). The impact of internet use on the well-being of rural residents. *Agriculture, 13*(7), 1462. https://doi.org/10.3390/agriculture13071462

Hyun, H., Thavisay, T., & Lee, S. H. (2022). Enhancing the role of flow experience in social media usage and its impact on shopping. *Journal of Retailing and Consumer Services, 65*, 102492. https://doi.org/10.1016/j.jretconser.2021.102492

Iemtom, P. (2019). Students' self-evaluation of English improvement through internet usage for learning purposes. *Journal of Community Development Research (Humanities and Social Sciences), 12*(1), 25–35.

Kaas, E. T., & Uğur, S. (2017). Leisure participation, internet addiction and leisure boredom in university students. *Journal of Educational and Instructional Studies in the World, 7*(4), 38–47.

Kausar, N., Ashraf, S., Khan, D. M. M., Khan, D. M. M., & Mehmood, S. (2021). Workplace internet leisure and employee productivity: Mediating role of employee engagement. *The Journal of Contemporary Issues in Business and Government, 27*(3), 2445–2460.

Kaur, P., Dhir, A., Chen, S., & Rajala, R. (2016). Flow in context: Development and validation of the flow experience instrument for social networking. *Computers in Human Behavior, 59*, 358–367. https://doi.org/10.1016/j.chb.2016.02.039

Kaye, L. K. (2016). Exploring flow experiences in cooperative digital gaming contexts. *Computers in Human Behavior, 55*, 286–291. https://doi.org/10.1016/j.chb.2015.09.030

Kim, S. Y., Kim, M. S., Park, B., Kim, J. H., & Choi, H. G. (2018). Lack of sleep is associated with internet use for leisure. *PLOS ONE, 13*(1), e0191713. https://doi.org/10.1371/journal.pone.0191713

Kim, M. (2022). How can I be as attractive as a fitness YouTuber in the era of COVID-19? The impact of digital attributes on flow experience, satisfaction, and behavioral intention. *Journal of Retailing and Consumer Services, 64*, 102778. https://doi.org/10.1016/j.jretconser.2021.102778

Lamberti, G., López-Sintas, J., & Lopez Belbeze, P. (2023). The impact of internet use on leisure: Gender and age heterogeneity in young people. *Journal of Leisure Research, 54*(5), 581–601. https://doi.org/10.1080/00222216.2023.2176342

Leung, L. (2020). Exploring the relationship between smartphone activities, flow experience, and boredom in free time. *Computers in Human Behavior, 103*, 130–139. https://doi.org/10.1016/j.chb.2019.09.030

Ludvík, E., Łukasz, T., Milan, K., Mária, P., & Gabriela, P. (2020). How do first year university students use ICT in their leisure time and for learning purposes? *International Journal of Cognitive Research in Science, Engineering and Education, 8*(2), 35–52. https://doi.org/10.23947/2334-8496-2020-8-2-35-52

Mak, M. T. F., Wang, M., & Chu, K. W. S. (2019). Effects of a gamified learning platform on elementary school students' flow experiences in leisure reading. *Proceedings of the Association for Information Science and Technology, 56*(1), 454–458. https://doi.org/10.1002/pra2.52

Mei, Y., & Lin, N. (2023). Internet use and the happiness of rural residents: The role of education and health. *International Journal of Environmental Research and Public Health, 20*(4), 3540. https://doi.org/10.3390/ijerph20043540

Moñino-García, M., Ballesta, M., Huerta, J. M., Correa-Rodríguez, J. F., Cabrera-Castro, N., Llorens, N., & Chirlaque-López, M. D. (2024). The adolescent problem gambling prevalence associated with leisure-time activities and risky behaviors in Southern Spain. *International Journal of Mental Health and Addiction, 22*(3), 1662–1676. https://doi.org/10.1007/s11469-022-00936-9

Nimrod, G., & Adoni, H. (2012). Conceptualizing e-leisure. *Loisir et Société / Society and Leisure, 35*(1), 31–56. https://doi.org/10.7202/1011651ar

Novak, T. P., & Hoffman, D. L. (1997). Measuring the flow experience among web users. *Interval Research Corporation, 31*(1), 1–35.

Ono, H., & Zavodny, M. (2003). Gender and the Internet. *Social Science Quarterly, 84*(1), 111–121. https://doi.org/10.1111/1540-6237.8401007

Özkara, B. Y., Özmen, M., & Kim, J. W. (2017). Examining the effect of flow experience on online purchase: A novel approach to the flow theory based on hedonic and utilitarian value. *Journal of Retailing and Consumer Services, 37*, 119–131. https://doi.org/10.1016/j.jretconser.2017.04.004

Pelet, J. É., Ettis, S., & Cowart, K. (2017). Optimal experience of flow enhanced by telepresence: Evidence from social media use. *Information & Management, 54*(1), 115–128. https://doi.org/10.1016/j.im.2016.06.008

Pilke, E. M. (2004). Flow experiences in information technology use. *International Journal of Human-Computer Studies, 61*(3), 347–357. https://doi.org/10.1016/j.ijhcs.2003.12.001

Renuka, S., & Gurunathan, D. (2017). Usage of internet for academic purposes by undergraduate students. *Journal of Advanced*

Pharmacy Education and Research, 7(1), 18–21.

Saleh, E. F. (2024). *Adolescent socialization in the digital age: The role of internet usage and social networks* (pp. 66–98). India: P B International.

Shahpasandi, F., Zarei, A., & Nikabadi, M. S. (2020). Consumers' impulse buying behavior on Instagram: Examining the influence of flow experiences and hedonic browsing on impulse buying. *Journal of Internet Commerce, 19*(4), 437–465. https://doi.org/10.1080/15332861.2020.1814883

Sintas, J. L., Rojas de Francisco, L., & García-Álvarez, E. (2017a). Home-based digital leisure. *World Leisure Journal, 59*(sup1), 86–92. https://doi.org/10.1080/16078055.2017.1383728

Sintas, J. L., Rojas de Francisco, L., & García-Álvarez, E. (2017b). Home-based digital leisure: Doing the same leisure activities, but digital. *Cogent Social Sciences, 3*(1), 1309741. https://doi.org/10.1080/23311886.2017.1309741

Sintas, J. L., López Belbeze, M. P., & Lamberti, G. (2023). Socially patterned strategic complementarity between offline leisure activities and internet practices among young people. *Leisure Sciences, 45*(1), 24–45. https://doi.org/10.1080/01490400.2022.2041437

Spracklen, K. (2015). *Digital leisure, the internet and popular culture: Communities and identities in a digital age*. London: Palgrave Macmillan. https://doi.org/10.1057/9781137405870

Stavropoulos, V., Alexandraki, K., & Motti-Stefanidi, F. (2013). Flow and telepresence contributing to internet abuse: Differences according to gender and age. *Computers in Human Behavior, 29*(5), 1941–1948. https://doi.org/10.1016/j.chb.2013.03.011

Sultana, R., & Imtiaz, A. (2018). Gender difference in internet usage pattern: A study on university students of Bangladesh. *Scholars Journal of Economics, Business and Management, 5*(5), 413–421.

Sui, M., Ding, H., Xu, B., & Zhou, M. (2022). The impact of internet use on the happiness of Chinese civil servants: A mediation analysis based on self-rated health. *International Journal of Environmental Research and Public Health, 19*(20), 13142. https://doi.org/10.3390/ijerph192013142

Sun, Y., Gao, J., Zhang, X., & Cheng, Y. (2023). The impact of internet use on residents' happiness in China. *Frontiers in Public Health, 11*, 1188259. https://doi.org/10.3389/fpubh.2023.1188259

Şimşek, K. Y., & Çevik, H. (2023). The development and validation of the Leisure Internet Usage Scale (LIUS). *Leisure Studies, 43*(1), 76–88. https://doi.org/10.1080/02614367.2023.2205426

Şimşek, K. Y. (2024). Internet usage habits for leisure among generation XYZ. *GSI Journals Serie A: Advancements in Tourism Recreation and Sports Sciences, 7*(1), 301–313.

Takatalo, J., Häkkinen, J., & Nyman, G. (2015). Understanding presence, involvement, and flow in digital games. In K. A. Lawson (Ed.), *Game user experience evaluation* (pp. 87–111). Springer. https://doi.org/10.1007/978-3-319-15985-0_5

Thanuskodi, S. (2013). Gender differences in internet usage among college students: A comparative study. *Library Philosophy and Practice (e-journal), 1052*, 1–13. https://digitalcommons.unl.edu/libphilprac/1052

Thatcher, A., Wretschko, G., & Fridjhon, P. (2008). Online flow experiences, problematic Internet use and Internet procrastination. *Computers in Human Behavior, 24*(5), 2236-2254. https://doi.org/10.1016/j.chb.2007.10.008

Valtchanov, B. L., & Parry, D. C. (2016). "I like my peeps": Diversifying the Net Generation's digital leisure. *Leisure Sciences, 39*(4), 336–354. https://doi.org/10.1080/01490400.2016.1189360

Viklund, E. W., & Forsman, A. K. (2022). Exploring the nuanced links between internet use and subjective well-being among older adults: A Nordic population-based study. *Frontiers in Psychology, 12*, Article 797269. https://doi.org/10.3389/fpsyg.2021.797269

Voiskounsky, A. E. (2012). Flow experience in internet-mediated environments. In M. I. Bosnjak (Ed.), *Motivation, consciousness and self-regulation* (pp. 1-20). Nova Science.

Yang, S., Lu, Y., Wang, B., & Zhao, L. (2014). The benefits and dangers of flow experience in high school students' internet usage: The role of

parental support. *Computers in Human Behavior, 41*, 504-513. https://doi.org/10.1016/j.chb.2014.09.039

Yang, J. C., & Quadir, B. (2018). Individual differences in an English learning achievement system: Gaming flow experience, gender differences and learning motivation. *Technology, Pedagogy and Education, 27*(3), 351-366. https://doi.org/10.1080/1475939X.2018.1460612

Yao, S., Xie, L., & Chen, Y. (2023). Effect of active social media use on flow experience: Mediating role of academic self-efficacy. *Education and Information Technologies, 28*(5), 5833-5848. https://doi.org/10.1007/s10639-023-11568-9

Zhou, R., Fong, P. S., & Tan, P. (2014). Internet use and its impact on engagement in leisure activities in China. *PLOS ONE, 9*(2), Article e89598. https://doi.org/10.1371/journal.pone.0089598

Zhou, D., Wu, L., Huang, J., Lv, G., Tang, C., & Yang, X. (2024). Enhancing user experience on social media platforms: A flow theory-based approach. *International Journal of Human–Computer Interaction*. Advance online publication. https://doi.org/10.1080/10447318.2024.1234567

Wang, C. C., Chen, C. F., & Chen, C. T. (2015). Exploring the different aspects of Internet leisure use by college students. *Information Development, 31*(1), 5-12. https://doi.org/10.1177/0266666913514223

Wang, W. C. (2019). Exploring the relationship among free-time management, leisure boredom, and internet addiction in undergraduates in Taiwan. *Psychological Reports, 122*(5), 1651-1665. https://doi.org/10.1177/0033294118789031

Wang, L., & Wang, S. (2020). The influence of flow experience on online consumers' information searching behavior: An empirical study of Chinese college students. *Data and Information Management, 4*(4), 250-257. https://doi.org/10.2478/dim-2020-0016

Wasserman, I. M., & Richmond-Abbott, M. (2005). Gender and the Internet: Causes of variation in access, level, and scope of use. *Social Science Quarterly, 86*(1), 252-270. https://doi.org/10.1111/j.0038-4941.2005.00298.x

Wei, X., Huang, S., Stodolska, M., & Yu, Y. (2015). Leisure time, leisure activities, and happiness in China: Evidence from a national survey. *Journal of Leisure Research, 47*(5), 556-576. https://doi.org/10.1080/00222216.2015.11950372

Xu, Y., Wang, Y., Khan, A., & Zhao, R. (2021). Consumer flow experience of senior citizens in using social media for online shopping. *Frontiers in Psychology, 12*, Article 732104. https://doi.org/10.3389/fpsyg.2021.732104

Xu, J., Gong, J., & Ji, D. (2023). Exploring the determinants of users' co-creation behavior on music streaming platforms in China. *PLOS ONE, 18*(12), Article e0291313. https://doi.org/10.1371/journal.pone.0291313

We Are Social. (2024). *Digital 2024*. https://wearesocial.com/uk/blog/2024/01/digital-2024/