Unit 5

CYBER PSYCHOLOGY

Content

The nature of flow experience and research methods in cyber psychology flow as a psychological construct – flow in empirical research – studies related to cyberspace – flow in diverse cyberspace related activities

The nature of flow experience and research methods in cyber psychology

- In positive psychology, a **flow state**, also known colloquially as being **in the zone**, is the mental state in which a person performing some activity is fully immersed in a feeling of energized focus, full involvement, and enjoyment in the process of the activity.
- In essence, flow is characterized by the complete absorption in what one does, and a resulting transformation in one's sense of time.
- Flow is the melting together of action and consciousness; the state of finding a balance between a skill and how challenging that task is.
- It requires a high level of concentration, however, it should be effortless. Flow is used as a coping skill for stress and anxiety when productively pursuing a form of leisure that matches one's skill set.[2]

The nature of flow experience and research methods in cyber psychology

The flow state shares many characteristics with hyperfocus.However, hyperfocus is not always described in a positive light. Some examples include spending "too much" time playing video games or becoming pleasurably absorbed by one aspect of an assignment or task to the detriment of the overall assignment. In some cases, hyperfocus can "capture" a person, perhaps causing them to appear unfocused or to start several projects, but complete few. Hyperfocus is often mentioned "in the context of autism, schizophrenia, and attention deficit hyperactivity disorder – conditions that have consequences on attentional abilities."

The nature of flow experience and research methods in cyber psychology

We've only looked quite briefly so far at how the Flow concept has been used with other theoretical frameworks to advance our understanding of the concept. Here, we'll take a little peek at how the research on Flow experience has played a role in other fields, as well as a particularly interesting perceived 'gap' in the literature—Csikszentmihalyi's notion of the autotelic personality.

The Flow Experience online

Somewhat unsurprisingly, the Flow concept has gained popularity with marketers, advertisers, educators, game designers, and others working in fields that are heavily involved with User Experience (UX). In most cases, this has been associated with users' Flow experiences while on the internet.

The nature of flow experience and research methods in cyber psychology

Kiili's (2005) research, which comments on the very real possibility of designing educational computer games that facilitate the Flow experience to enhance learning and player attitudes—an 'experiential gaming model'; and

A study by Rettie (2001) on what she terms 'Internet Flow', which uses the Experience Sampling Method to more closely examine the role of different factors such as download speed, banner ads, and more on consumer behavior.

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The Flow Experience and Social Interactions

Another interesting area of research into the Flow experience concerns our positive subjective experiences at the interpersonal level (Magyaródi & Olah, 2017). This relatively new study used the Flow State Questionnaire—another measure of the Flow Experience—to reveal insights into the Flow experience in shared, cooperative activities.

Findings suggest that 'social' Flow can actually add to the intensity of the experience itself: participants coordinating in activities together became more absorbed in the task at hand. The authors argue that these results may hold implications for our social development.

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The nature of flow experience and research methods in cyber psychology

The autotelic personality

The concept of the *autotelic personality* is often used to account for different peoples' diverse capacities to experience flow at work or in general. Compared with some other applications of the Flow concept, it appears less frequently in the academic literature—at least in empirical studies.

An autotelic personality describes the tendency of individuals to engage in activities for reasons related to intrinsic motivation. In other words, they may derive more enjoyment from the task itself rather than being driven by a future goal, and more easily able to focus 'effortlessly' on a task at hand (Csikszentmihalyi, 2002; Engeser and Rheinberg, 2008).

They may also be more capable of self-regulating, some research suggests (Keller and Blomann, 2008).

cyber psychology flow as a psychological construct

Naturally, the next point of interest for positive psychologists became how Flow could be created, controlled, and understood in relation to other aspects of the self that allow us to flourish.

Flow became fascinating to positive psychologists already looking at performance, goal orientation, creativity, attention, and of course, emotions. Only a little after that, the concept grew more popular with researchers such as Deci and Ryan (1985), who were interested in flow within intrinsic motivation.

cyber psychology flow as a psychological construct

Most importantly, it's been considered a huge part of improving our human experience for its role in living a *meaningful life* (Seligman, 2002: 249). A meaningful life in which we use our virtues and strengths for 'something much larger' than we are, where we spend less time worrying about the inauthentic and the mundane. Where we are less annoyed by the boredom of the too-easy, or overwhelmed by the frustration of the too-challenging.

Understanding how to enter the flow state, and maintain it, therefore, is seen as a great way to enjoy the activities we get engaged in.

Flow In Empirical Research

A 2007 study on Web-based training programs, where Choi and colleagues found a positive relationship between participants experiencing Flow and their learning outcomes;

Hoffman and Novak's (1996) empirical research on how the Flow experience can positively influence Web users' attitudes and behavioral intentions in online marketing. The Flow experience was also hypothesized to increase users' perceived control over their purchasing behavior;

Flow In Empirical Research

The flow construct (Csikszentmihalyi 1977) has recently been proposed by Hoffman and Novak (1996) as essential to understanding consumer navigation behavior in online environments such as the World Wide Web. Previous researchers (e.g. Csikszentmihalyi 1990; Ghani, Supnick and Rooney 1991; Trevino and Webster 1992; Webster, Trevino and Ryan 1993) have noted that flow is a useful construct for describing more general human-computer interactions. Hoffman and Novak define flow as "the state occurring during network navigation which is:

1) characterized by a seamless sequence of responses facilitated by machine interactivity

2) intrinsically enjoyable,

3) accompanied by a loss of self-consciousness, and

4) selfreinforcing." To experience flow while engaged in an activity, consumers must perceive a balance between their skills and the challenges of the activity, and both their skills and challenges must be above a critical threshold. Hoffman and Novak (1996) propose that flow has a number of positive consequences from a marketing perspective, including increased consumer learning, exploratory behavior, and positive affect.

Flow In Empirical Research

In Hoffman and Novak (1996), flow is defined in terms of the experience of flow (intrinsic enjoyment, loss of self-consciousness), behavioral properties of the flow activity (seamless sequence of responses facilitated by interactivity with the computer and self-reinforcement), and its antecedents (skill/challenge balance, focused attention, and telepresence). We retain such a framework in this paper, as we attempt to model the structure of the flow experience. This structure is composed of: ·

The core experience of flow; · Close correlates of the flow experience, such as playfulness; · Antecedents of flow, including skill, challenge, interactivity, focused attention, arousal, telepresence; · Consequences of flow, including positive affect, exploratory behavior, and control.

Flow In Empirical Research

The objective of this modeling exercise is twofold: 1) establish a base of empirical support for the theoretical construct of flow in computer-mediated environments; and 2) demonstrate its utility for understanding consumer navigation in online commercial environments. The research has significance for both academic marketing scientists and industry practitioners interested in the commercialization of the World Wide Web. For example, knowledge of the relationship between the antecedents and consequences of flow may lead to better Web site design.

Studies related to cyber Psychology

Despite its obvious relevance to computer-mediated environments, flow has proven to be an elusive construct to define. It provides definitions of flow from 16 different studies.

- As one reads through this list, the phrases listed make intuitive sense, for example: flow is “a holistic sensation where one acts with total involvement, with a narrowing of focus of attention.”
- However, the exercise of reading through these phrases in an attempt to define flow can be frustrating.
- One is not left with a central definition of flow, but rather a wide variety of constructs which may be experienced when one experiences flow.
- Some of these constructs define or cause flow, and some of these are experienced as a result of being in the flow state. Hoffman and Novak (1996) propose, for example, that centering of attention is a necessary antecedent of flow, as are congruent skills and challenges above a critical level

Studies Related To Cyberspace

Applications suggested by Csíkszentmihályi versus other practitioners[edit]

Only Csíkszentmihályi seems to have published suggestions for extrinsic applications of the flow concept, such as design methods for playgrounds to elicit the flow experience. Other practitioners of Csíkszentmihályi's flow concept focus on intrinsic applications, such as spirituality, performance improvement, or self-help. His work has also informed the measurement of donor momentum by The New Science of Philanthropy.

Education

In education, the concept of overlearning plays a role in a student's ability to achieve flow. states that overlearning enables the mind to concentrate on visualizing the desired performance as a singular, integrated action instead of a set of actions. Challenging assignments that (slightly) stretch one's skills lead to flow.[41]

Studies Related To Cyberspace

Sports

The concept of *being in the zone* during an athletic performance fit within Csíkszentmihályi's description of the flow experience, and theories and applications of *being in the zone* and its relationship with an athletic competitive advantage are topics studied in the field of sport psychology

Religion and spirituality

In yogic traditions such as Raja Yoga, reference is made to a state of *flow*[60] in the practice of Samyama, a psychological absorption in the object of meditation.

Studies Related To Cyberspace

Games and gaming

Flow in games and gaming has been linked to the laws of learning as a part of the explanation for why learning-games (the use of games to introduce material, improve understanding, or increase retention) have the potential to be effective.[62][*failed verification*] In particular, flow is intrinsically motivating, which is a part of the law of readiness. The condition of feedback, required for flow, is associated with the feedback aspects of the law of exercise. This is exhibited in well designed games, in particular, where players perform at the edge of their competency as they are guided by clear goals and feedback.

Design of intrinsically motivated computer systems

A simplified modification to flow has been combined with the technology acceptance model (TAM) to help guide the design of and explain the adoption of intrinsically motivated computer systems. This model, the hedonic-motivation system adoption model (HMSAM) is modelled to improve the understanding of hedonic-motivation systems (HMS) adoption

Studies Related To Cyberspace

Music

- Musicians, especially improvisational soloists, may experience a state of flow while playing their instrument.
- Research has shown that performers in a flow state have a heightened quality of performance as opposed to when they are not in a flow state.
- In a study performed with professional classical pianists who played piano pieces several times to induce a flow state, a significant relationship was found between the flow state of the pianist and the pianist's heart rate, blood pressure, and major facial muscles.
- As the pianist entered the flow state, heart rate and blood pressure decreased, and the major facial muscles relaxed. This study further emphasized that flow is a state of effortless attention. In spite of the effortless attention and overall relaxation of the body, the performance of the pianist during the flow state improved.

Flow In Diverse Cyberspace Related Activities

There are three common ways to measure flow experiences: the flow questionnaire (FQ), the experience sampling method (ESM), and the "standardized scales of the componential approach.“

Flow questionnaire

- The FQ requires individuals to identify definitions of flow and situations in which they believe that they have experienced flow, followed by a section that asks them to evaluate their personal experiences in these flow-inducing situations.
- The FQ identifies flow as multiple constructs, therefore allowing the results to be used to estimate differences in the likelihood of experiencing flow across a variety of factors.
- Another strength of the FQ is that it does not assume that everyone's flow experiences are the same. Because of this, the FQ is the ideal measure for estimating the prevalence of flow.
- However, the FQ has some weaknesses that more recent methods have set out to address. The FQ does not allow for a measurement of the intensity of flow during specific activities. This method also does not measure the influence of the ratio of challenge to skill on the flow state.

Flow In Diverse Cyberspace Related Activities

- **Experience sampling method**

- The ESM requires individuals to fill out the experience sampling form (ESF) at eight randomly chosen time intervals throughout the day.
- The purpose of this is to understand subjective experiences by estimating the time intervals that individuals spend in specific states during everyday life.
- The ESF is made up of 13 categorical items and 29 scaled items. The purpose of the categorical items is to determine the context and motivational aspects of the current actions (these items include: time, location, companionship/desire for companionship, activity being performed, reason for performing activity).
- Because these questions are open-ended, the answers need to be coded by researchers. This needs to be done carefully so as to avoid any biases in the statistical analysis.
- The scaled items are intended to measure the levels of a variety of subjective feelings that the individual may be experiencing. The ESM is more complex than the FQ and contributes to the understanding of how flow plays out in a variety of situations, however the possible biases make it a risky choice.[17]

Flow In Diverse Cyberspace Related Activities

Standardized scales[edit]

Some researchers are not satisfied with the methods mentioned above and have set out to create their own scales.

The scales developed by Jackson and Eklund are the most commonly used in research, mainly because they are still consistent with Csíkszentmihályi's definition of flow and consider flow as being both a state and a trait.

Jackson and Eklund created two scales that have been proven to be psychometrically valid and reliable: the flow state scale-2 (which measures flow as a state), and the dispositional flow scale-2 (designed to measure flow as either a general trait or domain-specific trait).

The statistical analysis of the individual results from these scales gives a much more complete understanding of flow than the ESM and the FQ.

Flow In Diverse Cyberspace Related Activities

- Several problems of the model have been discussed in literature.

- One is that it does not ensure the perceived balance between challenges and skills which is said to be the central precondition of flow experience.
- Individuals with a low average level of skills and a high average level of challenges (or the converse) do not necessarily experience a match between skills and challenges when both are above their individual average.
- Another study found that low challenge situations which were surpassed by skill were associated with enjoyment, relaxation, and happiness, which, they claim, is contrary to flow theory.

Flow In Diverse Cyberspace Related Activities

Schaffer (2013) proposed seven flow conditions:

- Knowing what to do
- Knowing how to do it
- Knowing how well one is doing
- Knowing where to go (if navigation is involved)
- High perceived challenges
- High perceived skills
- Freedom from distractions

Schaffer published a flow condition questionnaire (FCQ), to measure each of these seven flow conditions for any given task or activity.[3

Challenges to maintaining flow

Some of the challenges to staying in flow include states of apathy, boredom, and anxiety.

- The state of apathy is characterized by easy challenges and low skill level requirements, resulting in a general lack of interest in the activity.
- Boredom is a slightly different state that occurs when challenges are few, but one's skill level exceeds those challenges causing one to seek higher challenges.
- A state of anxiety occurs when challenges are high enough to exceed perceived skill level, causing distress and uneasiness.
- These states in general prevent achieving the balance necessary for flow.
- Csíkszentmihályi has said, "If challenges are too low, one gets back to flow by increasing them. If challenges are too great, one can return to the flow state by learning new skills.

Thank You