The Interplay of Intrinsic Needs and Motives in Explaining Addictive Behavior on Facebook

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1. Theoretical Background

2. Method

3. Results

4. Discussion
Early efforts in conceptualizing addictive behavior in online environments

Literature review

- the term ‘Internet addiction’ describes problematic forms of Internet use (e.g., Griffiths, 1999; Young, 1996, 1998)

- no consensus on a clear definition of Internet addiction

- no entry in current diagnostic manuals, e.g., Diagnostic and Statistical Manual of Mental Disorders (5th ed.; American Psychiatric Association, 2013)
Internet-induced psychopathologies manifest themselves very differently

Theoretical background

- ‘Internet addiction’ does not determine a clear object of the addiction (Griffiths, 1999; 2012)

- Internet usage patterns have become very diverse

- different affordances and various new gratifications

- need for a more specific view on the addictive use of specific Internet applications
Self-determination theory and addictive behavior online

Theoretical background

- innate psychological needs (such as autonomy, competence, and relatedness) constitute the basis for their motivation, behavior, and psychological well-being (Ryan, 1995; Ryan & Deci, 2000)

- relationship between intrinsic need satisfaction and obsessive behavior was found (e.g., Przybylski, Weinstein, Ryan, & Rigby, 2009)

- using SNSs can also satisfy the intrinsic needs for competence and autonomy (Reinecke, Vorderer & Knop, in press)
Uses & gratification research and addictive behavior

Theoretical background

- postulates that users actively choose media stimuli in order to fulfill specific needs.

- virtual community building, information, entertainment, and relationship maintenance positively related to Internet addiction (Song, Larose, Eastin & Lin, 2004)

- Motives like self-presentation and relationship building were found to predict problematic SNS use (Chen & Kim, 2013)
The influence of intrinsic needs on SNS addiction is mediated by motives of SNS use

Hypothetic model
The influence of intrinsic needs on SNS addiction is mediated by motives of SNS use

Hypotheses

H1

The level of perceived autonomy in daily life is negatively related to the motives for self-presentation and escapism which, in turn, are positively related to SNS addiction (mediation hypothesis 1).

H2

The level of perceived competence in daily life is negatively related to the motives for information seeking and self-presentation which, in turn, are positively related to SNS addiction (mediation hypothesis 2).

H3

The level of perceived relatedness in daily life is negatively related to the motives for self-presentation and for meeting new people which, in turn, are positively related to SNS addiction (mediation hypothesis 3).
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Data collection and sample characteristics

Methodology

- July to August 2012
- Socio Scientific Panel (Leiner, 2012)
- non-representative, convenience sample
- Sample size: N = 581
- Gender: 67% females
- Age: $M = 29$ years ($SD = 11$ years)
- Average time spent on Facebook per day: $M = 48$ minutes ($SD = 57$ minutes)
Design of the online survey

Methodology: Scales and Measures

- **SNS addiction scale** (based on the Internet Addiction Scale by Hahn & Jerusalem, 2010)
  - five dimensions: loss of control, tolerance, withdrawal syndrome, negative consequences for social relations, negative consequences for work and performance
  - \( M_{\text{Total}} = 1.74 \) (\( SD = 0.57 \))

“My thoughts often rotate around Facebook, even when I am not online”
Design of the online survey

Methodology: Scales and Measures

- motives of SNS use (based on prior U&G research)
  - seven dimensions: escapism, self-presentation, entertainment, information seeking, socializing, meeting new people

  “I use Facebook to take my mind off things”

- intrinsic need satisfaction scale (La Guardia et al., 2000)
  - three dimensions: autonomy, competence, relatedness

  “In my daily life, I feel free to be who I am.”
Computing parallel multiple mediation models

Methodology: Data Analysis

- SPSS extension PROCESS (Hayes, 2012)
- 95% bias-corrected confidence intervals (CIs) for all effects were calculated through 5,000 bootstrapped samples
- the null hypothesis is rejected at the $\alpha$-level of significance if the confidence intervals do not include 0 (Preacher & Hayes, 2008)
- it is often not appreciated that statistics in their original metrics can be considered effect sizes if they are directly interpretable (Preacher & Kelly, 2011)
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Classification criteria and cut-off-points

Prevalence of SNS addiction

- mean score of 3 or above on all five dimensions classifies SNS addiction

- mean score between 2.5 and 3 on all five dimensions classifies “at risk of becoming addicted”

- in order to establish an optimal cut-off point, the scale should be validated in clinical settings
Only 2.9 percent can be classified as SNS addicts

Prevalence of SNS addiction

- Not Addicted: 88.1%
- At Risk: 9%
- Addicted: 2.9%
The indirect effect of perceived autonomy on SNS addiction (Parallel multiple mediation model 1)

Hypothesis 1 supported

PROCESS (Hayes, 2012)
Bias corrected confidence intervals
Bootstrapping with 5000 samples

Indirect effect:  -0.14, 95% CI [-0.19, -0.09]
Total effect:    -0.14, 95% CI [-0.21, -0.07]
The indirect effect of perceived competence on SNS addiction (Parallel multiple mediation model 2)

Hypothesis 2 supported

Indirect effect:  -0.07, 95% CI [-0.12, -0.03]
Total effect:    -0.19, 95% CI [-0.26, -0.12]
The indirect effect of perceived competence on SNS addiction (Parallel multiple mediation model 3)

Hypothesis 3 supported

PROCESS (Hayes, 2012)
Bias corrected confidence intervals
Bootstrapping with 5000 samples

Indirect effect: -0.10, 95% CI [-0.14, -0.06]
Total effect: -0.10, 95% CI [-0.17, -0.03]
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SNS use may compensate for thwarted intrinsic needs, but seeking gratifications may become compulsive

Discussion

- complex interaction between *offline* need satisfaction and *online* gratification seeking

- user with low levels of intrinsic need satisfaction in daily life may find corresponding gratifications in using SNS

- paradoxical picture of SNS use: SNS offer opportunities for satisfaction of central human needs, but these gratifications may promote the risk of SNS addiction
SNS use may compensate for thwarted intrinsic needs, but seeking gratifications may become compulsive

Limitations and conclusion

Potential limitations

- Non-representative sample
- Addictive behaviors are complex psychological disorders; a self-report instrument may oversimplify the actual phenomenon
- Cross-sectional design

Future research

- Do thwarted intrinsic needs and corresponding gratifications explain also other excessive behavioral patterns and addictions?
People with low levels of intrinsic need satisfaction in their daily life, seek compensating gratifications when using social network sites.

Yet, this gratification seeking might become compulsive and foster addictive behavior.
Thank you for your attention!

Please cite as:


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