Internet addiction in the Netherlands
a brief overview

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The colleagues

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IVO research on internet addiction

Some publications:

- Meerkerk, G., Laluan, A. M. E., & Van den Eijnden, R. J. J. M. (2003). *Internetverslaving: hoax of serieuze bedreiging voor de geestelijke volksgezondheid? [Internet addiction: hoax or serious threat for public mental health?]* (Vol. 30). Rotterdam: IVO.

- Meerkerk, G. J., Van den Eijnden, R. J. J. M., & Garretsen, H. F. L. (2006). Predicting Compulsive Internet Use: It's All about Sex! *CyberPsychology & Behavior, 9*(1), 95-103.

- Meerkerk, G. J. (2007). *Pwned by the internet, Explorative research into the causes and consequences of compulsive internet use.* Thesis. Erasmus University Rotterdam, Rotterdam.

- Van den Eijnden, R. J. J. M., Meerkerk, G. J., Vermulst, A. A., Spijkerman, R., & Engels, R. C. M. E. (2008). Online communication, compulsive internet use, and psychosocial well-being among adolescents: A longitudinal study. *Developmental Psychology, 44*(3), 655-665.

- Meerkerk, G. J., Van den Eijnden, R. J. J. M., Vermulst, A. A., & Garretsen, H. F. L. (2009). The Compulsive Internet Use Scale (CIUS): Some Psychometric Properties. *Cyberpsychology & behavior, 12*(1), 1-6.

- Meerkerk, G. J., Van den Eijnden, R. J. J. M., Franken, I. H. A., & Garretsen, H. F. L. (2010). Is compulsive internet use related to sensitivity to reward and punishment, and impulsivity? *Computers in Human Behavior, 26*(4), 729-735.

- Van Rooij, A. J., Meerkerk, G.-J., Schoenmakers, T. M., Griffiths, M., & van de Mheen, D. (2010). Video game addiction and social responsibility. *Addiction Research & Theory, 18*(5), 489-493.

- Van Rooij, A., Zinn, M., Schoenmakers, T., & Van de Mheen, D. (2010). Treating Internet Addiction With Cognitive-Behavioral Therapy: A Thematic Analysis of the Experiences of Therapists. *International Journal of Mental Health and Addiction*, 1-14.

- Van Rooij, A. J., Schoenmakers, T. M., Vermulst, A. A., Van den Eijnden, R. J. J. M., & Van de Mheen, D. (2010). Online video game addiction: identification of addicted adolescent gamers. *Addiction, 106*(1), 205-212.

- Van den Heuvel, A., van den Eijnden, R. J. J. M., van Rooij, A. J., & van de Mheen, D. (2012). Meeting online contacts in real life among adolescents: The predictive role of psychosocial wellbeing and internet-specific parenting. *Computers in Human Behavior, 28*(2), 465-472.

IVO research on internet addiction

Some projects

- Thesis Meerkerk (Meerkerk, G. J. (2007). *Pwned by the internet, Explorative research into the causes and consequences of compulsive internet use.* Thesis. Erasmus University Rotterdam, Rotterdam.)

- Thesis van Rooij (van Rooij, A.J. (2011). *Online Video Game Addiction: Exploring a New Phenomenon.* Thesis. Erasmus University Rotterdam, Rotterdam.)

- Monitor Internet and Youth

IVO research on internet addiction

Focus on

- Internet addiction in general (Meerkerk)
- Online video games (van Rooij)
- Online pornography (Meerkerk)

- Social media?

Some findings

Internet addiction?

- Internet dependence
- Pathological internet use
- Problematic internet use
- Compulsive internet use

Similarities with

- Substance dependence
- Impulse control disorder
- Obsessive compulsive disorder

Some findings

Characteristics (criteria?)

- Loss of control:
    – Longer than intended
    – Quitting attempts without success
    – Relapse
- Preoccupation:
    – Salience
    – Immersion
    – Neglecting other pursuits
- Mood modification (coping)
- Conflict

- Withdrawal symptoms
- Tolerance

Monomania

Some findings

Compulsive Internet Use Scale (CIUS)

- Based on
  - DSM criteria for substance abuse
  - DSM criteria pathological gambling
  - Criteria for behavioral addiction as described by Griffiths
  - Interviews with self-declared 'internet addicts'
- Items tap on
  - loss of control
  - preoccupation
  - withdrawal symptoms
  - coping / mood modification
  - conflict
- Tested in various populations:
  - High reliability: Cronbach's alpha ≈ 0.90
  - Factorial invariance across time, gender, age, heavy versus non-heavy internet use

Some findings

Compulsive Internet Use Scale (CIUS)

How often…
- do you find it difficult to stop using the internet when you are online?
- do you continue to use the internet despite your intention to stop?
- do others say you should use the internet less?
- do you prefer to use the internet instead of spending time with others?
- are you short of sleep because of the internet?
- do you think about the internet, even when not online?
- do you look forward to your next internet session?
- do you think you should use the internet less often?
- have you unsuccessfully tried to spend less time on the internet?
- do you rush through your (home) work in order to go on the internet?
- do you neglect your daily obligations because you prefer to go on the internet?
- do you go on the internet when you are feeling down?
- do you use the internet to escape from your sorrows or get relief from negative feelings?
- do you feel restless, frustrated or irritated when you cannot use the internet?

Some findings

Compulsive Internet Use is related to

- Psychosocial wellbeing
    - Loneliness (+)
    - Self-esteem (-)
    - Depressive symptoms (+)

- Personality factors
    - Emotional stability (-)
    - Impulsivity (delay discounting) (+)

- Social anxiety

Some findings

Main applications related to CIU

- Online games, *mmorpg's*

- Online pornography "*It's all about sex!*"

- Social media: profile sites (e.g. *Facebook*)

Attractiveness of internet

What makes the internet so attractive?

- Diversity

- Availability, Simplicity / ease, Abundance, Affordability

- Continuity, Repeatability (escaping in a virtual world → mood modification, coping)

- Anonymity (→ inhibition)

Instant availability of rewarding stimuli

Attractiveness of online games

- Character Growth (level 1-70)
- Social interaction: building / maintenance of social contacts (Peer Pressure)
- Status, prestige
- Learning skills
- Competition
- Control
- Escape in virtual world (coping)

Note: increasing investment!

Consequences CIU

- Sleep deprivation, poor diet, low physical activity

- Psychosocial well-being

- Impairment in social functioning (offline)

- Impairment in school and work productivity

'Social isolation and stagnation in development'

Prevalences

- 1% Dutch adult population (Meerkerk 2009)

- 3,2% adolescents (Van Rooij 2008)

- 5,4% adolescent gamers (Van Rooij 2008)

- 1,5% game addicts (Lemmens 2009)

Various international studies: <1% ↔ 10-20-30%
- Method
- Population

Pornography

Online pornography addiction

Study ´De opwinding voorbij´
(Beyond arousal)
(Meerkerk et al., 2011)

Research questions:

1. Who does how often what; what is 'normal´?

2. Porno addiction: prevalence and characteristics

Online pornography addiction

Methods

- Interviews with therapists
- online questionnaire

- February 2011
- N = 1951 (Response 73%)
- ♀ & ♂ age 18 to 89 year
- Mean 54,5 year (s.d. 14,7)

- Anonym
- „Online-Erotica"
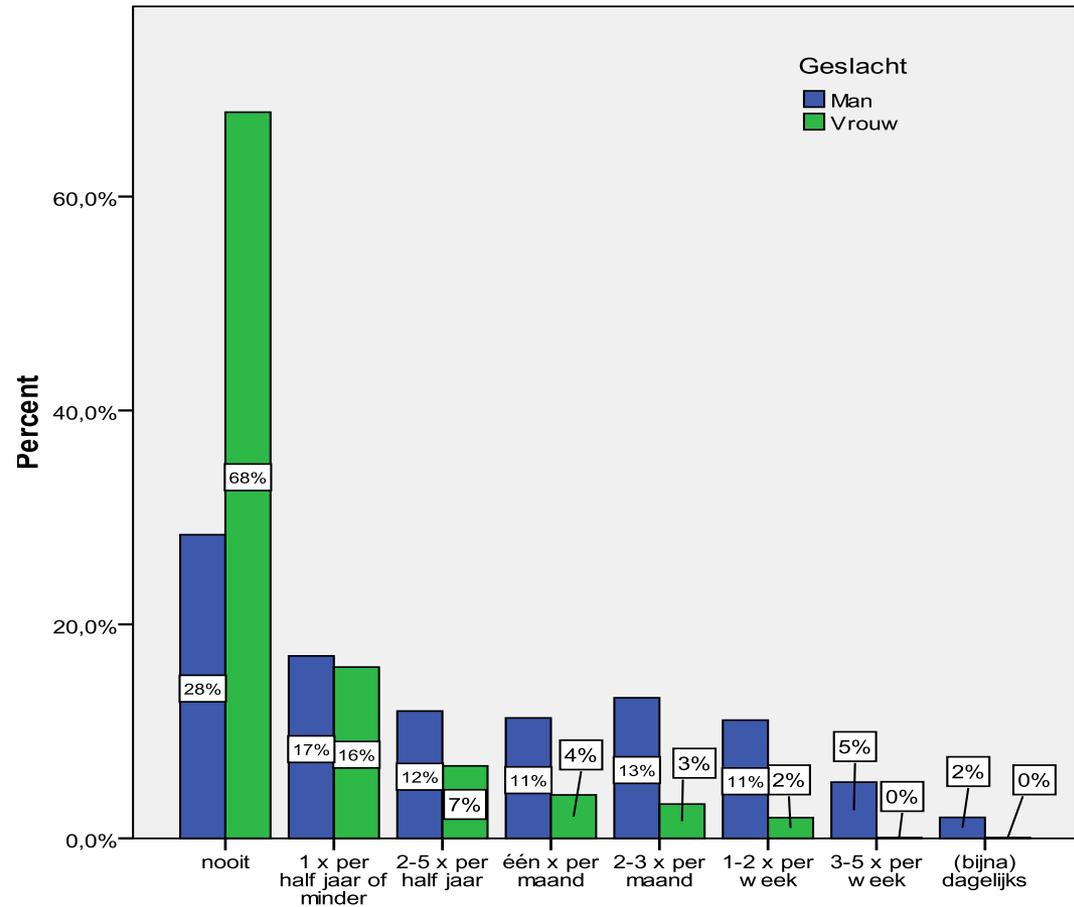
Results online questionnaire porn use

How often do you spend time on online erotica?

≥ 1-2 x/week:
– 18% ♂
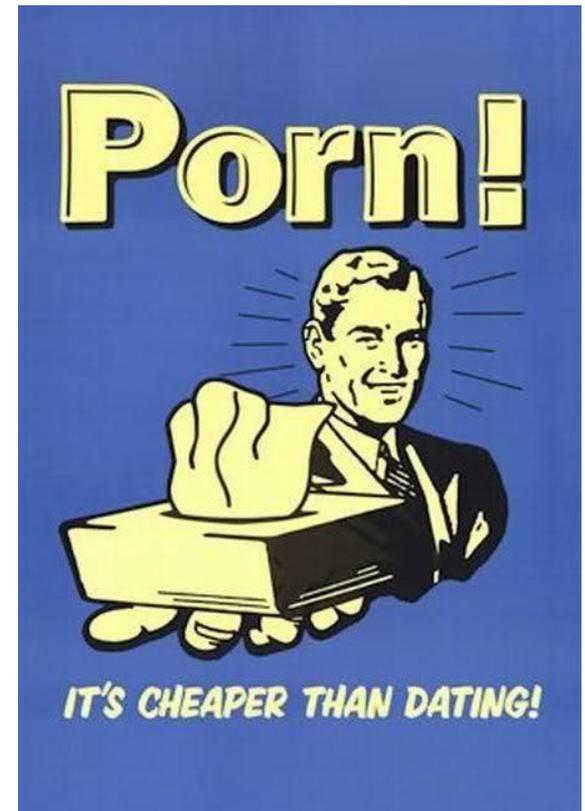– 2% ♀

≥ 3-5 x/week:
– 7% ♂
– ±0% ♀

Results online questionnaire porn use

- Popular are video's, photo's and stories (♀)
  - www.youporn.com and Google
- 2% paid
- Interactive porn (chat, webcam) not so popular
- ♂ >> ♀
- Relatively little difference by age
- Singles > having a partner

- Men between 18-54 years with no relationship:
  - 40% ≥ 1-2 x/week
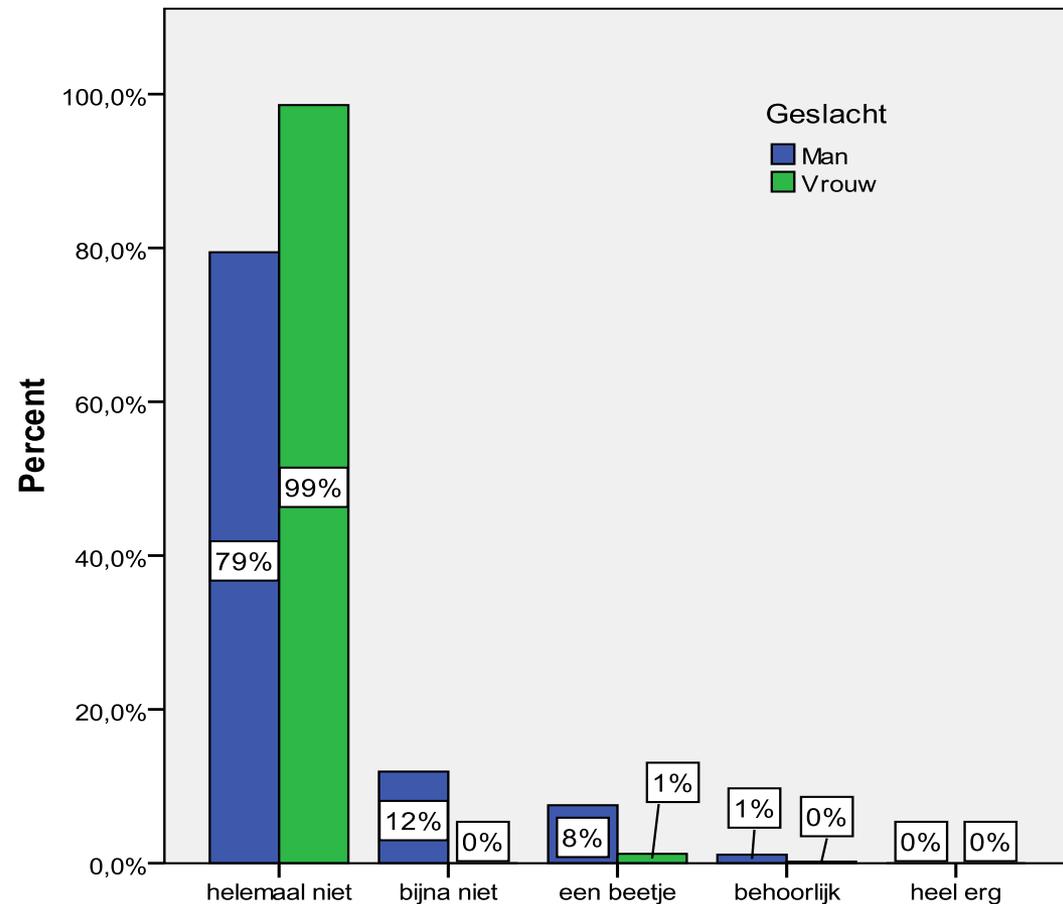
of whom
  - 20% ≥ 3-5 x/week

Results online questionnaire porn addiction

Subjective experience

"Do you consider yourself addicted to online erotica?"

:
8%   'a little'
1%   'fairly'
0%   'very much'

Results online questionnaire porn addiction

Results CIUS

E.g. How often are you
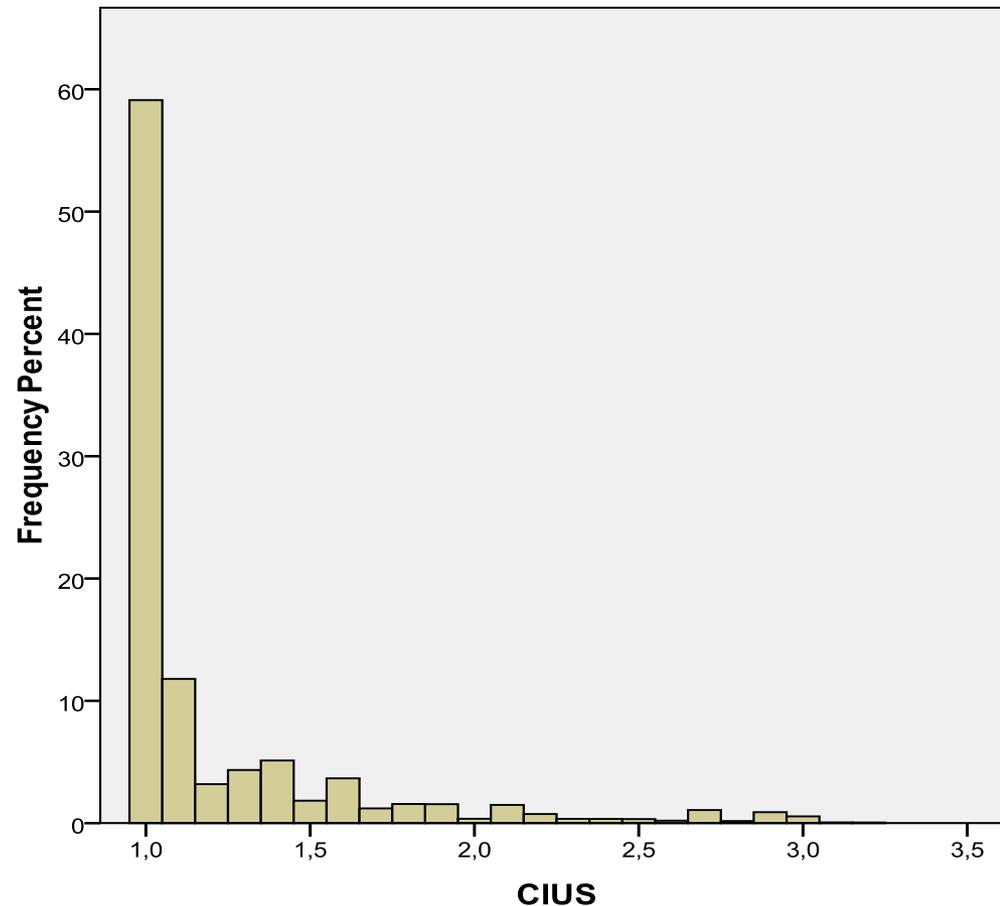short of sleep because
of online erotica?

never
rarely
sometimes
often
very often

Very low values:
59%: 1
Max. 3.2
1% ≥ 3

Results online questionnaire

Results in pornography 'addiction'

- Prevalence ≈ 1%
- Especially single men
- Less satisfied with relationship and sex life
- More active sex life, more sexual partners and more often masturbate
- Higher depression
- Higher impulsivity
- More sensitive to punishment (BIS)
- Less sensitive to reward (BAS)

Treatment

- Cognitive behavioral therapy
- Time management
- Relapse prevention:
    - recognizing triggers
    - alternative coping strategies
    - pursuits
- Lifestyle Training

Conclusions

- Internet addictions (online gaming, pornography etc.) are to be taken seriously
- Prevalence rather low
- Dutch addiction care organizations can offer an effective therapy
- Awareness needed of doctors, social workers, psychologists, prevention and addiction care workers, policy makers, parents, schools
- Responsibility of the gaming industry?

General remarks

Goal of the Belgian study:

- Nature
- Severity   } problems related to internet or computer use
- Extent

- Formulating advice for addiction care organizations (including prevention)

- Characteristics of the target group (´internet addicts´)
  – Psychosocial wellbeing variables
  – Personality measures

- Applications triggering risky use

- Prevalence: cut off point