



Internet addiction

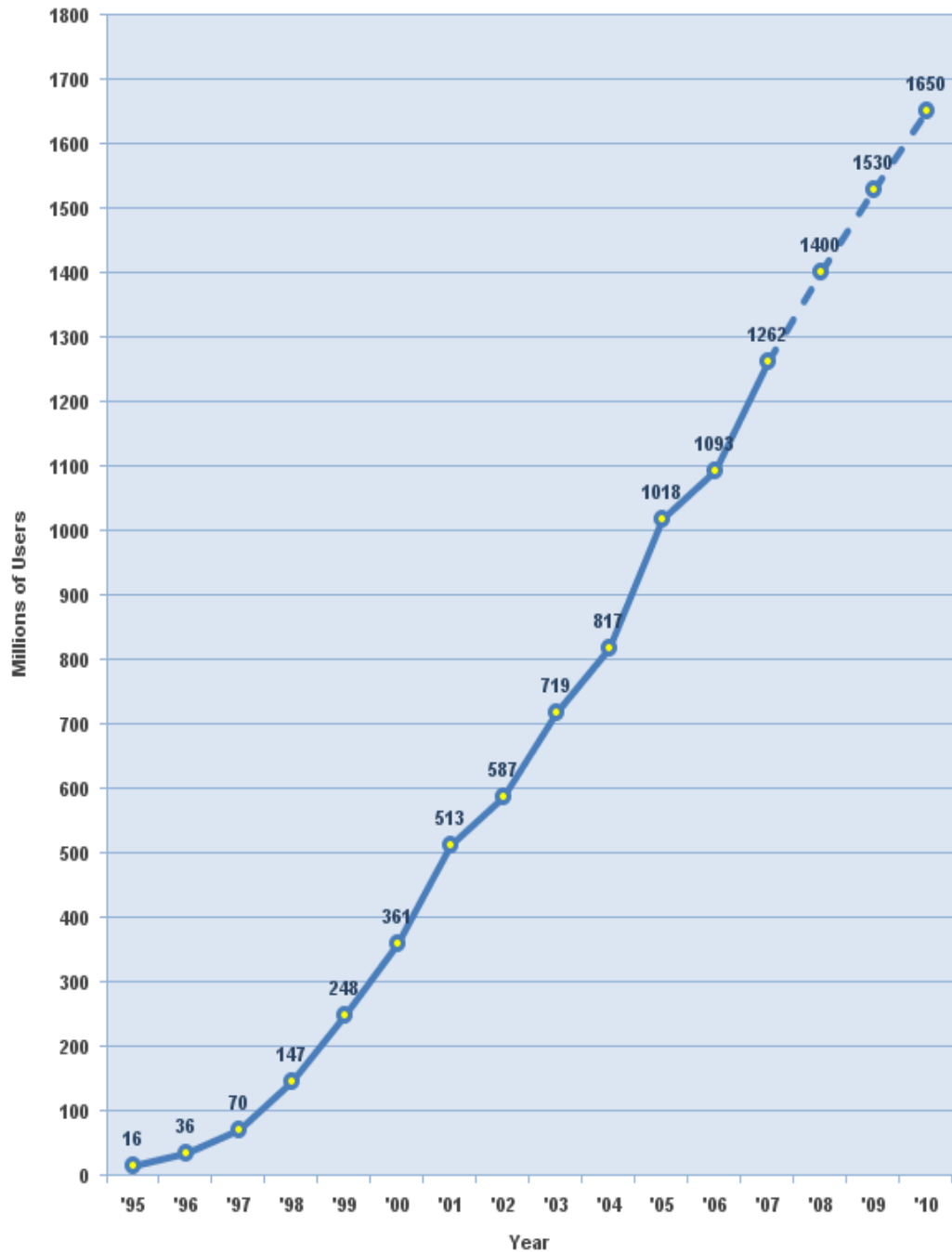
Serious threat for mental health or
overanxious media hype?

Dr. Gert-Jan Meerkerk



Content

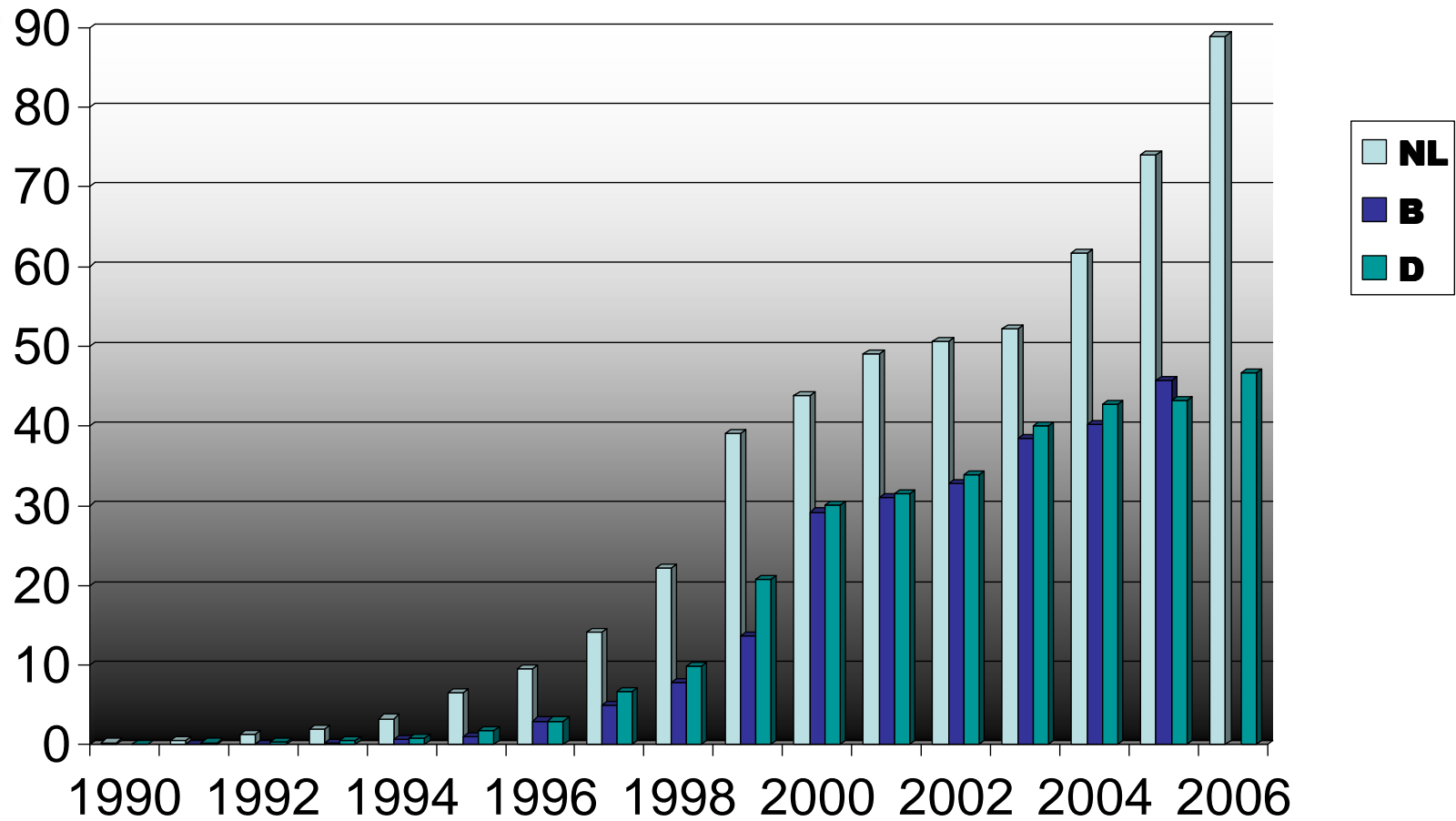
- **Internet access**
- **Internet and online gaming addiction**
- **Characteristics of internet and online games**
- **Causes, consequences and vulnerabilities**

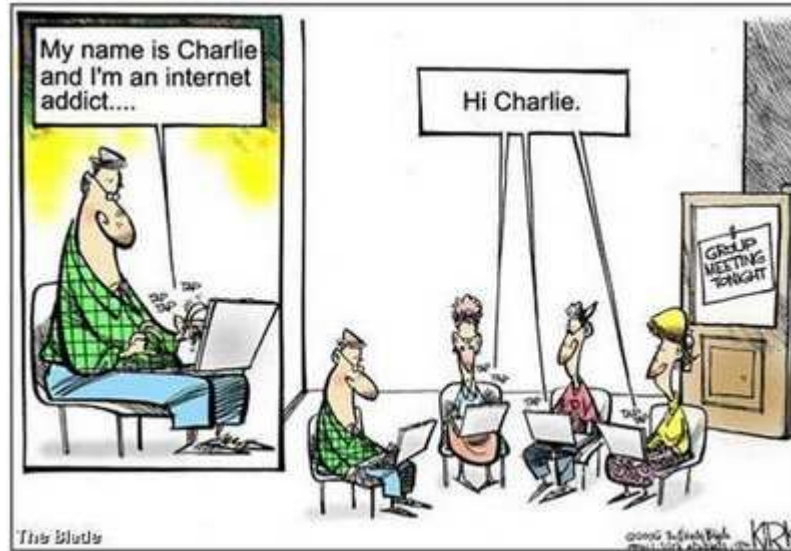


**Number of internet users worldwide
1995 - 2010**



Internet access in the Netherlands, Belgium and Germany





CYBERPSYCHOLOGY & BEHAVIOR
Volume 1, Number 3, 1998
Mary Ann Liebert, Inc.



Internet Addiction: The Emergence of a New Clinical Disorder

KIMBERLY S. YOUNG, Psy.D.



Characteristics of 'Internet Addiction'

- Loss of control; compulsive habit
- Longer and more often online than planned
- Attempts to quit without success
- Relapse
- Preoccupation / Salience
- Immersion
- Neglect of other pursuits
- Conflict
- Mood modification (coping)
- Withdrawal symptoms
- Tolerance?

Comparable to: Dependence, OCD, and Impulse Control Disorder

(pathological gambling)



The Compulsive Internet Use Scale (CIUS)

1. How often do you find it difficult to stop using the internet when you are online?
2. How often do you continue to use the internet despite your intention to stop?
3. How often do others (e.g. partner, children, parents, friends) say you should use the internet less?
4. How often do you prefer to use the internet instead of spending time with others (e.g. partner, children, parents, friends)?
5. How often are you short of sleep because of the internet?
6. How often do you think about the internet, even when not online?
7. How often do you look forward to your next internet session?
8. How often do you think you should use the internet less often?
9. How often have you unsuccessfully tried to spend less time on the internet?
10. How often do you rush through your (home) work in order to go on the internet?
11. How often do you neglect your daily obligations (work, school or family life) because you prefer to go on the internet?
12. How often do you go on the internet when you are feeling down?
13. How often do you use the internet to escape from your sorrows or get relief from negative feelings?
14. How often do you feel restless, frustrated, or irritated when you cannot use the internet?



What makes the Internet so attractive?

- **Diversity**
- **Availability, Simplicity / Easiness, Abundance, Affordability**
- **Continuity, Repeatability (Escape in a virtual world → mood modification, coping)**
- **Anonymity (→ inhibition)**

Immediate availability of rewarding stimuli



Main 'risky' applications

- **13-15: It's all about Online Gaming!**
(Van Rooij under review)
(Role playing games, Shooting games; Lee 2007)
- **12+: Seks & Games**
(Meerkerk 2009)
- **18+: It's all about sex!**
(Meerkerk 2006)

Online games and pornography



What makes online gaming so attractive?

- Character growth (e.g. levels WoW: 1-70)
- Social interaction: building and maintenance of social networks (NB peer pressure!)
- Competition: status and prestige
- Control
- Escaping into virtual world (coping)

NOTE: increasing investment!



Historical transition...

The present moment marks a major historical transition. Video games and computer games are in the process of evolving into something much richer, namely virtual worlds. Already, many families forgo watching TV dramas to quest together in World of Warcraft.

Bainbridge, W. S. (2007). The scientific research potential of virtual worlds. *Science*, 317(5837), 472-476.



Video games?

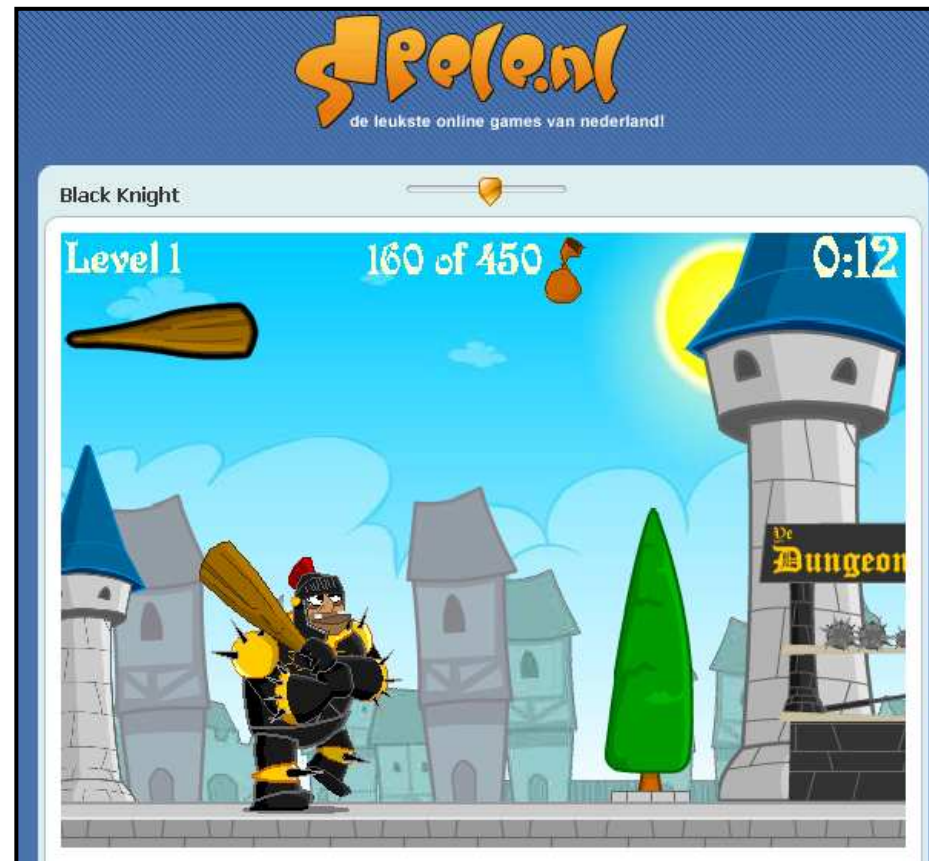
- Offline games (Pacman, FreeCell)





Video games?

- Online browser games





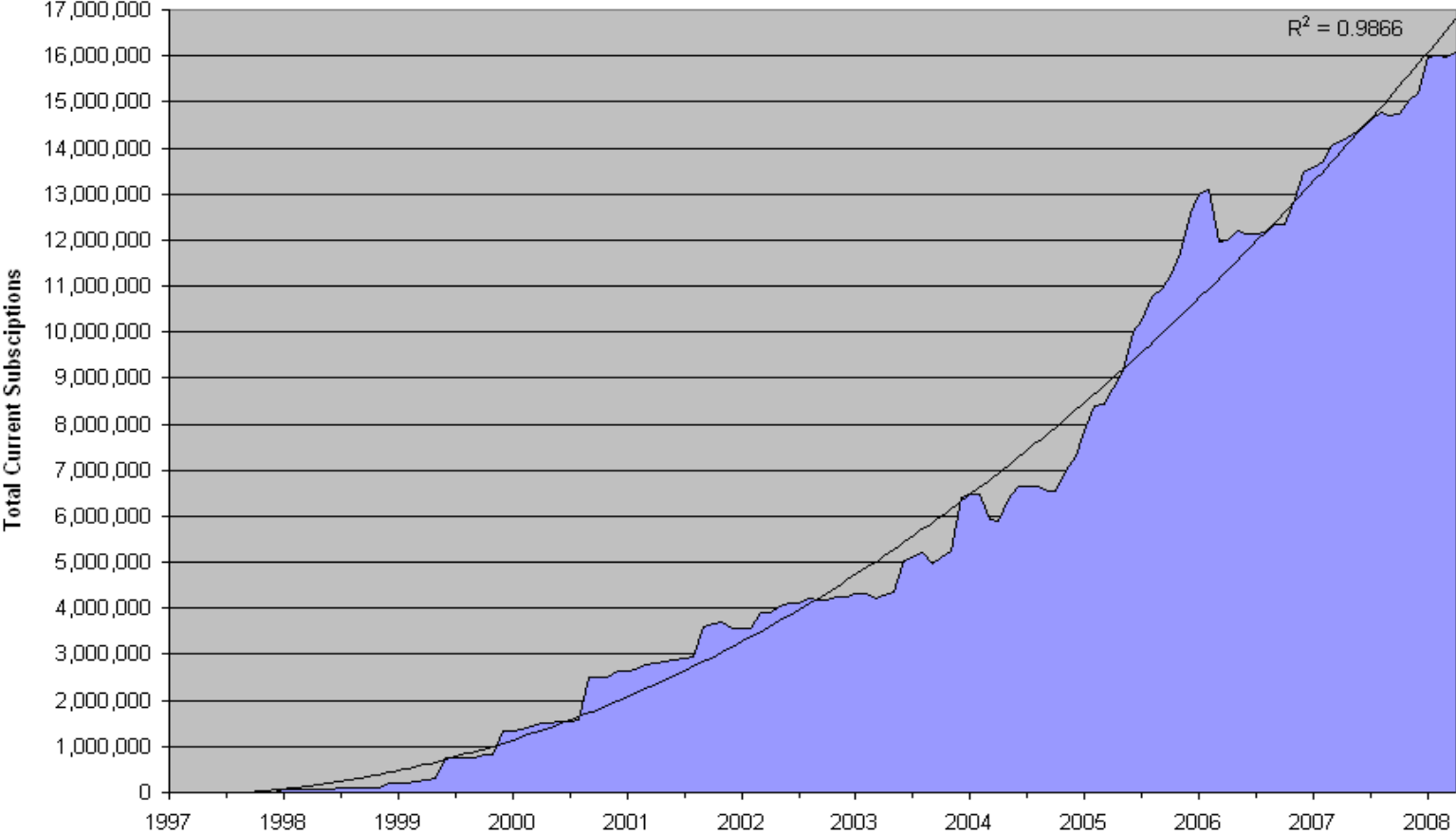
Video games!

- Online games with others (MMORPG)





MMORPG players





Play, but enjoy in moderation...

Take everything in moderation (even World of Warcraft)

Blizzard Entertainment (2007, WoW)

During your time here, you will be able to talk, join, and adventure with many other individuals in an experience that is unique to online games. That being said, we have no desire to see your real life suffer as a consequence. Don't forget your family, your friends, your school, or your work.

Developer Square Enix: A Word To Our Players (2008, Final Fantasy XI)



Consequences of online gaming addiction

- 1. Sleep deprivation, poor diet, physical inactivity**
- 2. Psychosocial wellbeing**
- 3. Social functioning (offline)**
- 4. Functioning school and work**

Social isolation and stagnation in development



Prevalence?

Netherlands:

- 1% NL adult population (Meerkerk 2009)
- 3,2% adolescents (Van Rooij 2008)

International:

- <1% ↔ 10-20-30%



Vulnerability

Demographic factors

Males

Adolescents, young adults

State factors

**Low level of psychosocial well-being
(depression, self-esteem, loneliness, social fear)**

Trait factors (personality)

Low Emotional Stability

High impulsivity (adolescents!)

Psychiatric disorders, circumstances?

Attention Deficit Hyperactivity Disorder, Autism disorders

Emotional neglect



Treatment?

Good experiences with common therapies
(Cognitive behavioral therapy, Lifestyle training)

- Self control
- Time management
- Relapse prevention
- Alternative coping strategies



Conclusions

- Gaming and Internet addiction may be serious problem for a small minority
- Abuse, impulse control, addiction, dependency, compulsion, escapism, procrastination?
- Treatment methods may already be available
- Relevant for general practitioners, social workers, psychologists, addiction care workers, prevention workers, policy makers, parents / guardians, schools
- Role for the game industry?

NB Internet and online are fun for most of us!



Online pornography?



Thank you for your attention!

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