

The Mental Status Examination in the Age of the Internet

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The Internet has grown increasingly relevant in the practice of forensic psychiatry. To a psychiatrist conducting a forensic evaluation, the evaluatee's Internet use can be relevant in nearly all aspects of the analysis. An evaluatee's Internet presence may help to confirm, corroborate, refute, or elaborate on the psychiatrist's general impression of the person. Questions about the individual's choice of screen names, activities, images, and phrases can be valuable conversational tools to increase candor and self-disclosure, even among less cooperative evaluatees. Difficulties in mood or affect regulation, problems with thought process or content, and impaired impulse control may be apparent in the evaluatee's behavior in various Internet forums—for example, hostile or provocative behavior in social forums or excessive use of gaming or shopping websites. Discussions about the evaluatee's behavior on the Internet can help the psychiatrist to assess for impaired insight and judgment. Perceptual disturbances, such as derealization and depersonalization, may be related to an evaluatee's overidentification with the virtual world to the neglect of real-life needs and responsibilities. Furthermore, digital evidence can be especially useful in assessments of impairment, credibility, and dangerousness or risk, particularly when the evaluatee is uncooperative or unreliable in the face-to-face psychiatric examination. This discussion will provide illustrative examples and suggestions for questions and topics the forensic psychiatrist may find helpful in conducting a thorough evaluation in this new age of the Internet.

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The Internet is increasingly relevant in day-to-day psychiatric practice as well as in forensic evaluations. Reasons for a forensic assessment may be Internet related, such as cyberstalking or inappropriate computer use in the workplace. Problematic Internet use (PIU) may figure importantly into employment law or divorce proceedings. Even when the Internet is not mentioned in the chief complaint, information about an evaluatee's Internet use can help to direct questioning during the psychiatric interview and to identify factors relevant to forensic case formulation. Aspects of the evaluatee's use of technology that could be pertinent to diagnosis and treatment may go unrecognized if prior clinicians do not ask about the person's Internet use. Patients frequently do not tell

their treatment providers about their Internet activities or about subjects that they have researched online, which may include suicide methods¹; self-injury websites²; treatments offered online, many of which are potentially harmful when used without close supervision by a physician³; drugs with the potential for abuse⁴; and information about ways to derive synthetic drugs and new psychoactive substances.⁵

Although some types of Internet behavior, such as cyberbullying, have been characterized as “new bottle but old wine,”⁶ there are several important aspects of cyberspace that distinguish these cases from traditional, older forms. For example, digital evidence plays a critical role in many criminal law proceedings. Courts have allowed the introduction of material from Internet social networking profiles as character evidence in postconviction criminal sentencing,⁷ and youths have been prosecuted for violent behavior posted to video-sharing websites like YouTube.⁸ This discussion addresses several aspects of the Internet and related computer technology that are likely to have an impact on the practice of forensic psychi-

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Table 1 Suggested Opening Questions for the Interview

Have you ever Googled yourself?

Do you use any social networking sites, such as Facebook, MySpace, Friendster, YouTube, or LinkedIn? If yes: How do you use the site(s), or what do you use it/them for?

Do you tweet? Do you follow anyone or anything on Twitter?

Do you subscribe to any news feeds?

Do you have a blog or a personal homepage or Website?

How many e-mail addresses do you have? If more than one: Do you use the same one for business (or school) and personal contacts?

Do you chat online? If yes: With whom? About what?

Do you play computer games or video games? If yes: Alone, or against other players? What are your favorites? What types of characters do you like to play?

atry, particularly in the area of the mental status examination (MSE).

The Internet in the Forensic Psychiatric Interview

In the forensic psychiatric interview, defensive, manipulative, or uncooperative behavior on the part of the evaluatee is common, especially in high-stakes evaluations: those involving denial of disability benefits and subsequent financial ramifications; those determining the extent of damages awarded in tort litigation; and those contributing to outcomes in custody disputes, to name only a few. Obtaining information in the psychiatric interview that the evaluatee does not wish to provide can be challenging and often requires some creativity and finesse in conversational strategies. Engaging the evaluatee in discussion about his or her hobbies, interests, and day-to-day life is one way to open the conversation. Information and communication technology (ICT) is playing an increasingly important role in individuals' lives, and it can be a powerful conversational tool in forensic interviews. Asking the evaluatee open-ended, exploratory questions about his or her use of the Internet may elicit revealing responses. Table 1 contains a list of suggested introductory questions that the examiner might ask during the interview, to assess the evaluatee's involvement with the Internet.

Discussion about the evaluatee's Internet and computer use can help the psychiatrist to identify areas for further questioning in the MSE, subsequent testing, or collateral research.

History

During the history-taking, it may be helpful to situate the evaluatee's Internet use within the appro-

priate developmental and sociocultural context. The psychiatrist may ask whether Internet use has caused any problems for the evaluatee in terms of social, psychological, or occupational functioning. PIU may relate to the evaluatee's psychiatric history,⁹ including substance abuse,¹⁰ attention deficit/hyperactivity disorder (ADHD),¹¹ depression,^{12,13} social anxiety and loneliness,¹⁴ and impulse-control disorders (ICDs) such as pathological gambling.¹⁵ PIU may involve excessive computer gaming, excessive or otherwise problematic use of Internet pornography or cybersex, or other inappropriate uses of Internet technology.

The Internet facilitates identity exploration, which can be either adaptive or maladaptive, depending on the role the Internet plays in the evaluatee's life. Role-playing to explore one's identity is a normal developmental process, but the process may be maladaptive when it avoids responsibilities. As Table 2 illustrates, numerous scales and screening tools have been published to aid in identifying PIU, sometimes referred to as "Internet addiction" or "Internet dependence."

For example, Young's Internet Addiction Diagnostic Questionnaire (IADQ),¹⁹ which is available free online, features eight screening questions about an evaluatee's symptoms of Internet "addiction," including preoccupation with the Internet; increased tolerance of computer use; repeated failed attempts to reduce Internet use; mood disturbance in relation to Internet use or attempts to limit use; duration of Internet use exceeding the intended duration; risk of personal, professional, or social loss because of Internet use; use of deception to conceal Internet activities; and use of the Internet to escape dysphoria.

Table 2 Screening Tools for Problematic Internet Use

Aboujaoude *et al*: proposed diagnostic criteria¹⁶

Beard and Wolf: proposed diagnostic criteria for Internet addiction¹⁷

SIGNS: Mnemonic for pathologic computer use¹⁸

IADQ: Internet Addiction Diagnostic Questionnaire¹⁹

CIAS: Internet Addiction Scale²⁰

CIAI: Chinese Internet Addiction Inventory²¹

OSA-Q: Online Sexual Addiction Questionnaire (OSA-Q)²²

OCS: Online Cognition Scale²³

CIUS: Compulsive Internet Use Scale²⁴

BTOB: Brief Test of Online Behavior²⁵

PIUQ: Problematic Internet Use Questionnaire²⁶

GPIUS: Generalized Problematic Internet Use Scale²⁷

IRABI: Internet-Related Addictive Behavior Inventory²⁸

IRPS: Internet-Related Problem Scale²⁹

Beard³⁰ offers a helpful list of proposed interview questions for an evaluatee with PIU that cover biological concerns, psychological aspects, social problems, and relapse prevention. Guidance for performing forensic evaluation of PIU is also available.³¹

A thorough assessment requires investigation of the evaluatee's physical health status. Problems that may result from PIU can have implications for the evaluatee's general medical history,³² possibly increasing the risk of thromboembolism,³³ seizures,³⁴ poor sleep and hygiene,³⁵ and musculoskeletal complaints.³⁰ Use of Internet pharmacies or unreliable medical advice on the web may increase the risk of serious medical problems.³⁶ The news media have reported several deaths among individuals with severe PIU. In one case, a teenager who was "addicted" to Internet gaming "committed suicide thinking that he would meet his friends from cyber space after he died."³⁷

Mental Status Examination

The evaluatee's Internet use may have implications for numerous domains within the MSE. This discussion presents several examples.

Appearance and General Behavior

The evaluatee's physical appearance may give some clues as to the role that technology plays in his life. Physical appearances that may elicit shame or discrimination in real life, such as disfigurement and physical handicaps, may have fewer negative consequences in Internet communications, prompting the individual to seek out social connections online rather than in person. An abnormally low body mass index may be related to the evaluatee's use of pro-anorexia Internet forums or neglect of nutritional needs during mania-driven online gaming binges. Some evaluatees may use stimulants or other cognition-enhancement drugs (such as modafinil) that diminish the need for sleep to prolong Internet gambling, gaming, or chatting. Poor hygiene may also result when an individual is overly engrossed in cyberspace and neglects real-life needs and responsibilities.

Self-disclosure in computer-mediated communication (CMC) may be more candid and revealing than the evaluatee's behavior in the psychiatrist's presence, and so the evaluatee's self-presentation and appearance online may be highly relevant. Many Internet applications invite users to provide photographs and brief descriptions of themselves, including information about demographics, interests, hobbies, and

associations. Inquiring about the significance of screen names, social networking site (SNS) profiles, avatars, and other expressions of identity online is similar to asking an evaluatee about the significance of his tattoos. Robinson³⁸ provides a list of questions to ask regarding an evaluatee's body modifications, such as tattoos and piercings. These questions can be adapted to an evaluatee's Internet presence. The evaluatee's choices of symbols, quotations, images, and so forth may allude to gang involvement, religious or spiritual beliefs, gender role identification, or personal interests. Unusually dramatic self-descriptions or model-like poses in social networking profiles, for example, may relate to histrionic or narcissistic personality traits³⁹ or could suggest a manic phase of bipolar disorder. The absence of face photographs on a site where face portraits are the norm could suggest a poor self-image, such as that in body dysmorphic disorder, depression, or eating disorders.

Research has demonstrated that psychiatric patients can and do engage in impression management to influence the outcomes of psychiatric interviews.⁴⁰ Impression management also plays an important role in CMC.⁴¹ As Barak notes, ". . . Internet users may effortlessly construct a *persona* with which they prefer others to observe and perceive them" (Ref. 42, p 314). Material that the evaluatee has chosen to post online can help to elucidate his preferred social impression.

Conversely, profiles posted on social networking sites (SNSs; e.g., Facebook, MySpace) and other Internet social forums may contain information that contradicts the evaluatee's intended impression. Photographs, perhaps artificially composed, and other material can be posted and "tagged" online showing a person's name or identity without that person's knowledge or permission, regardless of whether the person is familiar with or completely naïve about the Internet. Similarly, records of arrests and court cases may remain online for years after the disposition. This information then becomes part of the individual's "Internet presence" or "digital footprint."⁴³ Such digital footprints, together with questioning during the psychiatric interview, can help to corroborate or refute the initial impression the psychiatrist forms of the evaluatee. Comparing the evaluatee's Internet persona with his behavior in the psychiatric interview may assist in credibility assessments and may also help to provide a more complete portrait of the

evaluee as a person than does a mere presenting complaint.

Attitude, Rapport, Mood, and Affect

The forensic psychiatrist may note any observable changes in the evaluatee's affect when asked about Internet use or when information about computer use is volunteered. Alexithymia appears to increase the risk of PIU and the exacerbation of psychiatric symptoms when online,⁴⁴ and, if PIU is present, irritability may arise in evaluatees when they are away from the computer. A manipulative or hostile attitude may warrant questioning about antisocial Internet behavior, such as flaming (hostile language), libel, cyberbullying, cyberharassment, frequenting websites with violence themes, and researching instructions on making bombs and poisons. If an evaluatee seems particularly guarded or suspicious when asked about Internet use, a more intensive search of electronic data may be indicated, and the psychiatrist may ask the referring source (e.g., the retaining attorney or the court) to order additional digital research and further investigation.

Evaluatees with factitious disorders, such as Munchausen syndrome, may display an unusually cavalier attitude in the interview toward a serious complaint. When factitious disorder is suspected, the psychiatrist may inquire as to whether the evaluatee receives social support online in relation to the claimed illness. Feldman⁴⁵ reports four cases of "Munchausen syndrome by Internet," and Griffiths *et al.*⁴⁶ describe a case of "Munchausen syndrome by Google." In another case, a sort of Munchausen syndrome by proxy by Internet, a woman used the fictional persona of a young student ("Kaycee") with severe health problems, including leukemia. Kaycee's blog became popular, and she received supportive messages, cards, and gifts from fans of the blog. Later, it was "reported" that she had died, and the hoax was discovered.⁴⁷

Thought Processes and Thought Content

Inquiring about the types of activities an evaluatee pursues online can help to elicit information about thought processes and thought content. Anxious persons may avoid the Internet because of unrealistic fears of hackers, identity theft, and related risks, or they may use the Internet as a forum where anxiety is less likely to be exacerbated. Individuals with social phobia, for example, may prefer the anonymity and physical distance offered by CMC in cyberspace.

Evaluatees with obsessions and compulsions may repetitively and unnecessarily check e-mail or websites. Elements of ritualistic behavior may occur in relation to computer use (e.g., "I have to check my e-mail three times every night before I can go to sleep"), and perfectionism may induce excessive editing, revision, and redrafting of e-mails, blog posts, or chat messages.

Using the Internet for health information is quite common, although it is sometimes pejoratively referred to as cyberchondria,^{48,49} especially when excessive medical symptom research is involved. In severe cases, cyberchondria may be the outward manifestation of underlying hypochondria or other psychopathology. The Internet may also play a major role in the development and spread of beliefs that are unsupported by scientific evidence; for example, the spread of information about "Morgellons disease" on the Internet has led to several cases of delusional parasitosis.^{50,51}

Preoccupations, such as suicidal or homicidal ideation, may manifest as threats posted in online forums or as search queries logged in Internet search engines. In the Entwistle murder trial, an expert revealed computer evidence showing that the defendant had been searching the web for information on homicide/suicide methods and had frequented adult-oriented websites shortly before his wife and daughter were murdered.⁵² In another case, a man who was convicted of murdering his wife with antifreeze was shown to have conducted Internet searches for information about ways to poison someone.⁵³

Psychosis may involve Internet-related delusions, such as fears that the evaluatee's chat partners are plotting against him⁵⁴ or are secret agents.⁵⁵ Concerns about thought broadcasting may include beliefs that the evaluatee's thoughts or actions are being posted on the Internet and observed by others.⁵⁶ Psychotic evaluatees may also develop beliefs that their thoughts or actions are controlled through the Internet.⁵⁷ Referential delusions and tangential thought processes may also be associated with an evaluatee's Internet use.⁵⁸ In one remarkable case, a woman developed beliefs that numbers she found through Internet searches beginning with a query about a common ingredient (phenylalanine) contained hidden messages for her that led to secret information about a terrorist network.⁵⁹ Delusions relating to the Internet may emerge in the context of schizophrenia,⁶⁰

schizoaffective disorder,⁶¹ and bipolar disorder (or other illnesses) with psychotic features.⁵⁹

Perceptual Disturbances

Perceptual disturbances, such as depersonalization and derealization, may occur in the context of computer use. Depersonalization may appear in relation to activities in virtual worlds and overidentification with virtual characters such as avatars. Derealization may manifest as confusion about the reality of what happens online, uncertainty regarding the nature of virtual reality (VR), and a blurring of boundaries between simulated and actual experiences.⁶² Excessive identification with one's avatar or online persona as a fully formed alternative identity may arise in individuals with dissociative disorders. For evaluatees with severe psychopathology, high engagement with the Internet or other forms of advanced technology can lead to dramatic conflicts between objective reality in real life and the powerful subjective reality experienced online.⁶³

Insight and Judgment

Deficits in insight and judgment may be especially obvious in the context of Internet behavior. Common examples of poor judgment may include posting libelous statements online, disrespecting others' boundaries (e.g., forwarding personal e-mails to inappropriate recipients), or engaging in harassment in CMCs. Such behaviors may signify traits of some personality disorders but do not necessarily indicate the presence of mental illness. In contrast, a symptomatic manic phase in bipolar disorder, for example, may lead to more unusual Internet behavior, such as repeatedly "spamming" acquaintances or strangers with one's personal musings, blogging about one's sexual prowess, holding inappropriate chatroom conversations with children, or having unrealistic demands or expectations that friends and acquaintances will read every blog post or status update.

Impaired judgment may manifest as a failure to understand the impropriety of leaving sexual material on a shared computer in a home where small children are present, or an inability to understand being fired for spending hours bidding on eBay at the office. While poor judgment in regulating one's Internet presence may be prevalent or even expected among adolescents, similar carelessness among adults may point to psychopathology. In the interview, the forensic psychiatrist may ask the evaluatee whether he

recognizes whether the Internet use is appropriate or problematic, whether he appreciates the role that Internet use plays in his psychiatric illness (if applicable), and whether there is acknowledgment and understanding of the negative and positive aspects of ICT. For example, having an "online affair" without realizing the implications for one's relationship in real life may indicate limited insight and deficits in empathy.

Impulse Control

An individual's Internet use can yield important clues about impulse control. Qualities of CMC that tend to encourage or facilitate impulsive behaviors include "anonymity, a reduced sense of responsibility, altered time outlook, sensory input overload...and altered consciousness" (Ref. 64, p 33). The Internet can be significantly disinhibiting,⁶⁵ which can lead to impulsive behavior such as flaming among members of the general population.⁶⁶ Disinhibiting characteristics of the Internet can also exacerbate existing difficulties with impulse control, such as excessive shopping, pathological gambling, or compulsive sexual behavior. Shapira *et al.*⁶⁷ suggested that individuals with PIU typically meet diagnostic criteria for impulse control disorder not otherwise specified (ICD-NOS).

Traditionally, the mental status examination also addresses the domains of motor activity, speech, sensorium, and cognition. In some cases, an evaluatee's Internet use may be relevant to these factors. Other considerations that may be relevant to the mental status examination include targets for further questioning or additional collateral research, as well as the necessity for standardized testing or laboratory studies, if applicable. Table 3 offers suggested questions for the various domains of the MSE.

Review of Collateral Information

In forensic case formulation, collateral information is often crucial to arriving at an accurate assessment of the evaluatee and the circumstances that prompted the evaluation. As evaluatees in forensic assessments often have an interest in the outcome of the evaluation, their self-report may be unreliable. Collateral sources of information can help to identify discrepancies between the evaluatee's self-report and objective data. The rapid growth of ICT has led to a dramatic increase in the amount of collateral information available to the psychiatrist. Communica-

The MSE in the Age of the Internet

Table 3 Suggested Questions for an MSE

Appearance and general behavior

What's on your _____ (Facebook, MySpace, Other) profile?

Do you have an avatar? If yes: Can you describe your avatar for me?

What have you chosen for your e-mail addresses, screen names, or nicknames on the Internet? Can you explain why you chose them?

I've noticed that a lot of people have photographs of themselves on their _____ (Facebook, MySpace, Other) profiles. How did you choose the ones that you posted? Or: Why did you decide not to post one of yourself?

Are you more comfortable expressing yourself in person or online?

Attitude, rapport, mood, and affect

Have you ever purchased treatments, such as drugs, medicines, or herbal supplements from an Internet pharmacy or Website?

Have you ever been involved in a flame war?

How would you feel if your computer crashed tomorrow and you were unable to log on to the Internet?

Do you get any support from family, friends, or others online?

Thought process and content

Do you use any Websites that you check regularly for updates, such as online auctions, news sites, social networking sites like Twitter, stock trading sites, or others? How often do you check them?

How long does it take you to write an e-mail (or blog post)? Do you ever find yourself going back and editing your message repeatedly?

Do you look up medical information online?

What kinds of information have you read online?

Have you learned anything interesting on the Web lately?

Perceptual disturbances

Do you ever feel that what happens online (or in your favorite game or virtual world) is more real than your life offline?

Do you ever lose track of time or forget where you are when you are playing a game or chatting online? If yes: Can you tell me a little more about what that's like?

Have you ever had trouble figuring out what was real and what was not real while online or while playing a game?

Insight and judgment

Are you concerned about your privacy online?

What do you do to protect _____ (your privacy, your identity, your children, other) online?

Do you ever send e-mails to famous people, or to people you don't know very well? If yes: What kinds of things do you say?

Do you think your Internet use has caused any problems for you in your _____ (job, marriage, school, social life, other)?

Impulse control

Have you ever posted something or done something on the Internet and regretted it later?

When you _____ (shop online, gamble online, chat, look at Internet pornography, have cybersex, play games online), do you ever feel like you are doing it too much or can't stop when you want to?

Do you ever have difficulty controlling an urge to shop online, gamble at Internet casinos, send inappropriate e-mails, engage in cybersex, or view Internet pornography?

tions that may have been verbal and unrecorded in previous years now are often conducted via e-mail or instant messaging (IM) and are automatically archived as full transcripts. Obtaining digital evidence may require a degree of technical expertise not ordinarily possessed by the average forensic psychiatrist, but the psychiatrist can help to determine when such evidence will be helpful.⁶⁸ When the psychiatrist believes that it would be helpful to review additional electronic evidence not initially provided by the referring agent, the hiring attorney may seek assistance from a specialist to obtain these materials. Employers and Internet service providers (ISPs) typically monitor e-mail and other electronic communications, and associated logs and archives may be available as evidence in trials or investigations.

In addition to acquiring electronic data through discovery and investigations, the forensic psychiatrist

may uncover collateral information through independent research on the world-wide web (the web). Neimark and colleagues describe a case in which a Google search on the patient's name produced a news article about a suicide attempt that the patient had not disclosed to his treatment team, leading them to comment, ". . . a single Internet search, performed in a matter of milliseconds, revealed information that would be vital to determining the patient's ultimate disposition" (Ref. 69, p 1842). In using "the Internet as [a] collateral informant" (Ref. 69, p 1842), the psychiatrist should consider how rare or how common the evaluatee's name is. A common name, such as Jane Smith, may have millions of Internet hits that are unrelated to the evaluatee; searching through other methods, such as querying the evaluatee's e-mail addresses or screen names, may prove helpful. It is also important to remember that the

Table 4 Potential Sources of Digital Evidence for Evaluations

Internal and external computer hard drives
Digital archives and/or backup disks and drives
Media storage devices, such as zip drives, USB flash drives, CD-Rs, and DVD-Rs
Archives maintained by ISPs or stored on networks
Cached Web browser files and/or logs of Web browser activity, including search terms used on search engine sites (e.g., how to make MDMA (methamphetamine)); lists of URLs visited with the dates and times of access
Hidden files or files “deleted but not gone” ^{71,72} ; any available information on documents that may have been destroyed
Archived e-mails and chat logs; records of e-mail discussion groups such as Usenet; messages stored or accessed through newsgroup reader software
Websites, including personal homepages, blogs, profiles on social networking sites, and bulletin boards or other Web-based discussion groups
Cell phone/smart phone records of calls and text messages, videos, and images
Personal and work computers; cookies, malware, or applications stored on the evaluatee’s computer
Material stored on hand-held personal digital assistants (PDAs) or other portable electronic devices

Internet is not a definitive source of factually accurate information. Virtually anyone can post information about someone online. For example, a favored tactic among cyberharassers is to embarrass and intimidate the victim by impersonating her and posting her personal information (e.g., photographs) online, such as in phony erotic personal advertisements. The psychiatrist should consider the credibility or reliability of the source for Internet-based collateral information.

The ubiquitous nature of ICT in young people’s lives may lead to troves of socially questionable, even unlawful, behavior being documented online. SNS profiles frequently allude to substance abuse and other risky behavior.⁷⁰ Table 4 provides a partial list of the types of materials that the psychiatrist may review or ask an expert to review.

While the volume of this information may seem overwhelming, an important aspect of ICT is the development of tools to help organize materials and navigate electronic sources. In the past, a psychiatrist or investigator may have needed to peruse hundreds of pages in an evaluatee’s diary to determine whether a crime was premeditated. Today, many “diaries” are archived in computer drives or posted online in the form of blogs, websites, or other electronic documents that can be quickly and efficiently searched through electronic search-and-find tools. When the reason for the evaluation is related to deceptive be-

havior (for example, an adult who poses as a child online), the evaluation requires a more intensive search for collateral information than would be necessary in a case that did not involve dishonesty (for example, an evaluatee who admits to inappropriate Internet use in the workplace).

Assessment of Impairment and Credibility

The forensic psychiatrist may be asked to assess an evaluatee’s level of impairment from a disability that relates somehow to Internet activities. For example, a victim of cyberharassment may develop severe difficulties in functioning offline, even though the harassment is occurring only online. In such cases, the psychiatrist must be able to evaluate the reasonableness of the victim’s response. In a widely reported MySpace cyberbullying case, a 13-year-old girl (Megan Meier) committed suicide when the boy with whom she had formed a romantic attachment online began to subject her to insults and verbal abuse.⁷³ Following Meier’s suicide, an investigation revealed that the “boy” with whom she had been conversing online was a fake persona created by a woman who was the mother of one of Meier’s classmates. As this case illustrates, cyberbullying or cyberharassment can have a devastating emotional effect on victims. Similar cases have been reported with equally tragic outcomes.^{74,75} Cyberharassment has been correlated with depressive symptoms among victims,⁷⁶ and victims often take Internet threats seriously, sometimes altering their behavior out of fear for their personal safety.⁷⁷

An individual’s Internet presence may be relevant to disability and fitness-for-duty evaluations in employment legal proceedings.⁷⁸ Employers and schools often consider applicants’ Internet presences in the vetting of candidates for jobs or admissions, and employees may be fired for posting inappropriate material on SNS profiles, blogs, discussion boards, and other websites.⁷⁹ When an individual experiences adverse employment action, such as termination, demotion, or disciplinary actions, subsequent disability evaluations should consider the possibility of secondary gain. When IBM fired an employee for accessing cybersex chats on a company computer during business hours, the employee (a Vietnam veteran) sued, alleging that his inappropriate Internet use arose from his combat-related PTSD and that the employer had terminated him because of

his disability.⁸⁰ Although the court dismissed his complaint, the possibility that future editions of the DSM may contain “Internet addiction,”⁸¹ or PIU, as a diagnosable psychiatric disorder raises important legal and ethics-related considerations. Some scholars have speculated that the increasing apparent legitimacy of “Internet addiction” will lead toward protection under the Americans With Disabilities Act.⁸² Forensic psychiatrists may be asked to offer an opinion on whether an individual’s PIU indicates a *bona fide* mental disability.

It is important for the psychiatrist to detect or rule out the likelihood of malingering, which the DSM-IV defines as “. . . the intentional production of false or grossly exaggerated physical or psychological symptoms, motivated by external incentives such as avoiding military duty, avoiding work, obtaining financial compensation, evading criminal prosecution, or obtaining drugs” (Ref. 83, p 683). Today, patients, and even physicians, use publicly available Internet resources, such as search engines and medical websites, as diagnostic aids.⁸⁴ As Swiss researchers have shown, individuals with little or no medical training can reach accurate diagnoses through web research.⁸⁵ In this information age, forensic psychiatrists can expect to encounter evaluatees who have researched diagnostic criteria online and who may try to alter their self-presentations accordingly. Dishonesty and deception are common and possibly even normal online. An evaluatee who is accustomed to deceptive or manipulative behavior in Internet communications may be more likely to provide inaccurate or distorted information in a forensic evaluation. When assessing credibility, the forensic psychiatrist should consider the evaluatee’s claims in the context of his behavior.

As Drukteinis notes, “The person’s hobbies, recreation, and social interactions can be a rich source of information. A full schedule of personal activities can demonstrate a lack of credible impediment to work” (Ref. 86, p 294). Clinical psychologist Timothy Miller had a patient “who was trying to get on Social Security disability for agoraphobia. He didn’t have a mental disorder, he just didn’t want to leave ‘Ever-Quest’ [an online game] or instant messaging.”⁸⁷ High scores on a strategy-type game, for example, may cast doubt on claims of severe impairment of attention and concentration. Similarly, in criminal cases in which a defendant wishes to plead not guilty by reason of insanity (NGRI), evidence of planning

(such as “Googling” advice on avoiding detection or prosecution) may suggest premeditated and purposeful behavior.

Additional concerns related to Internet dishonesty may arise when the evaluatee’s Internet behavior is the reason for the evaluation. In the now-infamous “Alex/Joan case,” a prominent male psychiatrist assumed the online identity of a disabled woman to gain the trust of and have intimate exchanges with women with whom he chatted online.⁸⁸ When his deception and identity were subsequently revealed, many of the women felt betrayed and angry. It is not difficult to see how this type of behavior might raise concerns about fitness for duty among professionals with a fiduciary responsibility toward others. While poor judgment and exploitative behavior on the Internet may have ramifications for professional fitness for duty, such behavior does not necessarily implicate a psychiatric illness that would rise to the level of a disability.

Risk Assessment

Forensic psychiatrists may be asked to evaluate individuals whose Internet activity has raised concerns about dangerousness. For example, in the “Jake Baker” case, which spurred a debate regarding freedom of speech on the web, there was controversy over the appropriate response to a university student’s violent fantasies posted to a newsgroup:

Baker posted a story to the newsgroup alt.sex.stories in which he graphically described the torture, rape, and murder of a woman who was identified, in the story, as a classmate of Baker’s. University officials learned of it—oddly enough, through an attorney in Moscow—and they suspended Baker and began contemplating legal actions. The U.S. government investigated Baker and found much more than just the story posted to the Usenet group. Dozens of emails had been exchanged between him and a person in Canada known as Arthur Gonda, in which the two discussed their shared interests in torture and appeared to be planning violent acts that would be carried out in real life, not just as online fantasies [Ref. 89, p 228].

The forensic psychiatrist may be asked to offer an opinion regarding the likelihood that similar threats or disturbing behavior online represent a true threat of violence or self-harm. During such evaluations, it is important to consider the role that the Internet plays in the evaluatee’s life: does it provide a forum for harmless relief of stress, or does it exacerbate the evaluatee’s problems? Persons who struggle with thoughts of violence or self-harm may use the Internet to act

out these thoughts without direct bodily harm to themselves or to others.

The use of violent video games and VR simulations could have a desensitizing effect and may reduce normal inhibitions toward aggressive behavior. The military often uses games and simulations for this purpose. The experience of depersonalization and derealization online or in gaming may carry over into an individual's conduct in real life, thereby increasing the risk of violent behavior.⁶³ Block⁹⁰ argues that technology and Internet use played a critical and overlooked role in the lives of the teens who committed mass homicide in the Columbine school shooting tragedy. He notes that leakage and clues to their violent intentions were discovered on the Internet. He places special emphasis on the boys' use of the Internet as an outlet for their anger and notes that their access had been limited shortly before the school shootings took place. Through online RPGs, the teens had been able to assume roles of power, respect, and belonging, which they lacked in their lives offline. One implication of this case for risk assessment is the importance of considering the role of the Internet in an evaluatee's life.

Another implication of the Columbine case is the importance of investigating digital evidence as collateral information when conducting a risk assessment. In the context of evaluations of dangerousness in school settings, Ash writes:

Since individuals frequently deny planning predatory violence, other indicators of violent thinking are important. A key concept in these evaluations is 'leakage': fantasies of thinking and planning violence may spill out in identifiable ways. These can include talking about a fascination with weapons and assassinations with peers, diaries or other written communications, drawing, *internet chatting on violence-related themes*, veiled threats expressed to peers, and so forth [Ref. 91, p 465, emphasis added].

In numerous cases of violent or suicidal behavior reported in the popular press, warning signs were often found on the perpetrator's computer or in Internet records.

Conclusions

An evaluatee's Internet use may be relevant to nearly all aspects of a forensic psychiatric evaluation. During the psychiatric interview, open-ended questions about how the evaluatee uses the Internet can enhance rapport and lead the forensic psychiatrist to areas that deserve further analysis. During the psychiatric interview, information about an evaluatee's use of the In-

ternet can be a valuable conversational tool to encourage candor and self-disclosure, even among less cooperative evaluatees. In the MSE, the evaluator may consider inconsistencies between the evaluatee's presentation in the psychiatrist's office and his self-presentation or online persona in Internet communications. Numerous psychiatric symptoms may manifest in an individual's relationship to the Internet. The Internet is also useful as a source of collateral material to corroborate, refute, or elaborate on information gathered during the psychiatric interview, particularly for the purposes of assessing credibility, impairment, and risk.

Knowledge about ICT will help to increase opportunities for psychiatrists who serve as consultants to attorneys or courts. Forensic psychiatrists occasionally help attorneys to formulate questions for interrogatories and request materials for production, and, therefore, having an understanding of the ways in which people use the Internet can increase the likelihood of obtaining evidence for a case. Inquiring about evaluatees' Internet use and educating oneself about the ways in which such use may be relevant to a case will increase the psychiatrist's opportunity to gain additional information that will enhance the MSE, the evaluation findings, and the ultimate outcome in the case.

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Appendix I

Glossary of Terms

The reader is urged to conduct his or her own research on the web and to become familiar with these terms and other developing Internet-related phenomena. In Internet posts and text messaging, the use of abbreviations and slang is common, and understanding common terms (such as "LOL," "BRB," "OMG," and "FAIL") can be essential to conducting a thorough examination when the evaluatee's Internet use is relevant to the case and to the assessment, as is increasingly the case in the Internet age. Rather than attempt to

provide an exhaustive glossary of relevant terminology, this Appendix lists several starting points to help the reader learn more. Some terms are used as nouns and verbs.

Avatar: A representation of the Internet or computer user—typically, a visual illustration, often used for games or virtual worlds like SecondLife, but also used for chat and other applications; avatars may be pictorial depictions of humans, animals, or abstract characters and symbols.

Blog: Shortened form of web log; may be an interactive electronic diary/journal or an informational collection of web resources and information.

Cyberchondria: The escalation of health-related fears by consumers who use the Internet to research health and medical information.

Cyberharassment, Cyberstalking, and Cyberbullying: Pervasive harassment behavior online or significant use of the Internet in the context of other stalking or harassing behavior. Examples range widely but may include assuming false online identities to obtain personal information about a victim or to converse with the victim; posting personal information about the victim; assuming the victim's identity for the purpose of harassment; obsessively sending the victim unwanted e-mails, instant messages, text messages, or other electronic communications; enlisting other individuals online to assist in harassing the victim; use of the Internet or other electronic communications to embarrass, threaten, or intimidate the victim.

Cybersex or Cybering: Usually refers to engaging in erotic sexual chat on the web; may occur between real-life acquaintances or between individuals who are not acquainted offline.

Flaming or Flame Wars: A hostile verbal exchange that may involve one individual (e.g., a single hostile comment on a blog post) or many individuals (e.g., a heated debate on a message board); typically involves profanity and personal insults.

Friending or Unfriending: Adding (or deleting) someone from one's list of "friends" or contacts on an SNS.

Google: The popular Internet search engine Google or the use of Google to gain information on a topic.

Happy Slapping: The filming and posting of videos of violent assaults on video-sharing sites like YouTube or via cell phones for entertainment.

Information and Communication Technology (ICT): Internet, text messaging, cell phones, and other rapidly evolving "smart"

media used for accessing information (e.g., surfing the web) or communicating with others (e.g., "texting" or "IMing").

Problematic Internet Use (PIU): In this discussion, broadly defined as any use of the Internet or similar technology that causes problems in the individual's life. The condition includes excessive or otherwise problematic behaviors that are popularly termed "Internet addiction."

Role-playing Games (RPGs, or MMORPGs): Video games, sometimes Internet-based and interactive, in which the user plays a character and typically develops skills and acquires status and rewards along the way; MMORPGs are "massively multiplayer online RPGs" and are highly interactive social environments.

Screen Name: Nickname chosen by an Internet user to represent himself or herself to others on the web; may contain a combination of words, letters, numbers, or occasionally special characters.

Sexting: Sending or receiving sexually explicit or sexually provocative images (usually photographs) via cell phones or the Internet; derived from the term texting, which describes sending text messages by cell phone.

Social Networking Site (SNS): A website, such as Facebook, MySpace, LinkedIn, YouTube, and Twitter, where users share information and communicate with other Internet users through status updates, postings, discussions, and sharing media such as videos or links.

Spam: Unwanted e-mail, or the sending of unwanted electronic messages.

Status Update: A brief message sent or posted to one's contacts on a social networking site or application; status updates range from banal (e.g., "mmm, corn flakes for breakfast!") to significant (e.g., "just got married!") and may not always refer to changes or activities in the user's life (e.g., posting song lyrics or polls for one's friends); status updates are central features of sites like Facebook and Twitter.

Tweet: An update or the posting of an update on the popular SNS Twitter; Twitter allows updates of only 140 characters, and users subscribe to receive other users' "tweets."

Virtual World: Defined by Wikipedia as "a computer-based simulated environment intended for its users to inhabit and interact via avatars"; a popular example is SecondLife (www.secondlife.com).