# Commentary: The Mental Status Examination in the Age of the Internet—Challenges and Opportunities

Jeffrey L. Metzner, MD, and Peter Ash, MD

In her Presidential address, Dr. Recupero shows us how the Internet and changes in electronic communications have affected the forensic evaluation process in multiple ways. These developments provide the forensic psychiatrist with new tools and new sources of information, and their novelty brings about new challenges and opportunities. This commentary focuses on the use of information and communication technology (ICT) for purposes of obtaining collateral information in addition to a sample of other likely uses of ICT in the practice of forensic psychiatry. Collateral information from electronic communications such as e-mails, web postings, texting, and social networking sites provides useful data but also raises challenges in interpretation. Digital information about the expert can be used by cross-examining attorneys. Electronic tools can help the forensic psychiatrist to be more efficient. Correctional systems have a great deal to gain by adopting more efficient information systems. Continuing evolution of these technologies assures that we can expect more rapid change in these areas in the future.

Patricia Recupero, MD,[1] has presented in a very clear manner the increasing relevance of the Internet in day-to-day psychiatric practice, as well as in forensic evaluations. For the more senior forensic psychiatrists, it is only a little amusing to read peer-reviewed journal articles from just eight years ago that provide introductory information regarding the Internet, search engines, and medical gateways.[2,3] For those of us who now do not immediately recognize the acronyms PIU (problematic internet use), SNS (social networking sites), CMC (computer-mediated communication), and ICT (information and communication technology), Recupero's comprehensive review serves as a reminder of our professional need to be technologically relatively current or risk falling behind in the context of evolving forensic evaluation standards. For instance, most standard psychiatric

examinations include questions relevant to support systems, coping styles, hobbies, and other leisure activities, to help in assessing psychiatric symptoms and associated impairments.[4] Recupero's suggested questions that focus on the evaluee's use of the Internet are those that are likely in the near future to be asked routinely as part of the examiner's inquiry regarding these areas.

## Collateral Information

Obtaining collateral information as part of a forensic examination is a standard of practice in almost all forensic contexts. An evolving element of forensic examinations is the rapid growth of the use of ICT for purposes of obtaining collateral information, and this aspect is the focus of this commentary, in addition to a sample of other likely uses of ICT in the practice of forensic psychiatry.

The AAPL Practice Guideline for Forensic Psychiatric Evaluation of Defendants Raising the Insanity Defense[5] emphasizes the importance of obtaining collateral information, which includes police reports; relevant psychiatric, substance abuse, and medical

Dr. Metzner is Clinical Professor of Psychiatry, University of Colorado School of Medicine, Denver, CO. Dr. Ash is Director, Psychiatry and Law Service; Chief, Division of Child and Adolescent Psychiatry; and Associate Professor, Department of Psychiatry and Behavioral Sciences, Emory University, Atlanta GA. Address correspondence to: Jeffrey L. Metzner, MD, 3300 East First Avenue, Suite 590, Denver, CO 80206. E-mail: jeffrey.metzner@ucdenver.edu.

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records; school, military, and work records; other expert evaluations and testimony; custodial records; personal records such as financial transactions; psychological testing; results of brain imaging and other special procedures; photographs; audiotapes; and videotapes. A word search of the 2002 AAPL guideline would not turn up the terms electronic, computer, digital, or technology, all of which would be found if the document were revised today. McGrath and Casey[2] provide a primer pertinent to forensic psychiatry and the Internet with a very useful introduction to digital evidence. Similar to Recupero, these authors were not suggesting that forensic psychiatrists become high-technology experts and spend their time searching for digital evidence of crimes. However, they should be educated about ICT to know when to use it. The process of obtaining such information should be managed by the attorneys via the discovery process and the use of computer experts.

Neimark *et al.*[6] describe the clinical usefulness of Googling a patient's name and thus obtaining information that the examinee is unwilling to disclose. Recupero[7] suggests searching for the examinee's name, alias, or e-mail address at specific websites, such as MySpace.com, or blog sites such as livejournal.com to obtain collateral information that may be forensically useful. Examples are provided by Recupero[1] that illustrate the crucial role that digital evidence currently plays in many criminal proceedings. She points out that SNS profiles may contain information that is not consistent with the history provided by the evaluee, which certainly would help in guiding further questioning by the examining psychiatrist. The same can be said regarding an increasing number of civil proceedings. For example, significant questions of credibility were raised in a personal injury case relevant to a plaintiff's allegations that she had been sexually assaulted three years earlier and had experienced significant psychiatric sequelae. Her SNS postings during the time following the alleged assault were reviewed and showed that, specifically, her self-report of significant depression and social withdrawal were not consistent with the postings that portrayed her partying.

Similar to paper documents, an evaluee's Internet presence or digital footprint[8] is likely to be used increasingly by the forensic psychiatrist in formulating relevant questions for the forensic examination.

However, accessing certain aspects of the digital footprint may require the psychiatrist to join various social networking sites. To obtain relevant collateral information without compromising their own privacy, forensic psychiatrists should know how to navigate the SNS anonymously (e.g., how to avoid making their e-mail addresses searchable within the SNS).

The types of digital evidence that may be helpful to the forensic psychiatrist are briefly reviewed by Recupero in table form. It is currently not uncommon for discovery requests to include relevant e-mails, phone records, and text messages. It is becoming increasingly common for such requests to include information pertinent to websites that include personal home pages and profiles on social networking sites. It is not yet common for internal and external computer hard drives to be routinely examined by the opposing attorney's office for relevant information, although information from such media is generally requested. It is likely that, in the future, methods resulting from rapid technological advances will emerge that will make discovery and recovery of such information much easier.

Sometimes the meaning of electronic communications can be difficult to interpret. This problem can take several forms. The first is that the coding of the message itself may be difficult for the expert to understand. For example, Scott and Temporini[9] provide an example of a text message exchange that occurred shortly before spacedude102, a 14-year-old boy, committed suicide:

> ohionetfin: whatup?
> spacedude102: *) and :-Q~420
> ohionetfin: :-0
> spacedude102: #-)
> ohionetfin: ?
> spacedude102: :-C, want 8-#

Without a knowledge of emoticons and text abbreviations, the reader would not know that spacedude102 was saying that he was drunk [ *) ] and using marijuana [ :-Q~420 ], had partied all night [ #-) ], was extremely sad [ :-C ], and wanted death [ 8-# ].

A second difficulty in interpreting collateral data derives from the fact that people present themselves on the Internet differently than they do in face-to-face contact, and so it is not always clear how to interpret such digital communications. For example,

a mother gives a forensic psychiatrist the URLs to several YouTube videos that her ex-husband made while on vacation with their two young children and claims that they show that her ex-husband, who has a history of bipolar illness, is having manic episodes and acting inappropriately with the children. Even if the actions in the video were a bit odd, the fact that they were performed while making a video for the web raises the strong possibility that they do not represent day-to-day behavior. Further collateral information, such as interviews with the children and father, would be necessary to interpret their meaning. In cases in which the participants on the video cannot be questioned (e.g., the video was created the day before the videomaker committed suicide), such problems in interpretation can be difficult to resolve. Problems can occur even when the communication is not being created for an audience to see later, such as with extended e-mail exchanges. Consider a case in which the mental state of a private contractor who died of a heart attack in Afghanistan is at issue. The case turned in part on the extent and nature of the work-related stress he experienced before his death. The deceased had variable-length e-mail and chat sessions with his wife throughout many days before he died, and so there was an extensive record of communications over months. Nevertheless, making inferences about his stress level based on the content, or what was left out of the content, of the digital record is problematic.

A third problem in interpreting digital collateral data is the presence of age effects. As a group, adolescents are more likely to use ICT, and they use it differently from adults. Therefore, forensic psychiatrists may not have a clear sense of what normal use is. Young people have more familiarity and comfort with SNSs such as Facebook and seem to be less anxious about disclosing information. There has been considerable concern among parents and in the media that adolescents may put themselves at risk on SNSs by disclosing too much private information, although some research suggests that the majority of adolescents use such sites responsibly[10] and that the risk of harassment through SNSs is less than in chat rooms and instant messaging.[11]

The effects on adolescents of heavy ICT use is unclear. In a widely cited 1998 study, Kraut *et al.*[12] found an association between frequent ICT use in adolescents and decline in person-to-person interaction, with a concomitant increase in depression. A follow-up study[13] found that these effects did not persist, however, and suggested that for extroverted adolescents, ICT use is generally positive, but that in introverted adolescents, heavy use is associated with increased social withdrawal. Whether frequent ICT use in some adolescents is a cause or symptom of problems also remains unclear and continues to be a subject of research.[14]

Finally, patterns of ICT use change fairly rapidly in response to adoption of technological and software innovations. There is little consensus on appropriate standards for SNS use. Standards are evolving in reaction to patterns of use, as evidenced by such trends as legislative attempts to define cyberstalking and the increasing attempts by employers to utilize claims of inappropriate SNS postings as grounds for termination of employment.

## Digital Information About the Expert

An expert's objectivity or credibility can also be effectively challenged based on data obtained by ICT. Opinions expressed in forensic mental health e-mail forums (e.g., listservs), on bulletin boards, and in web-based discussion groups about a specific lawsuit or situation before the discovery phase of the litigation can be effectively used to demonstrate an expert's pre-existing bias. The forensic expert's digital footprint is now commonly reviewed by attorneys and is easily accessed by an Internet search on the name of the expert. In addition to articles written by the forensic psychiatrist, the search engine process may generate links to newspaper articles, reports from years ago written by the psychiatrist, presentation handouts, agendas and minutes of meetings attended by the psychiatrist, and a variety of other unexpected information about the psychiatrist that may stimulate further inquiry by the attorneys during deposition or trial testimony of the psychiatrist. Controversial experts are also at risk of having unflattering material about them written by others and posted on the Internet.

It is currently common for a forensic psychiatrist to be asked as part of the discovery process to produce drafts of his final report. Most experts do not keep copies of such drafts for obvious reasons, and requests to recover them from hard drives are rarely made because of practical and privacy considerations. However, the advent of electronic medical records (EMRs), especially within university settings, may change this situation. Some EMRs are being

designed to disallow deletion of documents designed to be draft only. The forensic psychiatrist must be very careful regarding the contents of these draft documents before using the "save" function, especially in the section of the report that summarizes relevant opinions. Differences between the final report and the draft documents will be easily apparent by using the "track changes" function (i.e., by creating a red lined version) and will certainly be a focus in deposition and possibly trial testimony.

## Electronic Communications by the Expert

Computer-mediated communication and information and communication technology, of course, have other current and potential impact on the practice of forensic psychiatry. Records and reports are frequently sent as e-mail attachments. It is important to remember that unencrypted e-mail is not secure. Reports that contain protected health information (PHI) may be subject to the HIPAA (Health Insurance Portability and Accountability Act), which requires covered entities to encrypt electronic transmissions of PHI. Most word processing software allows a document to be encrypted with a password that can be telephoned to the recipient.

It is no longer unusual to have depositions conducted via satellite-transmitted video when the deponent and attorneys live in states far away from each other. It is becoming more common that courts are equipped to view trial testimony under similar circumstances and that judges are willing to allow such testimony. With the current videoconferencing capabilities of personal computers (e.g., Skype, iChat), it is not hard to imagine that it will be common for collateral information to be obtained with this technology and preserved through electronic media, just as handwritten notes of interviews are kept in paper files. AAPL has developed practice guidelines regarding the videotaping of forensic evaluations.[15] More guidelines may be needed in the future concerning whether the forensic examination process may be observed by others (e.g., attorneys, other experts) in real time via this technology. Because of the wide acceptance of telepsychiatry, forensic psychiatric examinations may be conducted with the same technology, and this practice may increase significantly in the very near future.

Inexpensive voice software has been available for about a decade that has significantly decreased overhead expenses (e.g., secretarial expenses) and has offered the opportunity for forensic reports to be completed and sent electronically to the referral source in a timelier manner. Most discovery records and documents can be scanned and sent either via e-mail or copied to a CD or DVD, which not only decreases file storage requirements but allows for better data management and often decreases report preparation time. Specifically, these documents can easily be scanned with inexpensive software that allows for word searches through electronic search-and-find tools. Use of portable document format (PDF) converter software enables these scanned documents to be converted to documents in a common word processing format that will allow the forensic psychiatrist to cut and paste relevant sections of discovery documents into the forensic report. Having an all-in-one (i.e., copier, scanner, fax, and printer) product should be a must for today's forensic psychiatrists to assist in the electronic preparation of reports.

## Use in Correctional Systems

ICT has great potential for mental health systems in jails and prisons throughout the United States. Correctional institutions have historically not kept current with widely accepted modern technology because of a combination of fiscal limitations and misplaced security concerns. Management information systems (MISs) are frequently homegrown at the institutional level, in contrast to those developed for systemwide use, and do not interface well with the system's custodial MIS, which is generally also outdated and incorporates a combination of many different iterations and components. A clinical repository should be designed and optimized to store patients' health information, such as current medications, lab results, encounter history, and problems in a standardized manner. The development of a clinical repository database will serve as a foundation for an electronic medical record and an MIS that can be designed to interface with the custodial MIS after it has been designed to meet modern standards.

Access to a modern-day MIS and EMR will allow an efficient medication management system, an ongoing needs assessment process, and better continuity of care and documentation and will clearly facilitate management of the correctional mental health system. Scheduling of medical, dental, and mental health appointments will be coordinated via software that will eliminate "no shows" due to competing appointments. Kiosks will be placed in inmate-accessi-

ble areas for health care request purposes, which will eliminate the inevitable delays associated with the paper sick-call request system commonly in place. These kiosks can also be used to provide health care educational information. Most important, implementation of an effective quality-improvement system will be facilitated by this information and communication technology.

## Conclusion

In her Presidential address,[1] Dr. Recupero shows us how the Internet and changes in electronic communications have affected the forensic evaluation process in many ways. These new developments provide the forensic psychiatrist with new tools and new sources of information, and their novelty brings about new challenges. Information and communication technology will no doubt continue to evolve, and the forensic psychiatrist can look forward to rapid changes in these areas in the future.

## References

1. Recupero PR: The mental status examination in the age of the Internet. J Am Acad Psychiatry Law 38:15–26, 2010
2. McGrath MG, Casey E: Forensic psychiatry and the Internet: practical perspectives on sexual predators and obsessional harassers in cyberspace. J Am Acad Psychiatry Law 30:81–94, 2002
3. Llewellyn-Jones S: Forensic psychiatry on the Internet. J Forensic Psychiatry 13:697–700, 2002
4. American Psychiatric Association: Work group on psychiatric evaluation: practice guideline for a psychiatric evaluation of adults. Available at http://www.psychiatryonline.com/pracGuide/pracGuideChapToc_1.aspx. Accessed November 14, 2009
5. Giorgi-Guarnieri D, Janofsky J, Keram E, *et al*: AAPL practice guideline for forensic psychiatric evaluation of defendants raising the insanity defense. J Am Acad Psychiatry Law 30:S3–40, 2002
6. Neimark G, Hurford MO, DiGiacomo J: The internet as collateral informant. Am J Psychiatry 163:1842, 2006
7. Recupero PR: Forensic evaluation of problematic Internet use. J Am Acad Psychiatry Law 36:505–14, 2008
8. Madden M, Fox S, Smith A, *et al*: Digital footprints: online identity management and search in the age of transparency. Pew Internet and American Life Project. Available at http://pewinternet.org/~/media//Files/Reports/2007/PIP_Digital_Footprints.pdf.pdf. Accessed Dec. 7, 2009
9. Scott CL, Temporini H: Forensic issues and the internet, in Principles and Practice of Child and Adolescent Forensic Mental Health. Edited by Benedek EP, Ash P, Scott CL. Arlington, VA: American Psychiatric Publishers, 2009, pp 253–61
10. Hinduja S, Patchin JW: Personal information of adolescents on the Internet: a quantitative content analysis of MySpace. J Adolesc 31:125–46, 2008
11. Ybarra ML, Mitchell KJ: How risky are social networking sites?—a comparison of places online where youth sexual solicitation and harassment occurs. Pediatrics 121:350–7, 2008
12. Kraut R, Patterson M, Lundmark V, *et al*: Internet paradox: a social technology that reduces social involvement and psychological well-being? Am Psychol 53:1017–31, 1998
13. Kraut R, Kiesler S, Boneva B, *et al*: Internet paradox revisited. J Soc Issues 58:49–74, 2002
14. van den Eijnden RJ, Meerkerk G-J, Vermulst AA, *et al*: Online communication, compulsive internet use, and psychosocial well-being among adolescents: a longitudinal study. Dev Psychol 44:655–65, 2008
15. Zonana H, Bradford JM, Giorgi-Guarnieri D, *et al*: Videotaping of forensic psychiatric evaluations. AAPL Task Force. J Am Acad Psychiatry Law 27:345–58, 1999