

The 2013 Salzburg Workshop on Cyber Investigations: An Overview of the Use of Digital Evidence in International Criminal Courts

By **Aida Ashouri, Caleb Bowers** and **Cherrie Warden**

This article has been developed from a paper originally prepared for the 2013 Salzburg Workshop on Cyber Investigations under the supervision of Professors Laurel E. Fletcher, Chris Hoofnagle, Eric Stover, and Jennifer Urban.

Abstract

As digital evidence becomes more prevalent, it poses challenges to the International Criminal Court. This paper reviews some of the leading international criminal cases involving digital evidence, with a particular focus on the ICC, and identifies four types of evidentiary considerations specific to digital evidence: (1) authentication; (2) hearsay; (3) provenance (chain of custody); and (4) preservation of evidence. Using these four considerations, this paper aims to contribute to discussion on how best to respond to the challenges of digital evidence. The paper concludes with several questions raised by this analysis.

Introduction

Digital evidence poses particular challenges to the International Criminal Court (ICC). Digital evidence is, generally, information transmitted or stored in a digital format that a party to a case may use at a proceeding.¹ Digital evidence may come in the form of photographs, video and audio recordings, e-mails, blogs, and social media. As digital evidence becomes more prevalent, the ICC must consider how to respond to its use. To assist in this effort, this paper reviews how judges have viewed the admissibility and probative value of digital evidence presented in proceedings at international criminal courts, with a particular focus on the ICC.²

The increasing use of digital evidence in proceedings offers new opportunities and challenges. An e-mail, an interception of communications via satellite, or a digital recording of live events may help establish an evidentiary link between the defendant and the commission of an international crime. Depending on the authenticity of the data, digital evidence can also provide information on the time, place, and manner of an event to supplement *viva voce* evidence or live testimony. However, digital evidence can also be altered or degraded. In addition, digital evidence is divorced from its source; for example, a photograph captures only one perspective of a location at a specific time, and, similarly, an e-mail does not capture the demeanor or tone of voice of the author.

This paper analyzes selected cases from the *ad hoc* International Criminal Tribunal for the former Yugoslavia (ICTY), the *ad hoc* International Criminal Tribunal for Rwanda (ICTR), the Extraordinary Chambers in the Courts of Cambodia (ECCC), the Special Court for Sierra Leone (SCSL), and the Special Tribunal for Lebanon (STL). The cases were identified from secondary literature, interviews with current or former members of staff of the court, and experts knowledgeable about the use of digital evidence in international criminal courts.

This paper does not set out to prove an exhaustive discussion of all the potential and relevant cases. For instance, the trial transcripts, pleadings, and other public records of the cases presented here are not incorporated in this analysis. Such materials may identify additional concerns and questions regarding digital evidence. Nevertheless, this paper identifies the main cases and issues regarding the introduction

the international criminal tribunals," specifically those of the International Criminal Tribunal for the former Yugoslavia (ICTY) and the International Criminal Tribunal for Rwanda (ICTR) therefore making consultation with jurisprudence from these and similar tribunals appropriate. See *Prosecutor v. Bemba Gombo*, Case No. ICC-01/05-01/08, Decision on the admission into evidence of materials contained in the prosecution's list of evidence, para. 25 (Nov. 19, 2010).

¹ Eoghan Casey, *Digital Evidence and Computer Crime* (3rd ed, Academic Press, 2011).

² The evidentiary standards at the International Criminal Court (ICC) reflect "current developments of the procedural models adopted by

of digital evidence and serves as background for a more detailed discussion of the challenges and opportunities in this area.³

Legal standard of admissibility of evidence

The use of digital evidence in international criminal courts must be understood in light of the general approach to the admission of evidence in trial proceedings. International criminal courts incorporate elements of the common law and civil law traditions to varying degrees. Generally, the common law system contains more prohibitions and rules on excluding evidence that is irrelevant or unreliable, while in the civil law system most of the evidence is admitted and judges subsequently assess its probative value.⁴ The Rome Statute created a system that “eschew[s] generally the technical formalities of the common law system of admissibility of evidence in favour of the flexibility of the civil law system.”⁵

Rule 69(4) of the ICC Rules of Procedure and Evidence (“Rules”) directs judges to admit evidence, “taking into account, inter alia, the probative value of the evidence and any prejudice that such evidence may cause to a fair trial or to a fair evaluation of the testimony of a witness.”⁶ In accordance with Rule 63(2), ICC judges determine the probative value and the “appropriate weight” of admitted evidence at the end of a case, when they are considering the evidence as a whole.⁷ There are only two situations where

there is a specific duty for judges to make a ruling on the admissibility of evidence.⁸ These provisions are drafted narrowly and do not provide for the automatic exclusion of evidence.⁹

Similarly, the ICTY and ICTR have largely avoided common law rules of exclusion of evidence because such rules were developed to limit evidence considered by juries and therefore do not apply to trials in the inquisitorial tradition.¹⁰ Evidence must satisfy “minimum standards of relevance and reliability” to be admitted.¹¹ Since the bar for admissibility is low, admission of evidence does not in and of itself signal that the evidence is accurate; judges evaluate its weight separately.¹² Thus, in considering evidence, the ad hoc tribunals do not focus on whether evidence is admissible, but rather what weight the evidence holds.

While the threshold for the admission of evidence may be low, international criminal courts still have preferences for the types of evidence introduced. The ICC generally favors *viva voce* evidence, or oral

potential to influence the determination on at least one fact. *Prosecutor v. Lubanga*, Case No. ICC-01/04-01/06, Decision on Confirmation Charges, para. 8 (Jan. 29, 2007). The Chamber must consider all the evidence “submitted” before it and “discussed” at trial in making its final determination regardless of the type of evidence presented.” *Bemba Gombo*, ICC, Decision on the admission into evidence of materials contained in the prosecution’s list of evidence, para. 15 (Nov. 19, 2010).

³ This article does not touch upon post-acquisition analytic processing, or the method by which the ICC validates expert evidence. On the latter, see http://www.icc-cpi.int/en_menus/icc/structure%20of%20the%20court/registry/experts/Pages/call%20for%20experts%20before%20the%20international%20criminal%20court.aspx.

⁴ *Prosecutor v. Bemba Gombo*, Case No. ICC-01/05-01/08, Decision on the admission into evidence of materials contained in the prosecution’s list of evidence, para. 17 fn. 28 (Nov. 19, 2010). See also Stephen Mason, ed., *International Electronic Evidence* (British Institute of International and Comparative Law, 2008).

⁵ *Prosecutor v. Bemba Gombo*, Case No. ICC-01/05-01/08, Decision on the admission into evidence of materials contained in the prosecution’s list of evidence, para. 17 (Nov. 19, 2010).

⁶ *Prosecutor v. Lubanga*, Case No. ICC-01/04-01/06, Decision on Confirmation Charges, para. 100 (Jan. 29, 2007).

⁷ *Prosecutor v. Lubanga*, Case No. ICC-01/04-01/06, Decision on Confirmation Charges, para. 9 (Jan. 29, 2007); see also Bemba Gombo, ICC, “Decision on the Prosecution’s Application for Admission of Materials into Evidence Pursuant to Article 64(9) of the Rome Statute” of 6 September 2012, para. 11 (Oct. 8, 2012). Probative value refers “to the reliability and weight to be attached to the evidence concerned.” *Prosecutor v. Lubanga*, Case No. ICC-01/04-01/06, Decision on Confirmation Charges, para. 8 (Jan. 29, 2007). In order to be considered relevant, evidence must have the

⁸ The only exceptions to this broad standard are provided in article 69(7) of the Rome Statute, and rule 71 of the ICC Rules. Article 69(7) of the Rome Statute prohibits evidence acquired by means that violate the Rome Statute or human rights if “the violation casts substantial doubt” on the reliability of the evidence or its admission would be “antithetical” and would “seriously damage the integrity of the proceedings.” Rule 71 prohibits the admission of evidence of prior or subsequent sexual conduct of a victim or witness. *Bemba Gombo*, ICC, Decision on the admission into evidence of materials contained in the prosecution’s list of evidence, para. 9 (Nov. 19, 2010); Rome Statute of the International Criminal Court, article 69(7); International Criminal Court, Rules of Procedure and Evidence, Rule 71; see also *Prosecutor v. Lubanga*, Case No. ICC-01/04-01/06, Decision on Confirmation Charges, para. 87 fn. 98 (Jan. 29, 2007).

⁹ *Prosecutor v. Lubanga*, Case No. ICC-01/04-01/06, Decision on Confirmation Charges, para. 84 (Jan. 29, 2007).

¹⁰ *Prosecutor v. Brdanin & Talic*, Case No. IT-99-36-T, Order on the Standards Governing the Admission of Evidence, para. 14 (Int’l Crim. Trib. for the Former Yugoslavia Feb. 15, 2002).

¹¹ *Prosecutor v. Brdanin & Talic*, Case No. IT-99-36-T, Order on the Standards Governing the Admission of Evidence, para. 13 (Int’l Crim. Trib. for the Former Yugoslavia Feb. 15, 2002); Case 001, Case No. 18-07-2007/ECCC/TC, Decision on Admissibility of Materials in the Case File, para. 7 (May 26, 2008).

¹² *Brdanin & Talic*, ICTY, Order on the Standards Governing the Admission of Evidence, para. 18 (Feb. 15, 2002); *Prosecutor v. Bošković & Tarčulovski*, Case No. IT-04-82, Trial Judgment, para. 10 (Int’l Crim. Trib. for the Former Yugoslavia July 10, 2008).

testimony.¹³ When evidence other than direct oral testimony is challenged, the ICC Chamber “must ensure that the evidence is prima facie relevant to the trial, in that it relates to the matters that are properly to be considered by the Chamber in its investigation of the charges against the accused and its consideration of the views and concerns of participating victims.”¹⁴

The ICC has developed a set of standards that are specific to digital evidence. Digital evidence and material must conform to an “e-court Protocol,” even before it is submitted at the Confirmation Hearing.¹⁵ The Protocol is designed to “ensure authenticity, accuracy, confidentiality and preservation of the record of proceedings.”¹⁶ The Protocol requires metadata to be attached, including the chain of custody in chronological order, the identity of the source, the original author and recipient information, and the author and recipient’s respective organizations.¹⁷ While the Protocol offers some guidance to facilitate the use of digital evidence, it is limited to harmonizing the format of digital evidence, and how it is stored in the court’s systems, and does not address issues of probative value. These challenges are discussed further below.

Evidentiary considerations of digital evidence

The research for this paper found that international criminal courts rarely admitted digital information as direct evidence, but more commonly admitted it as corroborating evidence. Digital evidence is often introduced with other evidence that, in the opinion of

the court, holds a higher probative value, including viva voce evidence. This section will review the techniques used to assess digital evidence and its probative value.

Authentication

Authentication refers to a legal concept that promotes the integrity of the trial process by ensuring the evidence tendered establishes what it is offered to prove.¹⁸ Courts are particularly concerned with the authentication of digital evidence because digital evidence can be easily manipulated. For example, video footage may be altered or the metadata (internal digital information that describes characteristics of the data) may be changed; therefore some degree of authentication is required to ensure the veracity of the evidence.

Authentication and reliability are related, but distinct concepts. The purpose of authentication is to ensure that the evidence has not been manipulated or tampered with, while the purpose of reliability is to establish whether a piece of evidence is what it purports to be. For example, the Sri Lankan government questioned the reliability of video footage taken on a soldier’s mobile phone in 2009 that allegedly depicted the killing of Sri Lankan prisoners. The Sri Lankan government argued the killings were staged. Even if the footage was authentic, in that it was not manipulated, the prosecutor must prove the video was reliable, that the footage actually depicted the killing of Sri Lankan prisoners.¹⁹

The ICC does not require that a judge rule separately on the authenticity of evidence.²⁰ If the parties agree that the evidence is authentic or if the evidence is reliable on the face of it, then judges may treat the evidence as authentic.²¹ If the evidence does not meet

¹³ There are several exceptions to the preference of live testimony, including the permission to give recorded testimony, or to introduce documents or written transcripts. *Bemba Gombo*, ICC, Decision on the admission into evidence of materials contained in the prosecution’s list of evidence, para. 14 (Nov. 19, 2010).

¹⁴ *Bemba Gombo*, ICC, Decision on the admission into evidence of materials contained in the prosecution’s list of evidence, para. 10 fn.23 (quoting *Lubanga*, ICC, Trial Chamber I, para. 26-27 (June 13, 2008)) (Nov. 19, 2010).

¹⁵ *Prosecutor v. Callixte Mbarushimana*, Case No. ICC-01/04-01/10, Decision Amending the e-Court Protocol, 4 (Apr. 28, 2011).

¹⁶ International Criminal Court e-Court Protocol at para. 1, ICC-01/04-01/10-87-Anx 30-03-2011, available at <http://icc-cpi.int/iccdocs/doc/doc1049623.pdf>.

¹⁷ International Criminal Court e-Court Protocol, ICC-01/04-01/10-87-Anx 30-03-2011. Although the Protocol does not establish substantive guidance on evidentiary standards, it may help identify potential issues for introduction of evidence simply by increasing visibility of the digital evidence at issue.

¹⁸ See *Prosecutor v. Popovic, and others*, Case No. IT-05-88-T, Decision on Admissibility of Intercepted Communications in Trial Chamber II, para. 4, 22, 26, 33-35 (Int’l Crim. Trib. for the Former Yugoslavia Dec. 7, 2007).

¹⁹ Robert Mackey, ‘Video of Sri Lankan Executions Appear Authentic UN Says’, *New York Times*, 8 January 2010, <http://thelede.blogs.nytimes.com/2010/01/08/sri-lanka-atrocity-video-appears-authentic-un-says/>.

²⁰ *Prosecutor v. Jean- Pierre Bemba Gombo*, Case No. ICC-01/05-01/08, Decision on the Prosecution’s Application for Admission of Materials into Evidence Pursuant to Article 64(9) of the Rome Statute, para. 9 (Oct. 8, 2012).

²¹ *Prosecutor v. Jean- Pierre Bemba Gombo*, Case No. ICC-01/05-01/08, Decision on the Prosecution’s Application for Admission of Materials into Evidence Pursuant to Article 64(9) of the Rome Statute, para. 9 (Oct. 8, 2012).

the prima facie standard, a party may provide additional information to show authenticity.²²

The ICC reiterated its flexible approach to authenticity of digital evidence in *Prosecutor v. Jean-Pierre Bemba Gombo*.²³ The prosecution sought to introduce into evidence ten audio recordings of broadcasts that provided background information about the conflict, the identity of those involved, as well as accounts from eye witnesses and victims.²⁴ The defence questioned the authenticity of the recordings.²⁵ The judges ruled that “recordings that have not been authenticated in court can still be admitted, as in-court authentication is but one factor for the Chamber to consider when determining an item’s authenticity and probative value.”²⁶

Judges at the ad hoc tribunals also may determine authenticity and reliability of evidence as part of their assessment of its probative value.²⁷ As most evidence is admitted, the threshold objections of the parties are to its authenticity.²⁸

²² *Prosecutor v. Jean- Pierre Bemba Gombo*, Case No. ICC-01/05-01/08, Decision on the Prosecution’s Application for Admission of Materials into Evidence Pursuant to Article 64(9) of the Rome Statute, para. 9 (Oct. 8, 2012).

²³ *Prosecutor v. Jean- Pierre Bemba Gombo*, Case No. ICC-01/05-01/08, Decision on the Prosecution’s Application for Admission of Materials into Evidence Pursuant to Article 64(9) of the Rome Statute, para.. 80-122 (Oct. 8, 2012).

²⁴ *Prosecutor v. Jean- Pierre Bemba Gombo*, Case No. ICC-01/05-01/08, Decision on the Prosecution’s Application for Admission of Materials into Evidence Pursuant to Article 64(9) of the Rome Statute, para.. 80-122 (Oct. 8, 2012).

²⁵ *Prosecutor v. Jean- Pierre Bemba Gombo*, Case No. ICC-01/05-01/08, Decision on the Prosecution’s Application for Admission of Materials into Evidence Pursuant to Article 64(9) of the Rome Statute, para.. 80-122 (Oct. 8, 2012).

²⁶ *Prosecutor v. Jean- Pierre Bemba Gombo*, Case No. ICC-01/05-01/08, Decision on the Prosecution’s Application for Admission of Materials into Evidence Pursuant to Article 64(9) of the Rome Statute, para. 120 (Oct. 8, 2012). Ultimately, the court excluded the evidence in this case because it preferred admission of whole recordings rather than excerpts. *Prosecutor v. Jean- Pierre Bemba Gombo*, Case No. ICC-01/05-01/08, Decision on the Prosecution’s Application for Admission of Materials into Evidence Pursuant to Article 64(9) of the Rome Statute, para. 122 (Oct. 8, 2012).

²⁷ Proof of authenticity is not a pre-condition to admissibility since to do so would impose a more stringent standard than intended by the rule of probative value, ICTY Rules of Evidence 89(c). *Prosecutor v. Popovic, and others*, Case No. IT-05-88-T, Decision on Admissibility of Intercepted Communications, para. 4, 22, 26, 33 (Int’l Crim. Trib. for the Former Yugoslavia Dec. 7, 2007) (The nexus between authentication and the 89(c) Rule of Evidence on probative value is that reliability is an implicit component of a determination of probative value; authenticity may be a factor of reliability.).

²⁸ International Criminal Tribunal for the Former Yugoslavia, Rules of Procedure and Evidence, 89(c); International Criminal Tribunal for Rwanda, Rules of Procedure and Evidence, 89(c).

The ad hoc tribunals generally favor corroboration of digital evidence through external indicators.²⁹ External indicators include testimony or information on the identity of the source, whereas internal indicators consist of timestamps and metadata. For example, in *Prosecutor v. Karemera*, the prosecution submitted video evidence of a rally along with a transcript of the corresponding radio broadcast.³⁰ The ICTR held that the broadcast transcript authenticated the date of the video, which proved that the accused attended the rally. Similarly, in *Prosecutor v. Bagosora*, the combination of video footage with a transcript led the ICTR to find that the accused was acting as the Minister of Defence and therefore exercised control over the army.³¹ The corroboration of digital evidence in both cases provided the ICTR with linkage evidence to support a conviction.³²

Several international courts have authenticated digital evidence, such as a video, through other external indicators such as expert testimony or the use of multiple types of evidence.³³ For example, the ICTR held that radio announcements, which called for the apprehension of Tutsis, were authentic after an expert witness testified that following the announcements, people actively sought out Tutsis.³⁴ Two additional witnesses corroborated the experts’ testimony by describing the events that preceded and succeeded the radio announcements.³⁵ Similarly, the ICTY found

²⁹ See *Prosecutor v. Karemera, and others*, Case No. ICTR-98-44-T, Judgment, para.. 169-173, 205 (Int’l Crim. Trib. for Rwanda Feb. 2, 2012); *Prosecutor v. Bagosora*, Case No. ICTR-98-41-T, Trial Judgment and Appeals Judgment, para.. 2029-2031, 460 (Int’l Crim. Trib. for Rwanda Dec. 8, 2008; Dec. 14, 2011); *Prosecutor v. Galic*, Case No. IT-98-29-AR73.2, Appeals Judgment, para.. 443, 549 (Int’l Crim. Trib. for the Former Yugoslavia Nov. 30, 2006).

³⁰ *Karemera*, ICTR, Judgment para.. 169-173, 205 (Feb. 2, 2012).

³¹ *Bagosora*, ICTR, Judgment and Appeals para.. 2029-2031, 460 (Dec. 8, 2008; Dec. 14, 2011).

³² *Bagosora*, ICTR, Judgment and Appeals para.. 2029-2031, 460 (Dec. 8, 2008; Dec. 14, 2011); see also *Galic*, ICTY, Appeals para.. 443, 549 (Nov. 30, 2006)(The ICTY prosecutors offered photographs, ballistics reports, video, and testimony for authentication purposes. The court held that the evidence was admissible because each piece of digital evidence was corroborated by another piece of evidence leading the court to find the evidence authentic.).

³³ See *Prosecutor v. Rutaganda*, Case No. ICTR-96-3-T, Judgment, para. 357 (Int’l Crim. Trib. for Rwanda Feb. 13, 1996); *Prosecutor v. Tolimir*, Case No. IT-05-88/2-T, Judgment, para. 63 (Int’l Crim. Trib. for the Former Yugoslavia Dec. 12, 2012), Decision on Intercepts, para. 67 (Int’l Crim. Trib. for the Former Yugoslavia Jan. 20, 2012).

³⁴ *Rutaganda*, ICTR, Judgment para.. 357, 370 (Feb. 13, 1996).

³⁵ *Rutaganda*, ICTR, Judgment para.. 357, 370 (Feb. 13, 1996). (The events occurred as follows: announcement that the president died; father of the accused stated Tutsis had to be killed at a local meeting; radio announcement which called for the apprehension of

that radio intercepts were authentic because they were corroborated by other intercepts and expert testimony.³⁶

Once digital evidence is authenticated, it may impeach testimonial evidence.³⁷ The ICTY, in *Prosecutor v. Krstic*, found the accused guilty, in part, based on his own testimony in which he stated that he was unaware of the presence of the army, despite the fact that a video depicted him walking past soldiers wearing uniforms belonging to his own unit.³⁸

International courts have favoured admissibility of evidence that is challenged on grounds of authenticity. For example, after the prosecution objected to the authenticity of redacted e-mails in *Prosecutor v. Lubanaga*, the ICC stated that it would discern probative value on a case-by-case basis.³⁹ In *Prosecutor v. Milutinovic* the ICTY limited the scope of the digital evidence to victim identification, rather than excluding such evidence altogether. In *Prosecutor v. Blagojevic* the court evaluated the evidence from a holistic lens stating that it “did not consider unsigned, undated or unstamped documents, a priori, to be void of authenticity.”⁴⁰

Summary

Regardless of the type of indicators used (internal or external), the cases suggest that international criminal courts establish authenticity in two distinct ways. Either the prosecution uses an indicator to establish the authenticity of digital evidence, or the prosecution uses digital evidence to establish the authenticity of

an indicator. For example, a prosecutor may use a transcript (indicator) to prove the authenticity of a video (digital evidence).⁴¹ Conversely, the prosecution may use a photograph (digital evidence) to prove the authenticity of testimonial evidence (indicator).⁴² Nevertheless, courts appear to favor the authenticity of digital evidence through external indicators, such as a transcript or testimony.⁴³ Corroboration of digital evidence is thus critical to proving its authenticity.

Hearsay

Hearsay evidence is evidence of facts outside the direct knowledge of the testifying witness.⁴⁴ Digital evidence may raise hearsay concerns because it is not live testimony, and is removed from the originating source. The ICC, unlike the ad hoc tribunals, has no explicit rule on hearsay evidence.⁴⁵ The ICC prefers live witness testimony,⁴⁶ but its rules allow for alternatives in limited circumstances.⁴⁷

⁴¹ See *Prosecutor v. Karemera and others*, Case No. IT-98-44-T, Judgment, para. 169-173, 205 (Int'l Crim. Trib. for Rwanda Feb. 2, 2012)(transcript of radio broadcast authenticated the date of the video of rally and corroborated evidence that the accused was in attendance); *Prosecutor v. Bagosora*, Case No. IT-98-41-T, Trial Judgment and Appeals Judgment, para. 2029-2031, 460 (Int'l Crim. Trib. for Rwanda Dec. 8, 2008; Dec. 14, 2011)(transcript authenticated video footage corroborating evidence that the accused was acting as Minister of Defence and exercised control over the army).

⁴² *Prosecutor v. Nyiramasuhuko*, and others, Case No. ICTR 98-42AR73.2, Decision on Pauline Nyiramasuhuko's Appeal on the Admissibility of Evidence, para. 7 (Int'l Crim. Trib. for Rwanda Oct. 2004)(photographs used to authenticate the witness' testimony, yet ultimately deemed inadmissible because of inconsistencies between the testimony and indictment timeline).

⁴³ *Prosecutor v. Nyiramasuhuko and others*, Case No. ICTR 98-42AR73.2, Decision on Pauline Nyiramasuhuko's Appeal on the Admissibility of Evidence, para. 7 (Oct. 2004).

⁴⁴ *Prosecutor v. Blagojević & Jokić*, Case No. IT-02-60-T, Trial Judgment, para. 21 (Int'l Crim. Trib. for the Former Yugoslavia Jan. 17, 2005).

⁴⁵ Instead, “the drafters of the [Rome] Statute framework have clearly and deliberately avoided proscribing certain categories or types of evidence, a step which would have limited – at the outset – the ability of the Chamber to assess evidence ‘freely’. Instead, the Chamber is authorised by statute to request any evidence that is necessary to determine the truth, subject always to such decisions on relevance and admissibility as are necessary, bearing in mind the dictates of fairness.” *Prosecutor v. Lubanga*, Case No. ICC-01/04-01/06, Judgment pursuant to Article 74 of the Statute, para. 107 (Mar. 14, 2010).

⁴⁶ *Lubanga*, ICC, Redacted Decision on the defence request for a witness to give evidence via video-link, para. 2 (Feb. 9, 2010).

⁴⁷ ICC Rule 67 allows for a witness to provide testimony by audio or video link, providing that the technology permits the Prosecutor, the defence, and the Chamber to examine the witness. Rules of Evidence and Procedure of the International Criminal Court, Rule 67. Rule 68 allows for testimony that has been previously recorded to be introduced, in accordance with article 69 paragraph 2, if both the Prosecutor and the defence had a prior opportunity to examine the

Tutsis; individuals actively began to seek Tutsis; propaganda messages started to spread; Tutsis were killed and their homes looted.)

³⁶ *Tolimir*, ICTY, Judgment para. 63 (Dec. 12, 2012), Decision on Intercepts para. 67 (Jan. 20, 2012).

³⁷ *Prosecutor v. Krstic*, Case No. IT-98-33-T, Judgment, para. 278 (Int'l Crim. Trib. for the Former Yugoslavia Aug. 2, 2001).

³⁸ *Prosecutor v. Krstic*, Case No. IT-98-33-T, Judgment, para. 278 (Aug. 2, 2001).

³⁹ *Prosecutor v. Lubanaga*, Case No. ICC-01/04-01/06-803-tEN, Decision on Confirmation Charges para. 131-32 (May 14, 2007).

⁴⁰ *Prosecutor v. Milutinovic*, Case No. IT-05-87-T, Judgment Vol. 2, para. 588, 617, 621, 683 (Int'l Crim. Trib. for the Former Yugoslavia Feb. 26, 2009); *Prosecutor v. Blagojević & Jokić*, Case No. IT-02-60-T, Judgment para. 29 (Int'l Crim. Trib. for the Former Yugoslavia Jan. 17, 2005); see also Robert Mackey, ‘Video of Sri Lankan Executions Appear Authentic UN Says’, NY TIMES, 8 January 2010, <http://thelede.blogs.nytimes.com/2010/01/08/sri-lanka-atrocity-video-appears-authentic-un-says/> (The Sri Lankan government denied authenticity causing the UN Special Rapporteur to employ a forensic pathologist, video analyst, and firearms and ballistics expert to analyze the atrocities as a whole).

Since the ICC does not consider hearsay as a class of evidence in and of itself, examples of hearsay evidence being admitted by the court are sparse. An example of the ICC's approach toward digital evidence hearsay is through its admission of anonymous hearsay. The ICC does not consider hearsay from anonymous sources inadmissible on the face of it.⁴⁸ The court has admitted e-mails as anonymous hearsay, notwithstanding objections from the defence regarding their truthfulness and authenticity.⁴⁹ As a general rule, the ICC has held that such anonymous hearsay could be admitted, but its use was limited to "corroborate other evidence."⁵⁰

The ad hoc tribunals have a formal rule allowing for the admission of hearsay. Rule 92bis allows for the admission of written statements and transcripts in lieu of oral testimony when their admission goes to prove a matter other than the acts and conduct of the accused as charged in the indictment.⁵¹ Still, hearsay is subject to the requirement of reliability for

witness, or if the witness is present before the Chamber, that he or she does not object to the previously recorded testimony, and the Prosecutor and the defence have an opportunity to examine the witness. Rules of Evidence and Procedure of the International Criminal Court, Rule 68. These alternatives to live testimony are available in instances where the witness has refused to attend court, is unable to do so, or if it is in the best interest to protect the psychological well-being and dignity of the witness. *Lubanga*, ICC, Redacted Decision on the defence request for a witness to give evidence via video-link, para. 15 (Feb. 9, 2010).

⁴⁸ *Lubanga*, ICC, Pre-Trial Chamber I, Decision on Confirmation Charges, para. 101 (Jan. 29, 2007). This also includes redacted versions of witness statements. *Lubanga*, ICC, Pre-Trial Chamber I, Decision on Confirmation Charges, para. 101 (Jan. 29, 2007). Objections to the use of anonymous hearsay have gone to the probative value of the evidence, and not its admissibility. *Lubanga*, ICC, Pre-Trial Chamber I, Decision on Confirmation Charges, para. 103 (Jan. 29, 2007).

⁴⁹ *Lubanga*, ICC, Pre-Trial Chamber I, Decision on Confirmation Charges, para. 99 (Jan. 29, 2007).

⁵⁰ *Lubanga*, ICC, Pre-Trial Chamber I, Decision on Confirmation Charges, para. 106 (Jan. 29, 2007).

⁵¹ International Criminal Tribunal for Yugoslavia, Rules of Evidence and Procedure, Rule 92bis; *Prosecutor v. Blagojević & Jokić*, Case No. IT-02-60-T, Trial Judgment, para. 26 (Int'l Crim. Trib. for the Former Yugoslavia Jan. 17, 2005) (The court admitted hearsay when it found that each "written statement or transcript did not go to the acts and conduct of the Accused; was relevant to the present case; had probative value under Rule 89(C) of the Rules; and was cumulative in nature."); *Prosecutor v. Stakić*, Case No. IT-97-24, Judgment, para. 196 (Int'l Crim. Trib. for the Former Yugoslavia Mar. 22, 2006). The hearsay inquiry balances factors for and against admission laid out in 92bis(A)(i) and 92bis(A)(ii), respectively. Factors in favour of admitting hearsay include its relevancy, whether there exists corroborating testimony, and whether it includes general or statistical analysis. Factors against admitting hearsay include an "overriding public interest" for oral testimony, a showing that the evidence is unreliable or prejudicial, or there is a need for cross-examination. International Criminal Tribunal for Yugoslavia, Rules of Evidence and Procedure, Rev. 49, May 22, 2013, pp. 96-97.

admissibility, and as such has less probative value than live witness testimony.⁵²

Generally, ad hoc tribunals have admitted digital evidence that is hearsay when it is accompanied by live testimony explaining the methods by which the digital evidence was obtained.⁵³ In *Prosecutor v. Tolimir*, the ICTY admitted evidence of intercepted communications after the intercept operators and related personnel testified.⁵⁴ The reliability of the hearsay testimony was strengthened by establishing a chain of custody in the presentation of the evidence: the print-outs of the communications that were intercepted and submitted to the ICTY conformed to the original note books of the intercepted communications.⁵⁵ The evidence was also independently corroborated by evidence with a higher probative value, through notes of U.N. officials, telephone books, and aerial images, as well as by prior statements made by others, increasing the total weight of the evidence.⁵⁶

Of interest in the *Tolimir* case is the decision to admit digital evidence hearsay without testimony regarding the methods by which it was obtained,⁵⁷ and still retaining its credibility.⁵⁸ In *Tolimir*, the prosecution introduced aerial photographs into evidence that it obtained from the United States, which came with instructions not to discuss the procedures through which the evidence was obtained.⁵⁹ The defence unsuccessfully challenged the reliability of the images,

⁵² *Prosecutor v. Brdanin & Talić*, Case No. IT-99-36-T, Order on the Standards Governing the Admission of Evidence, para. 24 (Int'l Crim. Trib. for the Former Yugoslavia Feb. 15, 2002); *Prosecutor v. Stanišić & Župljanin*, Case No. IT-08-91-T, Judgement, para. 16 (Int'l Crim. Trib. for the Former Yugoslavia Mar. 27, 2013), http://icty.org/x/cases/zupljanin_stanismicm/tjug/en/130327-1.pdf.

⁵³ *Prosecutor v. Tolimir*, Case No. IT-05-88/2, Trial Judgment, para. 63 (Int'l Crim. Trib. for the Former Yugoslavia Dec. 12, 2012).

⁵⁴ *Prosecutor v. Tolimir*, Case No. IT-05-88/2, Trial Judgment, para. 64 (Int'l Crim. Trib. for the Former Yugoslavia Dec. 12, 2012) (evidence was shown to be reliable in the practices followed by the interceptors).

⁵⁵ *Prosecutor v. Tolimir*, Case No. IT-05-88/2, Trial Judgment, para. 64 fn.165 (Int'l Crim. Trib. for the Former Yugoslavia Dec. 12, 2012).

⁵⁶ *Prosecutor v. Tolimir*, Case No. IT-05-88/2, Trial Judgment, para. 65 (Int'l Crim. Trib. for the Former Yugoslavia Dec. 12, 2012).

⁵⁷ *Prosecutor v. Tolimir*, Case No. IT-05-88/2, Trial Judgment, para. 68 (Int'l Crim. Trib. for the Former Yugoslavia Dec. 12, 2012) (admitting into evidence aerial imagery investigators received from the U.S. on agreement that the methods used to obtain the images would not be disclosed at trial).

⁵⁸ *Prosecutor v. Tolimir*, Case No. IT-05-88/2, Trial Judgment, para. 70 (Int'l Crim. Trib. for the Former Yugoslavia Dec. 12, 2012).

⁵⁹ *Prosecutor v. Tolimir*, Case No. IT-05-88/2, Trial Judgment, para. 68 (Int'l Crim. Trib. for the Former Yugoslavia Dec. 12, 2012).

which the judges found to be credible despite the lack of direct evidence about its collection.⁶⁰ Instead of presenting the testimony of those involved in obtaining the evidence, the prosecution presented the testimony of the investigators from the Office of the Prosecutor who had experience in obtaining such evidence. These witnesses testified to the authenticity of the aerial images, in addition to providing corroboration by the testimony of additional witnesses.⁶¹ The court found the hearsay evidence to be generally reliable.⁶²

Summary

Factors that improve the probative value of digital evidence hearsay include corroborating evidence, such as live testimony, and explanations of the procedures by which the digital evidence was obtained, including testimony of those involved in obtaining it.⁶³ Reliability is also strengthened by creating a chain of custody in the presentation of the evidence.⁶⁴ The evidence can also be further corroborated by the presentation of other evidence that has a higher probative value, increasing the total weight of the evidence.⁶⁵ It has yet to be determined whether digital evidence hearsay can ever be admitted on its own, or for the truth of the matter. Such situations could include digital documents of communications of deceased persons. An unresolved issue is also to what extent the presentation of the chain of custody and expert testimony about digital evidence is sufficient for it to be reliable.

Provenance (chain of custody)

Chain of custody, or provenance, is defined as “[t]he movement and location of real evidence, and the

history of those persons who had it in their custody, from the time it is obtained to the time it is presented in court.”⁶⁶ Establishing provenance requires both “testimony of continuous possession” and testimony “that the object remained in substantially the same condition” during each individual’s possession.⁶⁷ This information provides a “complete history of hosting and possession” of who controlled the electronic information, which “is important in determining whether evidence has been modified or tampered with” when the court assesses the accuracy of the digital evidence.⁶⁸ A strong chain of custody increases the weight judges accord to the evidence because “[f]actors such as ... proof of authorship will naturally assume the greatest importance in the Trial Chamber’s assessment of the weight to be attached to individual pieces of evidence.”⁶⁹

There is no consistent definition of “authorship” in international criminal courts. However, authors are considered to be persons on whom the court may rely for testimony regarding the origins of the evidence. Courts have accepted the testimony of persons who note and monitor interceptions of radio broadcasts,⁷⁰ recording audio,⁷¹ or even those who obtain aerial images originally taken by others⁷² in order to find reliability and probative value in the evidence.

The lack of testimony by an author will not usually preclude the admission of evidence. In the ICC, “nothing in the Statute or the Rules expressly states that the absence of information about the chain of custody ... affects the admissibility or probative value of Prosecution evidence.”⁷³ When the defence does “nothing more than raise a general objection to the

⁶⁰ *Prosecutor v. Tolimir*, Case No. IT-05-88/2, Trial Judgment, para. 69 (Int’l Crim. Trib. for the Former Yugoslavia Dec. 12, 2012).

⁶¹ *Prosecutor v. Tolimir*, Case No. IT-05-88/2, Trial Judgment, para. 70 (Int’l Crim. Trib. for the Former Yugoslavia Dec. 12, 2012).

⁶² *Prosecutor v. Tolimir*, Case No. IT-05-88/2, Trial Judgment, para. 70 (Int’l Crim. Trib. for the Former Yugoslavia Dec. 12, 2012); see also *Prosecutor v. Stanišić & Simatović*, Case No. IT-03-69, Trial Judgment Part I, para. 880 (Int’l Crim. Trib. for the Former Yugoslavia May 30, 2013) (witness testimony corroborated a video showing an operation rounding up individuals to a location where they were later killed).

⁶³ *Prosecutor v. Tolimir*, Case No. IT-05-88/2, Trial Judgment, para. 64 (Int’l Crim. Trib. for the Former Yugoslavia Dec. 12, 2012) (evidence was shown to be reliable in the practices followed by the interceptors).

⁶⁴ *Prosecutor v. Tolimir*, Case No. IT-05-88/2, Trial Judgment, para. 64 fn.165 (Int’l Crim. Trib. for the Former Yugoslavia Dec. 12, 2012).

⁶⁵ *Prosecutor v. Tolimir*, Case No. IT-05-88/2, Trial Judgment, para. 65 (Int’l Crim. Trib. for the Former Yugoslavia Dec. 12, 2012).

⁶⁶ Bryan S. Gardner, ed., *Black’s Law Dictionary* (9th edn, West, 2009), 260.

⁶⁷ Bryan S. Gardner, ed., *Black’s Law Dictionary*, 260.

⁶⁸ Center for Research Libraries, *Human Rights Electronic Evidence Study* (February 2012), 51, available at <http://www.crl.edu/grn/hradp/electronic-evidence>.

⁶⁹ *Prosecutor v. Brdanin and Talić*, Case No. IT-99-36-T, Order on the Standards Governing the Admission of Evidence, para. 18 (Int’l Crim. Trib. for the Former Yugoslavia, Feb. 15, 2002).

⁷⁰ *Prosecutor v. Popović and others*, Case No. IT-05-88-T, Judgment Volume I, para. 64-66 (Int’l Crim. Trib. for the Former Yugoslavia June 10, 2010).

⁷¹ *Prosecutor v. Renzaho*, Case No. ICTR-97-31-T, Decision on Exclusion of Testimony and Admission of Exhibit, para. 1-2 (Mar. 20, 2007).

⁷² *Prosecutor v. Tolimir*, Case No. IT-05-88/2-T, Judgment, para. 67-70 (Int’l Crim. Trib. for the Former Yugoslavia Dec. 12, 2012).

⁷³ *Prosecutor v. Lubanga*, Case No. ICC-01/04-01/06, Decision on Confirmation Charges, para. 96 (Jan. 29, 2007).

admissibility of . . . evidence for which no information pertaining to the chain of custody . . . ha[s] been provided, without addressing specific items or providing the reasons for its objection,” reasonable doubt is not cast upon the authenticity of the evidence such that it should be excluded.⁷⁴ This rule is similar to that of the ICTY, which has held that evidence will not necessarily be barred from initial admission because of an absence of the author’s testimony.⁷⁵ The ICTR, however, has refused to admit evidence in the absence of the author’s testimony.⁷⁶

However, the ICC does require precautions when submitting digital evidence. Digital evidence and material must conform to the e-Court Protocol, even before submissions at the Confirmation Hearing.⁷⁷ This Protocol, combined with the considerations of authorship articulated by other international courts, highlights the importance attached to the provenance of digital evidence when courts assess admissibility and evidentiary weight later in the proceedings.

The ICC has refused to give much evidentiary weight to digital evidence when its provenance has not been investigated. In *Prosecutor v. Bemba*, the defence relied on the reports and interviews of supposedly “well-informed observers” for documentary evidence.⁷⁸ These reports included digital evidence such as a “Weblog” allegedly quoting the President of Rwanda, as well as Human Rights Watch and other

reports.⁷⁹ However, the defence merely quoted from these materials without following procedures permitting the Prosecution’s inspection of the evidence.⁸⁰ The unsubstantiated provenance of the evidence led the court to give it “little, if any” evidentiary weight.⁸¹

The record of how other international courts have evaluated the evidentiary weight of provenance indicates a spectrum of responses. On one end, testimony of the author—which establishes the foundation of the chain of custody—can give the evidence significant weight.⁸² For example, after the *Popovic* Trial Chamber heard testimony from operators and analysts intercepting communications, it concluded that there were no chain of custody issues.⁸³ At the other end of the spectrum, inconsistencies in testimony regarding the provenance of evidence may lead the court to discount the evidence.⁸⁴ In the *Milutinovic* case, the court did not give weight to the testimony relating to chain of custody when the written and oral testimony (as to whom the witness gave video evidence) contradicted his testimony on cross-examination.⁸⁵

Other cases fall in between these cases. Here, witness corroboration of the evidence is helpful. In the *Brdanin* case, identification by a witness of his and others’ voices on intercepted communications helped establish reliability of the digital evidence, despite an imperfect chain of custody and the fact that the evidence had been edited.⁸⁶ The prosecution was allowed to admit the record of the intercepted communications, recorded and stored on Compact

⁷⁴ *Prosecutor v. Lubanga*, Case No. ICC-01/04-01/06, Decision on Confirmation Charges, para. 98 (Jan. 29, 2007).

⁷⁵ *Brdanin and Talic*, ICTY, Order on the Standards Governing the Admission of Evidence, para. 20 (Feb. 15, 2002); *Prosecutor v. Delalic*, Case No. IT-96-21, Decision on the Motion of the Prosecution for the Admissibility of Evidence, para. 22 (Int’l Crim. Trib. For the Former Yugoslavia Jan. 19, 1998) (“It is clear from the relevant provisions of the Rules that there is no blanket prohibition on the admission of documents simply on the ground that their purported author has not been called to testify in the proceedings.”).

⁷⁶ *Prosecutor v. Renzaho*, Case No. ICTR-97-31-T, Judgment and Sentence, para. 841 (July 14, 2009); *Renzaho*, ICTR, Decision on Exclusion of Testimony and Admission of Exhibit, para. 1-2 (Mar. 20, 2007) (Chamber denied requests to admit audio evidence “due to lack of information about the recording and its provenance,” despite four witnesses claiming to identify the accused’s voice on an incriminating audiotape. The tape was subsequently admitted when the prosecution offered the testimony of the journalist who recorded the audiotape.).

⁷⁷ *Prosecutor v. Callixte Mbarushimana*, Case No. ICC-01/04-01/10, Decision Amending the e-Court Protocol, 4 (Apr. 28, 2011); the e-Court Protocol is available at <http://icc-cpi.int/iccdocs/doc/doc1049623.pdf>.

⁷⁸ *Prosecutor v. Jean-Pierre Bemba Gombo*, Case No. ICC-01/05-01/08, Decision on the Admissibility and Abuse of Process Challenges, para. 255 (June 24, 2010).

⁷⁹ *Prosecutor v. Jean-Pierre Bemba Gombo*, Case No. ICC-01/05-01/08, Decision on the Admissibility and Abuse of Process Challenges, para. 255 (June 24, 2010).

⁸⁰ *Prosecutor v. Jean-Pierre Bemba Gombo*, Case No. ICC-01/05-01/08, Decision on the Admissibility and Abuse of Process Challenges, para. 254 (June 24, 2010).

⁸¹ *Prosecutor v. Jean-Pierre Bemba Gombo*, Case No. ICC-01/05-01/08, Decision on the Admissibility and Abuse of Process Challenges, para. 255 (June 24, 2010).

⁸² *Popovic and others*, ICTY, Judgment Volume I, para. 64-66 (June 10, 2010).

⁸³ *Popovic and others*, ICTY, Judgment Volume I, para. 64-66 (June 10, 2010).

⁸⁴ *Prosecutor v. Milutinovic and others*, Case No. IT-05-87-T, Judgment Volume 3 of 4, para.545 (Int’l Crim. Trib. for the Former Yugoslavia Feb. 26, 2009).

⁸⁵ *Prosecutor v. Milutinovic and others*, ICTY, Judgment Volume 3 of 4, para.545 (Feb. 26, 2009).

⁸⁶ *Prosecutor v. Brdanin*, Case No. IT-99-36-T, Judgment, para. 34, n.38 (Int’l Crim. Trib. for the Former Yugoslavia Sept. 1, 2004).

Disks, despite the fact that they contained information that had been originally recorded on cassettes and then erased.⁸⁷ Additionally, in *Tolimir*, ICTY prosecutors successfully offered testimony of provenance regarding the source of aerial photographic evidence and a witness' receipt of it, even though the methods used to obtain the evidence remained undisclosed.⁸⁸ At this point on the spectrum, evidence will not necessarily be excluded for defects in provenance,⁸⁹ although it can be if the defects are serious enough (such as the author's failure to testify).⁹⁰

Summary

At the admissibility stage, there is no typical amount of author testimony required, and the bar for admission is usually low.⁹¹ However, the opposing party must at least be afforded the opportunity to make objections to the provenance of the evidence.⁹²

⁸⁷ *Prosecutor v. Brdjanin*, Case No. IT-99-36-T, Decision on the Defence "Objection to Intercept Evidence", para. 13 (Int'l Crim. Trib. for the Former Yugoslavia Oct. 3, 2003) (finding the "disks produced [we]re incomplete" and the "same documents ha[d] different dates.").

⁸⁸ *Prosecutor v. Tolimir*, Case No. IT-05-88/2-T, Judgement, para. 67-70 (Int'l Crim. Trib. for the Former Yugoslavia Dec. 12, 2012) (Investigators received aerial imagery from U.S. on agreement that the methods used to obtain the images would not be disclosed at trial. Although "evidence [wa]s lacking on the method of creation of these images," the general credibility of the images was not impaired, as investigators identified and located sites of graves based upon them, and witnesses corroborated authenticity of the images. The court found the evidence to be reliable and to have probative value.).

⁸⁹ See *Prosecutor v. Blagojevic and Jokic*, Case No. IT-02-60-T, Judgement, para. 29 (Int'l Crim. Trib. for the Former Yugoslavia, Jan. 17, 2005) (The Chamber did not consider unsigned, undated, or unstamped documents to be void of authenticity. The Chamber also allowed intercept evidence over defence objections relating to unknown operating personnel, inexperienced operators lacking sufficient training, and substandard equipment.). See also *Brdjanin*, ICTY, Decision on the Defence "Objection to Intercept Evidence" (Feb. 15, 2002) (The court admitted intercepts despite challenges to provenance of storage tapes for incomplete and unsupervised chain of custody.).

⁹⁰ See *Prosecutor v. Renzaho*, Case No. ICTR-97-31-T, Decision on Exclusion of Testimony and Admission of Exhibit, para. 1-2 (Mar. 20, 2007).

⁹¹ *Blagojevic and Jokic*, ICTY, Judgment, para. 30, n.72 (Jan. 17, 2005) (Handwritten notebooks of radio intercept recordings accepted without complete audiotape recordings when accompanied by testimony of intercept operators. This was despite defence objections to unreliable transcriptions, lack of operator training, and substandard equipment, and the prosecution's failure to admit original recordings.); *Prosecutor v. Blagojevic and Jokic*, Case No. IT-02-60-T, Decision on the Admission Into Evidence of Intercept-Related Materials, para. 2 (Int'l Crim. Trib. for the Former Yugoslavia, Dec. 18, 2003) (The court concluded the operators described procedures with sufficient similarity and "took their task seriously.").

⁹² See *Prosecutor v. Jean-Pierre Bemba Gombo*, Case No. ICC-01/05-01/08, Decision on the Admissibility and Abuse of Process Challenges, para. 254-55 (June 24, 2010).

Cases from the ad hoc tribunals offer different approaches to the question of whether it is necessary for the author of digital evidence to testify to establish provenance: some have not automatically refused evidence submitted without author testimony, while others have refused to admit even corroborating witness testimony without testimony from the author.⁹³ Yet, international courts appear to prefer the prosecution to provide testimony from a live witness, usually the author, before admitting or giving weight to digital evidence.

When courts assign evidentiary weight to digital evidence, the record suggests that the greatest evidentiary weight is given to live witness testimony that establishes the chain of custody. The author's testimony should play the lead role here. When author testimony is unavailable or imprecise, other testimony can give weight to the evidence. Such testimony includes witness corroboration (or sometimes, corroboration by a number of witnesses), as well as testimony of other parties (such as the investigators who obtained the information).⁹⁴

Overall, the case law demonstrates that authorship, although it is not concretely defined, is the most prevalent consideration when determining the weight of the evidence based on provenance.

Preservation

Digital preservation "refers to long-term, error-free storage of digital information, with means for retrieval and interpretation, for the entire time span",⁹⁵ for which the information is required.⁹⁶ The proper preservation of digital evidence is necessary to provide courts and parties with evidence that demonstrates that the "integrity of the data is trustworthy, and is therefore considered to be reliable

⁹³ *Brdjanin and Talic*, ICTY, Order on the Standards Governing the Admission of Evidence, para. 20 (Feb. 15, 2002). But see *Prosecutor v. Renzaho*, Case No. ICTR-97-31-T, Judgement and Sentence, para. 841 (July 14, 2009); *Renzaho*, ICTR, Decision on Exclusion of Testimony and Admission of Exhibit, para. 1-2 (Mar. 20, 2007).

⁹⁴ See *Tolimir*, ICTY, Judgement, para. 64-70 (Dec. 12, 2012); *Prosecutor v. Brdjanin*, Case No. IT-99-36-T, Judgement, para. 34, n.38 (Int'l Crim. Trib. for the Former Yugoslavia Sept. 1, 2004). But see *Renzaho*, ICTR, Decision on Exclusion of Testimony and Admission of Exhibit, para. 1-2 (Mar. 20, 2007).

⁹⁵ Association for Library Collections & Technical Services, available at <http://www.ala.org/alcts/resources/preserv/defdiagpres0408>.

⁹⁶ *Digital Preservation Definition*, U.S. Legal, <http://definitions.uslegal.com/d/digital-preservation>.

and complete”.⁹⁷ Once stored (or archived), digital evidence can remain an authentic and effective tool for justice over a long period of time.⁹⁸ For example, journalist Nick Hughes used a digital camera to record footage of the Gikonda massacre in Rwanda; the footage showed the murder of a father and daughter and others, and was distributed to world news organizations.⁹⁹ These news organizations stored the footage, and it later contributed to identification of victims, perpetrators, and promoted general public awareness of the genocide in Rwanda.¹⁰⁰

The ICC is evaluating ways to ensure complete and accurate preservation of digital evidence.¹⁰¹ For example, the e-Court Protocol aims to achieve consistency of digital evidence submitted to the court; yet, standardized formatting can sometimes degrade the quality of evidence and require a lengthy process of compiling metadata for each piece of evidence.¹⁰² Aside from the ICC’s efforts to ensure consistent methods of formatting and storing digital evidence, international courts appear not to have discussed the preservation of digital evidence.¹⁰³ This is especially true for the periods prior to investigators’ acquisition of digital evidence from authors or from other parties that have obtained the evidence.

International criminal courts appear to focus more on preservation when its deficiencies detract from evidentiary quality, rather than on establishing affirmative standards for preservation.¹⁰⁴

⁹⁷ Stephen Mason, gen ed, *Electronic Evidence* (3rd edn, LexisNexis Butterworths, 2012), 4.21 (internal footnote omitted).

⁹⁸ But see the technical issues arising regarding the long-term preservation of digital evidence in Mason, *Electronic Evidence*, chapter 4 generally.

⁹⁹ Center for Research Libraries, *Human Rights Electronic Evidence Study 7*, (2012), 147, available at <http://www.crl.edu/grn/hradp/electronic-evidence> (discussing the film footage and its effect on identifying victims and perpetrators, and on bringing those perpetrators to justice).

¹⁰⁰ Center for Research Libraries, *Human Rights Electronic Evidence Study* (2012), 147.

¹⁰¹ *Prosecutor v. Callixte Mbarushimana*, Case No. ICC-01/04-01/10, Decision Amending the e-Court Protocol, 4 (Apr. 28, 2011).

¹⁰² *Prosecutor v. Callixte Mbarushimana*, Case No. ICC-01/04-01/10, Decision Amending the e-Court Protocol, 4 (Apr. 28, 2011) (The Prosecutor objected to following the e-Court Protocol in this case for these two reasons.).

¹⁰³ For a detailed summary of the various projects in North America and Europe on the preservation of digital evidence, see Stephen Mason, gen ed, *Electronic Evidence*, chapter 4.

¹⁰⁴ *Prosecutor v. Callixte Mbarushimana*, Case No. ICC-01/04-01/10, Decision on the Confirmation of Charges, para. 63-65 (Dec. 16, 2010) (Defence challenges to admissibility of seized hard drives because seals on containment bags were broken was

Furthermore, proper preservation of digital evidence has been considered as unnecessary to meet the “best evidence” rule.¹⁰⁵ An example is *Popovic*, where the ICTY allowed handwritten notes that had been entered into digital documents to replace what would have been the “best evidence” of audio recordings. The tribunal allowed the notes because the prosecution did not have the full and complete set of audio recordings, and it did not require the prosecution to produce the full set of recordings.¹⁰⁶

The ICTY has admitted altered evidence under certain circumstances. In one case, the defence (unsuccessfully) challenged the reliability of aerial images provided by the United States government and offered by the prosecution.¹⁰⁷ While one witness had testified he “did not believe the aerial images could be altered by anyone,” another “explained why he had added and removed dates on certain aerial images.”¹⁰⁸ The defence also argued the images were not linked with particular locations because none had site codes or coordinates.¹⁰⁹ A similar challenge was made in *Tolimir*, where aerial images were challenged “on the grounds that no evidence was presented on their origin, the method of their creation, the manner of their editing, how to interpret them or whether they were delivered to the Prosecution in their original form or previously modified.”¹¹⁰ Although the Trial Chamber acknowledged the lack of information on the creation of the images, it found these deficiencies did not impair the “credibility of the aerial images in general.”¹¹¹

When the best evidence has not been fully preserved, the ICTY has admitted alternative forms of

“unsubstantiated and speculative” and did not warrant the exclusion of the hard drives.).

¹⁰⁵ *Prosecutor v. Popovic*, and others, Case No. IT-05-88-T, Decision on Admissibility of Intercepted Communications, para. 39 (Int’l Crim. Trib. for the Former Yugoslavia Dec. 7, 2007).

¹⁰⁶ *Prosecutor v. Popovic and others*, ICTY, Decision on Admissibility of Intercepted Communications, para. 39 (Dec. 7, 2007).

¹⁰⁷ *Prosecutor v. Popovic and others*, Case No. IT-05-88-T, Judgement Volume I, para. 72-75 (Int’l Crim. Trib. for the Former Yugoslavia June 10, 2010).

¹⁰⁸ *Prosecutor v. Popovic and others*, ICTY, Judgment Volume I, para. 73 (June 10, 2010).

¹⁰⁹ *Prosecutor v. Popovic and others*, ICTY, Judgment Volume I, para. 73 (June 10, 2010).

¹¹⁰ *Prosecutor v. Tolimir*, Case No. IT-05-88/2-T, Judgment, para. 69-70 (Int’l Crim. Trib. for the Former Yugoslavia Dec. 12, 2012).

¹¹¹ *Prosecutor v. Tolimir*, ICTY, Judgment, para. 69-70 (Dec. 12, 2012).

evidence.¹¹² In *Popovic*, the ICTY prosecution possessed only a few audiotape recordings of intercepted communications. The prosecutor's analyst also acknowledged the "possibility that the intercepts were tampered with or fabricated."¹¹³ The prosecution nonetheless sought to admit transcripts and notes in place of the full set of recordings. The defence objected to the transcripts as incomplete.¹¹⁴ Nonetheless, the Trial Chamber admitted the transcripts, noting that procedures had been used to preserve accurate and standardized transcripts, which ensured their authenticity.¹¹⁵

Summary

These examples indicate the lack of strict preservation standards in the ad hoc tribunals. Completeness and accuracy of preservation was not a prerequisite to admission when the ICTY could consider other factors to find reliability and authenticity.¹¹⁶ Likewise, the court allowed digital evidence that was not in its original form; it also admitted this evidence despite several inaccuracies.¹¹⁷ Yet, the ICC is developing ways to standardize and preserve digital evidence, such as the e-Court Protocol.¹¹⁸ This brings consistency to digital evidence submitted to the court, although it raises questions about the degradation of data quality and can require a lengthy process of compiling

¹¹² *Prosecutor v. Popovic and others*, Case No. IT-05-88-T, Decision on Admissibility of Intercepted Communications, para. 39 (Int'l Crim. Trib. for the Former Yugoslavia Dec. 7, 2007).

¹¹³ *Prosecutor v. Popovic and others*, ICTY, Decision on Admissibility of Intercepted Communications, para. 22, 52 (Dec. 7, 2007) (Ultimately, the witness stated she had no "serious questions about the authenticity or the reliability of the intercepts as a whole.").

¹¹⁴ *Prosecutor v. Popovic and others*, ICTY, Decision on Admissibility of Intercepted Communications, para. 22, 52 (Dec. 7, 2007). Similar objections have been made in other cases, such as when the prosecution failed to submit original recordings. *Prosecutor v. Blagojevic and Jokic*, Case No. IT-02-60-T, Judgment, para. 29 (Int'l Crim. Trib. for the Former Yugoslavia, Jan. 17, 2005).

¹¹⁵ *Popovic and others*, ICTY, Decision on Admissibility of Intercepted Communications, para. 39 (Dec. 7, 2007) (The court detailed that intercept operators followed "general procedures" with "near uniformity" to intercept radio communications, recorded the conversations onto audiotapes, and then transcribed the conversations into handwritten notebooks. The notebooks were then typed onto computers and sent to command.).

¹¹⁶ See *Popovic and others*, ICTY, Decision on Admissibility of Intercepted Communications, para. 22, 52 (Dec. 7, 2007); *Blagojevic and Jokic*, ICTY, Judgment, n.72 (Jan. 17, 2005).

¹¹⁷ See *Popovic and others*, ICTY, Decision on Admissibility of Intercepted Communications, para. 22, 52 (Dec. 7, 2007); *Blagojevic and Jokic*, ICTY, Judgment, n.72 (Jan. 17, 2005).

¹¹⁸ *Prosecutor v. Callixte Mbarushimana*, Case No. ICC-01/04-01/10, Decision Amending the e-Court Protocol, 4 (Apr. 28, 2011).

metadata on individual pieces of evidence.¹¹⁹ Furthermore, these methods are limited. Investigators do not have control over digital evidence before it comes into their possession. Therefore, the protocol may minimize preservation problems once investigators secure digital evidence, but it may not reduce the risks to degradation of digital evidence quality before that time.

Conclusion

Generally, the ICC case law on digital evidence matters is sparse, largely because it is an emerging form of evidence at international criminal courts. In its analysis of the limited case law, this paper made specific findings and found several unresolved issues. The following section summarizes these findings and provides recommendations for further research.

Authentication

Based on the review of relevant cases, it appears that international criminal courts place a high priority on live testimony of an expert who can corroborate the authenticity of digital evidence. Courts also accept documentary evidence, such as a transcript of an audio recording, in lieu of or in addition to live testimony. The need for external corroboration raises several issues. For example, consideration might be given to the nature of the procedures during the collection of digital evidence so as to ensure eventual authentication in proceedings. Digital evidence provided by non-governmental witnesses in the course of an investigation may pose challenges to protect the identities of individuals with direct knowledge of the evidence. Therefore, it is necessary for a court to balance the need to establish authenticity with the requirement to protect the identity of the witness.

Hearsay

Due to the lack of a formal rule on the acceptance of hearsay, the ICC has not explicitly dealt with its admission in many cases. Both the ICC and the ad hoc tribunals generally admit hearsay when it acts to corroborate other evidence that has a higher probative value. To strengthen the probative value of digital evidence hearsay, prosecutors have presented live testimony from those who were involved in

¹¹⁹ *Prosecutor v. Callixte Mbarushimana*, Case No. ICC-01/04-01/10, Decision Amending the e-Court Protocol, 4 (Apr. 28, 2011).

gathering the digital evidence, explaining their methods, as well as presenting a strong chain of custody. This testimony serves to improve the reliability and credibility of the evidence. There does not seem to be a bar to admitting hearsay, as the ICC has already admitted anonymous hearsay. However, questions remain as to whether hearsay can be introduced for the truth of the matter. It is also not clear whether hearsay can be admitted without testimony regarding how it was obtained, and if testimony is necessary, to determine the extent that this testimony has to be from a party that was directly involved in gathering the evidence; and how much testimony would be sufficient for the court to consider the evidence credible.

Provenance

Case law demonstrates that, when courts assign weight to the evidence, authorship is the most prevalent and important consideration. However, there are situations where authorship may be difficult to determine. For example, NGOs and other non-governmental witnesses may possess important digital evidence, such as video footage, where the author may not be identified or locatable. Proper verification of the identities of those who have had control of information before it reached investigators may be required, or the evidence may be at risk of exclusion. The importance of proof of authorship also raises questions about digital evidence in forms where digital transmissions may be difficult to link to an author, such as e-mail. In this scenario, courts could potentially require verification of electronic signatures or other linkage to an author, or could require corroborating evidence.

Preservation

So far, international criminal courts have provided little guidance on the best means of preserving digital evidence. Additionally, the ICC does not appear to take measures to ensure digital information has been properly preserved before investigators obtain it. Therefore, questions arise as to what methods should be used to ensure evidence is preserved in a manner that will satisfy Chambers. It is especially uncertain what methods of preservation are proper for evidence obtained from unverifiable sources, such as videos uploaded to the internet without identity information of the owner.

© **Aida Ashouri, Caleb Bowers**
and **Cherrie Warden, 2014**

Aida Ashouri is a Judicial Law Clerk for the U.S. Department of Justice at the Executive Office for Immigration Review. She received her J.D. from the University of California, Berkeley, School of Law, where she was a clinical student in the Samuelson Law, Technology & Public Policy Clinic.

AidaAshouriJD@gmail.com

Caleb Bowers is a J.D. Candidate, 2015, at the University of California, Berkeley, School of Law. In law school, Caleb has focused on both human rights and consumer protection. Upon graduation, he will enter the United States Army and hopes to develop experience as a trial attorney.

Cherrie Warden is currently a third year student at Berkeley School of Law. At Berkeley, her area of interest includes international criminal law, specifically victims of sexual violence. Cherrie earned a masters degree in Urban Education and a bachelors degree in International Studies and Criminology.

Cherriewarden@gmail.com

Appendix

Cases Consulted

International Criminal court (ICC)

Prosecutor v. Bemba Gombo, Case No. ICC-01/05-01/08

Prosecutor v. Lubanga, Case No. ICC-01/04-01/06

Prosecutor v. Callixte Mbarushimana, Case No. ICC-01-04-01/10

Prosecutor v. Banda and Jerbo, Case No. ICC-02/05-03/09

Extraordinary Chambers in the courts of Cambodia (ECCC)

ECCC, Case(001) No. 001/18X07X2007/ECCC/TC

International Criminal Tribunal for Rwanda (ICTR)

Prosecutor v. Karemera, Ntirumpatse, and Nzirorera, Case No. ICTR 98-44-T

Prosecutor v. Musema, Case No. ICTR 96-13-T

Prosecutor v. Simba, Case No. ICTR 01-76-T

Prosecutor v. Nyiramasuhuko and Ntahobali, Case No. ICTR 98-42AR73.2

Prosecutor v. Rutaganda, Case No. ICTR 96-3-A

Prosecutor v. Bagosora and others, Case No. ICTR 98-41-T

Prosecutor v. Renzaho, Case No. ICTR-97-31-T

International Criminal Tribunal for the former Yugoslavia (ICTY)

Prosecutor v. Delalic, Mucic, Delic, and Landzo, Case No. IT-96-21

Prosecutor v. Karadzic and Mladic, Case No. IT-95-5/18-T

Prosecutor v. Perišić, Case No. IT-04-81

Prosecutor v. Mladić, Case No. IT-09-92

Prosecutor v. Dordevic, Case No. IT-05-87/1-T

Prosecutor v. Milutinovic, Case No. IT-05-87-T

Prosecutor v. Sanovic, Case No. IT-01-47-T

Prosecutor v. Brdanin and Talic, Case No. IT-99-36-T

Prosecutor v. Popovic, Beara, Nikolic, Boroveanin, Miletic, Gvero, and Panderovic, Case No. IT-05-88/2-T.27

Prosecutor v. Tolimir, Case No. IT-05-88/2

Prosecutor v. Galic et al., Case No. IT-98-29-AR73.2,

Prosecutor v. Milošević, Case No. IT-02-54-AR73.4

Prosecutor v. Stanišić & Župljanin, Case No. IT-08-91

Prosecutor v. Stakić, Case No. IT-97-24

Prosecutor v. Boškoski & Tarčulovski, Case No. IT-04-82

Prosecutor v. Blagojević & Jokić, Case No. IT-02-60

Prosecutor v. Stanišić & Simatović, Case No. IT-03-69

Prosecutor v. Krstić, Case No. IT-98-33

Prosecutor v. Haraqija and Morin, Case No. IT-04-84-R77-4A

Special Tribunal for Lebanon (STL)

Prosecutor v. Badreddine, Ayyash, Oneissi & Sabra, Case No. STL-11-01/I/PTJ

Special court for Sierra Leone (SCSL)

Prosecutor v. Sam Hanga Norman et al., Case No. SCSL-04-14-AR65

Prosecutor v. Norman and others, Case No. SCSL-04-14-T

Prosecution v. Taylor, Case-No. SCSL-04-15-T 118

Prosecutor v. Sesay and others, Case No. SCSL-04-15-T