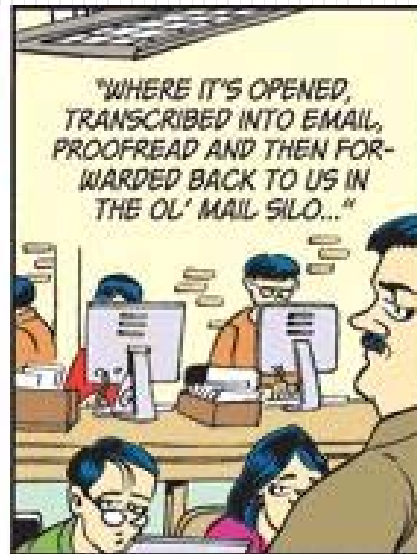


Admissibility of Electronic/Digital Evidence

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Everything Today is Digital



References

- *Lorraine v. Markel American Insurance. Co.*, 241 F.R.D. 534 (D. Md. 2007).
- Hon. Paul W. Grimm, et al., *Back to the Future: Lorraine v. Markel American Insurance Co. and New Findings on the Admissibility of Electronically Stored Information*, 42 AKRON L. REV. 361 (2009).
- Hon. Paul W. Grimm, et al., *Authentication of Social Media Evidence*, 36 Am. J. of Trial Advocacy 433 (2013).
- Grimm, Capra & Joseph, *Authenticating Digital Evidence*, 69 Baylor L. Rev. 1 (2017).

Issue: Applicability of Rules of Evidence to ESI/Digital Evidence

- Commentators/Courts have pondered whether existing rules of evidence can accommodate new challenges associated with ESI/digital evidence. To date, courts have had little trouble adapting existing evidence rules to meet demands of ESI, but commentators have noted areas where the “fit” is not perfect:
 - Hearsay Rules: **Rule 801(b)** “declarant”
 - **Rule 803(6)**: Business record (regularity vs. reliability)
 - Authentication: **Rules 901 & 902** (reliability of digital evidence)
 - Original Writing Rule: **Rules 1001-1008** (what is an “original” of a digital writing)

Issue: Preliminary Matters & Conditional Relevance

- Importance of **Rule 104(a)**: Subject to **Rule 104(b)**, court makes preliminary determinations regarding *admissibility of evidence, qualification of witnesses, existence of privilege*. Rules of evidence (except privileges) do not apply. See also **Rule 1101(d)(1)**.
- **Rule 104(b), “Conditional Relevance” Rule**: When relevance of evidence depends on existence of some antecedent fact, then the evidence is admitted subject to/conditionally upon introduction of sufficient evidence to demonstrate the existence of the antecedent fact. What does this mean in real life? Authentication of evidence is a matter of conditional relevance. Who decides if antecedent fact is contested? The **jury**, not the judge.
- Especially important for digital evidence. Note the need for proponent to establish authentication with admissible evidence when jury decides under **Rule 104(b)** as opposed to judge under **Rule 104(a)**.

Series of Potential Evidentiary “Hurdles”

- **Relevance:** Rule 401
- **Authenticity:** Rules 901 & 902
- **Hearsay** (if offered for substantive truth): Rules 801-807
- **Original Writing Rule:** Rules 1001-1008
- **Prejudice:** Rule 403

Relevance

- **Rule 401**: Does ESI/digital evidence have “any tendency” to prove or disprove fact that is of “consequence” to trial
- Focus is on claims/charges and defenses raised by charges/pleadings
- Low threshold to meet
- Note **Rule 104(e)**: Distinction between **admissibility** and **weight/credibility**

Authentication of ESI/Digital Evidence

- **Rule 901(a)**: Requirement of authentication/identification— evidence is what proponent says it is.
- When facts showing authenticity are challenged by adversary, conditional relevance rule is implicated.
- **Rule 901(b)**: Lists non-exclusive examples how to authenticate, many of which apply to ESI/digital evidence.
- **Rule 901(b)(1)**: Witness with personal knowledge.
- **Rule 901(b)(3)**: Expert witness or comparison of known to unknown, jury decides if authentic.
- **Rule 901(b)(4)**: Distinctive characteristics. Frequently applies to ESI. *See, e.g., U.S. v. Siddiqui*, 235 F.3d 1318 (11th Cir. 2000) (email authenticated entirely by circumstantial evidence); *Perfect 10, Inc. v. Cybernet Ventures, Inc.*, 213 F. Supp. 2d 1146 (C.D. Cal. 2002) (circumstantial authentication of website postings). Note: Use of **Hash Values** or **Metadata** to authenticate.
- **Rule 901(b)(9)**: System/process capable of producing reliable/accurate results.
- **Rule 901(b)(7)**: Public record (authenticated by certificate of authenticity from public agency). Courts often state that there is no need to show reliability, only custody. *United States v. Meienberg*, 263 F.3d 1177 (10th Cir. 2001).

Authentication, con't

- **Rule 901(b)(7)**: Authentication of ESI/digital evidence by public records or reports. This rule, along with **Rule 803(8)** (public records hearsay exception) often used to authenticate ESI/digital evidence in public records. Authentication via proof of custody by public agency, without more.
- *Meienberg*, 263 F.3d 1177 (authentication of law enforcement agency's computer records did not require showing of accuracy, merely custody by public body, noting issues of accuracy went to weight, not admissibility).

Authentication, con't

- **Rule 901(b)(9)**: System/process capable of producing reliable/accurate result: very frequently used for ESI/digital evidence. Example: *United States v. Washington*, 498 F.3d 225 (4th Cir. 2007) (computer readout of computer forensic analysis of blood sample for drugs and alcohol content admissible if authentic, and not hearsay (no “declarant” per **Rule 801(b)**)). **Rule 901(b)(9)** available to authenticate that analytical process is reliable.
- This rule is also particularly important for authenticating computer simulations. See *State v. Sipin*, 123 P.3d 862 (Wash. Ct. App. 2005) (authentication of computer simulation showing car crash); *Ruffin ex rel Sanders v. Boler*, 890 N.E.2d 1174 (Ill. App. Ct. 2008) (authentication of computer simulation showing forces exerted on baby during childbirth); *Commercial Union Insurance Co. v. Boston Edison Co.*, 591 N.E.2d 165 (Mass. 1992) (admissibility of computer-generated evidence).
- **Note**: Authentication under **Rule 901(b)(9)** often requires proof of reliability of scientific/technical principles underlying computer simulation, triggering **Rules 702-703**, and *Daubert* analysis. See *Silong v. United States*, No. CV F 06-0474 LJO DLB, 2007 WL 2535126 (E.D. Cal. Aug. 31, 2007) (applying *Daubert* factors to computer model showing injury to child during birth).

Self-Authentication under Rule 902

- **Rule 902(5)**: Official Publications of public authority, including website content, are self-authenticating. *Williams v. Long*, 585 F. Supp. 2d 679 (D. Md. 2008) (printed copies of webpages of various state agencies are self-authenticating under 902(5)).
 - **Note**: Still a potential hearsay issue, but official publications frequently qualify as public records under **Rule 803(8)(a)**.
- **Rule 902(7)**: Inscriptions, signs, tags, or labels purporting to be affixed in course of business and indicating ownership, control, or origin are self-authenticating. Could be used to authenticate email from organization or entity that uses logo or symbol of origin.
- **Rule 902(11)**: Self-authenticating certified copies of domestic business records. Certification required by rule meets foundational requirements of business record under **Rule 803(6)**. Courts often merge the 902(11) and 803(6) analysis together for digital business records. *See Rambus v. Infineone Technologies AG*, 248 F. Supp. 2d 698 (E.D. Va. 2004) (merging 902(11) authentication analysis with 803(6) business records analysis regarding digital records); *In Re Vee Vinhnee*, 336 B.R. 437 (B.A.P. 9th Cir. 2005) (same).
 - *See also United States v. Schultz*, No. Cr. 5-07-76 KJM, 2008 WL 152132 (E.D. Cal. Jan. 16, 2008) (holding defendant's statements posted on Craig's List not admissible because government failed to meet foundational requirements of 902(11)).

Self-Authentication, con't

- **Rule 902(6)**: Self-authentication of newspapers or periodicals. Primarily used for self-authentication of **print** newspapers and periodicals. Given the ubiquity of electronic news sources, and tendency of “print” media to go “digital” (i.e., Christian Science Monitor, Seattle Post Intelligencer), courts have had difficulty permitting self-authentication under **902(6)** because digital media lacks indicia of authenticity present in print media (such as appearance, typeset, logo, or other distinctive characteristics).
 - *See Parikh v. Premera Blue Cross*, NO. C01-0476P, 2006 WL 2841998 (W.D. Wash. 2006) (court excluded printouts of newspaper/periodical articles taken from internet media search service because of failure to qualify as self-authenticating under **902(6)**).
- **Presumption of Authenticity of documents produced by adverse party**: Courts have held that there is a presumption of authenticity for documents produced by adversary in litigation.
 - *See Indianapolis Minority Contractors Ass’n, Inc. v. Wiley*, No. IP 94-1175-C-T/G, 1998 WL 1988826 (S.D. Ind. May 13, 1998); *Perfect 10, Inc. v. Cybernet Ventures, Inc.*, 213 F. Supp. 2d 1146 (C.D. Cal. 2002) (exhibits of website postings authentic, in part, because opponent had produced them during discovery).

New Rules 902(13) and (14) (Effective 12/1/17)

Proposed Rule 902(13): Certified Records Generated by an Electronic Process or System capable of producing reliable results

Proposed Rule 902(14) Certified Data copied from an Electronic Device, Storage Medium, or File

Authentication, con't

- Remember: **Rules 901 and 902** give examples only, not exhaustive list. Other ways have been recognized to authenticate ESI/digital evidence.
- Example: Use of the “wayback machine” (Internet Archive Company, www.archive.org) to authenticate websites as they appeared at various dates relevant to the litigation. *Telewizja Polska USA, Inc. v. Echostar Satellite Corp.*, No. 02-C-3292, 2004 WL 2367740 (N.D. Ill. Oct. 15, 2004).

Computer Stored Records/Data

- Some courts have taken lenient approach to admissibility of records/data created or stored on a computer. Evidence has been admitted with minimal authentication, and a proponent was not required to demonstrate the accuracy, completeness or integrity of the evidence. Further, any such inadequacies affect weight, not admissibility. *See, e.g., Meienberg*, 263 F.3d 1177.
- Other courts have taken opposite approach and demanded a showing that computer generated/stored documents be authenticated by showing, *inter alia*, that the exhibit offered is an accurate representation of the record as originally created, and that it was not thereafter altered. *See, e.g., In re Vee Vinhnee*, 336 B.R. 437.
- Most frequent methods of authenticating: 901(b)(1) (witness with personal knowledge); 901(b)(3) (expert witness); 901(b)(4) (distinctive circumstances/conditions); 901(b)(9) (system/process capable of producing reliable/accurate result).

Computer Animation/Simulations

- **Computer Animations:** regarded by most courts as demonstrative evidence used to illustrate a witness's testimony. They are admissible on a showing that their contents are sufficiently similar to the facts of the case at issue, they fairly and accurately portray the facts, and they are not unduly prejudicial.
 - *See, e.g., Hinkle v. City of Clarksburg*, 81 F.3d 416 (4th Cir. 1996); *Friend v. Time Mfg. Co.*, No. 03-343-TUC-CKJ, 2006 WL 2135807 (D. Ariz. July 28, 2006).
- **Computer Simulations:** Differ from computer animations in that simulations are not just demonstrative evidence, but constitute independently admissible substantive evidence. Authenticity most often is done through an expert's testimony under **Rule 901(b)(3)**.
 - Since simulation is substantively admitted, and invariably involves scientific, technical or specialized information, the proponent must address the foundational issues required by **Rule 702** and *Daubert* (or *Frye* test, if in a state that has not adopted **702/Daubert**), namely sufficiency of factual data, reliability of methods/principles used to create simulation, and reliable application of methods/principles to facts of case.
 - *See, e.g., Silong*, 2007 WL 2535126 (applying *Daubert* factors to admissibility of computer simulation model); *Sipin*, 123 P.3d 862 (applying *Frye* standard to computer simulation of automobile accident).

Issue: Hearsay

- Hearsay issues pervasive with ESI/Digital evidence.
- Core concern of rule: **Testimonial Risk** (**perception, memory, sincerity, narrative ambiguity**) associated with introduction of assertive statements not made under oath before the fact finder.
- Four-step analysis:
 - **Step 1: Rule 801(a) Statement** (written/oral assertion; non-verbal conduct intended to be assertion; non-assertive verbal conduct intended to be assertion). Key Concept: **Assertion**.
 - **Step 2: Rule 801(b) Human Declarant**. Thus, computer generated (as opposed to computer stored) assertive statements not hearsay because made by computer, not human declarant. *See, e.g., Washington* 498 F. 3d 225 (computer generated analysis produced by forensic lab equipment showing blood alcohol and drug content of blood sample not hearsay because not made by human declarant).
 - **Step 3: Rule 801(c) Statement Offered for Substantive Truth**. If relevant only if true, then it is substantive. If relevant even if not true, and not offered for truth, it is not hearsay. Example: Statements offered to show (1) communicative/comprehensive capacity; (2) effect of statement on hearer; (3) circumstantial evidence of state of mind; (4) verbal acts or parts of acts; (5) statements of independent legal significance.
 - **Step 4: Statement not removed from definition of hearsay by Rule 801(d)(1)** (certain prior witness statements) or **Rule 801(d)(2)** (admissions by party opponents).

Examples of ESI/Digital Evidence Determined Not to be Hearsay

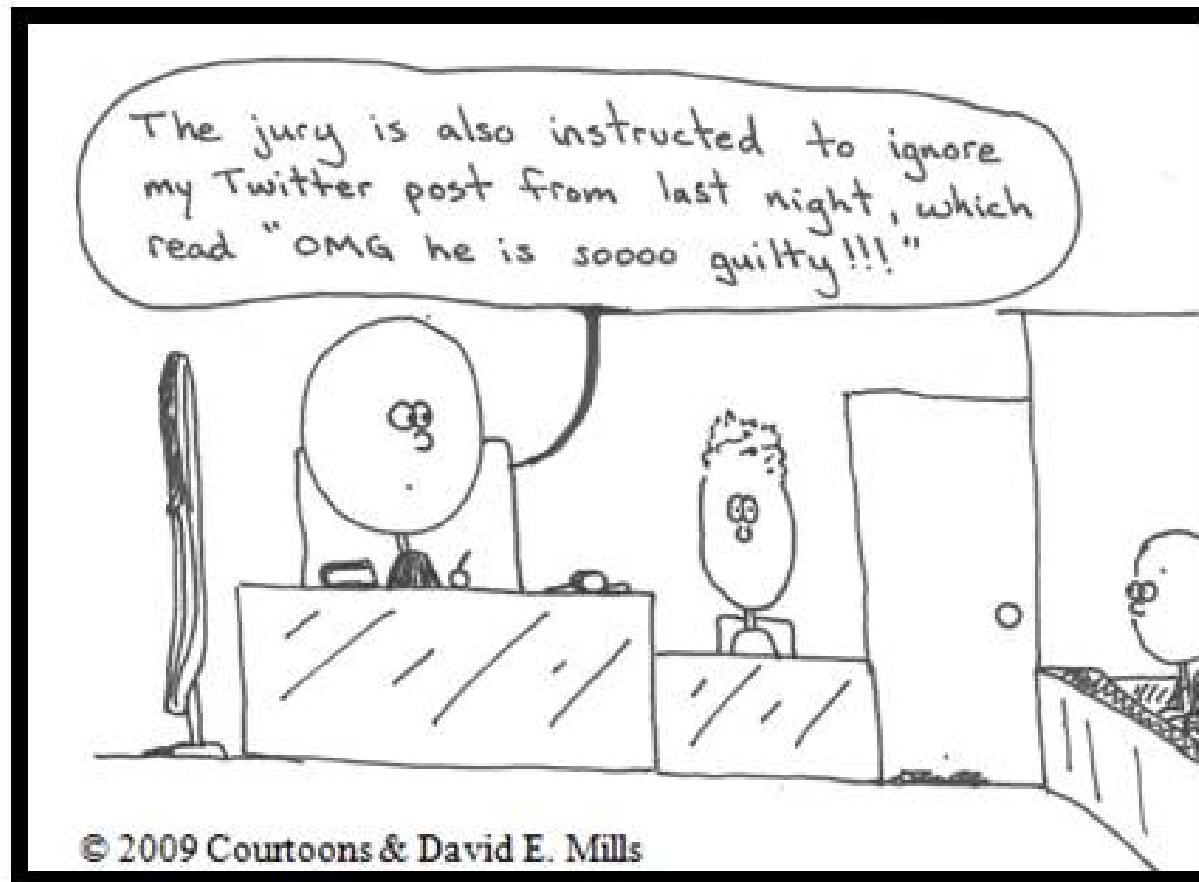
- Email between co-workers not hearsay because offered only to prove relationship existed between them, not to prove truth of contents. *Siddiqui*, 235 F.3d 1318.
- Email in criminal case admitted as non-hearsay because offered only to show how lobbyist attempted to influence government official. *United States v. Safavian*, 435 F. Supp. 2d 36 (D. D.C. 2006).
- Exhibit showing defendant's website content on a particular day not hearsay because not offered for truth of content but rather to show trademark and copyright infringement. *Perfect 10, Inc.*, 213 F. Supp. 2d 1146.
- Any email, text message, tweet, voicemail, or digital communication made by a party opponent that is introduced against him/her is not hearsay, as it is an admission under **Rule 801(d)(2)**.

Hearsay Exceptions under **Rule 803** (Availability of Declarant Immaterial)

- **Rule 803(1) - Present Sense Impression:** Statement made while perceiving an event or immediately thereafter that explains and/or describes it.
 - Examples: A text message, IM, chat room statement, or tweet made by someone describing event as they watch it. Also, notes taken with a notebook computer or PDA contemporaneously describing events recorded.
 - *See United States v. Ferber*, 966 F. Supp. 90 (D. Mass. 1997) (email from employee to boss recounting phone call with defendant in mail/wire fraud case qualified as present sense impression because email was prepared shortly after the call); *but see New York v. Microsoft*, No. Civ. A. 98-1233 (CKK), 2002 WL 649951 (D. D.C. 2002) (email describing telephone call made several days after call was not present sense impression because not contemporaneous with, or immediately after, call).
- **Rule 803(2) - Excited Utterance**
 - Examples: Text message, tweet, and/or email made while in state of emotional excitement describing events causing excitement.

Hearsay Exceptions under **Rule 803**, cont'd

Rule 803(2) Excited Utterance



Rule 803 Exceptions, Con't

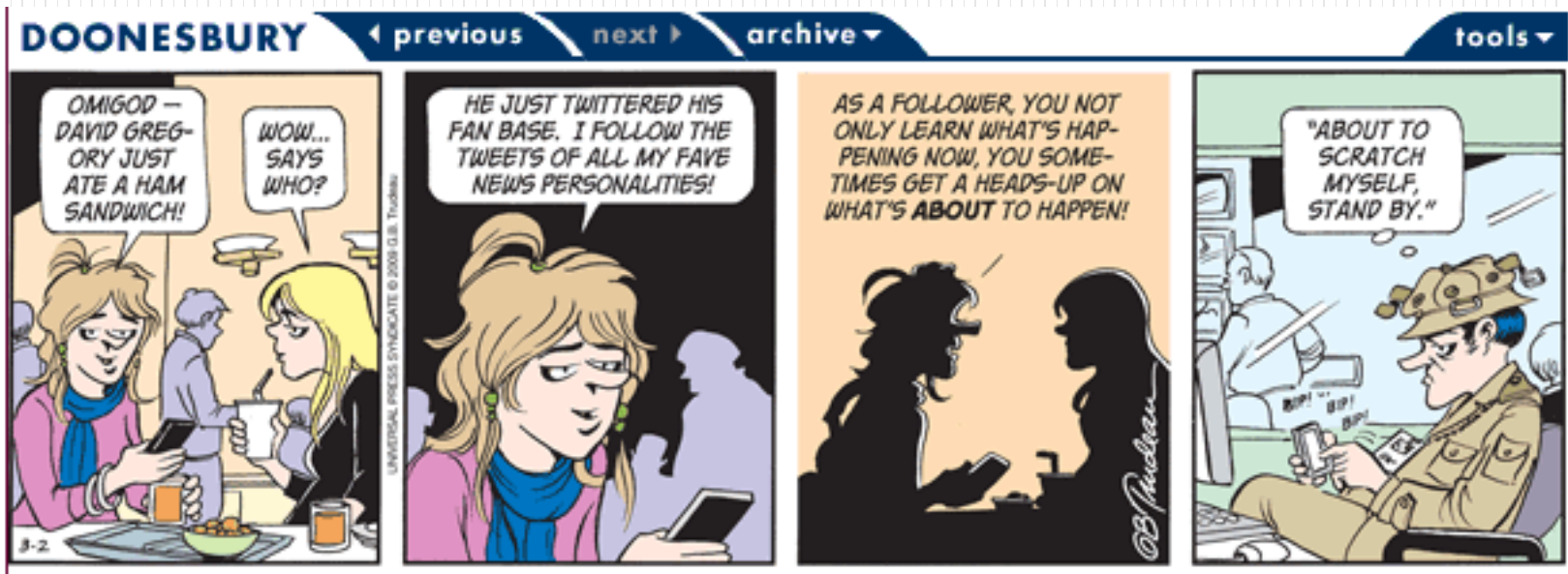
- **Rule 803(3) - Then Existing State of Mind/Condition**
 - Examples: Blog postings, myspace/facebook postings, email, and text messages. Think of all those “emoticons” used to depict emotional states in email/text messages. For example :-) (happy) or :((sad) or >:((angry).
 - See *Microsoft*, 2002 WL 649951 (email could potentially be admitted as evidence of state of mind under 803(3)); *Safavian*, 435 F. Supp. 2d 36 (email admitted as hearsay exception under 803(3)).

Rule 803 Exceptions, Con't

- **Rule 803(6) - Business Record:** One of the most frequent hearsay exceptions used for ESI/digital evidence. Initially courts were quite relaxed about admitting digital evidence/ESI as business records, see *United States v. Kassimu*, 188 Fed. App'x 264 (5th Cir. 2006); *United States v. Fujii*, 301 F.3d 535 (7th Cir. 2002), but other courts are becoming much more strict in insuring that elements of **803(6)** are met for digital evidence. See *In re Vee Vinhnee*, 336 B.R. 437; *Rambus*, 348 F. Supp. 2d 698; *Canatxx Gas Storage Lt'd v. Silverhawk Capital Partners*, No. H-06-1330, 2008 WL 1999234 (S.D. Tx. May 8, 2008) (to introduce email as business record, proponent must show employer imposed business duty to make and maintain record for a business, as opposed for a personal reason). This is a significant problem for **email chains**, where each link may have to meet the elements of the rule.
 - Note also, **803(6)** has two separate analytical components: those dealing with (1) **REGULARITY** of making and use of the record for a business purpose, and (2) **RELIABILITY** (which requires exclusion even if regularity requirements are met if source or circumstances of making of record is not trustworthy).
 - *Watch for future developments on this exception.*

Hearsay Exceptions under **Rule 803**, cont'd

Rule 803(3) Then Existing State of Mind/Condition



Rule 803 Exceptions, con't

- **Rule 803(8) - Public Records:** Increasingly used with ESI/digital evidence.
- Courts have applied very deferential standard for admissibility of public records.
 - *See EEOC v. E.I. DuPont de Nemours & Co.*, No. Civ. A. 03-1605, 2004 WL 2347556 (E.D. La. Oct. 18, 2004); *Lester v. Natsios*, 290 F. Supp. 2d 11 (D. D.C. 2003); *United States v. Ocegerra-Aguirre*, 70 Fed. App'x 473 (9th Cir. 2003) (public records presumed to be trustworthy); *Williams*, 585 F. Supp. 2d 679 (justification for 803(8) stems from trustworthiness of documents made by public office/agency, plus necessity to avoid requiring public officials to testify about reports, data compilations, or records of statements in their official capacity).
 - Note that public records may be self-authenticating under 902(5).

Original Writing Rule (1001-1008)

- ESI/Digital evidence triggers significant Original Writing Rule issues.
- **Overview of Rule:** The Original Writing Rule focuses on situations where **writings, recordings or photographs** are **closely related to controlling issues** in the litigation, and sets forth a requirement that when **proving the content** of these important writings/recordings/photographs the proponent must introduce an **original or duplicate**, and if neither is available, then sets forth a series of rules that govern when **“secondary evidence”** (i.e., evidence other than an original or duplicate) is admissible.
- **Rule 1001:** Defines writings, recordings, photographs, originals and duplicates.
 - The definitions are very expansive and clearly include ESI/digital writings.
 - Similarly, **Rule 1001(3)** states “[i]f data are stored in a computer or similar device, any printout or other output readable by sight, shown to reflect the data accurately, is an ‘original.’” Thus, the screen display on a computer monitor is an “original” as is the copy made of that screen display. In addition, the definition of “original” and “duplicate” is very expansive, and the two overlap each other.
 - *See Laughner v. State*, 769 N.E.2d 1147 (Ind. Ct. App. 2002) (content of internet chat room “cut and pasted” into word processing program of detective were originals under state version of original writing rule); *In re Gulph Woods Corp.*, 82 B.R. 373 (Bankr. E.D. Pa. 1988) (computer record that accurately reflects content of another writing, and was prepared near the time that the original writing was prepared was an original).

Original Writing Rule, con't

- **Rule 1002:** Contains the essence of the rule—when proving the content of a writing, recording or photograph, the proponent must introduce an **original**, as defined by **Rule 1001**, or a **duplicate**, as defined by **Rule 1001**, and permitted by **Rule 1003**, but if an original or duplicate is not available, then the content may be proven by **secondary evidence**, as authorized by **Rules 1004-1007**.
- **Rule 1003:** Provides that duplicates are admissible co-extensively as originals, unless they are unauthentic, or it would be unfair to do so. Thus, in most instances the difference between an original and a duplicate is unimportant. *See, e.g., People v. Huehn*, 53 P.3d 733 (Colo. Ct. App. 2002) (duplicate computer records admissible same as originals).
- **Rule 1004:** This is the “primary” secondary evidence rule, and permits secondary evidence in four circumstances:
 - (1) when the originals and duplicates have been **lost or destroyed, absent bad faith or improper conduct** by the party seeking to introduce the secondary evidence;
 - (2) when the original/duplicate is **beyond the subpoena power of the court**;
 - (3) when the original/duplicate is in the **custody or control of an opponent** who has been **put on notice** (actual or inquiry) of **the need to produce** the original/duplicate, yet **fails to do so**; and
 - (4) when the original/duplicate is **“collateral”** to the litigation (i.e. not closely related to a controlling issue in the litigation). Secondary evidence is any evidence other than an original or duplicate.

Original Writing Rule, con't

- **Rule 1006:** Provides that written or oral *summaries* of *voluminous writings*, *recordings*, and/or *photographs* are admissible (provided advance notice is given to the adverse party).
 - Under the majority view, the summary, rather than the underlying documents, is admitted. This is a *de facto* exception to the hearsay rule. See *Wapnick v. Comm'r of Internal Revenue*, T.C.M. (RIA) 2002-45 (T.C. 2002) (summaries of voluminous computer records admissible under **Rule 1006** even though prepared in anticipation of litigation).
- **Rule 1007:** Permits the proof of the content of a writing, recording, or photograph by *written* or *testimonial* (testimony or deposition) *admission* of a party against whom it is offered, without having to account for the non-production of the original or duplicate.
 - Examples: Fed. R. Civ. P. 30, 33, 36 discovery.
 - Note: When questioning an adverse party in deposition or trial, you can ask him/her to testify as to content of writing, recording, or photograph and the answer proves its content without having to produce the original or duplicate. This eliminates the invalid “document speaks for itself” objection.

Original Writing Rule, con't

- **Rule 1008:** Special application of the conditional relevance rule of **Rule 104(b)**.
 - Provides that when there is a *factual dispute* as to: (a) the *existence* of a writing/recording/photograph; or (b) a dispute as to *competing versions of duplicates/originals*, or (c) **competing versions** of **secondary evidence** of content of writing, recording, or photograph, the finder of fact must resolve the conflict and determine whether the original existed, or the content of the competing versions of originals/duplicates/secondary evidence.
 - Note the impact this has on summary judgment practice.
- **Caveat:** It is important to raise timely objections to violation of Original Writing Rule, as failure to do so waives objection. *Lorraine*, 241 F.R.D. at 579; *State v. Braidic*, No. 28952-1-II, 2004 WL 52412 (Wash. Ct. App. Jan. 13, 2004) (failure to raise original writing rule objection at time evidence is introduced waives objection).

Original Writing Rule, con't

- Unresolved Issue: Given the existence of metadata, just what is the “original” of a digital writing/recording or photograph? The “readable” portion on the computer screen when the document is opened, or does the “original” include all the underlying metadata?
- Probable Resolution: The “top view” version of the digital document that is customarily viewed is the “original,” and all the underlying metadata is not required.
 - See *DirecTV, Inc. v. Reyes*, No. 03-C-8056, 2006 WL 533364, at *7 (N.D. Ill. Mar. 1, 2006) (printout of information stored on computer is “original”); *Con-Way Transp. Servs., Inc. v. Auto Sports Unlimited, Inc.*, No. 1:04-CV-570, 2007 WL 2875207 (W.D. Mich. Sept. 28, 2007) (reprinted invoices extracted from computer, which generated the invoices that originally had been sent to defendant, were “originals”).

Final Issue: Probative Value vs. Unfair Prejudice **Rule 403**

- As for any evidence, once all other evidentiary issues are resolved, it is appropriate to assess whether there is any unfair prejudice that would occur if the ESI/digital evidence is admitted. If the probative value is substantially outweighed by the danger of unfair prejudice, then the evidence should be excluded. Note **Rule 403** “tilts” towards admissibility, not exclusion.