DOCUMENTARY, VOICE IDENTIFICATION AND "E-EVIDENCE"-- FOUNDATIONAL REQUIREMENTS

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Court rules governing the authentication of traditional documents are well-established. However, advances in mechanisms of communication and the rapidity of technological innovations present judges with varied and unique challenges in ruling on issues of authenticity. This paper will review not only foundational issues with respect to traditional documents but also the application of traditional principles and concepts to evolving technologies. Rule 901 of the North Carolina Rules of Evidence continues to serve as our polar star in this constellation of scientific and technological bog (or is that blog?).

Authentication Generally

Under the requirement of authentication, the proponent who is offering a writing or communication[1] into evidence carries the burden of producing sufficient evidence to support a finding by the trial judge that the writing is what the proponent claims it to be, i.e. that it is authentic.

The justification for requiring authentication is that it operates as a check on the perpetration of fraud. For example, if X sues Y for libel and attempts to introduce the writing containing the libelous statement, the writing must be authenticated. Therefore, X has the burden of showing that Y authored or published it. Simply looking at the writing itself, without requiring authentication, could well result in X, or even some third party who may simply want to cause Y difficulties, fabricating the writing.

In our courts, the well-established presumption is that the purported signature or authorship on the face of a writing will *not*, without more, be accepted. Thus, our preliminary inquiry under Rule 104 is: what *more* is required before the writing can be received into evidence? Even though the judge's inquiry is generally tolerant and accepts all reasonable assumptions, you need to be satisfied that there is sufficient evidence to support a rational jury finding that the writing is what the proponent claims it to be.

[1] A "writing" has historically referred to a typed or hand-written document. However, with the advent of faxes, e-mails, and similar communication techniques, the distinction has been blurred. It should be noted that Rule 1001 of the North Carolina Rules of Evidence defines "writings" and "recordings" to encompass, *inter alia*, "magnetic impulse" as well as "mechanical or electronic" recordings. Unless otherwise noted or required by context, the term "writing," as used herein, should be deemed to include either a writing or a communication.

You will note that Rule 901 is more illustrative than definitional. A copy of the Rule (together with Rule 902, which addresses self-authentication) is appended to this paper.

Practically, when addressing authenticity, start with the basic question: Why is the writing relevant? The proponent's answer to this question will generally allow you to determine the purpose for which the proponent seeks to introduce the writing, i.e., the writing's *specific connection to the case*.[2] It is then this connection that must be proved in order to authenticate the writing. Usually, the relevant connection will be *who authored it*. Did Y, in fact, author the libelous statement in the example above? Sometimes, however, authorship of the writing may not be the relevant connection to the case. For example, in an "I did not have sex with that woman" scenario, where a love letter was found by the wife in her husband's desk drawer, the authorship of the letter was immaterial. Its *connection* to the case, however, was to show the subsequent conduct of the wife toward the husband.[3]

Typically, a witness with some knowledge of the writing may be enough to meet the admissibility standard. The trial judge should *look only to the proponent's evidence* to determine whether the requisite showing has been made. After the writing is admitted into evidence, the opponent's cross examination of the witness may give the jury the added benefit of other foundational information about the writing.

Note, however, that even where the "best evidence rule" or its exceptions permit testimony as to the *contents of the writing* (rather than the writing itself), authentication of the original writing should nonetheless be required. The *connection*, or relevance to the case is not diminished simply because the writing is described in testimony.

Authentication by a Percipient Witness

Ordinarily, the testimony of a percipient witness, i.e., one who saw X write and/or sign the writing, whether the author, a person who simply witnessed the event, or a formal attesting witness, is sufficient to support the finding necessary to meet the authentication requirement.

Authentication by Proof of Handwriting

Nonexpert Opinion

Although the rules of evidence often prohibit opinion testimony by a lay witness, lay opinion testimony on handwriting is a recognized exception under Rule 901(b)(2). The foundation is relatively simple---(1) does the witness recognize the author's handwriting on the document?; (2) does the witness know the author's handwriting?; and (3) does the witness have a sufficient basis for that knowledge? A sufficient basis may be

[2] Although this discussion is limited to documentary, voice ID and "e-communications," it should be noted that you essentially make the same preliminary inquiry with respect to a photograph (is the photograph an accurate depiction?) or a physical object (e.g., does the State's evidence trace the weapon to the accused?)

[3] Bodrey v. Bodrey, 269 SE2d 14 (Ga. 1980)

present if the witness has seen the person write, or even if the witness has seen writings *purporting* to be those of the author under circumstances indicating their genuineness. The latter situation may arise where the witness has exchanged correspondence with the author.

Expert Opinion

Rule 901(b)(3) also allows a "comparison by…expert witnesses with specimens which have been authenticated." In North Carolina, the trial judge admits these specimens, also called exemplars, if there is sufficient evidence to support their genuineness. Then the *jury* must decide the authenticity of these exemplars. The expert will compare the questioned document with the exemplars. The foundation is relatively more complex than that required for the nonexpert opinion---(1) the proponent authenticates the exemplars; (2) the witness qualifies as an expert in the area of questioned-document examination; (3) the witness compares the exemplars with the questioned document; (4) the witness offers an opinion that the same person wrote the exemplars and the questioned document; and (5) the witness provides a basis for the opinion.

Distinctive Characteristics and the Like

Rule 901(b)(4) permits authentication by circumstantial evidence, such as proof of the writing's appearance, contents, substance and other distinctive characteristics, taken in conjunction with the circumstances of the writing's source, location, condition, etc.

Computer-generated printouts, "faxed" documents, e-mails, and caller identification are generally authenticated by circumstantial evidence tending to show distinctive characteristics.

Computer-generated Printouts

In State v. Springer, the North Carolina Supreme Court, acknowledging the reality of stored business records, set out the foundation for admission of computerized business records as business records. The Court declared that printout cards or sheets of business records stored on electronic computing equipment are admissible in evidence, if otherwise relevant and material, where: (1) the computerized entries were made in the regular course of business, (2) at or near the time of the transaction involved, and (3) a proper foundation for such evidence is laid by testimony of a witness who is familiar with the computerized records and the methods under which they were made so as to satisfy the court that the methods, the sources of information, and the time of preparation render such evidence trustworthy.[4]

[4] 283 NC 627, 636 (1973)

Faxed Documents

Foundational requirements regarding a faxed document generally follow one of the three following fact patterns:

1. *The issue is whether the recipient of the fax received it before a specific time.* In this circumstance, the source of the fax, i.e., who sent it, is irrelevant. Thus, the proponent of the evidence can simply offer testimony from the recipient that the fax was, in fact, received with certain contents by a certain time.

2. *The issue is whether a fax transmitted by a certain sender reached the alleged recipient.* In this situation, the proponent has the burden of producing testimony on behalf of the *sender* of the fax to the effect that (1) the machine was operating properly, capable of transmitting and receiving a fax; (2) the sender obtained the fax number from a reliable source, and dialed that number; (3) the sheet of paper containing the facts passed through the machine; and (4) the machine generated a transmission report listing the dialed number and that a transmission had occurred.

3. *The issue is the identity of the sender of the fax.* Usually, the essential question is whether the fax that was received was sent by the alleged sender. Thus, the *source* of the fax is critical. The foundational requirements would typically include evidence (1) that the receiving person or entity has a machine that accurately receives copies of original documents; (2) that the machine accurately records the time and date the fax was received; (3) a cover sheet shows the phone number of the originating machine and the name and number of the person to whom the document is directed; (4) each fax page is automatically imprinted with the fax number of the originating machine; and (5) the fax number on the cover sheet and on the fax pages is the number of the alleged sender.

E-Mails

E-mails differ from faxes in that it is relatively simple for one who is "computer literate" to change the e-mail address of the sender. As with a faxed transmission, the purpose for which the proponent is offering the e-mail is determinative of the foundational elements that may be required. The most common scenarios are set forth below.

The "reply in due course" doctrine. Analogous to the situation involving a reply letter, when an e-mail reply is being offered into evidence, the foundational requirements are that an e-mail was sent to an address obtained from a reliable source and that, in due course, the sender received a reply which included a message responsive in terms to the earlier message.

E-mail content. The content of the message itself may serve to authenticate a writing by showing that only the purported author was likely to know the information reflected in the message.

Action consistent with the message. The proponent may be able to lay a foundation by showing that after the proponent's receipt of the e-mail, the purported sender took action consistent with the content of the e-mail. For example, merchandise mentioned in the message might have been delivered to the proponent.

Chain of custody. The proponent can use the business records of all the systems that transmitted the message to trace the message back to the source computer (and thus, the alleged sender). At the recipient's end, using proper commands, the computer can print out a complete history indicating the handling of the message between its dispatch and receipt. Thus, the proponent can lay the foundation 1) by having the recipient print out the entire routing of the message, 2) introducing the routing records for each server that handled the message; and 3) establishing that the author had primary or exclusive access to the computer that, according to the records, originated the message.

Cryptography. This is James Bond stuff! In most cryptography, the communicating parties use a single key that "encrypts," or scrambles the message. Since both (or all) communicating parties must employ the same key to first scramble, and then un-scramble the message, the secret key information must have been previously communicated or secured by the parties.

A variation of this technology is the use of a digital signature to authenticate an unencrypted message. As with encryption, a single private key is used to encrypt the digital signature. The recipient must then use that key to decrypt the signature.

More sophisticated cryptography utilizes a public/private two-key system. The keys are complementary—each unlocks the code that the other key makes. How can the recipient determine that the purported sender is indeed the owner of that public key? To address this question, a new technology industry has arisen. Certification authorities, or "CAs," act as clearinghouses, or, in effect, notaries, and issue certificates "notarizing" the connection between the owner and the public key.

In addition to the chain of custody foundational elements set forth above, encrypted messages will require additional information regarding either the one or two-key system employed. When the two-key system has been employed, in the absence of a stipulation, testimony from a representative of the CA will be required. The CA testimony that a particular person owned a specified key, and that an identifying certificate was issued, coupled with testimony that the recipient learned of the person's identity as the owner of the specified key (which knowledge may have been gained from many sources, including a telephone call or the World Wide Web), that the recipient received the message in question, and, using the alleged sender's public key, successfully unscrambled the message ordinarily establishes the necessary foundation to admit evidence relevant to the message.

Caller Identification

The optional caller ID feature on a telephone provides the user, before answering, with an automatic display of the telephone number and/or the name of the caller.

The first foundational requirement is the proponent's showing of this technology's reliability. In general, caller identification technology is widespread and reliable. As the trial judge, you may be willing to take judicial notice of the reliability of this technology under Rule 201 as a "generally known" fact. Otherwise, expert testimony may be required.

The second requirement is that, prior to the telephone call in question, the user installed a caller ID unit.

Third, there should be testimony that the unit is a reliable one. Expert or lay testimony may satisfy this requirement. Either the testimony of the manufacturer's representative as to the manufacturer's experience regarding the make and model in question, or, lay testimony as to successful verifiable usage over a period of time, may be adequate.

Fourth, there should be testimony that the unit displayed a particular telephone number.

Finally, there should be testimony that the telephone number in question belongs to a particular person or business. In the absence of a stipulation, either the personal experience of the witness or the introduction of a telephone directory may be enough.

Voice Identification; Telephone Conversations

Rule 901(b)(5) permits lay opinion as to the identification of a voice, whether the speaker was in the presence of the witness or the voice was conveyed by mechanical or electronic means, if the witness has *at any time* heard the alleged speaker under circumstances connecting the voice to the speaker.

Laying a proper foundation for a telephone conversation requires evidence (1) that a call was made to the number assigned by the telephone company and (2) circumstances (including the voice identification techniques outlined above) indicating that the person answering was the one called (of if a call to a business, that the conversation which followed related to business reasonably transacted by telephone).

Public Records or Reports

Rule 901(7) is in accordance with prior North Carolina practice. Essentially, public records are regularly authenticated by proof of custody, without more. There is now little doubt that this provision also extends to data stored in computers and similar methods employed in most State and County offices.

Ancient Documents or Data Compilations

Under Rule 901(8), either documents or data shown (1) to be in such condition as to raise no suspicion, (2) located in a place where, if authentic, one would expect, and (3) in existence 20 years or more are deemed to be properly authenticated.

The common law period of 30 years is reduced by this rule to 20 years, the modern rationale being that a still viable fraud is unlikely after this period of time.

Process or System

Generally

Rule 901(9) codifies the long-standing North Carolina practice of allowing descriptive evidence of a process or system. It should be noted that in many jurisdictions trial judges are increasingly inclined to take *judicial notice* of the reliability of computers, fax machines, and caller identification technology.

Websites and Chat Rooms

Courts in other jurisdictions have also utilized "process or system" provisions similar to those found in our Rule 901(9) to allow authentication of evidence found on websites or gleaned from chat rooms.

The person responsible for maintaining a website is referred to as the "webmaster." Laying a proper foundation for a business website is typically accomplished by a webmaster or other qualified expert testifying with respect to the protocols used to create, maintain and protect the site.

Chat rooms are sites where participants who enter can post messages, either to certain other persons in the "room" or to the whole group. Typically, foundational circumstances employed to either identify the participant or the message content include evidence relating to (1) the screen name used by the participant when in the chat room, (2) information unique to the individual in the chat room, such as an e-mail address, street address, telephone number(s) or other identifying information that may have appeared, (3) evidence that information known to an individual was transmitted to the person using the screen name, and (4) evidence from the individual's computer hard drive indicating that a user used the screen name in question.

Methods Provided by Statute

Rule 901(10) recognizes statutory authentication methods. In North Carolina, such methods include:

(1) Rule 44(a) of the North Carolina Rules of Civil Procedure, which sets forth the manner of authenticating a copy of an official record anywhere in the world. Subsection (b) of the rule also sets forth the procedure with respect to proving the negative, i.e. the lack of an official record; and

(2) Rule 30(f) of the North Carolina Rules of Civil Procedure, which outlines the manner by which a deposition may be certified.

Escaping Authentication

If you simply don't want to deal with any of the complexities of authentication issues, conduct a pre-trial conference and get the parties to stipulate as to authenticity! Indeed, these issues have often been addressed in civil litigation through requests for admissions and/or stipulations before or during trial. Where no legitimate doubt would appear to exist, a skillful trial judge may avoid being "tested" on these issues.

Further, familiarity with the self-authenticating provisions of Rule 902 may also improve your quality of life. Notably, not only public documents and records but also official publications issued by public authorities, newspapers and magazines, and commercial instruments are self-authenticating in North Carolina.

Finally, if you are presented with an embarrassingly baffling technological foundation issue, all else failing, take a recess, access the most convenient communications device (most judge's chambers have a land-line telephone), initiate the communication, and then ask whether your ten-year old can be excused from class long enough to answer your question!

Rule 901. Requirement of authentication or identification.

(a) General provision. – The requirement of authentication or identification as a condition precedent to admissibility is satisfied by evidence sufficient to support a finding that the matter in question is what its proponent claims.

(b) Illustrations. – By way of illustration only, and not by way of limitation, the following are examples of authentication or identification conforming with the requirements of this rule:

(1) Testimony of Witness with Knowledge. – Testimony that a matter is what it is claimed to be.

(2) Nonexpert Opinion on Handwriting. – Nonexpert opinion as to the genuineness of handwriting, based upon familiarity not acquired for purposes of the litigation.

(3) Comparison by Trier or Expert Witness. – Comparison by the trier of fact or by expert witnesses with specimens which have been authenticated.

(4) Distinctive Characteristics and the Like. – Appearance, contents, substance, internal patterns, or other distinctive characteristics, taken in conjunction with circumstances.

(5) Voice Identification. – Identification of a voice, whether heard firsthand or through mechanical or electronic transmission or recording, by opinion based upon hearing the voice at any time under circumstances connecting it with the alleged speaker.

(6) Telephone Conversations. – Telephone conversations, by evidence that a call was made to the number assigned at the time by the telephone company to a particular person or business, if (A) in the case of a person, circumstances, including self-identification, show the person answering to be the one called, or (B) in the case of a business, the call was made to a place of business and the conversation related to business reasonably transacted over the telephone.

(7) Public Records or Reports. – Evidence that a writing authorized by law to be recorded or filed and in fact recorded or filed in a public office, or a purported public record, report, statement, or data compilation, in any form, is from the public office where items of this nature are kept.

(8) Ancient Documents or Data Compilations. – Evidence that a document or data compilation, in any form, (A) is in such condition as to create no suspicion concerning its authenticity, (B) was in a place where it, if authentic, would likely be, and (C) has been in existence 20 years or more at the time it is offered.

(9) Process or System. – Evidence describing a process or system used to produce a result and showing that the process or system produces an accurate result.

(10) Methods Provided by Statute. – Any method of authentication or identification provided by statute. (1983, c. 701, s. 1.)

Rule 902. Self-authentication.

Extrinsic evidence of authenticity as a condition precedent to admissibility is not required with respect to the following:

(1) Domestic Public Documents Under Seal. – A document bearing a seal purporting to be that of the United States, or of any state, district, commonwealth, territory or insular possession thereof, or the Trust Territory of the Pacific Islands, or of a political subdivision, department, officer, or agency thereof, and a signature purporting to be an attestation or execution.

(2) Domestic Public Documents Not Under Seal. – A document purporting to bear the signature in his official capacity of an officer or employee of any entity included in paragraph (1) hereof, having no seal, if a public officer having a seal and having official duties in the district or political subdivision of the officer or employee certifies under seal that the signer has the official capacity and that the signature is genuine.

(3) Foreign Public Documents. – A document purporting to be executed or attested in his official capacity by a person authorized by the laws of a foreign country to make the execution or attestation, and accompanied by a final certification as to the genuineness of the signature and official position (A) of the executing or attesting person, or (B) of any foreign official whose certificate of genuineness of signature and official position relates to the execution or attestation or is in a chain of certificates of genuineness of signature and official position relating to the execution or attestation. A final certification may be made by a secretary of embassy or legation, consul general, consul, vice consul, or consular agent of the United States, or a diplomatic or consular official of the foreign country assigned or accredited to the United States. If reasonable opportunity has been given to all parties to investigate the authenticity and accuracy of official documents, the court may, for good cause shown, order that they be treated as presumptively authentic without final certification or permit them to be evidenced by an attested summary with or without final certification.

(4) Certified Copies of Public Records. – A copy of an official record or report or entry therein, or of a document authorized by law to be recorded or filed and actually recorded or filed in a public office, including data compilations in any form, certified as correct by the custodian or other person authorized to make the certification, by certificate complying with paragraph (1), (2), or (3) or complying with any law of the United States or of this State.

(5) Official Publications. – Books, pamphlets, or other publications purporting to be issued by public authority.

(6) Newspapers and Periodicals. – Printed materials purporting to be newspapers or periodicals.

(7) Trade Inscriptions and the Like. – Inscriptions, signs, tags, or labels purporting to have been affixed in the course of business and indicating ownership, control, or origin.

(8) Acknowledged Documents. – Documents accompanied by a certificate of acknowledgment executed in the manner provided by law by a notary public or other officer authorized by law to take acknowledgments.

(9) Commercial Paper and Related Documents. – Commercial paper, signatures thereon, and documents relating thereto to the extent provided by general commercial law.

(10) Presumptions Created by Law. – Any signature, document, or other matter declared by any law of the United States or of this State to be presumptively or prima facie genuine or authentic. (1983, c. 701, s. 1.)