

# The “Authenticity Crisis” In Real Evidence

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*Digital technology has made the manipulation of images easier than ever before. Fortunately, that same technology holds the key to authenticating those images.*

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**AUTHENTICITY**, in the broad sense of the word, is fundamental to litigation. It acts as a dynamic—as the conceptual glue holding together the pieces of a case. As part of its most basic function, therefore, a jury constantly assesses authenticity. Once falsehood is detected, or truth perceived as misrepresented, a party’s

case unravels. Indeed, tribunals could not serve their function without an ability to assess whether proffered assertions are what they “purport to be.”

Each type and piece of evidence must therefore be subject to a test for authenticity. The tes-

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timony of witnesses is a familiar example. Such evidence is examined for bias, for interest, and for the human capacity to exaggerate or mislead, among other things. Cross-examination, including the comparison of testimony with records of various types, is the chief tool by which we probe witnesses, whose genuineness or authenticity is usually called "credibility."

But witnesses, and their assertions, constitute only one type of evidence. Another category, anciently but misleadingly labeled, is "real evidence." This can be a three-dimensional object, such as a weapon or a piece of art. It can also be, and is far more commonly an "informational record," a message or record containing language, numbers, or other portable information. Such records—examples of which are memos, contracts, and e-mails—are created millions if not billions of times daily, and are involved in practically every dispute. The photograph is a specialized subset of this type of evidence, being both informational and representational. Sound recordings are also informational records.

Informational records are thus key components of our culture, and play a special role in disputes. Whether a given informational record is authentic is already quite often an important issue in litigation. Given society's increasing reliance on records, however, such issues undoubtedly will only increase in importance with time.

**THE CHALLENGE TO OUR SYSTEM OF FOUNDATIONS** • Few lawyers are discussing the fact that digital technology has fundamentally changed the world of real evidence, particularly regarding authentication of informational records. Digitization of records is skyrocketing. It is increasingly easy for a record to enter the digital world, and many records are now digital ab initio. The cost of storage is dropping monthly, thus catalyzing government and com-

panies to switch from files of bulky paper, to files in computer memory.

Equally if not more important, however, is the fact that the cost of *manipulating* such records has also become extremely low. Many tens of millions of people possess software, such as word processing programs, which permit the seamless manipulation of informational records. It is simple to alter a record while keeping an appearance of authenticity. Given such trends, it is time to ask how we test for or even recognize the existence of an *authentic* informational record that exists in digital format.

### **Our Analog Rules Of Evidence**

As background, it is important to remember that the Federal Rules of Evidence were enacted in 1975. At that time, informational records were made with analog technology, and were likely to be "faithful" as a result. For example, traditional photography left a record imprint on a delicate emulsion of film. Sound recordings were stored as imprints on magnetic tape. Papers were written or signed by hand, and mechanical devices like typewriters were used for other communications. Even duplication technologies—such as carbon paper and copier machines—utilized analog technology. Traditionally, the storage of informational records did not facilitate seamless editing, much less allow editing by tools specifically designed for such a purpose.

Because of the relative immutability of the storage media, analog informational records have long been perceived as relatively dependable. Analog technology makes alteration expensive, a process requiring both skill and intent. If alteration happens, it is usually detectable.

As a result of these facts juries became accustomed to assuming that informational records, such as a photograph, are the "real thing." If a witness departs from the information represent-

ed in a photograph, she was assumed to be unreliable, or worse, intentionally deceptive. The analog photographic record, although not guaranteed to be accurate, was enormously convincing.

### **Authenticity Requirements For Photographs, Recordings, And Writings**

Because of the assumptions relating to analog informational records, under the current rules only a few quick and sketchy foundational questions are required to allow writings, photographs, and tape recordings to come into evidence as “authentic”—as being what they “purport to be.” It is up to the cross-examiner, usually without extrinsic evidence concerning the record, to test or attack the authenticity of such evidence.

The foundation required for authentication of a photograph is a good example of our traditional reliance on the technological underpinnings of analog information records. The requirement to admit a photograph into evidence is a mere conclusion by a witness that it “accurately represents the scene depicted.” The photographer is not called to the stand. Nor is anyone who handled the image. Nor is there evidence required of the first image in the chain—the one created by the information existing at the time of the historical event. 5 Jack B. Weinstein & Margaret A. Berger, *Weinstein’s Federal Evidence*, §901.02[3] (Joseph M. McLaughlin, ed., Matthew Bender, 2d ed. 2004). All that is necessary is for someone—not necessarily someone present when the photograph was taken—to declare that a photograph is accurate. See *U.S. v. Mojica*, 746 F.2d 242, 244-245 (5th Cir. 1984). Most often this happens *years* after the event.

The same implicit assumptions about technology exist in the foundational requirement for sound recordings. The U.S. Courts of Appeals for the Second, Fifth, Seventh, Ninth, Tenth, Eleventh, and District of Columbia circuits have

flexible approaches to authentication. Similar to the photograph, a party seeking to admit sound evidence need only show that the recording is an accurate reproduction of sound that was *previously heard by a witness*. Weinstein & Berger, *supra*, at §901.07[3a]. See *U.S. v. Biggins*, 551 F.2d 64, 67 (5th Cir. 1977); *U.S. v. Lance*, 853 F.2d 1177, 1181-1182 (5th Cir. 1988). Once again, proof of the authentic information in the original recording is almost never required.

It is therefore no surprise that the foundation to authenticate an informational record such as a multi-page contract is the conclusion of a witness that the document is accurate. Our authentication scheme does not genuinely inquire into the likelihood that a human being can remember all details of a multi-page contract. Instead, the system relies heavily on the societal assumption that a change in the information represented is unlikely and capable of detection.

### **The Fallacies In Our Current System**

These assumptions are simply fallacious when applied to digital records. And the disconnect between evidentiary assumption and technological fact is growing ever wider. Just a few years ago, a \$30,000 drum scanner was necessary for the high-quality digitization of a 35mm negative. Now one can buy a scanner for \$400. Just 10 years ago, digital cameras were esoteric devices costing many thousands of dollars. Suddenly they are everywhere, inexpensive, and of high quality.

Technology has thus fundamentally changed the way informational records are handled by society. No longer is an image necessarily stored on the molecules of a film emulsion, or as handwriting or printing on paper. In photography, digital technology allows images to be represented as “pixels” in a digital file. Pixels can be made so small that they are functionally invisible. In addition, images can be transferred from the digital domain onto traditional film.