Adventures in Wonderland: Identifying Old West Photos

Daniel Buck

Friedel, Robert O., *Frank and Jesse James in Plain Sight* (Beaufort, MO, sweetironunlimited.com, 2018), 42 pp., photos, softcover, $19.00

Bulle, Marshall "with the help of" Gary Stover, *Wyatt Earp (1869-1870) The Lost Story* (N.p., frontiershadows.com/Wyatt-Earp, n.d.), 87 pp, photos, softcover, $19.00 or download PDF free off website

Rumpelstiltskinning five-dollar flea-market photos into rare, valuable images of Old West celebrities has become increasingly popular since the Dedrick tintype of Billy the Kid fetched $2.3 million at auction in 2013. If lighting can strike once, why not on a regular basis?

Left out of the equation is that the Dedrick tintype has impeccable provenance stretching back to the 19th century Billy world and is accepted as authentic by historians. The objects of the latter-day dreams generally have zero provenance and scant acceptance, and in most cases look nothing like the Old West personalities they are said to depict.

The 1974 Time-Life book *The Gunfighters* featured a photograph described as Jesse James and his gang at their "cave hideout in Missouri." The supposed Jesse looks nothing like him. Veteran Texas antiquarian Kurt House told me last year that S.P. Stevens, the San Antonio man who provided the image, was a "well-known charlatan."
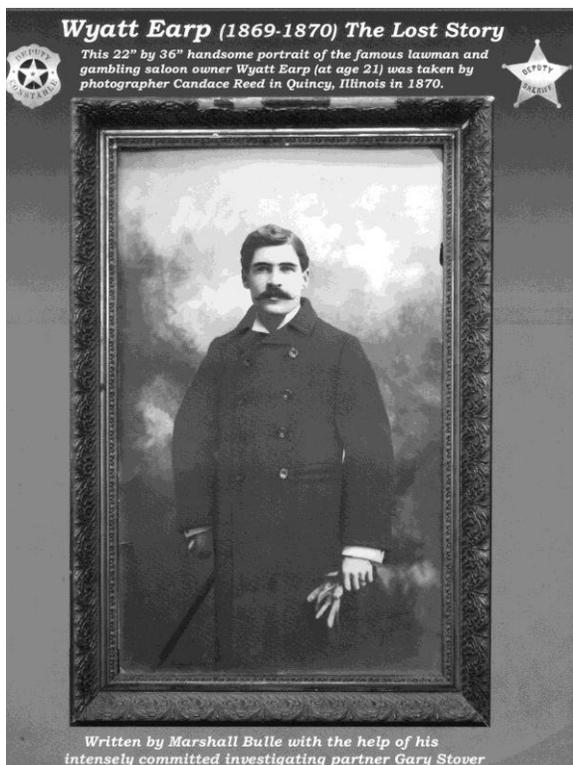
A few years ago, Missouri history reenactor Robert O. Friedel bought a photograph showing some of the same men as those in the Stevens image, including the supposed Jesse. *Frank and Jesse James in Plain Sight* is his story of his endeavor to identify the people in both

photographs, which led him to the conclusion that Jesse was not murdered by Bob Ford, but faked his 1882 death, and lived several more decades before dying in 1927 as William Henry Holland. Friedel's account of how the charade unfolded is rather short on evidence and long on speculation -- make that convoluted speculation -- and detours into a comparison of fake Jesse photos with still more fake Jesse photos. The irony is that the supposed Jesse in the Time-Life image appears to be the same man in Friedel's photo, which was a modest find, but neither one is Jesse James.
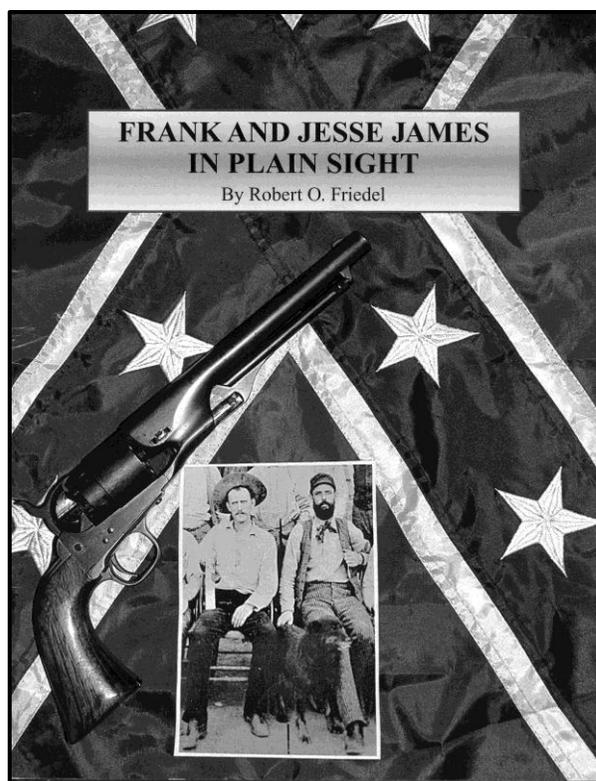
Not to complicate matters, but William Henry Holland was inadvertently disinterred during the 2000 exhumation of yet another Jesse James pretender, J. Frank Dalton. Two inconvenient facts about Holland, per a CBS News report on the exhumation snafu, are that he had only one arm, one short of Jesse, and was born in 1883, too late for the Civil War and subsequent James gang delinquencies. Not to mention too late for Jesse himself, who had died the year before.

Wyatt Earp (1869-1870) The Lost Story, a collaboration between two Colorado men, Western memorabilia collector Marshall Bulle and antiques dealer Gary Stover, relates their efforts to establish that a large-format photograph of an unknown man that Bulle had purchased in 2006 for $2,000 was in fact a portrait of Wyatt Earp taken upon his marriage to Urilla (Aurilla) Sutherland in 1870.

Wyatt Earp (1869-1870) The Lost Story
This 22" by 36" handsome portrait of the famous lawman and gambling saloon owner Wyatt Earp (at age 21) was taken by photographer Candace Reed in Quincy, Illinois in 1870.

Written by Marshall Bulle with the help of his intensely committed investigating partner Gary Stover

The prosperous looking, smartly dressed, well-fed man in the photograph does not look at all like the lanky Wyatt Earp of the 1870s Dearborn photos, the 1876 tintype with Bat Masterson, or the 1883 Dodge City Peace Commission image. Moreover, Earp at the time of his 1870 marriage was but 21, and the man in the 1870 image looks to be in his 30s. Bulle dismisses the two Dearborn photos (about which, it must be said, there is some controversy) as not being of Earp and largely ignores the 1876 and 1883 images (which are universally accepted by Earp students), focusing his attention instead on a ca. 1887 3/4 profile portrait of Earp, thought to have been taken in

San Diego. It shows an older, stouter lawman, closer in physique to the 1870 gentleman, although obviously not close in age, making any comparison difficult.

This is a classic cart-before-the-horse scenario. Bulle starts by asserting that the photo is Wyatt Earp's wedding portrait (though strangely without his bride), meaning that it had to have been taken in 1870, meaning Earp has to be 20. In other words, he starts with a 20-year old Wyatt Earp, forcing all the evidence to fall in line. None of it does.

Moreover, Bulle uses in the book for his main comparison a dark, shadowy version of the 1887 Earp image copied from Glen Boyer's *Wyatt Earp's Tombstone Vendetta*, arguing that it shows a birthmark on Earp's left ear that matches a similar mark on the 1870 man's left ear. The marks looked to me like shadows, and different shadows on each ear at that. Better, sharper and clearer versions of the later image Bulle rejected, I gather for lack of shadows. Photo shopping, if you will excuse the pun.

An attempt to do a grid comparison, p. 19, between the two heads falls flat. The 1870 man's head in the picture is almost 3 1/2 inches high, while Earp's head is only 3 1/8 inches high, making any comparison ludicrous. Grids are common with photo comparisons, functioning more as what magicians call "misdirection," causing the viewer to be distracted by the grid lines, instead of paying attention to the faces.

The 1870 photo bears the handwritten name Burger & Reed. Bulle devotes extraordinary attention to trying to establish that the photographer was Candace Reed, who had a studio in Quincy, Illinois, at a time Wyatt Earp could have conceivably passed through. There is no direct evidence, however, that he was in Quincy following his wedding or that Reed took the photograph, and zero evidence that she ever operated as Burger & Reed. A possible connection to a studio reported to have done business as Burger & Reed in 1890s Wisconsin, where Bulle had traced earlier ownership of the photograph, is dismissed.

The shaky provenance of the photograph does not stop Bulle from declaring in his introduction that the photo is "one of our country's great treasures," that "the authenticity of this photo is hard to refute," and that "there is no conceivable way that the man . . . can be anyone other than Wyatt Earp." Bulle describes the evidence that he and Stover discovered as "indisputable," which is absurd. Evidence no matter how solid is by nature disputable. That's what trials are all about.

Bulle had not paid much attention to the possibility that his photo might be of the young Wyatt Earp until 2016, when he saw a *National Geographic Channel* program about a tintype purportedly showing Billy the Kid and friends playing croquet. Bulle contacted Kent Gibson, the program's forensic expert.

I should say at the outset that I am not a forensic anything, in fact, I disfavor that word, along with its playmate, expert, because the words are tossed around with way too much abandon. (I have however sat on a jury or two, which makes me a forensic-expert spectator.) Nor do I have any particular computer skills. I'm just a guy with a skeptical bent and time on his hands. My approach to most everything is, what's wrong with this picture? Among those who haunt auctions, the injunction is *caveat emptor*.

Given my interest in Wild Bunch and assorted other miscreants, more than my fair share of photographs of supposed Old West luminaries have landed in my inbox, accompanied by emails from their hopeful owners. Seemingly, every male with a bowler hat is Butch Cassidy or the Sundance Kid. Every woman with a roll-top hairdo is Ethel Place. None have as yet panned out, but there's still time. Those who work the Billy, Jesse, Doc, or Wyatt corridors I'm sure have had similar experiences. We are accused by hopeful photo owners of being nay-sayers, but it would be more accurate to say we are practiced veterans. Something like 99% of the photos never pan out, meaning we almost invariably say no, with good reason. So perhaps nay-sayer is not an accusation but an honorific.

Some years back forensic (that word again) anthropologist and University of Oklahoma professor Clyde Snow told me that the eye -- meaning the brain -- is naturally inclined to look for similarities when comparing faces. That's even more true when you have been led to think or want to think that the two photos might depict the same person. The trick, he said, in comparing photographs is to look for differences. I've found that approach to be useful, though not foolproof. Sometimes different people can photograph surprisingly similarly, and perhaps counterintuitively, the same person can photograph surprisingly different. Nonetheless, start with differences, not similarities.

In any event, the hopeful photo owner usually starts with similarities and never leaves the neighborhood. The Billies are always slender young men with dark hair; the Wyatts have a healthy moustache, the Butches wear a derby. Like hanging a winning lottery ticket on only one or two numbers of the 12-digit sequence.

In the pre-computer days, supposed celebrity Old West photos were eye-balled by collectors, antiquarians, and researchers who knew the field. Then along came facial-recognition software, which tried to replace practiced eyes with artificial intelligence, which follows instructions, called algorithms, essentially statistical techniques of one sort or another. An algorithm, which had never before seen a photograph of Wyatt Earp, was going to authenticate his visage on other photographs. At least that was the plan.

Facial-recognition software might be seen as an electronic version of the Bertillon system, Bertillonage, a method of identification based on physical measurements invented by Alphonse Bertillon in France in the latter part of the 19th century. Ironically, considering the subject at hand, the system worked best when accompanied by photographs, usually a front and side view of the suspect. Bertillonage fell out of favor in the early 1900s, because of the difficulty in getting police departments to do accurate computations and the realization that

some people have similar measurements. Moreover, a better system came along, fingerprints. Now Bertillonage is back, in the form of facial-recognition technology, but with some of its original drawbacks and as well a new one, the measurements are taken not off a live body but from photographs, photographs of every variety, resolution, and quality.

Bertillon had also invented a mathematically based graphology system, a prototypical handwriting recognition technology, which landed him in the middle of the Dreyfus Affair. He testified as an expert witness on the authenticity of the handwriting on a pivotal document in the treason trial of French army officer Alfred Dreyfus. As a result, Dreyfus was convicted. Several mathematicians later determined that Bertillon's system was pseudoscience, which helped lead to the overturning of Dreyfus's conviction. Bertillon's handwriting recognition system was an early example of junk forensics.

One reason that Bertillon's testimony swayed the court during the trial was that even though no one really understood what he was talking about, he sounded scientific. "The obscurity of [Bertillon's] system defends him against criticism," the mathematicians reported, "just as the cuttlefish surrounds itself with ink to escape its enemies." (See Andrew Boyd, "Math and the Dreyfus Affair," *Engines of Our Ingenuity*, http://uh.edu/engines/epi2933.htm.)

Bulle's forensic savant, Kent Gibson is a controversial figure because his authentication of several photographs of 19th and early 20th century personages has not been widely supported by historians. For most of his career, starting in the 1970s, he has worked as audio engineer and producer, winning an Emmy and several Grammys, and has testified in court on audio and video matters. His website, Forensicaudio.org, says that he has worked with California courts and law enforcement, as well as with federal agencies like the FBI, Secret Service, and Homeland Security. His "new specialty is authenticating antique images."

He told Bulle that he had developed the Gibson Likeness Score (GLS), which "interprets results into a percentage even when the [facial recognition software] program does not give a specific number." To a layman like me that sounds like facial recognition abracadabra.

Gibson is not the only facial recognition technology enthusiast active on the antique photography scene. Justin Shaw, a South Carolina tintype collector, has claimed to have discovered previously unknown photographs of Billy the Kid, Wyatt Earp, John Wesley Hardin, Doc Holliday, Bat Masterson, Jesse James, Butch Cassidy, and other 19th century worthies. Per a 2011 South Carolina media story, Shaw enlisted "facial recognition expert Robert Schmitt," in his quest to authenticate his supposed Billy tintype. Schmitt, the former president of Biometric Systems, which does security work for casinos, used an unspecified "high-tech computer program" to establish that "the two men are, in fact, the same person." Shaw said he was "125% convinced."

His 125% ardor didn't stop with Billy. On his website, "Outlaws, Politicians, Secret Societies, Microchips & The Apocalypse: Double Lives, Faked Deaths, Illuminati & The "Fallen Angels," wildwestoutlaws.wordpress.com, Shaw uses his photographic discoveries to support a conspiracy so immense: "It would be an incredible coincidence that ALL these Wild West legends came from the same area centered around a Knights of the Golden Circle/Illuminati castle, if it just stopped there… But it didn't… As it turned out they were all family, related via blood, marriage, and secret society membership!" The Old West meets the Sopranos.

Facial recognition technology as a forensic tool is growing just as forensics itself is coming under increasing criticsm. "The criminal justice system has a problem, and its name is forensics," wrote Michael Shermer in *Scientific American* in 2015, referring to a 2009 National Research Council that determined that among the forensic areas found to be "flawed and in need of more research are: accuracy and error rates of forensic analyses, sources of potential bias and human error in interpretation by

forensic experts, fingerprints, firearms examination, tool marks, bite marks, impressions (tires, footwear), bloodstain-pattern analysis, handwriting, hair, coatings (for example, paint), chemicals (including drugs), materials (including fibers), fluids, serology, and fire and explosive analysis."

Even the avowed gold standard of forensics, DNA, is coming under fire. In "A Reasonable Doubt: The False Promise of DNA Testing," *The Atlantic*, June 2016, Michael Schaer related a scandal with the Houston police department. Its crime laboratory "was routinely misinterpreting the most basic [DNA] samples." Schaer quoted UC Irvine professor William Thompson, who has written extensively on DNA evidence, as concluding, "it was no longer a question of whether errors are possible. It was a question of how many, and what exactly we're going to do about it."

Some of the problems are technical, DNA samples are mishandled or contaminated, and others are procedural, labs are given bonuses for DNA results that lead to a conviction. There's also a secrecy problem. Private companies that have developed state-of-the-art DNA tests refuse to divulge their source codes. As a result, neither defense attorneys nor jurors can properly evaluate the evidence. "The data go in and out comes the solution," Thompson lamented, "and we're not fully informed of what happened in between." Not unlike facial recognition experts who scan a photograph, run it through its algorithmic paces, and announce, voila, Billy the Kid.

The ubiquity and magnified importance of forensic evidence, especially DNA, on true crime and police procedural television shows has led to the "CSI effect." Jurors in real life criminal trials not only expect forensic evidence, they demand it. There are some studies that indicate that the CSI effect is actually a "tech effect" that influences even those who do not watch crime shows but who are generally aware of advances in modern science and technology. On the other hand, to be fair, there is some data that the entire phenomenon, whatever its causes, is

exaggerated. The jury is still out. Regardless, the expectation and demand for scientific evidence has bled over into the antique photography world. Unexplained and little understood software can trump in the public's minds the judgment of seasoned Old West researchers. To paraphrase Chico Marx in *Duck Soup*, "Well, who ya gonna believe, my algorithms or your lying eyes?"

It's not that facial recognition systems, a form of biometric analysis descended from Bertillonage, do not work. The question is how well do they work, in which cases, and under what conditions? Anyone with even a passing familiarity with the literature knows that the effectiveness of facial recognition technology is uneven, and depends on many factors, including the clarity and number of images in comparison, the match threshold, the software (there are innumerable competing versions), and the skill of the technician. False positive and false negative identification rates vary widely and can go as high as 100%.

A 2006 study of facial recognition systems funded by the National Science Foundation and the Department of Homeland Security concluded that "there was wide variability in the results . . . and certain of the poorer performing systems achieved performances close to random." A 2013 FBI memorandum pointed out the importance of image clarity: "the performance of facial matching systems is highly dependent upon the quality of the images enrolled in the system." The systems work better with artificially illuminated, front pose passport photos than with small, corroded tintypes of hat-wearing cowboys.

Many argue that facial recognition systems have limited value with old photographs, especially when comparing a single old photograph of no definite provenance with a photo of an Old West celebrity. "The truth is," historian John Boessencker wrote in *Wild West* last year, "facial recognition technology on its own is insufficient to identify historic images."

Then there is the common problem of lookalikes. Anyone who has spent much time studying photographs knows there are

lookalikes and sort-of-lookalikes out there. Search through enough flea market bins and you are bound to find a possible Billy or Butch or Jesse.
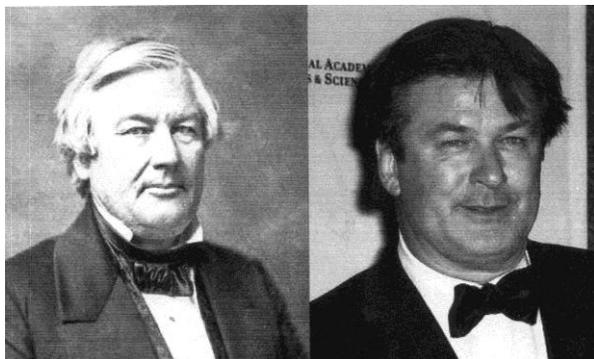
President Millard Fillmore and actor Alec Baldwin are featured on several celebrity lookalike websites. Doppelgangers are more common than one might think. Sometimes the two people are related, however distantly, but usually the reason for the similarity is nothing more than coincidence. (Quora.com)

There are several websites that show entertainment celebrities who look like other celebrities, and celebrities who look like historical figures. Alec Baldwin and Millard Fillmore, for example, are absolute mirror images. There are other websites, like *Twin Strangers* -- https://twinstrangers.net/ -- that will find your doppelganger among millions of archived photos. And then there is Google's *Arts & Culture* app, which will locate your "art twin" among thousands of paintings, sculptures, paintings, and other art objects in museums around the world.

Gibson provided Bulle with an affidavit in which he stated that "based on the previous evidence I conclude with a very high probability that Mr. Bulle's Portrait is an authentic portrait of Wyatt Earp." He did not specify precisely what was the "previous evidence," or even whether it was his or Bulle's. In an addendum, Gibson upped the ante, saying that he'd run the 1870 photo through more "new software packages," added in the ear "birthmark," the shadow present on the dark Earp photo, and

could now give the image a Gibson Likeness Score of 81%, "further evidence that the Bulle portrait is indeed VERY LIKELY an authentic picture of lawman Wyatt Earp."

The percentages that avowed facial recognition enthusiasts toss out are murky. What does 80% mean? An 80% probability? As in a wager? Or that the purported photo was a better match than 80% of the photos in the data base? Meaning that one out of five photos was an even better match? Or that the purported photo matched 80% of the data points on the authentic photo? And what does that mean anyway? Would you buy a car if the dealer said there was an 80% chance the title was valid, meaning that there was a 20% chance it was not? A suit if the tailor said that 80% of the measurements matched you and 20% did not?

These kinds of details are never explained in the buoyant media stories that run below headlines like, "A Photo of Billy the Kid Bought for $10 at a Flea Market May Be Worth Millions," which ran in the *New York Times* in November 2017. In the journalism demimonde these stories are features, "too good to check." In modern online lingo they're clickbait. You will never see a story with the headline, "A Photo Not of Billy the Kid Bought for $10 at a Flea Market May Be Worth $5." The reader wants to read about the lucky soul who found Joan of Arc's skateboard at a local yard sale and is now a potential millionaire.

And because the articles run as feel-good features, there is usually no skepticism. No delving into the professed facial recognition expert's qualifications, the nature of the comparisons, the specific software used. The reader will only experience the enthusiasm of the photo's owner and the certainty of his hired expert. There's no way an interested reader can question what the facial recognition expert did because it's not explained.

Most of Gibson's affidavit, for example, promoted the virtues of facial recognition technology generally, rather than discussing anything specific to the photograph under examination. His central point, "given

reasonable controlled indoor lightening, the current state of the art in facial recognition is 90% verification in a 1% false acceptance rate," is seriously misleading. The 2003 report he cited said that of ten software systems tested, sifting some 120,000 modern, indoor-lit visa application photos of some 37,000 individuals, the best of the ten had a 90% recognition rate and a 1% false acceptance rate. Presumably, the others did worse.

A more fruitful study would be to compare supposed Wyatt Earp images with thousands of 19th century photos -- tintypes, albumens, ambrotypes, etc. -- including accepted Earp images. This kind of study has never been done because the federal government is interested in nabbing 21st century visa-applying terrorists, not Wyatt Earp.
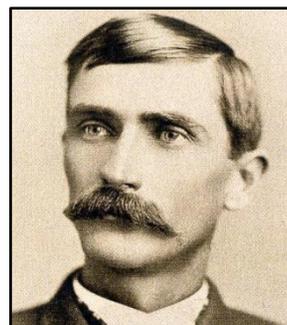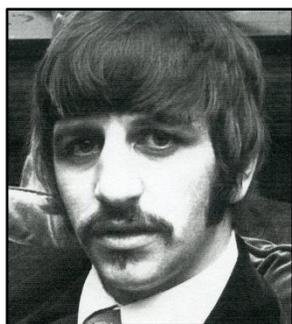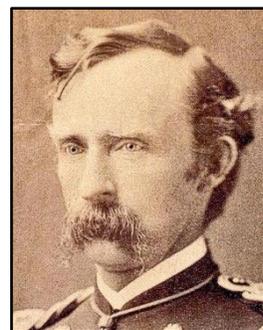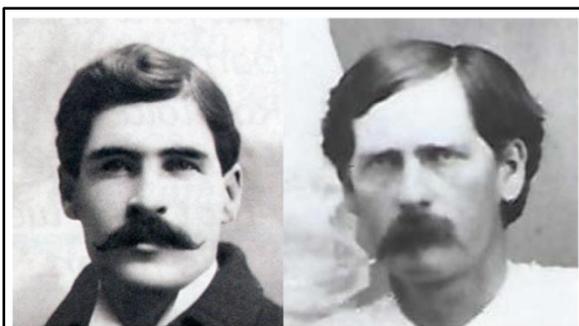
Clockwise from top left, 1/ Burger & Reed anonymous man; 2/ Wyatt Earp; 3/ George Armstrong Custer; 4/ Pat Garrett; and 5/ Ringo Starr. Face++'s facial recognition program determined "probability very high" that the Burger & Reed man, Earp, Custer, and Garrett were the "same person," and that Ringo Starr was a "probability very high" match for Earp and Garrett. A second program, Kairos, said that Burger & Reed anonymous, Earp, and Garrett were a match, but not Custer or Ringo.

I did a quick, back-of-the-envelope study of my own, uploading the face of the anonymous man in the Burger and Reed photo into *Google Images'* Reverse Face Search, which scours millions of online photos. It returned only 15 "Visually Similar Images," including Adolf Hitler, Abraham Lincoln, and George Orwell, but not Wyatt Earp.

I also plugged the 1870 anonymous face

and the 1876 Earp face into Amazon Rekognition's Facial Comparison service. No match. Two different people, but then we can see that with our very own eyes.

Next up, I tried Face++, a major Chinese company trying to get a foothold in the American market, and apparently the maker of one of the softwares that Gibson used. Last year, *MIT Technology Review* picked Face++ as

one of 50 companies worldwide "that best combine innovative technology with an effective business model." First, I compared the 1870 man with the 1876 Earp. Face++ came back immediately: "Is the same person. Probability very high." Hmm, I thought, do I need new glasses? I decided to go a step further and compare the 1870 man and the 1876 Earp with other moustache-adorned gentlemen from 19th century photographs. My first volunteer, Pat Garrett, elicited the same conclusion: "Is the same person. Probability very high." Then, George Armstrong Custer. Same result. In other words, Face++ concluded that the 1870 man, Earp, Garrett, and Custer had a very high probability of being all the same person. Face++ was rewriting Western history: Wyatt Earp died at Little Big Horn five years before he killed Billy the Kid.

I gave Face++ one last chance, throwing a young, moustached Ringo Starr into the mix. The resulting probabilities that they were the same person as Ringo were: Earp and Garrett, "very high"; Custer, "normal"; and 1870 man, "low." I think "normal" means your guess is as good as mine. I queried Face++'s office in Seattle for comment. No reply.

I decided to give an American company, Kairos, an opportunity, running the same test as I ran with Face++. Kairos matched the 1870 man, Earp, and Garrett, but declined to match Custer. Marginally better than Face++ but still a colossal pratfall. I queried Kairos for comment. No reply.

As a change of pace, I wandered over to Google's *Arts and Culture* app. My own bearded visage scored a 74% match with several portraits, including that of the Apostle Paul. So there. Then I loaded a headshot of the anonymous Burger & Reed man. Four pairings hit my Android, including an 80% match with a sketch of a 19th century Turkish Pasha and a 77% match with an 1850s photograph of French society painter Alexis Perignon by Nadar. Emboldened, I plunged on, loading Earp's face from the 1876 tintype. A single score, an 83% link with a wood engraving of an unnamed bearded member of the 1884

Australasian Federal Convention in Sydney. Wyatt Earp at a parliamentary conference in Sydney? I don't think so.

I did a quick exercise with the supposed Billy the Kid and Pat Garrett's faces in Frank Abrams's tintype. Using Amazon Rekognition's facial comparison feature, there was no match with the actual Billy or Garrett's faces. (Conversely, using the program's object and scene detection, which purportedly can identify an image as either a face, tree, house, etc., the result for Abrams's tintype's faces was asphalt or tarmac, but not faces at all. Go figure.) Kairos did not match either the supposed Billy or Garrett with the real deals. On the other hand, Face++, matched Abrams's Billy with the actual Billy, but did not match his Garrett with the actual Garrett. As a cross check. I ran Abrams's Billy against the face of the man sitting in the middle. Bingo. A match. In other words, per per Face++, Billy is in the tintype twice. Yikes. A more probable answer is that the tintype's poor resolution and deteriorated condition plays havoc with the overworked algorithms in the facial recognition program.

Frank Abrams believes his tintype depicts Billy the Kid, second from left, and Pat Garrett, far right. Facial recognition consultant Kent Gibson agrees. Amazon Rekognition, however, declared them no match with authentic images of Billy and Garrett. Kairos as well said no match for either one. Face++ declared a match with Billy, but no match with Garrett. Face++ also determined that the putative Billy and the man in the middle were the same person. Two algorithmic Billys in one tintype.

Similar conclusions resulted from comparing the supposed tintype of Billy the Kid playing croquet with the authentic Billy, the Dedrick tintype. Amazon Rekognition's face comparison found no match, while Face++ could not detect a face on either image.

Finally, I pulled off the Internet a recent photo of a white-haired Kent Gibson and ran it through Google Reverse Image. In 1.04 seconds it came back with matches to the same photo on two websites, and as well to the images of 14 deceased white-haired gentlemen that had been posted on various mortuary obituary pages.

My informal study I hasten to add was not in any way scientific. I do not have the resources of, say, the National Science Foundation, nor were facial recognition technology companies cooperative in answering my queries. What I did, however, any WWHA *Journal* reader can also do, using Amazon and Google programs freely available online, and demo programs offered online by companies like Face++ and Kairos.

Gibson also did not mention in his affidavit extolling facial recognition software that the 2003 report had said that previous studies had pointed out a major caveat, that "face recognition performance" is "a function of imaging properties." As the old computer joke goes, garbage in, garbage out, GIGO. Results are only as good as the information entered. The report mentioned that outdoor lit (which includes most natural-light 19th century photos) and non-frontal images result in less reliable results. Antique photos of varying resolution, pose, lighting, facial expression, quality, and image corruption are even more difficult to evaluate. Hats and facial hair complicate matters even further.

Earlier this year, *The Guardian* reported that the police in Wales had "wrongly identified as potential criminals" more than 2,000 individuals, that is, 92% of 2,470 potential matches turned out to be "false positives." The police blamed the 92% error rate on "'poor quality images' supplied by government agencies." GIGO. In July, the ACLU of Northern California disclosed that it had used Amazon Rekognition, which is marketed to police departments, to compare photos of members of Congress with a database of "25,000 publicly available arrest photos." Rekognition "incorrectly matched 28 members of Congress, identifying them as other people who had been arrested for a crime." In other words, all 28 matches were wrong.

Another illustrative example is the 2013 Boston Marathon bombing case. Even though the authorities had images of the two suspects in their data bank, the CCTV footage of them drew a blank. It was only after the footage was released to the media that their aunt recognized one of them and called the FBI tip line. Auntie's cerebrum trumped artificial intelligence.

Gibson's public involvement in questioned photo cases has not been without dissension. During the 2016 *National Geographic* show, Gibson declared that the tintype depicted Billy but that if he had to testify under oath he would deny it was Billy. I emailed him at the time asking how he could reconcile those two contradictory statements. He did not reply.

He was also on the program as a croquet expert, claiming that 19th century croquet mallets were universally 36 inches in length, and thus he could use the mallet in the tintype to measure Billy the Kid's height. Mallets, however, were sold in lengths ranging from 24 to 40 inches, per croquet catalogues and guides of the era, meaning that the mallet in the tintype is useless as a metric.

Last year, Gibson was in the news again, declaring that an undated, blurry photograph of a group of people on a wharf in the Jaluit Atoll in the Marshall Islands "very likely" included Amelia Earhart and her navigator Fred Noonan, thereby proving that they did not die during their 1937 flight, but had been captured alive by the Japanese. "There's nothing that points me in another direction," Gibson confidently informed *People* magazine.

The person he thought "very likely" Earhart was seriously blurry, of indefinite gender and ethnicity, with his/her back to the

camera, showing only a featureless side-view of the head. In a July 5, 2017 broadcast, *NBC News* said that Gibson had identified the person as the American aviator by comparing the "body measurements of the seated woman with previous photos of Earhart." Precisely how Gibson did body measurements on a photograph was not explained.

Gibson also told *NBC News* that he had identified a man on the wharf as Noonan. The man's face was blurry and obstructed on the left side, but on the visible right side had a high receding hairline. A photo of Noonan, showing "a very sharp receding hairline" on the right, had been overlaid on the man on the wharf, and Gibson concluded that the man was Noonan. Within 48 hours, the Earhart Project of the International Group for Historic Aircraft Recovery (TIGHAR) issued a bulletin, "The Jaluit Photo: What's Wrong With This Picture?" TIGHAR had determined that the photograph of Noonan had been reversed so that his pronounced left-side receding hairline, where he parted his hair, was on his right.

A few days later, a *National Geographic News* story, "Amelia Earhart 'Lost Photo' Discredited," reported that a Japanese researcher, after spending 30 minutes on a library website, established that the Marshall Islands photograph had been published in a Japanese travel book in 1935, two years before Earhart and Noonan's flight. "I don't know what to say," Gibson told *National Geographic News.*

As for larger question, how best to evaluate Old West photos, here's a decidedly less technological, but perhaps more reliable approach. Consult people in the field. At the WWHA Roundup in Springfield, MO, this past July, Roy Young showed the Burger & Reed photograph to about 100 members present at an evening session, asking them if they thought he was, among others, Doc Holliday, Billy the Kid, Bat Masterson, Wild Bill Hickock, Frank Stilwell, or an unspecified Earp brother. Only two members thought the Burger & Reed man might be an unspecified Earp brother. We'll call that a WWHA Likeness Score of 2%.

A note on image sources. The detail from the Burger & Reed photo comes from Marshall Bulle's book, and the other images were downloaded from the Internet or shared with me by colleagues over the years. A proper study would entail visiting private and public collections around the country and making high-resolution scans of the originals, something I intend to do upon purchase of a winning Powerball ticket. In the meantime, the images you see will have to do. DB

Meet the *authentic*
	western legend
		almost forgotten
by time . . .

Raw courage,
keen-eyed tracker,
	riding for justice and the
rule of law

	wherever the long trail
leads

. . . meet the legend,
and bring the legend
home,
inside back cover