George Mason American Inn Of Court

Program Title: A Brave New World: The New Trial Attorney and iPad Technology

Wednesday, November 20, 2013

Student Presenters: Jennifer Arner
Jared McClain
Joshua Cox

Program Team: The Honorable Lisa Mayne, Fairfax General District Court
Dawn E. Boyce, Bancroft, McGavin, Horvath & Judkins, PC
Jonathan S. Rochkind, Carluzzo, Rochkind & Smith PC
Jesse R. Binnall, Bronley & Binnall, PLLC
Taylor S. Chapman, DiMuroGinsburg, PC
Alicia Lehnes Summers, Michael L. Davis & Associates
David Rust Clarke, Blankenship & Keith PC
Joyce M. Henry Schargorodski, JHS Family Law Group
Sean D. O'Malie, Law Offices of Sean D. O'Malie, PLC
Elanna D. Weinstein, The Myerson Law Group

AGENDA

I. Ethics Dilemna
(7:30 p.m. – 7:35 p.m.)

II. Student Presentation - Introduction
(7:35 p.m. – 7:40 p.m.)

III. Skit – Witness Examination Using iPad
(7:40 p.m. – 7:55 p.m.)

IV. Demo: 3 Useful Apps for Trial Lawyers
(7:55p.m. – 8:20 p.m.)

V. Questions & Answers
(8:20 p.m. – 8:35 p.m.)

A BRAVE NEW WORLD: THE NEW TRIAL ATTORNEY AND iPAD TECHNOLOGY

Part One: An Introductory Perspective

Elanna Weinstein
Joyce M. Henry Schargorodski

Attorneys who remain resistant to technology can fall into the trap of assuming that technology is a tool for the young, believing that the majority of their jury will neither expect nor understand new technology. These attorneys misunderstand their purpose and their jury. With more and more jurors having smart phones, owning computers, and using the internet, it is even more important to use technology in the courtroom. Jurors have come to expect it. One indicia of that is the recent change by the Fairfax Courts permitting personal computers, tablets and cell phones in the courthouse. See ORDER RELATING TO RECORDING EQUIPMENT AND PORTABLE ELECTRONIC DEVICES, Judge Dennis Smith, December 4, 2012. This policy change resulted from a desire by jurors to have access to their electronic devices. Address by Judge Dennis Smith, *The Ultimate View from the Bench CLE*, (September 10, 2013)

Two recent studies also support a trial attorney's use of technology in the courtroom. The Honorable Donald E. Shelton from the Circuit Court of Washtenaw County in Ann Arbor, MI, Gregg Barak, Ph.D., and Young Kim Ph.D. conducted formal studies to "determine if there was any empirical evidence behind the commonly held beliefs that juror expectations for forensic evidence and their demand for it as a condition for conviction are linked to watching law-related television shows." Hon. Donald E. Shelton, *Juror Expectations for Scientific Evidence in Criminal Cases: Perceptions and Reality about the "CSI Effect" myth*, 27:1 T.M. Cooley L. Rev. 1 (2010). They surveyed 1027 jurors in Washtenaw County in 2006 and 1219 jurors in Wayne County in 2009. Although the data generally disproved that exposure to CSI dramas had any direct effect on conviction, i.e., there was no significant differences between CSI watchers and non-CSI watchers in nine of the thirteen scenarios, something else was discovered. The studies found that 46.3% of the jurors surveyed in Washtenaw County and 58.3% of the jurors surveyed in Wayne County did expect to see some kind of scientific evidence in every criminal case. *Id.* at 8, 13. Judge Shelton believed that a broader *tech effect* existed that influenced juror expectations and demands. *Id.* at 11. To test the suggestion of a "*tech effect*," the survey of the Wayne County jurors included questions "designed to determine the level of their usage of computers and other technological equipment including various types of cellular phones, cable or satellite-television access, and GPS navigational device. *Id.* at 16. Nearly

87% of the Wayne County jurors that were surveyed reported that they had a computer in their home, and more than 40% of them could also gain access to the Internet by using their cell phones. More than 92% of the jurors surveyed had cell phones, and 85% accessed television through cable or satellite. The Wayne County study results indicated that the more sophisticated jurors are with their own use of technology, the more they expect the prosecution to use scientific evidence to present its case." *Id.*

"The 2006 Washtenaw County and the 2009 Wayne County studies clearly demonstrate that jurors very much expect the introduction of scientific evidence at criminal trials. These high expectations result in large part from what we have described as the tech effect of public awareness and use of the powers of modern technology, coupled with public awareness of the availability of that technology as an important part of the criminal adjudication process." *Id.* at 23.

According to Judge Shelton:

> "One thing is sure – playing the "Luddite" no longer works for the prosecution or the defense. The Luddites were a sect that opposed almost all of the innovations of the Industrial Revolution... Lawyers love to use the same tactic. Some lawyers think it is endearing, or even cute to tell the jury, *I don't know anything about all these computers and DNA stuff; shucks, I can't even program the remote on my TV to watch football.* It should be obvious from these studies that this approach will not work anymore. The jurors do know about those things, and they do not think it is cute anymore. They think, rightly, that either the government or the defendant is not getting very good representation." *Id.* at 33.

Finally, there is the question of whether you are competently representing your client if you do not use technology in the courtroom. *Id.* Rule 1.1 of the Virginia Code of Professional Regulations provides that "A Lawyer shall provide competent representation to a client. Competent representation requires the legal knowledge, skill, thoroughness and preparation reasonably necessary for the presentation." In August, 2012, the American Bar Association amended comments to its Model Rule 1.1 to add to the definition of "competence" a duty to keep up with the "benefits and risks associated with relevant technology." Remarks by John M. Tran, *A Conscientious Trial Lawyer's iPad,* McLean Bar Association CLE (February 13, 2013.

PART TWO: 3 Useful Apps for Trial Lawyers

(Jesse Binnall, Taylor Chapman, Joshua Cox)

- PDF Expert
- Dropbox
- TrialPad

1. PDF Expert

a. Basics

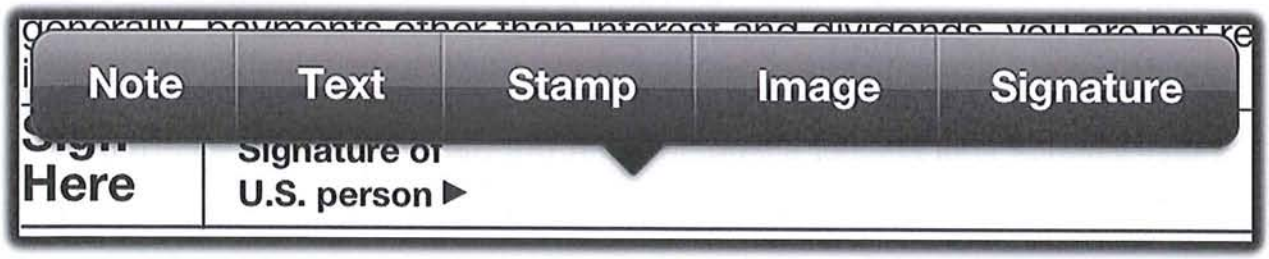
i. Lawyers deal with PDF documents on a daily basis – depositions, discovery documents, pleadings, cases. One of the best apps for handling PDF documents is PDF expert. It currently costs $9.99 on ITunes.

b. What does PDF Expert allow you to do?

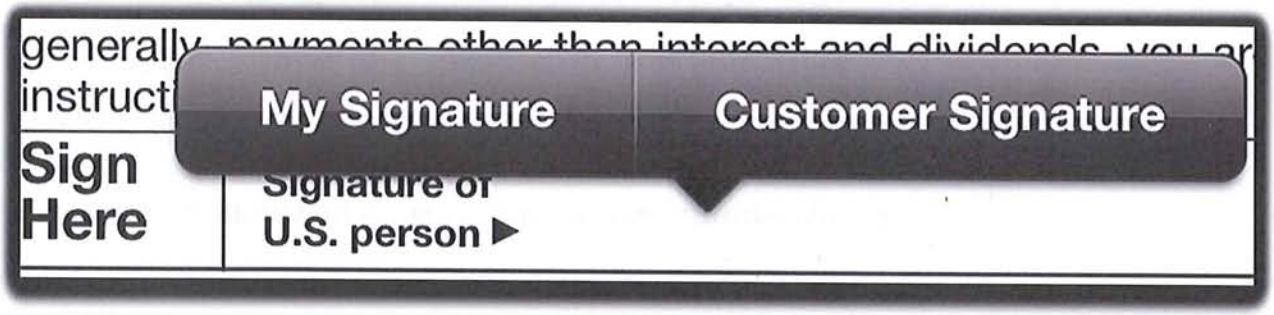
i. Sign documents on your iPad

1. The most important feature it provides to lawyers is the ability to sign any PDF document on your Ipad with your own handwritten signature. This feature is key for lawyers who often work away from the office.

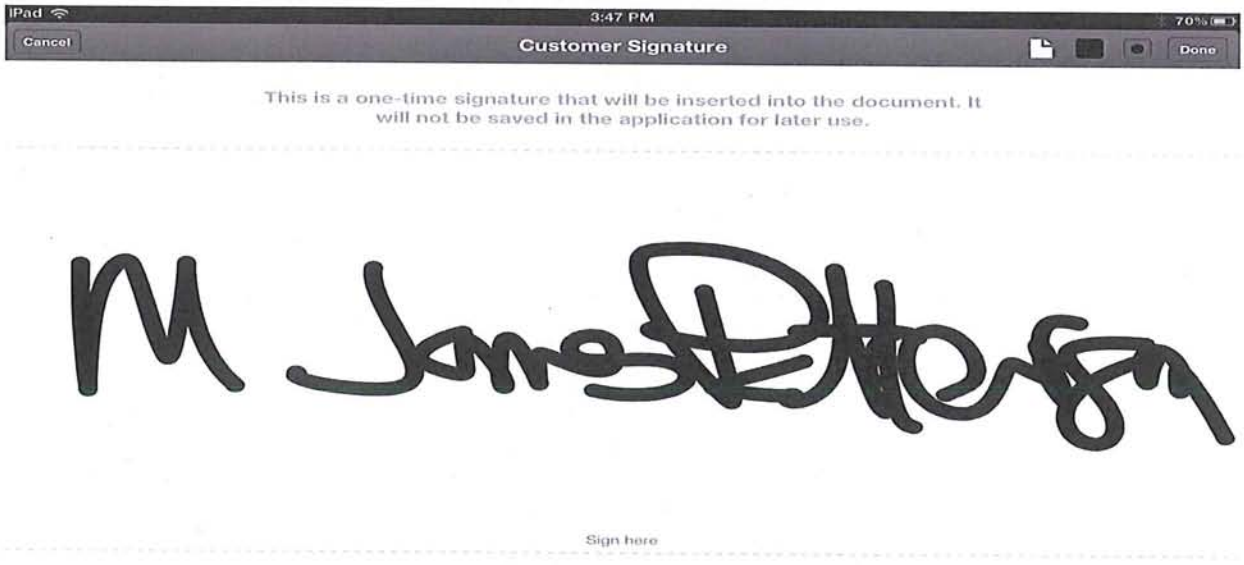
Simply press down on the location where you want to add a signature and a number of options will appear.



Once you press signature, you will be presented with the options below.

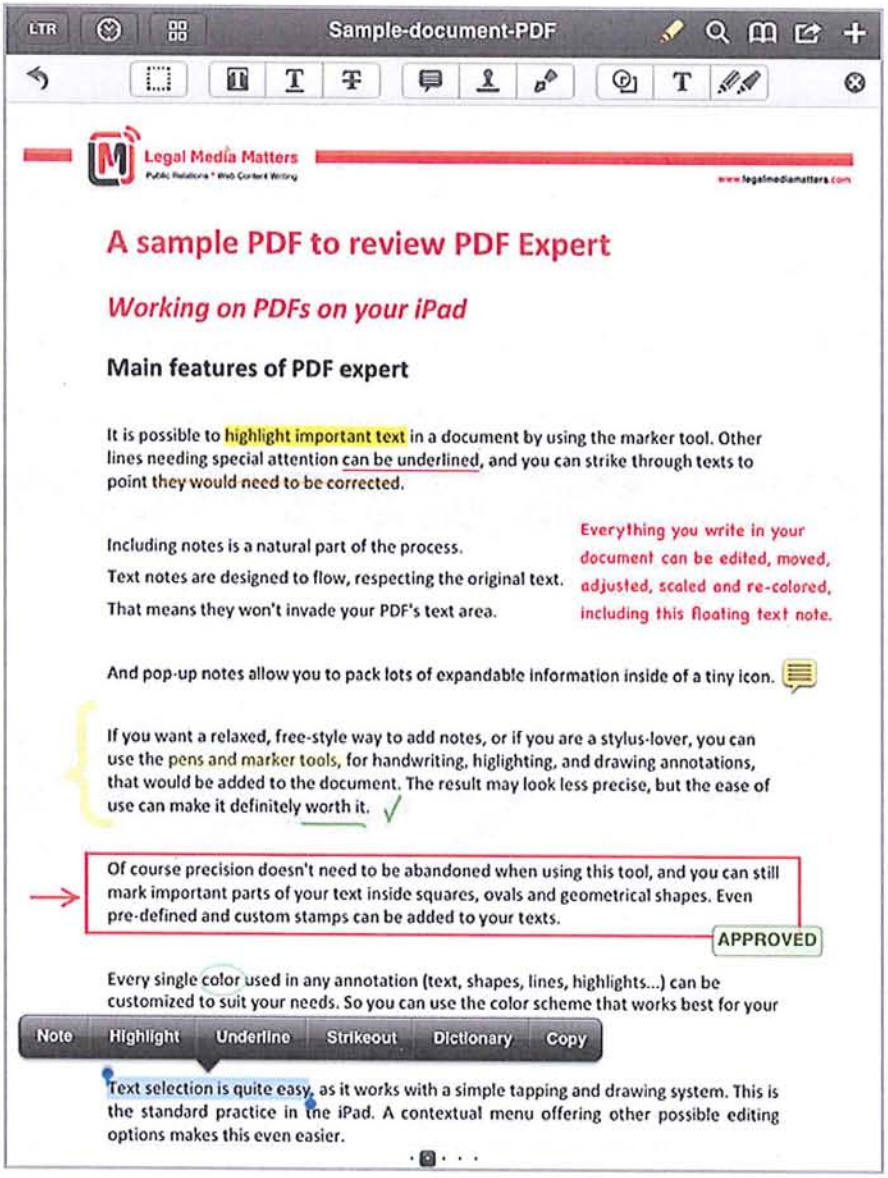


If you select My Signature, you can insert your custom saved signature. If you choose Customer Signature – your client or a third party can sign the document without it being saved. A blank screen will appear for your client or a third party to sign. Afterwards, press ***Done*** in the upper right corner, and you will be able to move the signature and resize it so it will fit within the signature box. You can then email the document back to the office by pressing the Action button at the top right and selecting *Send by E-mail.*



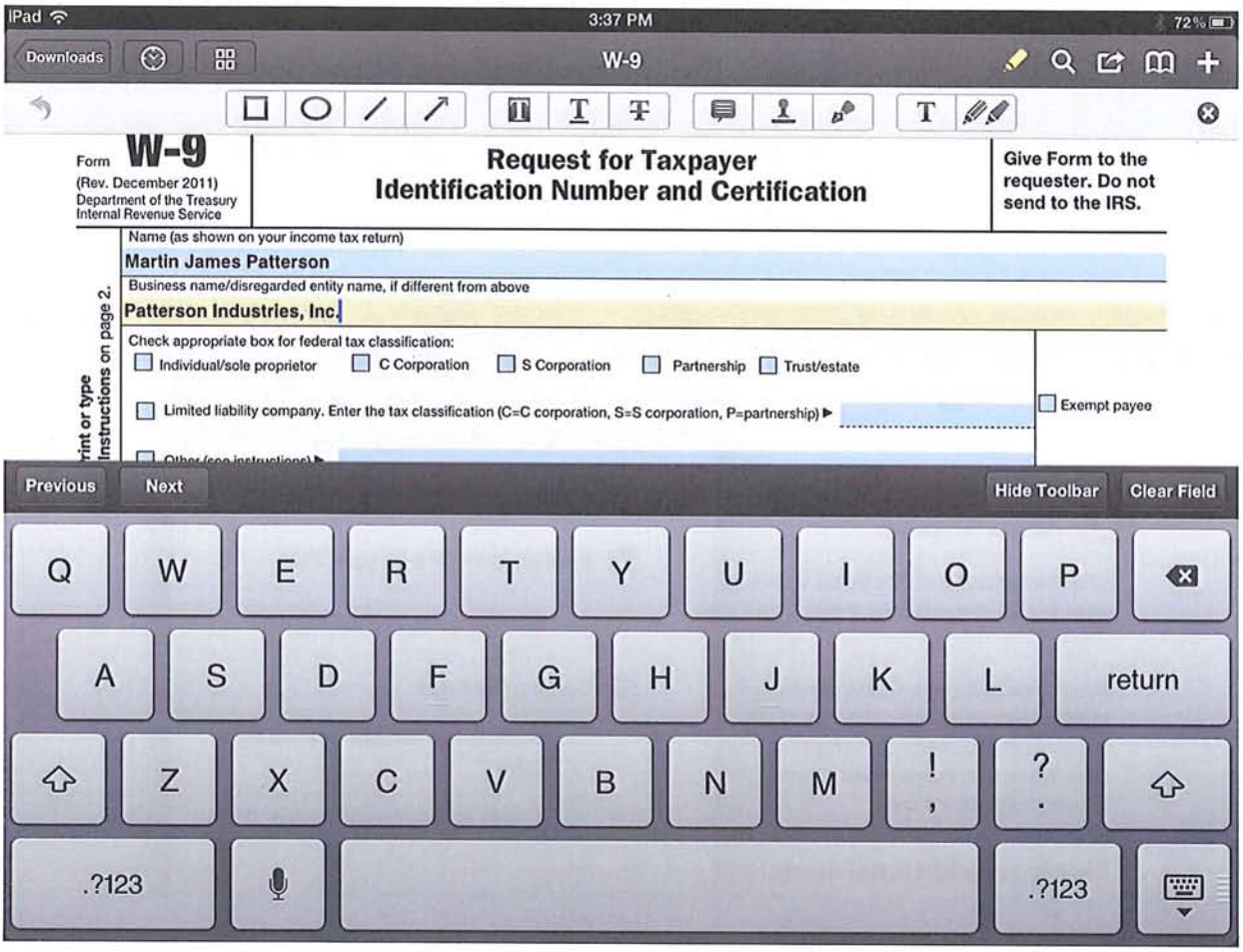
ii. Annotate PDF documents on your iPad

1. PDF Expert allows you to easily highlight text, add notes, add text, draw boxes, add arrows, strike through text and draw on PDF documents.
2. Add stamps to documents such as Confidential, Draft etc.
3. Changes are compatible with Adobe Acrobat.



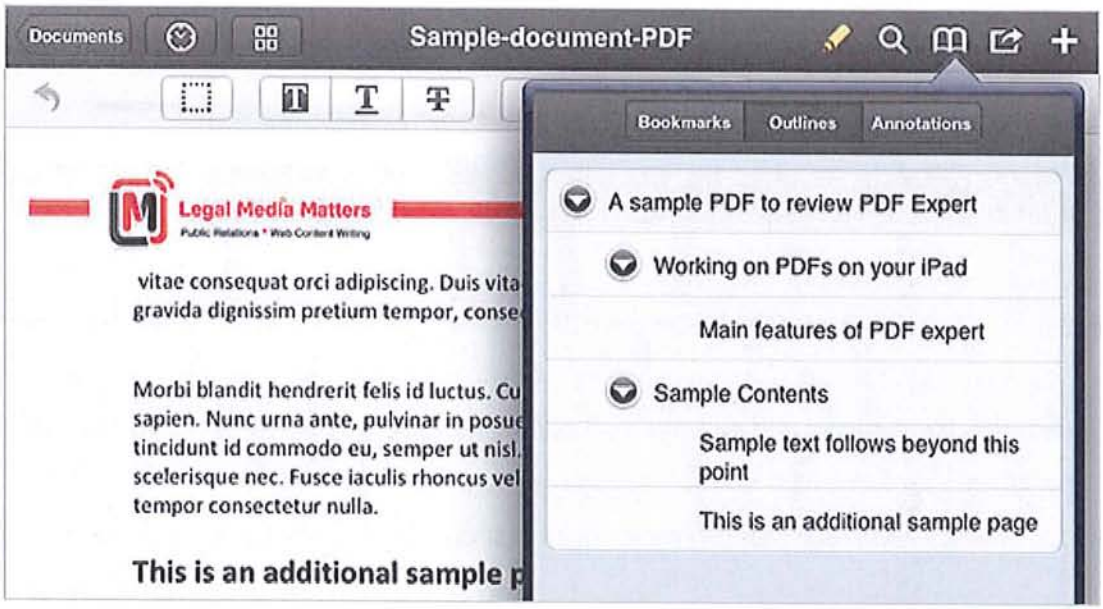
iii. You can fill in PDF forms

1. This is the only application that allows you to fill in PDF forms from your iPad. Just press and hold the field you want to fill out and the keyboard appears so you can enter the appropriate text.



iv. Navigate large documents easily

1. You can search for a specific text inside your document.
2. You can create bookmarks throughout the document that allow you to locate important pages easily.
3. You can jump from annotation to annotation.
4. Navigate the hierarchical tree of the document, structured according to its titles, subtitles and other nested headings.



c. How do you get PDF documents into PDF Expert?

i. The easiest way to get documents into PDF expert is Dropbox. Any folder in Dropbox or PDF Expert can be two-way synced with Dropbox and PDF Expert. PDF Expert mirrors your folders in Dropbox, so it is easy to find the documents that you want. However, you can create your own customized folders as well.

ii. You can import files into PDF Expert through a variety of sources listed in the picture below such as Google Docs, SugarSync or Box.

iii. Files can be imported into Dropbox from other apps.

iv. Tapping and holding any email attachment on your iPad will show you an option to open such attachment using the PDF Expert app.

2. Dropbox

A. What is Dropbox?

- "Your Files, anywhere."
- Dropbox is a file hosting that offers cloud storage and file synchronization services
- Serves as an easy gateway for moving files onto your iPad for use in other litigation applications
- Dropbox allows users to create a special folder on each of their devices, which Dropbox then synchronizes so that it appears to be the same folder (with the same contents) regardless of which device is used to view it
- Synchronized access between your
    - Work computer
    - iPad
    - Smartphone
    - Any computer with internet access

- Allows sharing of files between Dropbox users
    - Can be used to share large files between client and lawyer
- May also serve as a backup for files in case computer or server crashes

B. Service
- 2GB of online storage space **free**
- Attorneys wishing for more capacity may upgrade to a Pro account
    - 100GB, 200GB, 500GB plans available at about $1/GB/Year

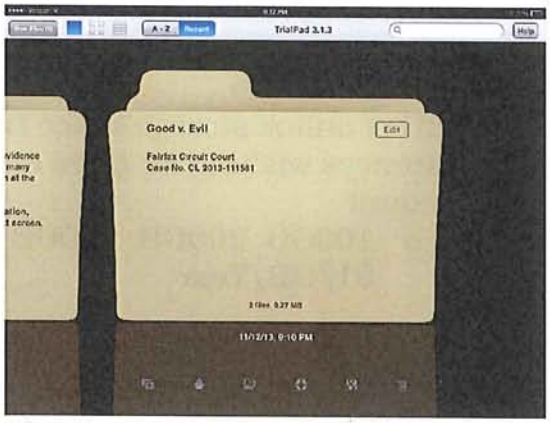
C. How to Use
- If you can save a file, you can use Dropbox
- Register at dropbox.com and install client on devices
    - This will create a special Dropbox folder on your devices
    - Simply save files in your new Dropbox folder and they will instantly be available in your Dropbox folder on your other devices
- Instead of carrying around multiple paper files with you to court, you now can simply take your iPad with you for remote access to any file you want

D. Security
- As lawyers, we are supposed to take "reasonable precautions" to safeguard confidential and proprietary client information
- Your Dropbox folders may be password protected but this may not be enough to prevent access and Dropbox has had a few security concerns in the past
- This does not mean that attorneys should shy away from using Dropbox, only that extra precautions should be taken to ensure client files are secure
- How can this be done?
    - Encrypt and password protect your files BEFORE you save them to dropbox
        - Easier than it sounds
        - Freely available on Windows and MAC
        - Tutorials on how to do this can easily be found online

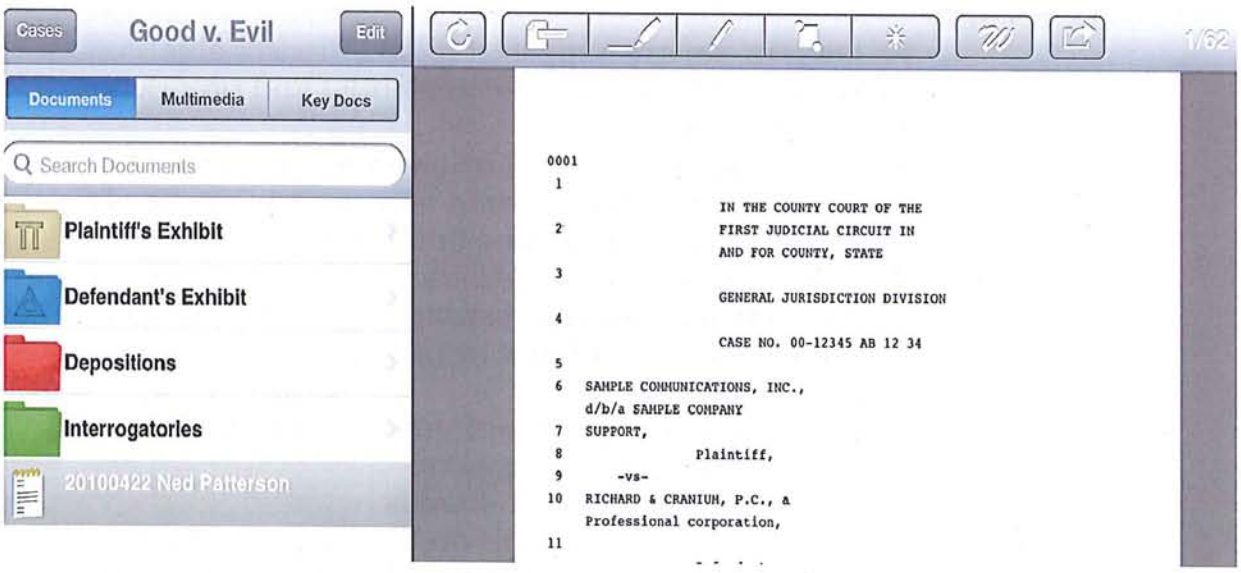
3. TrialPad

a. TrialPad is a trial presentation app
b. Serves as a virtual exhibit notebook that allows you to organize and present your exhibits to a judge or jury during trial.

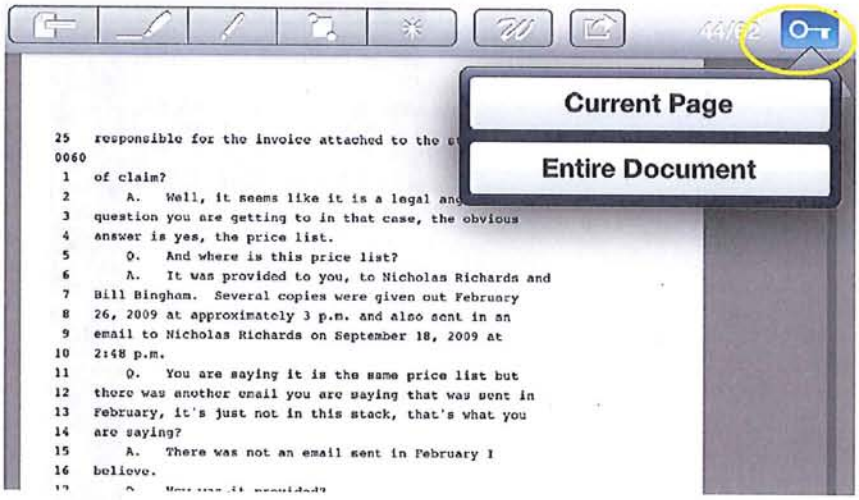
4. Preparing Your Case
    a. Each case will have its own folder. You can add any information you need.



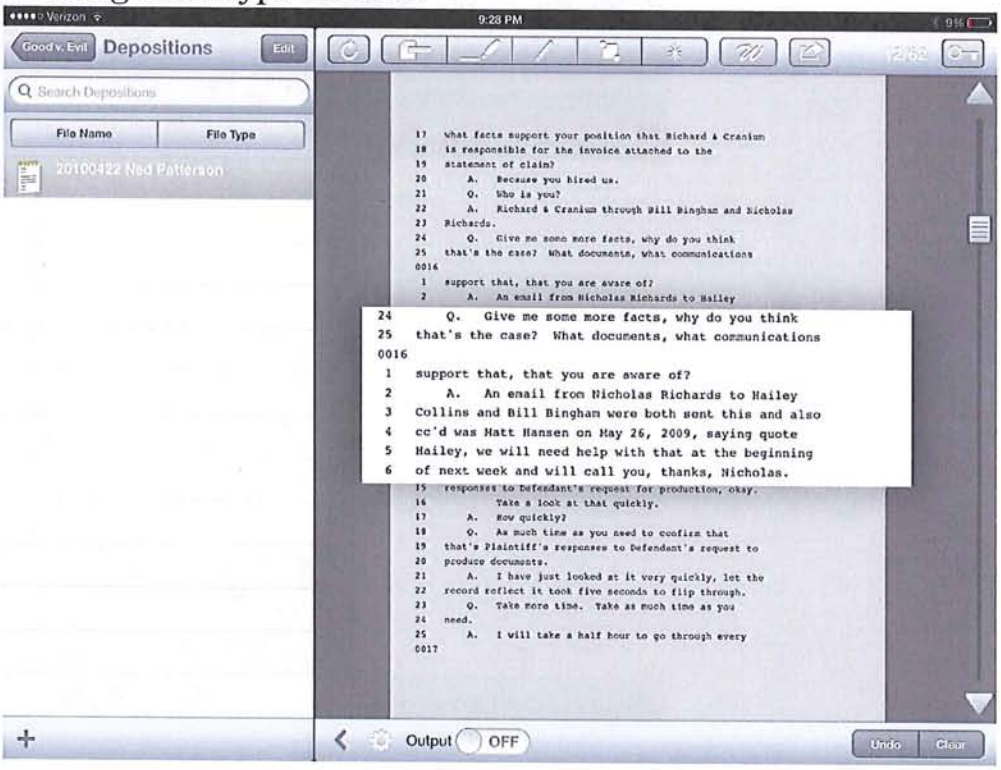
    b. Use Dropbox or many other Apps to export documents into the app.
    c. Organize your case as you see fit using folders



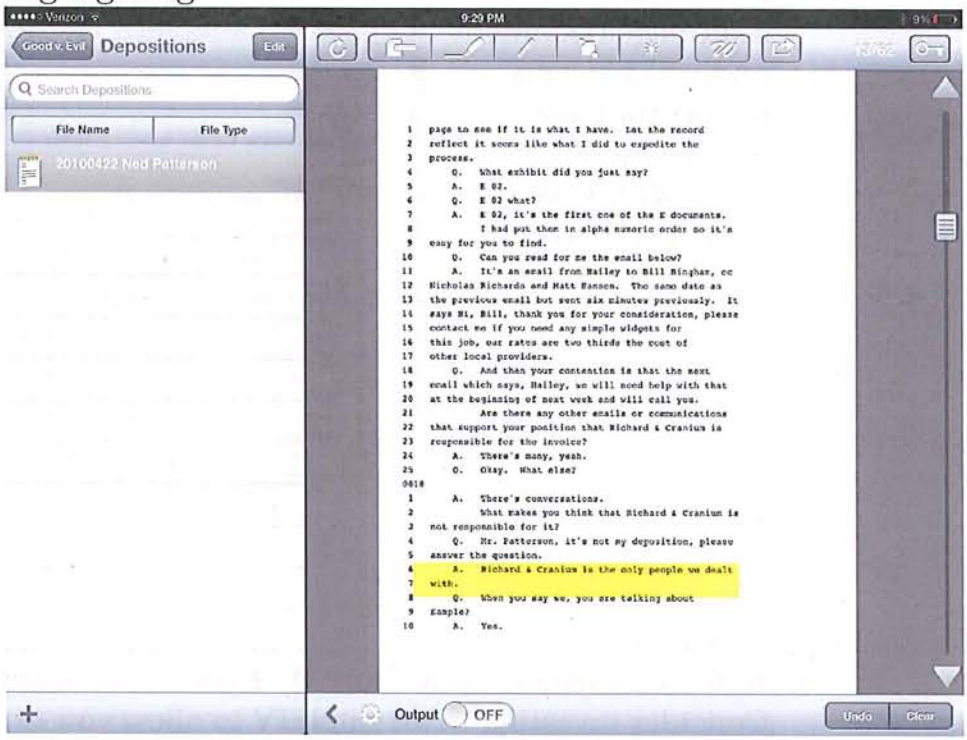
d. If you have a multipage document and you have an important page within the document, save the page as a *Key Doc.*



5. Presenting at Trial
   a. In the courtroom, make sure that your technology is compatible. Consider investing in an AppleTV to allow you to wirelessly present using your iPad.
   b. Turn output on
   c. Use the various functions in presenting your case
      i. Zoom using pinch
      ii. Evening news type callouts



iii. Highlighting

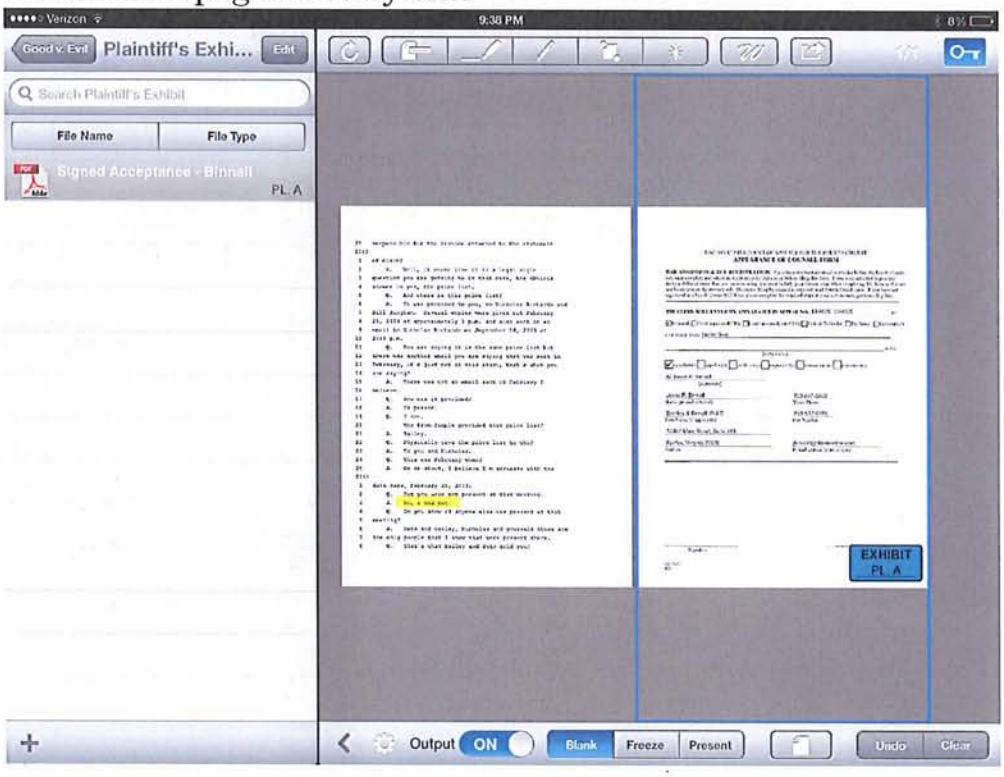


iv. Redaction

v. Laser

vi. Whiteboard

vii. Present two pages side by side



Part Three: An Evidentiary Review

Jennifer Arner
Jared McClain

I. iPads and Visual & Audio Presentations

In trials and mediation, most lawyers will need to present information in the form of slides, photographs, documents, videos, or audio segments. Projecting this information from an iPad instead of a computer or tablet has obvious advantages due to its portability and touch-screen interface. The use of visual aids can have a meaningful impact on jurors during opening and closing statements. In anticipation of objections, the use of a motion in limine may be useful and good practice to assure the use of exhibits, diagrams or pictures will be permitted well before trial.

II. iPads and Photographic Evidence

The admissibility of photographic evidence rests within the sound discretion of the trial court. Stamper v. Commonwealth, 220 Va. 260, 270, 257 S.E. 808, 816 (1979). Photographs are often admissible to show motive, intent, method, malice, premeditation, and the atrociousness of the crime. Spencer v. Commonwealth, 238 Va. 295, 312, 348 S.E.2d 785, 796 (1989), cert. denied, 493 U.S. 1093, 110 S. Ct. 1171, 107 L.Ed.2d 1073 (1990). "There is no abuse of discretion in admitting photographs which are 'relevant and material to establish premeditation and malice and to show the degree of atrociousness of the crime.'" Brown v. Commonwealth, 212 Va. 515, 519, 184 S.E.2d 786, 789 (1971), Vacated on other grounds, 408 U.S. 940, 92 S. Ct. 2877, 33 L.Ed.2d 763 (1972). Additionally, if the photographs "accurately depict the crime scene, they are not rendered inadmissible simply because they are gruesome or shocking." Goins v. Commonwealth, 251 Va. 442, 459, 470 S.E.2d 114, 125 (1996) (quoting Gray v. Commonwealth, 233 Va. 313, 343, 356 S.E.2d 157, 173, cert. denied, 484 U.S. 873, 108 S. Ct. 207, 98 L.E.2d 158 (1987).

III. iPad and Video Tape Evidence

It is similarly within the discretion of the trial court to determine the admissibility of videotape films. Stamper v. Commonwealth, 220 Va. 260, 270, 257 S.E. 808, 816 (1979). Video tapes can be admitted as both real and illustrative evidence. That is, the tape can illustrate the witness's testimony or serve as a "mute, silent, or dumb independent photographic witness." Brooks v. Commonwealth, 15 Va.App. 407, 410, 424 S.E.2d 566, 569 (1992) (quoting

Ferguson v. Commonwealth, 212 Va. 754, 746, 187 S.E.2d 189, 190, cert. denied, 409 U.S. 861, 93 S. Ct. 150, reh'g denied, 409 U.S. 1050, 93 S. Ct. 533 (1972)).

a. Getting Around Hearsay

"Hearsay is a statement, other than one made by the declarant while testifying at trial, which is offered to prove the truth of the matter asserted." Arnold v. Commonwealth, 4 Va.App. 275, 279-80, 356 S.E.2d 847, 850 (1987). Although hearsay evidence is generally inadmissible, many exceptions to the general rule exist. Clark v. Commonwealth, 14 Va.App. 1068, 1070, 421 S.E.2d 28, 30 (1992). "As a general rule, hearsay evidence is incompetent and inadmissible," and "the party seeking to rely upon an exception to the hearsay rule has the burden of establishing admissibility." Calson v. Commonwealth, 52 Va.App. 423, 431, S.E.2d 553, 557 (2008) (quoting Neal v. Commonwealth, 15 Va.App. 416, 420-21, 425 S.E.2d 521, 524 (1994)). Thus, those seeking to introduce video tape evidence bear the burden of establishing a proper hearsay exception.

Hearsay objections as to the contents of the electronic record can be overcome by the business record exception or the contents of the electronic record as

- a present sense impression,
- an excited utterance,
- a statement against interest, or
- a statement of the declarant's intent.

i. Business Record Exception

Virginia Rule of Evidence 2:803(6) states that the "following [is] not excluded by the hearsay rule, even though the declarant is available as a witness.

> (6) Business records. A memorandum, report, record, or data compilation, in any form, of acts, events, calculations or conditions, made at or near the time by, or from information transmitted by, a person with knowledge in the course of a regularly conducted business activity, and if it was the regular practice of that business activity to make and keep the memorandum, report, record, or data compilation, all

> as shown by the testimony of the custodian or other qualified witness, unless the source of information or the method or circumstances of preparation indicate lack of trustworthiness. The term "business" as used in this paragraph includes business, organization, institution, association, profession, occupation, and calling of every kind, whether or not conducted for profit."

Virginia Rule of Evidence 2:803(6).

ii. Present Sense Impression

Virginia Rule of Evidence 2:803(1) states that the "following [is] not excluded by the hearsay rule even though the declarant is available as a witness.

> (1) Present sense impression. A spontaneous statement describing or explaining an event or condition made contemporaneously with, or while, the declarant was perceiving the event or condition."

Virginia Rule of Evidence 2:803(1).

It is generally accepted that a statement accompanying and characterizing an act is admissible as a recognized exception to the hearsay rule. *See* C. Friend, *Law of Evidence in Virginia* § 240 (3d ed. 1988). Virginia recognizes this type of statement as the "present sense impression" exception to the hearsay rule. Foley v. Commonwealth, 8 Va.App. 149, 161, 379 S.E.2d 915, 922 (1989). The following three factors must be satisfied in order for the exception to apply: (1) the declaration must have been contemporaneous with the act; (2) it must explain the act, and (3) it must be spontaneous. Clark v. Commonwealth, 14 Va.App. 1068, 1070, 421 S.E.2d 28, 30 (1992) (citing Foley, 8 Va.App. at 161, 379 S.E.2d at 922) (holding that hearsay testimony by decedent's husband that, on the day of the murder, she told him in a telephone conversation that there was somebody in their home conducting a consumer survey was admissible as evidence of present sense impression). Video tape audio that explains the events on the film that was spoken contemporaneously with the events on the film should be admissible under this exception. The same exception holds true for audio recordings unaccompanied by visuals. See Wilder v. Commonwealth, 55 Va.App. 570 (holding that statements contained

in a 911 tape recording satisfied the present sense impression exception to the hearsay rule where recording described acts performed and descriptions of the suspects as the events were unfolding).

iii. Excited Utterance

Virginia Rule of Evidence 2:803(2) states that the "following [is] not excluded by the hearsay rule even though the declarant is available as a witness.

> (2) Excited utterance. A spontaneous or impulsive statement prompted by a startling event or condition and made by a declarant with firsthand knowledge at a time and under circumstances negating deliberation."

Virginia Rule of Evidence 2:803(2).

A statement "comes within the excited utterance exception to the hearsay rule and is admissible to prove the truth of the matter stated, when the statement is spontaneous and impulsive, thus guaranteeing its reliability." Goins v. Commonwealth, 251 Va. 442, 460, 470 S.E.2d 114, 125 (1996) (holding that the court properly admitted a tape-recorded conversation between the "911" operator and witness, where the witness stated that Goins had shot the other people in the apartment) (citing Clark v. Commonwealth, 235 Va. 287, 292, 367 S.E.2d 483, 485 (1988)). "There is no fixed rule by which the question whether the statement is admissible as an excited utterance can be decided. Resolution of the issue depends upon the circumstances of each case." Clark, 235 Va. At 292, 367 S.E.2d at 486.

iv. Statement Against Interest

Virginia Rule of Evidence 2:803(0) states that the "following [is] not excluded by the hearsay rule even though the declarant is available as a witness.

> (0) Admission by party-opponent. A statement offered against a party that is (A) the party's own statement, in either an individual or a representative capacity, or (B) a statement of which the party has manifested adoption or belief in its truth, or (C) a statement by a person authorized by the party to make a statement

> concerning the subject, or (D) a statement by the party's agent or employee, made during the term of the agency or employment, concerning a matter within the scope of such agency or employment, or (E) a statement by a co-conspirator of a party during the course and in furtherance of the conspiracy."

Virginia Rule of Evidence 2:803(0).

A statement made by a party is admissible in evidence against him and may relate to a past act or to a future event. Goins v. Commonwealth, 251 Va. 442, 461, 470 S.E.2d 114, 127 (1996). "An admission deliberately made, precisely identified and clearly proved affords evidence of a most satisfactory nature and may furnish the strongest and most convincing evidence of truth." Id. (citing Tyree v. Lariew, 208 VA. 382, 385, 158 S.E.2d 140, 143 (1967)).

v. Hearsay to Establish Declarant's Intent

Virginia Rule of Evidence 2:803(3) states that the "following [is] not excluded by the hearsay rule even though the declarant is available as a witness.

> (3) Then existing mental, emotional, or physical condition. A statement of the declarant's then existing state of mind, emotion, sensation, or physical condition (such as intent, plan, motive, design, mental feeling, pain and bodily health) but not including a statement of memory or belief to prove the fact remembered or believed unless it relates to the execution, revocation, identification, or terms of the declarant's will."

Virginia Rule of Evidence 2:803(3).

b. Authentication & Laying a Proper Foundation

Before a video tape can be admitted into evidence, it must be authenticated by the proponent." Brooks v. Commonwealth, 15 Va.App. 407, 410, 424 S.E.2d 566, 569 (1992). The proponent then must demonstrate that the evidence is relevant and lay a proper foundation. A tape being offered as real evidence may be admissible regardless of whether anyone witnessed what

was electronically recorded. Adequate foundation is still a requirement for admissibility. Brooks, 15 Va.App. at 410, 424 S.E.2d at 569. Here, a proper foundation can be laid by the custodian of the tape with knowledge of how the records were kept in the regular course of business. See Virginia Rules of Evidence 2:803(6).

Alternatively, a proper foundation for a video tape can be laid by a witness with personal, direct knowledge of the facts occurring and the scene captured on the tape. Wilson v. Commonwealth, 29 Va.App. 236, 239, 511 S.E.2d 426, 428 (1999) (holding that admission of a videotape and pictures was not error where the victim laid proper foundation by testifying that the tape accurately showed the assault on him as it was occurring). Provided that a person with firsthand knowledge of the video material can identify the content, there is no need to produce an expert to show how the footage was shot.

In addition to relevance, the video tape must not be found highly prejudicial. Evidence is relevant if it has any logical tendency to prove an issue in a case. Goins v. Commonwealth, 251 Va. 442, 461-62, 470 S.E.2d 114, 127 (1996) (citing Coe v. Commonwealth, 231 Va. 83, 87, 340 S.E.2d 820, 823 (1996)). Evidence that is relevant may still be excluded if its prejudicial effect outweighs is probative value. This question of weight lies within the discretion of the trial court. Id. However, video tapes that "accurately portray a scene are not rendered inadmissible simply because of their gruesome or shocking nature. Id. (citing Spencer v. Commonwealth, 238 Va. 295, 312, 384 S.E.2d 785, 796 (photographs and videotapes of crime scene admissible), cert. denied, 493 U.S. 1093, 110 S. Ct. 1171 (1989).

The use of iPads to display video evidence is becoming more commonplace. Recently, the Fairfax General District Court allowed crucial video evidence to be displayed on an iPad and moved into evidence. In this case, the victim alleged that he had been assaulted outside of a bar. He testified that he had words with several individuals and as he was getting in his car to leave, the defendant approached him from behind, pulled him out of his vehicle, and hit him across the face. The victim further testified that his friends found a video clip of the assault on YouTube and Facebook a few days later. Having downloaded the file, the victim presented the video clip on his iPad in court. Defense counsel objected to the Assistant Commonwealth Attorney moving the video into evidence on the grounds of foundation. However, that objection was overruled for the inability to identify the individual who filmed and posted the clip online was irrelevant. What mattered was that the victim

had properly authenticated the video when he identified himself in the video and testified that it accurately depicted the assault.

c. Inaudible Electronic Record: Transcripts as Aids

Where portions of videotapes are inaudible courts may "permit the jury to refer to a transcript, the accuracy of which is established, as an aid to understanding a recording." Fisher v. Commonwealth, 236 Va. 403, 413, 374 S.E.2d 46, 52 (1988). Courts have distinguished between accuracy and completeness of a transcript. When portions of videotapes are truly inaudible, there will necessarily be gaps in the transcript. Courts do not err in providing jurors with incomplete transcripts (holding that the court did not err in aiding the jury with a transcript where defendant did not challenge its accuracy, only its completeness and the court cautioned the jury that they must decide for themselves what was being said in inaudible portions of the video tape).

d. Video Tapes in Deliberations

Virginia Code § 8.01-381 provides that with leave of court exhibits may be carried into the jury room. "Exhibits requested by the jury shall be sent to the jury room or may otherwise be made available to the jury." *Id.* Once admitted into evidence, any exhibit, including a defendant's written or recorded statement, is available to jurors during their deliberations. Jackson v. Commonwealth, 267 Va. 178, 201, 590 S.E.2d 520, 533 (2004) (also note that the court reminded jurors who had finished viewing a video tape that the provided transcript was merely a guide, not evidence, and that it would be retrieved and could not be taken into the jury room with the video tape for deliberations).

IV. iPads and Demonstrative Evidence

While Virginia Rule 2:1002 requires an original writing, demonstrative evidence, which does not seek to prove the content of the writing, is an exception. In Virginia, the use of demonstrative evidence is a matter within the discretion of the trial court, which is only subject to appellate review for abuse of discretion. Kehinde v. Commonwealth, 1 Va. App. 342, 346 (1986). Demonstrative evidence is far from a new phenomenon. Virginia courts have allowed attorneys to use toy dolls, Kehinde, 1 Va. App. At 346; toy guns, Barber v. Commonwealth, 206 Va. 241, 252, 142 S.E.2d 484, 495 (1965); replica of a car and a video demonstrating how a shooting could take place, Muhammad v. Commonwealth, 269 Va. 451, 619 S.E.2d 16 (2005); and even

knitting needles and a Styrofoam cup to illustrate a bullet's trajectory, Mackall v. Commonwealth, 236 Va. 240, 372 S.E.2d 759 (1988). An iPad simply provides an attorney with a new, convenient means to present demonstrative evidence. For example, when dealing with complicated transactions, a flowchart can be illustrative to a finder of fact, and Virginia courts have allowed such demonstrative evidence since before the invention of iPads. See Anderson v. Anderson, 29 Va. App. 673 (1999).

V. iPads and Judicial Notice

When a court takes judicial notice, no physical evidence is actually admitted. To illustrate the role of iPads in judicial notice, Professor Fenner retells the anecdote of Abraham Lincoln pulling out a Farmer's Almanac to have the court take judicial notice of the size of the moon on a night in question, and suggests that the same ends could be accomplished with an iPad. See Fenner, Evidentiary Problems Associated with Web-based Evidence, available at https://www.creighton.edu/fileadmin/user/law-school/new/docs/Admissibility_of_web-based_evidnece_2.pdf.

VI. iPads and Electronic Evidence: "the technology is new, the evidentiary problem is not"

Electronic evidence is not new and includes evidence stored in electronic or digital format. As we move toward a digital age, mail, pictures, and more are now both stored and originated digitally. In other words, this evidence can consist of data originally entered directly into a computer or electronically stored digital images of paper records. Therefore, it is no longer the case that the writing or picture accessed on an iPad necessarily is a duplicate and its originality could be verified by a witness. The files may be presented to the court in paper form, such as print-outs of e-mails, social media posts or text messages, or in electronic form, i.e. computer generated animations and simulations through the use of electronic displays such as the iPad.

Computer-generated evidence is evidence created from electronic information versus paper documents. These images are said to have been "born as" electronic or computer images. They can become paper if they are printed out, but the images never previously existed as a paper record. An additional subset of computer-generated evidence is web-based evidence, which is evidence originating and existing only online. This evidence includes business websites, personal website, e-mails, and social-media pages, etc. The major obstacle regarding admissibility of this evidence is going to be

authentication. See Michael Fenner, Evidentiary Problems Associated with the Introduction of Web-based Evidence. In determining whether this evidence has been properly authenticated, the Court's main task is to determine whether a connection has been made between the content and its author. In his article, Fenner points out that once the evidence is authenticated, the rest of the evidentiary problems are going to be common place: Is a print-out of the evidence hearsay or does it contain hearsay statements? Does a print-out satisfy the best evidence rule? Can a court take judicial notice of a website? Although electronic evidence has existed for a long time, the law of evidence has not adopted new rules to specifically deal with admissibility of this kind of evidence. Why? Fenner's answer is this: "The rules that preexisted this kind of evidence provide an adequate framework for resolving the evidentiary problems involved with the introduction of this kind of evidence." In other words, while "the technology is new, the evidentiary problem is not." See Fenner. See also Tienda v. State, 358 S.W.2d 633, 638-39 (Tex. Crim. App. 2012) ("although rapidly developing electronic communications technology often presents new and protean issues with respect to admissibility of electronically generated, transmitted and/or stored information, including information found on social networking websites, the rules of evidence in place for determining authenticity are at least generally 'adequate to the task'").

Computer-generated evidence does not only exist as text. Many computer-generated images are routinely used at trial. These images may be static or animated. Static images, or animation, may include computer-generated tables, charts, graphs, maps, diagrams, and even computer enhanced photographs based on scientific information such as age progression images. See Outline by Judge Margaret P. Spencer, Electronic Evidence: Admissibility of Computer-Generated Evidence and Social Media Evidence, Judicial Conference of Virginia for District Courts (Sept. 15-18, 2013) (citing State of Connecticut v. Alfred Swinton, 268 Conn. 781 (2004) (computer enhanced photo of bite marks in a murder case)). Simulations on the other hand consist of static images shown in rapid succession to create motion and may or may not simulate an actual event such as an accident reconstruction or murder scene re-creation. See Spencer (citing Daskow v. Teledyne Continental Motors, 826 F.Supp. 677, 685-86 (W.D.N.Y 1993) (computer generated simulation showing plaintiff's theory of where the fire began inside airplane's engine). Computer-generated evidence can therefore be demonstrative or substantive and different rules of evidence govern depending on this distinction.

a. Computer-generated Demonstrative Evidence

The purpose of computer-generated demonstrative evidence is to make the other evidence more understandable: "It is a visual aid clarifying real or testimonial evidence." See Spencer. The basic rule is that demonstrative evidence must be an accurate representation of the evidence in the record to which it relates. Id. (citing State v. Stewart, 643 N.W.2d 281 (Minn. 2002)). Animation, like photographs, is subject to the basic rules of relevance and prejudice. It must fairly represent what the witness observed and be substantially similar to the actual event. Id. See Brown v. Corbin, 244 Va. 528, 423 S.E.2d 176 (1992) (holding that a witness's testimony that it is "somewhat similar" to the original scene will be insufficient to justify admissibility). In Juniper v. Commonwealth, photographs showing the body of a child victim with steel rods inserted in legs to demonstrate bullet trajectory were admissible because they illustrated the location and nature of the wounds and provided additional support to medical testimony. Juniper v. Commonwealth, 271 Va. 362, 626 S.E.2d 383 (2006). However, note that Virginia courts are historically hostile toward accident reconstruction testimony because the testimony "invades the province of the jury." See Spencer (citing Brown v. Corbin, 244 Va. 528, 531, 423 S.E.2d 176, 179 (1992) (it is improper for any witness, lay or expert, to express a conclusion regarding a motor vehicle accident)). "The witness may testify about the witness's observation of such matters, but may not testify as to any inferences drawn by the witness from these observations." Id.

b. Computer-generated Substantive Evidence

Computer-generated substantive evidence refers to computer simulations. These simulations must be relevant, authenticated, comply with hearsay rules, and be more probative than prejudicial. See Spencer. According to Virginia Rule of Evidence 2:401, the computer-generated evidence must be relevant and helpful to the fact finder's understanding of complex or voluminous evidence. Id. Rule 2:401. This evidence may be authenticated by "testimony from a witness with knowledge" that the exhibit is what it purports to be. Id. See e.g., Jackson v. Commonwealth, 13 Va. App. 599, 413 S.E.2d 662 (Va. Ct. App. 1992). Accordingly, the computer-generated evidence must contain the purported information or data in question. See Spencer. Authentication foundation can be met by establishing the reliability of the computer program or system used to create the evidence. Id. The testifying witness must then state that the evidence portrays the subject at issue fairly and accurately, and the simulation is "substantially similar" to the event it is portraying. Id. See

Dance v. Commonwealth, 32 Va. App. 466 (Va. Ct.App. 2000) (holding that computer generated results of Sprint "star 57" telephone call tracking system was reliable where the Sprint manager who designed the system testified about the accuracy of the system's results).

c. Authentication Generally

Virginia Rule 2:901 states that the authentication and identification requirements are satisfied by evidence sufficient to support a finding that the thing is what the proponent claims it is. In its entirety the **Federal Rule of Evidence 901 (**Authenticating or Identifying Evidence) states the following:

(a) **In General**. To satisfy the requirement of authenticating or identifying an item of evidence, the proponent must produce evidence sufficient to support a finding that the item is what the proponent claims it is.

(b) **Examples.** The following are examples only — not a complete list — of evidence that satisfies the requirement:

(1) **Testimony of a Witness with Knowledge.** Testimony that an item is what it is claimed to be.

(2) **Nonexpert Opinion About Handwriting.** A nonexpert's opinion that handwriting is genuine, based on a familiarity with it that was not acquired for the current litigation.

(3) **Comparison by an Expert Witness or the Trier of Fact.** A comparison with an authenticated specimen by an expert witness or the trier of fact.

(4) **Distinctive Characteristics and the Like.** The appearance, contents, substance, internal patterns, or other distinctive characteristics of the item, taken together with all the circumstances.

(5) **Opinion About a Voice.** An opinion identifying a person's voice — whether heard firsthand or through mechanical or electronic transmission or recording — based on hearing the voice at any time under circumstances that connect it with the alleged speaker.

(6) **Evidence About a Telephone Conversation.** For a telephone conversation, evidence that a call was made to the number assigned at the time to:

(A) a particular person, if circumstances, including self-identification, show that the person answering was the one called; or

(B) a particular business, if the call was made to a business and the call related to business reasonably transacted over the telephone.

(7) **Evidence About Public Records.** Evidence that:

(A) a document was recorded or filed in a public office as authorized by law; or

(B) a purported public record or statement is from the office where items of this kind are kept.

(8) **Evidence About Ancient Documents or Data Compilations.** For a document or data compilation, evidence that it:

(A) is in a condition that creates no suspicion about its authenticity;

(B) was in a place where, if authentic, it would likely be; and

(C) is at least 20 years old when offered.

(9) **Evidence About a Process or System.** Evidence describing a process or system and showing that it produces an accurate result.

(10) **Methods Provided by a Statute or Rule**. Any method of authentication or identification allowed by a federal statute or a rule prescribed by the Supreme Court.

According to this Rule then, a witness who printed off a web-page can identify it if the witness testifies that he or she went to the particular website, viewed the page, printed the page and believes that it is an accurate depiction of what was viewed online. See Fenner. FRE 901.

Additionally, web-exhibits can be authenticated using circumstantial evidence. See Fenner. FRE 901. For example:

- Demonstrating that an e-mail message came from an individual's work address could be enough to authenticate that e-mail. This could be done by pointing to a work address header. Alternatively, if the e-mail as sent from a phone, the burden may be met by showing who or what entity was assigned the transmitting phone number.
- Demonstrating that a particular posting or comment was found at a distinctive web address could be enough to authenticate the statement.

The Supreme Court of Virginia recently upheld a conviction based on digital evidence. Midkiff v. Commonwealth, 280 Va. 216, 694 S.E.2d 576 (2010). The defendant argued that the use violated the best evidence rule because the digital evidence was capable of manipulation, but the court found the evidence was sufficiently reliable. *Id.* at 218. The court stressed that: (1) the point of the rule is reliability, which was amply met; (2) admissibility of evidence was subject to the trial court's discretion; and (3) the prosecution presented an expert witness to verify the evidence's reliability. *Id.*

"It is worth noting that the party offering the evidence need only make a prima facie showing that the evidence is what he or she claims it is. See Fenner; *Accord* Friend, *The Law of Evidence in Virginia*, § 180, *citing* Armes v Commonwealth, 3 Va. App. 189, 194 (1986) ("It was the jury's function to determine the weight of the circumstantial evidence linking the calls to Armes.")