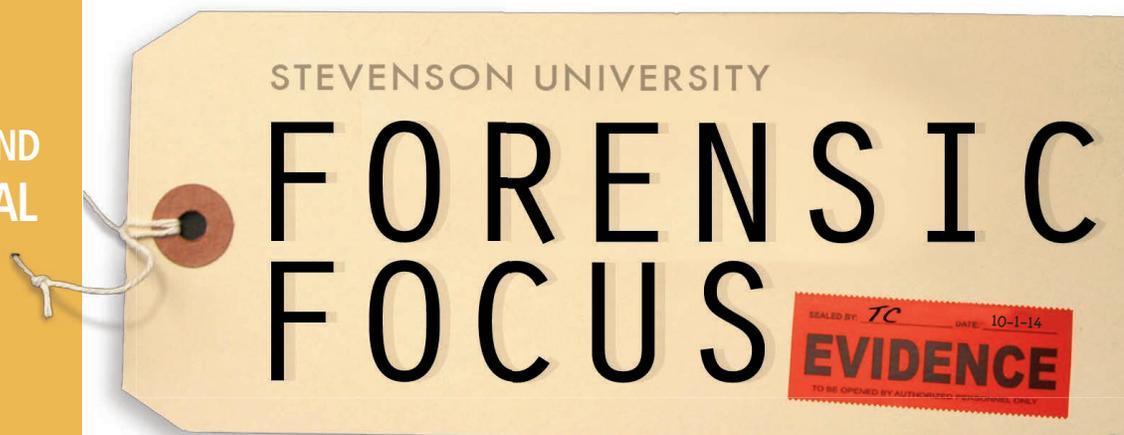


## SCHOOL OF GRADUATE AND PROFESSIONAL STUDIES



# Liar, Liar, Pants on Fire!

Dan Ariely, Ph.D., a behavioral economist and author of the excellent book “The (Honest) Truth About Dishonesty: How We Lie to Everyone—Especially Ourselves,” reminds us that all of us lie and cheat a little and that sometimes we’re unaware of it. This is particularly the case when we have a conflict of interest or begin believing exaggerated versions of our own stories. Sometimes we are even aware of what we are doing, which is much more serious.

People lie a lot. There are reports that we are lied to up to 200 times a day and that on average people tell two to three lies in a 10-minute conversation, and we are not very good about catching lies. We think we are a lot better at catching lies than it turns out. Avoiding eye contact is the most presumed sign of lying around the world—even though it’s false. Research also shows that we detect lies with only 54 percent accuracy and that the overwhelming majority of lies go undetected. Our judgments of whether someone is lying or telling the truth are correct only a little more often than chance.

Fortunately many lies include innocent “white lies” that are harmless. Innocent lying can sometimes be unconscious, but a forensics professional has to be scrupulous to avoid telling anything less than the truth, the whole truth, and nothing but the truth. Forensics experts have to be cautious about not letting their professional ego drive them to make less-than-completely-truthful statements, such as claiming to know something that they really do not know. There is always the potential for

experts who can’t admit “I don’t know” to make up an answer. We call this the “advocacy effect” and in our program, students learn about this and similar pitfalls as well as how to avoid them.

What about more serious lies such as lying under oath or during an interview? How do we catch those kinds of lies? How do we improve our chance of detecting whether someone is lying? In forensic studies, forensic science, and cyber forensics, we learn how to identify when people lie, why they lie, and how to detect lying. All students explore important legal topics, such as *mens rea*, which is Latin for “guilty mind,” to show whether a lie was intentional or merely an unintentional white lie.

In cyber forensics students learn how to determine whether a suspect was at the scene of a crime by tracking the suspect’s mobile device location. In forensic science students explore how scientific techniques can identify both inculpatory (guilt-proving) and exculpatory (innocence-proving) evidence to determine who is telling the truth. And in forensic studies students learn interviewing skills as well as the difference between the Fifth Amendment right against self-incrimination compared to the “exculpatory no doctrine” that allows a guilty person to remain silent but makes it unlawful for a guilty person to affirmatively lie about being guilty.

Learn more about Stevenson’s forensics programs at [stevenson.edu](http://stevenson.edu).

## CONTACT INFORMATION

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# TALKING THE TALK

Most professions have their own language or jargon. Doctors and lawyers and engineers all speak in terms that many of us don't understand. The various forensics professions have their own language as well. For example:



## *Cyber Forensics*

**Steganography** - The term, which stems from Greek origin, means "concealed writing." In practice it refers to hiding data within a carrier file. For example, text can be hidden within a picture so the picture can be transmitted in the clear and the embedded message can go undetected. Some savvy users have managed to hide small audio files within larger files.

**Timestomping** - Computer file systems retain time stamps of significant activity. Many systems will record when a file was created, modified, or last accessed. There is an anti-forensic technique known as timestomping, where a user will deliberately change the time stamps on a computer to hide the trail of actual events. This practice is employed with some malware in order to make it difficult for incident responders to find newly created files. Computer forensic examiners can examine the totality of a system to identify anomalies such as timestomping.

**Intrusion Analysis** - The practice of examining a computer system and its related artifacts to identify how an intruder gained access to a computer system or network. Often times the activities that occur after an intrusion, i.e., the stealing or modifying of information, are detected while the initial intrusion goes unnoticed. Determining the point of origin can take appreciable skill as it is necessary to weed out important facts from user and system behavior.

**File Signature** - Embedded at the top of most files are a series of bytes, usually between two and four, which are used to associate a file with its respective application. When a file is opened, the signature is examined by the application to confirm the file type. Data hiding can occur when a user renames a file's extension to a different value. The file signature will still identify the true nature of the file while the extension suggests a misleading type. For example, a Microsoft Word document named secret.doc may be renamed to system.dll. The contents of the file are still a Word document and the file's signature will still be "D0 CF 11 E0".

## *Forensic Science*

**Pharmacokinetics** - The study that investigates and characterizes drug bio-availability, i.e., the amount of drug absorbed into the body relative to the amount administered. This study would include the routes of administration; the rates of absorption and elimination, the time to peak concentration, the relationship between dose and blood and tissue concentrations, and the rates of metabolism and clearance from the body.

**Pharmacodynamics** - The study of the time course of drug effects. In other words, how long the effect of the drug will last per dosage.

**Spectrophotometer** - A scientific instrument that is used to measure the absorption of frequencies of light such as UV, visible, an infrared and are generally composed of one or more light sources, a wavelength selector, sample container, detector, signal processor, and readout devices.

**Sympathomimetic Drugs** - Drugs that mimic the actions of endogenous neurotransmitters that stimulate the sympathetic nervous system, such as amphetamine and methamphetamine.



Learn more about Stevenson's master's degree programs in forensics at the next **Saturday Information Session, November 15.** For more information or to register visit [stevenson.edu](http://stevenson.edu).

## Forensic Studies

**Invigilation** – Imposing strict temporary controls on an activity implicated in a fraud. The purpose of imposing strict controls is to stop the fraud during the control period. Detailed records are kept during this period as well as before and after. Comparing the activities before, during, and after invigilation can provide evidence about whether or how the fraud is being conducted.

**Motion in Limine** - A motion typically in criminal trials requesting that the judge rule that certain evidence may not be introduced at trial.

**Materiality** – The concept that some information or action is important enough to have an impact or influence on a decision or event. It is not the same as relevance. Materiality is a measure of the impact the presence or absence of the information or action has on the decision or event. For a lie to be a federal crime it must be material to the decision; if not, it is just a lie.

Understanding the meaning of these words and how to use them is an important skill for a forensics professional.

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# 100 YEARS AGO IN 1914...

**Question:** Which Country in North America  
Established the First Crime Lab?

**Answer:** Not the United States.

Many people might guess that the FBI opened the first crime lab in North America. After all, the FBI is a world-leader in forensics. But it turns out that the FBI lab, which was established in 1932, was not even the first crime lab in the United States. Chicago established the first crime lab in the United States in 1929, but the first crime lab in North America was the Laboratoire de Recherches Médico-Légales established 15 years earlier in 1914 in Montreal, Canada.

Forensic scientist Wilfred Dérôme established the Montreal lab. Prior to starting the crime lab he had worked in a hospital pathology lab where he examined evidence and then walked across the street to the courthouse to give testimony. Fascinated with forensics, Dérôme took advanced training in 1908, travelling to Paris, France, to study at the University of Paris with two famous forensics experts, Professors Bertillon and Balthazard.

Dérôme returned to Montreal with newly developed skills in such fields as ballistics, criminal psychology, and fingerprint analysis. He directed the laboratory from 1914 until his death in 1931. During those years a famous law enforcement official from the United States visited the laboratory twice before opening his own agency's crime lab. The official was FBI Director J. Edgar Hoover.

## FORENSICS FACULTY PROFILE



Sue Schenning

Home: Baltimore, Md.

Profession: Lawyer, Associate Professor  
of Forensic Studies

Hobbies: Knitting, reading, exercise

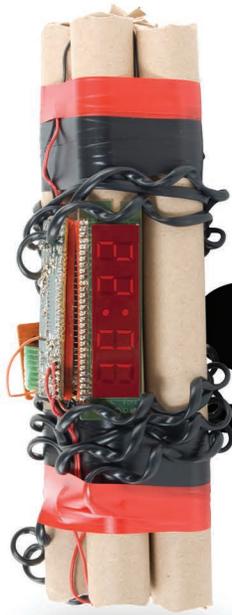
Last Book Read: *The Mockingbird  
Next Door* by Marja Mills (on living  
next door to Harper Lee) and *The  
Goldfinch* by Donna Tartt

Last Accomplishment: Survived, but  
not fully recovered from, a week of  
entertaining our 7-year-old grand-  
daughter at the beach.

Quote: "If you do something you love,  
you will never work a day in your life."

Profile: Successfully made the transition  
from a 30-plus year career as a trial  
lawyer to teacher and found both  
professions have much in common.  
Love to read and always open to new  
ideas. Watch entirely too much TV!

Courses Taught: Mock Trial, Criminal  
Justice, Evidence, Forensic Journal



Stevenson University  
**FORENSIC  
SYMPOSIUM**  
The Forensics of Explosive Devices  
**2014**

Wednesday, October 22  
6-8 p.m.  
Francis X. Pugh Courtroom  
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and Leadership  
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