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Keeping Current: Staying Abreast of
Legal Topics Plus a Sneak Peek at
Emerging Technologies

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Plus A Sneak Peek at Emerging Technologies**

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Plus A Sneak Peek at Emerging Technologies**

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I. Legal Topics - Current Awareness Tools

A. Introduction

There are several ways to keep current with the latest legal news and trends. One of the simplest methods is to become familiar with legal news web sites and visit them regularly. Many legal news web sites offer the option for visitors to sign up for e-mail alerts that can provide up-to-the-minute news delivered to your e-mail inbox. It is also possible to use a combination of web resources and e-mail to monitor court dockets. If you need in-depth information about a topic, you might consider joining a legal listserv or e-mail discussion list. Finally a recent strategy for staying on top of current legal topics is to become acquainted with legal blogs and how to access them. The latest expansion of blogging that is useful for obtaining current information is podcasting or sending soundfiles via the Internet.

It's important to note that in today's wired world that many people report being overwhelmed by information especially in electronic format. Rather than try to regularly use all of the methods and resources described below, my suggestion is that you sample them and try to figure out which ones best suit your needs. You should probably limit yourself to a few current awareness resources daily. Don't forget to take time to contemplate the implications of the news you discover and try not to allow your attention to get too fragmented.

B. Legal News web sites

Below are summaries of legal news web sites that provide excellent legal news coverage.

1. FindLaw Legal News.

<http://news.findlaw.com/>

FindLaw's news items are updated continuously and cover a range of legal topics. FindLaw maintains its up-to-the-minute service by obtaining much of its content from newswire services like the Associated Press and Reuters. This means that the stories you'll find will cover the same type of legal news that you'd find in the newspaper. However, the distinct advantage that FindLaw offers is that it often provides the full text of primary documents discussed in the news. FindLaw maintains a Featured Documents section that contains final reports, orders, complaints, etc. If you've ever had to track down these documents, you can truly appreciate this feature of Findlaw Legal News.

2. *Law.com*

<http://www.law.com/index.shtml>

Law.com is maintained by American Lawyer Media and publishes original news stories in addition to those that appear on the new wires. American Lawyer Media has a stable of reporters because it publishes legal news publications such as the *American Lawyer*, *National Law Journal*, and *Fulton County Daily Report*. While many articles appear in full-text for free, some articles, especially the in-depth feature stories, require a paid subscription.

3. *Daily Report*

<http://www.dailyreportonline.com/>

Since American Lawyer Media publishes the *Fulton County Daily Report*, its web site is

under Law.com's parent web site. The Daily Report provide news feeds from Law.com as well as headlines and teaser text for feature articles from the *Fulton County Daily Report*. Although the national legal news articles are freely accessible, the most you can generally gain from the Daily Report's web site is a quick headline browse for legal news relevant to the Atlanta legal community. The Daily Report offers a paid subscription service that will notify you via e-mail with automatic Georgia opinion notifications and Fulton County court calendar alerts.

4. LexisOne Headline Legal News

<http://www.lexisone.com/news/index.html>

LexisOne provides legal news from the newswires as well as the major newspapers such as the *Boston Globe*, *New York Times*, *Los Angeles Times*, etc. Additionally LexisOne provides a column devoted to Newsworthy Decisions. The Newsworthy Decision articles are from the newswires as well as from Mealey Publications, a legal publisher that specializes in legal news gathering. If you are interested in monitoring a particular legal subject rather than general legal news, LexisOne also breaks down its news coverage into the following categories:

- Business Litigation and Bankruptcy
- Criminal Law; Estates
- Trusts and Tax Law
- Family Law
- Intellectual Property Law

5. Jurist Legal News and Research

<http://jurist.law.pitt.edu/>

Jurist is a legal news web site powered by a team of law student reporters, editors and web developers led by law professor Bernard Hibbitts at the University of Pittsburgh School of Law.

Jurist is the only legal news and research service based in a law school and staffed by law professors and students. The Jurist reporters and editors focus on the legal importance of news stories rather than on their mass-market appeal. Jurist tends to eschew sensational legal news about crimes, trials and celebrities, and instead concentrates on substantive legal issues with significant social and jurisprudential implications. Jurist purports to be sensitive to law's global context and attempts to provide an even balance of U.S. and international legal news.

Befitting its academic roots, Jurist puts particular emphasis on quickly locating and presenting primary source materials - judicial decisions, legislation, testimony, reports and releases - that are behind the legal news, so that readers can review and evaluate those directly.

Jurist is ad-free and entirely non-commercial. It is also completely open and accessible, putting no registration or subscription barriers in the way of anyone seeking the latest legal information.

6. *Topix.net - Law News*

<http://www.topix.net/law>

Topix.net bills itself as the Internet's largest news site, with over 150,000 topically based, micro-news pages presenting stories from more than 10,000 sources. Topix.net has created technical algorithms that continuously monitor breaking news from over 10,000 sources. These

algorithms read every story as it is released and then categorize each one into one or more of the more the 150,000 'topix.net' pages such as law. Topix.net does not use human editors when constructing its news pages, but rather relies on its technology to do the work. Similar to LexisOne, Topix.net provides sub-sections of legal topics in the following areas:

- Corporate Governance
- Corporate Law
- Environmental Law
- Healthcare Law
- Labor Law
- Patent Law

7. CourtTV.com

http://www.court tv.com/home_news/index.html

Court TV provides trial coverage as well as general legal news. Be forewarned that Court TV has a reputation for sensationalizing trial coverage. However, according to Court TV's web site, several factors are considered when deciding whether to air a trial. Factors include: how important and interesting the issues in the case are; the newsworthiness of the case and the people involved; the quality and educational value of the trial, and the expected length of the trial. Note: Court TV's web site also includes selected litigation documents.

8. CNN.com Law Center

<http://www.cnn.com/LAW/>

CNN's Law Center provides a familiar interface for attorneys who are familiar with CNN's web format. Most features are headline-oriented major news stories. Generally there are no more than half a dozen legal news stories featured on CNN's Law Center.

C. How to monitor court dockets

Many courts use a variety of systems for providing docket information online. Currently more than 150 district and bankruptcy courts use Case Management/Electronic Case Filing (CM/ECF) for providing access to dockets and electronic case filing. If you see the CM/ECF logo on a court's web site and you are admitted to practice in that court, you can obtain an electronic filing account. In addition to being able to file your case documents electronically, you can request electronic noticing. The text of new case docket entries, and links to the associated documents will be automatically distributed to your e-mail.

Visit the following web address to access a tutorial on how to set up an automatic e-mail using the CM/ECF system:

<http://pacer.psc.uscourts.gov/ecfcbt/dc/>

If the court you are interested in does not use the CM/ECF system for managing electronic case filings, you can use a third-party service to monitor a court's online docket. For example, the Georgia Supreme Court and Court of Appeals do not use CM/ECF yet offer their docket online. To watch their dockets and be notified of any changes to the docket, establish a free account at WatchThatPage (<http://www.watchthatpage.com>). Once you have established a

watchthatpage account, you can paste the URL of the court's docket that you are interested in monitoring. WatchThatPage will send you e-mail notices anytime the court docket web page changes. Don't worry that your e-mail inbox will be flooded with messages, you can set many options for receiving information from WatchThat Page. You can get all the new content collected in one email, or separated into several emails, i.e. to sort the information on different topics or importance. You can get daily updates, or customize the updates to the weekdays of your choice. If you want, WatchThatPage can keep the emails short and only tell you which pages did change, and leave it up to you to visit the pages yourself and find the changes.

D. E-mail alerts

Rather than regularly visiting a legal news web site, you might prefer to have current legal news delivered to your e-mail inbox. Several web sites offer e-mail subscriptions.

***1. Lii*bulletin**

Cornell University Law School Legal Information Institute

<http://www.law.cornell.edu/focus/bulletins.html>

One of the most popular free legal e-mail alert services is offered by Cornell's Legal Information Institute (LII). LII is the most linked-to law site on the Internet, with more than one million data requests daily from around the world. At the LII web site, you can sign up to receive syllabi of U.S. Supreme Court decisions within hours after their release. You can also sign up for a Supreme Court preview service edited by second and third year Cornell law students. Written in an easily understandable style, the goal of the analyses of upcoming

Supreme Court cases is to help people who are neither lawyers nor legal scholars grasp the issues at stake and why they are important.

2. *ABA Journal eReport*

<http://www.abanet.org/journal/redesign/home.html>

The *ABA Journal* is a familiar magazine to most attorneys. It includes general-interest news stories about the law and the practice of law written in the same style as such magazines as *Time* or *Business Week*. Most stories in the *ABA Journal* are "big picture" stories with broad reader interest. The *ABA Journal* also provides a weekly e-mail alert, *ABA Journal eReport* (<http://www.abanet.org/journal/ereportinfo.html>), to all ABA members who provide an e-mail address. The editorial content is unique to the eReport and is not simply a repetition of the contents of the magazine. eReport has timely stories about tissues affecting lawyers and the justice system.

3. *Law.com's Daily Legal Newswire*

<http://store.law.com/registration/register.asp?subscribeto=nw>

Law.com's Daily Legal Newswire will deliver each day's top legal news and feature stories to your e-mail inbox for free. Your e-mail will contain breaking legal news gathered from American Lawyer Media's national and regional print publications and other leading legal publishers.

4. Court TV

<http://www.courttv.com/Newsletter/NewsletterRegister.asp>

On the registration page for CourtTV's newsletter service, they promise not to fill your e-mail box! CourtTV's newsletter e-mails contain the latest trial news, verdicts, feature stories, video and documents.

5. Topix.net

<http://alerts.topix.net/cgi-bin/newsalert.cgi?action=request&cat=law/law>

Topix.net's legal news service is described above. You can choose to receive a weekly or daily e-mail alert from the law channel of topix.net.

E. Legal Listservs

Another method for staying current on legal topics is to join a listserv that specializes in the topic you are interested in. A listserv is an online e-mail discussion group to which participants have chosen to subscribe. All discussion is done via e-mail. Some would argue that blogs are now more useful than listservs, but there are still many, many legal active listservs on almost any legal topic that you can imagine.

How do you locate a listserv on legal topics?

1. FindLaw's Legal Minds Community

<http://legalminds.findlaw.com>

FindLaw provides links to many legal listservs and includes instructions on how to subscribe to each listserv. Additionally FindLaw provides access to the archives of many legal listservs. Many times, you can browse the listserv archives first to determine if you are really interested in subscribing to a listserv.

2. LawGuru.com

<http://www.lawguru.com/subscribe/listtool.html>

LawGuru provides an online form that facilitates subscribing and managing subscriptions to more than 600 legal-related listservs. Simply complete the online web form to subscribe to a listserv.

F. Legal Blogs

Dictionary publisher Merriam-Webster's reported that "Blog" topped their list of the top 10 words of 2004. Blog was the most looked-up word on its Internet sites last year. What is a blog? Blog is a shortened form of weblog. It actually is what it sounds like...a log or journal of an individual's or institution's postings available on the Internet. Note: You will sometimes see legal blogs referred to as blawgs to reflect the focus of the weblog is law. Blogs or blawgs include a variety of articles such as philosophical reflections, opinions on social issues, or lists of the author's favorite web links. Blogs are usually presented in journal style with a new entry each day. Blogging has become very popular for disseminating information because users don't have

to have any technical knowledge of software in order to create and update a blog on the web. Adding content to a blog is as easy as writing an e-mail.

Blogs are ubiquitous. It's almost impossible to run a Google search without finding a blog reference in your results. Blogs have a reputation for being controversial. For example, Federal Elections Commission is currently grappling with how to regulate blogging campaign activities. The most important aspect of a blog is their capability for delivering the very latest opinion and news. Bloggers are unfettered and can publish opinions and commentaries instantaneously. When a controversial legal issues erupts, bloggers are the first to provide reactions.

There are millions of blogs in existence and no peer review of the published opinions though so it's caveat emptor. You must use all of your critical thinking skills to evaluate the blogs that you choose to read. How do you locate legal blogs?

1. Blawg

<http://www.blawg.org/>

Blawg maintains a list of legal-related blogs. Blawg includes more than 800 blog links divided into more than 150 subject categories. Blawg also lists the top 30 most popular blawgs as measured by clickthroughs as well as a list of recently listed blogs.

2. Blawg Republic's Blawg Directory

<http://www.blawgrepublic.com/>

Blawg Republic monitors the legal blogging community by hourly checking all of the blawgs in its database for updates. You can get a feel for various blogs by reading the entries on Blawg Republic's page. Blawg Republic's Blawg Directory lists blogs in more than 40 standard legal subject areas. Blawg Republic also includes a Trend Analysis section which lists the top 20 most popular items.

3. Law.com's Legal Blog Watch

http://legalblogwatch.typepad.com/legal_blog_watch/about.html

Legal blog watch aggregates the blog postings from 13 popular legal bloggers including:

- ***The Volokh Conspiracy*** - <http://volokh.com/> - academic commentary on a variety of legal issues
- ***May it Please the Court*** - <http://www.mayitpleasethecourt.com/journal.asp> - daily observations on law and legal news
- ***I/P Updates*** - <http://ip-updates.blogspot.com/> - intellectual property law
- ***MyShingle*** - <http://www.myshingle.com/> - guide for starting and running a solo or small firm
- ***the [non]billable hour*** - <http://thenonbillablehour.typepad.com/> - billing strategies, marketing techniques, customer service and ideas from other industries and professions.
- ***Jottings by an Employer's Lawyer*** - <http://employerslawyer.blogspot.com/> - labor and employment law

- ***Crime and Federalism*** - <http://federalism.typepad.com/> - federal crimes, federalism, and section 1983 actions.
- ***The Common Scold*** - <http://commonscold.typepad.com/commonscold/> - named after a cause of action that originated in Pilgrim days, when meddlesome, argumentative, opinionated women who displeased the Puritan elders were punished by a brisk dunk in the local pond.
- ***Robert Ambrogi's lawsites*** - <http://www.legaline.com/lawsites.html> - tracks new and intriguing web sites for the legal profession
- ***Law Department Management*** - <http://lawdepartmentmanagement.typepad.com/> - managing attorneys and outside counsel
- ***Excited Utterances*** - <http://excitedutterances.blogspot.com/> - chronicles the world of legal technology, knowledge management and professional training in legal domains
- ***Adam Smith, Esq.*** - <http://www.bmacewen.com/blog/> - an inquiry into law firm economics
- ***Prism Legal*** - <http://www.prismlegal.com/wordpress/> - strategic technology planning, knowledge management, litigation and practice support, and serving clients more effectively with technology.

Once you've located a few blogs that you like to read, finding new blogs will become easier. To find new blogs, follow the links in blog comments. When people comment on a blog, they often leave a link to their blog. Follow that link and see what types of things they are saying. Also most blogs provide a blogroll of favorite or inspirational blogs. Follow the blogroll

links to check out new blogs. Finally, you can always run a Google search for blog and the subject you are interested in.

After selecting several legal blogs or blawgs that you are interested in, how do you keep up with the changing content? In the beginning, you can either regularly visit the blog web page that you are interested in and read it as you would any other web page. However, once you become interested in several blogs, you'll probably want to obtain blog reader software or aggregator. Using a blog reader allows you to monitor several blogs simultaneously without having to visit individual web sites. There are many different tools available for reading several blogs simultaneously. You can do a Google search for news readers or news aggregators and many free software options will be among your search results. My personal favorite is a web-based reader known as bloglines. It's available at: <http://www.bloglines.com>. Bloglines is free and easy to use. After registering for bloglines, you subscribe to the blogs you are interested in reading and bloglines will monitor changes for you. Your bloglines feeds are accessible via any web browser so you can read your favorite blogs from any computer with an Internet connection.

G. Podcasting

Podcasting is defined as placing sound files online emulating a radio broadcast format which users can download and listen to via an iPod or other MP3 player. Although the name implies that only iPods can listen to podcasts, in fact any MP3 player or MP3 playing software such as Real Player can play a podcast. Podcasting is easy and inexpensive. Like blogging, it breaks down communication barriers. Anyone can broadcast a radio-like program using podcasting.

How can podcasts be useful to a busy practicing lawyer? Perhaps you don't have the time to sit at your computer and listen to a podcast. Maybe you don't own a portable MP3 player. You still have options for listening to podcasts. Just like books on tape allow you to "read" a book while driving, you can listen to podcasts in on your automobile stereo, thus making drive time more useful. P.S. If you thought iPods were only for teenagers, you might be surprised to know that current President Bush is reported to be an iPod fan. Bush's iPod is reportedly loaded with country songs from George Jones, Kenny Chesney and Alan Jackson. But it also includes Aaron Neville, Creedence Clearwater Revival and Van Morrison.

How do you find legal podcasts that might be of interest? Visit Blawgcast, <http://www.blawgcast.com>. Blawgcast aims to be a one-stop shop for browsing law-related podcasts. Although blawgcast just came into existence on March 24, it promises to be an excellent resource for news about legal podcasting. The future for broadcasting CLEs via podcasts looks very promising! Find out much more about podcasting from the Wikipedia., <http://en.wikipedia.org/wiki/Podcasting>

II. Sneak Peek at Emerging Technologies

A. Introduction

There are conflicting perceptions about the use of technology by lawyers. One view is that lawyers are traditional individuals who are slow to adopt cutting edge technology. The opposing view is that lawyers are technology leaders. I subscribe to the latter view. Lawyers were the first to fully utilize full-text databases. Lawyers were searching Lexis-Nexis during the

late 70's and early 80's. Lawyers quickly adopted fax machines, e-mail and Internet services as soon as they were available. Consequently, I think lawyers are technology leaders. In order to remain technology leaders, we must be informed about the latest technology developments. The purpose of this segment of the CLE program is to gaze into the crystal ball and to offer some predictions for the future of technology. In a few simple words, the future of technology will be faster, smaller, more integrated and wireless. Will these predictions be accurate? I think Bill Gates said it best when he stated, "There is a tendency to overestimate how much technology will change in the next two years, and a similar tendency to underestimate how much things will change in the next 10 years."

B. Hardware

Hardware will continue to become faster and smaller. Moore's Law – the concept that chip performance will double every 18 months - is now the mantra of technology. The life-cycle of technology products continues to decrease. By the time a product hits the market, its shelf life is half what it used to be. If you don't believe it, consider this fact: the latest power of an Xbox console is the equivalent of a supercomputer in 1973. Hardware performance will continue to improve and the physical size of hardware will become increasingly important.

Notebook manufacturers will continue to make vast improvements to notebooks. The notebook industry has a split personality. One trend is that notebooks should be as mobile as possible. These vendors race to deliver faster, slimmer, and lighter models. However, mobility comes at a price. The smallest, lightest notebooks are more expensive than their full-sized counterparts. AT&T's Ogo is currently billed as the smallest Windows computer currently

available. It's about the size of a paperback novel.

A somewhat opposing trend is that notebooks are a replacement for desktops. These vendors fit their computers with the latest 3D graphic chipsets and a lot of multimedia options at the expense of battery life and weight. Regardless of which philosophy wins, in the future notebooks will have improved batteries, better graphics, increased memory and speed. One of the most interesting developments will be improving the laptops case with materials such as alloy and other soft materials. These new materials should make laptops lighter as well as less fragile. The most unusual prediction I have discovered is that laptops will be equipped with motion sensors that are so smart they'll be able to sense when a laptop is falling or being dropped and will save as much data as possible before a physical thump on the floor.

In the upcoming year, the desktop market will join this race as well. As speed and performance increase, the size of desktops will decrease. We'll see a split in the desktop market between high performance computers and small, slim stripped down computers that are designed for single purposes such as Internet browsing. The PC is 25 years old. In the product cycle of machines such as televisions or automobiles, 25 years is generally a turning point for development. At the 25 year point in a product's life span, it tends to become much more feature-rich.

Floppy drives and 3.5 inch diskettes have already begun to disappear. Diskettes have always been notoriously subject to failure. Their storage capacity is minuscule compared to the size of most files nowadays. In February 2003, Dell announced that floppy drives would no longer be standard on high-end desktop personal computers. Now floppy drives are no longer standard on any Dell computer. The decision came as a result of customer focus groups. Dell

asked customers, “Do you need a floppy drive?” Almost everyone answered yes. When Dell asked customers, “When is the last time you used a diskette?” Most people couldn’t remember the last time they used a diskette. Flash memory (such as the removable devices used to store photos on digital cameras) and other portable storage devices will fill the void left in the storage market. Portable storage devices are small enough to fit on a key chain and yet have 100 times the capacity of a diskette. Most devices plug into the USB port on the front of your personal computer. Prices for 64 MB storage capacity range from \$15.00 - \$40.00. To locate vendors for these devices, use any Internet search engine and type in the phrase “USB drive.”

Flat screen monitors currently dominate hardware sales but by 2006, 3-D or volumetric displays could be the latest trend. The first buyers are expected to put them to use in scientific, engineering, medical, and security tasks, but eventually they are likely to wind up in classrooms and living rooms (adding a whole new dimension, literally, to electronic games). Real estate agents will be able to give people realistic virtual walk-throughs of properties. Fashion designers will be able to see how clothing variations hang on virtual models. Scientists and engineers will be able to easily manipulate images of such things as drug molecules, oil fields, or satellite images. High school biology students can forgo hands-on animal dissections by simply gathering around the classroom volumetric display of the innards of any creature in the lesson plan. Home shopping, or even dating, via the Web might be less fraught with uncertainty.

The Gartner Group predicts that the keyboard will remain the main interface with computers until 2008. Therefore, those of you with cramped thumbs or stylus challenged fingers who are working with small personal electronic devices will be happy to learn of the new virtual keyboard product from VKB (<http://www.vkb-tech.com/>). A small device projects an infrared

image of a full-sized keyboard on just about any flat surface. The device can detect which keystrokes you are typing. If you have to type a long message, you're spared the pain of extensive thumbing on miniature keys of a Blackberry or other small electronic device.

Of course, the question on everyone's lips is whether battery technology will improve in the near future. Fuel-cell technology is a viable solution that promises to power laptops much longer and more efficiently than current lithium ion battery technology. A fuel cell is an electrochemical device that produces electric power from either hydrogen or alternative fuels such as methanol, propane, butane or natural gas. They do not require re-charging but instead require a refill of fuel such as hydrogen gas or liquid methanol in order to keep operating. For years, scientists have experimented with fuel cell technology for powering electric and hybrid automobiles. However, recently there have been more breakthroughs in developing micro fuel cell technology suitable for powering laptops. Fuel cells are expected to be commercially introduced in 2005. Industry analysts say the much anticipated -- and often delayed -- micro fuel cells could sell 100 million units by 2008. They are an excellent option for those who need lasting battery power such as emergency workers and business personnel. NEC had originally planned to offer fuel-cell laptops that in 2004. However, NEC's has had to change its estimated release date until approximately 2007. In addition to NEC, Toshiba has developed a small fuel cell prototype. Japan's largest wireless phone carrier, NTT DoCoMo, introduced cell phones powered by fuel cells in February this year. Note, however, the FAA is not yet supportive since fuel cell batteries generally contain volatile fuel. This major obstacle is one of the factors which caused NEC to delay the commercial production of fuel cells. Another main obstacle has been how to make the fuel cells small and inexpensive.

Another possibility for extending the battery life of laptops is MRAM (magnetic RAM). Have you ever been annoyed by the amount of time it takes your personal laptop or notebook to boot up after you have pressed the on switch? When you press the power button on your television, it comes to life instantly. MRAM has the potential to change the power cycle for personal computers so that turning on your personal computer will be similar to turning on your television. MRAM uses magnetism rather than electrical power to store data. MRAM is more energy efficient and reduces the amount of power consumption in a device

Tablet personal computers are still trying to make major inroads into the notebook market. Tablet personal computers are essentially a portable flat screen. One major benefit of the tablet personal computer is that you can take notes using a regular sized pen directly on the surface of the screen – just as if you were writing on paper! If you need to use a computer at a place where it's not convenient to sit down and type, you can write on your tablet pc just as you would take notes with a paper and pen. The tablet pc lets you take notes while in a meeting without the distracting typing sounds and motions that often bother meeting participants. These descriptions might not seem revolutionary to the person who has used a personal digital assistant. However, the tablet personal computer offers a further advance...notes can be saved as an image or converted to text that can be word-processed or edited. When you take notes on your tablet pc, it automatically creates an index of keywords in your notes so you'll never have to scramble around looking for a handwritten note again. Current purchase price for tablet personal computers is approximately \$200 more than a comparably configured standard laptop computer.

If tablet personal computers don't become a dominant force in the technology market –

and there are some prognosticators which predict they will not (the tablet pc has been referred to as an expensive Etch-a-Sketch by some technologists), some sort of handwriting detection device or digital paper will be successful. Microsoft's next operating system (currently codenamed Longhorn) will include support for pen input. Microsoft originally hoped that tablet pcs would be wildly successful. It's now changed its marketing strategy and is assuming that all notebooks will be morphed into tablet pcli like devices that allow for screen input via a digital pen

Sales of digital cameras are still booming. Digital cameras grew 40% in 2004 and this growth will continue in 2005. The digital camera market will divide into numerous subcategories, such as ultracompacts and digital single lense reflexes. It's a given that resolution will improve in 2005 (along with larger and larger file sizes), but also expect hybrid photo/video cameras to proliferate in 2005. The line between shooting video and shooting still photos will become less distinct. We're already starting to see in camcorders with built-in digital cameras.

Now for the "in the near future" hardware prediction. Thanks to advancements in the development of digital or electronic ink, bendable screens are closer to general production than you might imagine. In January 2004, Phillips Research announced what it claims is the thinnest, most flexible, active-matrix display so far – a five inch rollable display that is one-quarter the thickness of a sheet of paper. In March 2005, Phillips announced that it will begin production of rollable displays and anticipates full-scale production with the next two years. In addition to expanding the capability of pdas, and cellphones, the rollable displays, which can now be used to read e-mail, could initially be used in military applications as electronic, updatable maps on the battlefield. It's not far-fetched to believe that a bendable screen might be in our future.

C. Wireless Networking

Without a doubt, wireless networking will be faster, more secure and more media-ready. As wireless standards continue to develop, wireless will become ubiquitous. Wireless access devices will become as popular as cell phones are today. Most laptops purchased within the last year or so include a wireless network access card. WiMax (IEEE 802.16) is one of the latest wireless standards on the horizon for significantly improving wireless access. WiMax can extend wireless networks as far as 30 miles and offers speed that is faster than cable or DSL. WiMax is a possible threat to cable modem and DSL providers. It will be especially welcome in sparsely populated areas which have not had the luxury of choosing either cable modem or DSL access. According to the Gartner Group, wiMax is at a turning point. It will either be very successful in the next few years or it will fail completely. For more information on WiMax, visit: <http://www.wimaxforum.org/home>

Wi-fi hotspots and wireless access pricing models will remain in a state of flux. Although a few locales offer wireless access for free, a Deloitte report predicts that deployment of fee-based WiFi hotspots are likely to continue to outpace usage in 2005. In the meantime, vendors are struggling with flat fee subscriptions versus amount of usage subscriptions. For example, T-Mobile offers unlimited monthly subscription plan starting at \$29.99 or pay as you go for only \$6.00 per hour for wireless hot-spots such as airports, Starbucks, and Borders. Nevertheless, subscription prices are expected to drop as more wireless hot spots become active.

D. Courtroom Technology

More and more courts, both state and federal, will continue to adopt courtroom

technology. Two of the most popular implementations are document cameras and video conferencing services. Not only is video conferencing cost effective, but it also allows for video conferencing technology allows for expert witness testimony as well as sensitive or child witness testimony. In West Virginia, the courts have the capability of video conferencing with the jail so that prisoners do not need to travel to the courthouse for arraignment.

It is possible that stenographers will be a dying breed. Several courts around the nation are experimenting with installing digital systems to capture court proceedings rather than using human stenographers. New Hampshire plans on installing digital audio systems in 11 county superior courtrooms. Other states like Florida, California, New York, Oregon, and Colorado have already replaced some of the stenographers with digital recording. Costs associated with digital recording systems are a fraction of the costs of a stenographer. Stenographers argue that they can offer advantages that digital recording systems cannot provide. Stenographers can capture physical gestures such as shrugs. Also stenographers can instantly replay testimony upon request. Stenographers also point out that the devices could lead to violations of people's rights if they capture attorney-client and bench conversations. However as more and more states struggle with budget deficits it seems likely that digital recording systems will become inevitable.

E. More Convergence and Shake-ups

Technologists have been predicting convergence among devices for many years now. The results of convergence is the shake up industries that we have long thought of as standards such as the telephone, cameras, radio and television. We're finally starting to see some of these

predictions become a reality. Personal digital assistants (pdas) and cameras are now being combined with cell phones. New music is released as a cell phone ring rather than on the radio. Convergence isn't just limited to cellphones and other gadgets. Multifunction printers, combining printing, scanning, copying, faxing and color in one unit are also experiencing tremendous market growth.

One recent outgrowth of the convergence trend is Voice-over-Internet protocol (VOIP). VOIP is here and is currently used by more than 3 million people in the United States alone. VOIP uses internet packet switching technology rather than traditional telephone circuitry switching technology to deliver voice communications. Basically, VOIP allows you to use your broadband internet connection for long distance telephone calls. Just as you do not pay for sending e-mail messages to far-flung geographic locations, you also do not pay for sending voice communications long distances via the internet.

How do you make a telephone call using VOIP? In the early days, hobbyists used a software-based services and talked into a microphone connected to their computer. Voice quality was poor and the connection was sometimes unreliable. Nowadays, users are more likely to plug an adapter directly into their cable/DSL modem and then into their existing telephone handset. Consequently users are able to use their traditional telephone handset, but the calls are transmitted via VOIP. The transmission quality has so improved, that oftentimes call recipients are unaware that they are receiving a call via VOIP. Linksys has already sold more than 1 million Internet phone kits that turn broadband connections into Internet phone jacks. You can also plug a gizmo into your PC's USB port and join a calling club, in which calls are free worldwide among customers. There are currently many different price plans available with

various options. The downside to VOIP is that you are still at the mercy of your broadband connection. If your Internet connection is down (and let's face it, there are many instances of Internet downtime), then you have no VOIP capability. Most users are still using VOIP to supplement their traditional telephone plans. Some marketing experts have claimed that in order for VOIP to be more successful, vendors will need to develop unique capabilities such as videophones, enhanced sound quality, etc. To compare Internet phone services, visit ZDNet's web site for product reviews: http://reviews-zdnet.com.com/4520-9140_16-5131559-1.html

As devices begin to merge their functions and wireless access becomes commonplace, more and more Internet-enabled devices will become available.

- Konarka Technologies is working on a way to weave solar cells into clothing, tents, and backpacks.
- At a recent cutting edge technology show in February 2005, "intellifitting" caused quite a buzz. Shoppers stood fully clothed while 196 antennas scanned their body and captured about 200 different body measurements. After a full body scan, a shopper can then visit a company web site and specify personal preferences such as whether they like their jeans baggy or tight. The final outcome - after being intellifitted, a consumer can find clothing that fits exactly.
- Mobil has developed a Speedpass that is incredibly handy. It attaches to your key chain, (and links to a credit card you select). You don't have to dig for your wallet when you gas up -- you just wave it at the pump and you're ready to fuel up.
- Schools in Japan have been using Radio Frequency ID systems (RFID) to keep tabs on students by including them in school uniform blazers. In addition to

letting parents track their kids, the jackets also have a panic button that children can push in an emergency, immediately summoning a security agent to their exact location.

- Seiko Watch has developed a wristwatch with a display made of e-paper.

F. Conclusion - Future Legal Aspects?

What will be the impact of these future technologies on the legal world?

Privacy and identity theft will become an even bigger issue. As more devices store personal information, the chances for abuse will proliferate. As opportunities increase, computer crime will also increase. Hacker insurance will become essential for many businesses. Spam or unsolicited e-mail will have to be regulated somehow, although some technologists have actually been brave enough to predict that we will actually have anti-spam software that works in the near future. The numbers regarding security have gotten downright scary. A recent study from TrustE and conducted by the Ponemon Institute found that 35 percent of survey respondents receive phishing e-mails once a week, while 70 percent have unintentionally visited a spoofed Web site—designed to get them to divulge personal information such as credit card numbers. And finally, intellectual property will remain a hot button issue for years to come.