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Buck Rogers, Esq. – Hot Technology Trends for the Wired Lawyer

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I. Introduction

Today's business environment is extremely competitive. Businesses that distinguish themselves in any small way can gain an advantage over the pack. Harnessing technology and remaining up-to-date on the latest computer developments is one tool that can provide attorneys with a competitive edge over rivals. In this paper, I will begin by discussing technologies that are currently available on the web that might give you a competitive edge. I will highlight a few current technology trends and predictions. Finally, I will conclude with a list of upcoming whiz bang technology that should pique your interest, provide food for thought and hopefully excite you about the coming prospects of technology.

II. Current Resources Available on the Internet
A. Web-based Productivity Suites

In the past when making presentations about technology, I have predicted that more and more software applications would be hosted by application service providers (ASP). In other words, instead of having a case management system located on a file server in your law office, I predicted that the case management system would be hosted on an off site server that is not managed by your local technology staff. The software would be managed by an ASP that essentially "leased" you the right to use the software and provided storage space on a central server. This business model has been in existence for a while, but not many businesses have adopted it. To date, ASPs have been costly and businesses have been squeamish about giving up control of their work products. Fortunately, the tide has changed and there are now several productivity

suites available on the web that can reduce your office overhead.   Google Docs and Zoho are two popular market leaders that worth taking a look at.

1. Google Docs

Google has entered the ASP or web-based applications marketplace and as usual has done an excellent job of making the service practical, user-friendly and effective. Anyone who has registered for a free gmail e-mail account can use Google Docs to replace their office suite of word processing, presentation and spreadsheet software. Documents created using Google Docs are stored on Google's servers and are accessible from the internet. Documents are accessed through a web browser and all commonly used functions are available.   Documents can be easily shared with other users who have gmail accounts so Google docs is particularly useful for projects requiring collaboration.   Edits by various users will show up in a different font color making group collaboration simple.

2. Zoho

A major competitor of Google Docs is Zoho. Zoho has been in the web-based applications market longer than Google and has many loyal followers. Like Google, it offers word-processing, spreadsheet and presentation capabilities.   Zoho currently offers more features than Google such as a database application and project management capabilities.

B. Online Dispute Resolution Services

Another application that has successfully moved to the web is dispute resolution. Online dispute resolution services provide an inexpensive alternative to using live mediators. Online dispute resolution services provide a forum for a party to enter a demand to resolve an issue and wait for a reply. If the other party agrees to participate, a counter offer can be made through the service. Negotiations continue online in a back and forth manner. Once the offers become closely aligned, the application will usually split the difference and ask the parties to accept the outcome. Generally, participants have agreed to be bound by the final settlement before using the online resource. This method can remove the emotion from the negotiation process as well as allowing clients and attorneys to proceed at their own pace without time pressures. Examples of online dispute resolution services include Square Trade (http://www.squaretrade.com) and Cybersettle (http://www.cybersettle.com). If you'd like to learn more about online dispute resolution, the ABA TechShow which will be held March 13-15, 2008 in Chicago has included a presentation about online dispute resolution services on its program which will be available on the web after the presentation.

C. Online Mock Jury Review

The cost of expensive focus groups and jury consultants may now be reduced by instead using an online jury to evaluate your case. Services such as Trial Juries - Online Jury Review (http://www.trialjuries.com/trialjuries/) offer online jury review of your pending cases. Typically lawyers may submit a written, audio or video version of their trial materials and receive feedback or verdicts from virtual jurors based upon questions the lawyer has drafted. It is the responsibility of the lawyer to develop the list of

questions for feedback. Some trial consulting firms offer jury experts who will write a corresponding report to accompany the feedback.

D. Secure Online Backup and Data Recovery Systems

Many vendors offer secure online backup and recovery systems for your data. From natural to man-made disasters, every law office must be prepared for data emergencies. Many lawyers are reluctant to consider online solutions because they falsely believe that they will be sending their confidential data through an unsecured internet connection to the online vendor. In fact, the data is securely encrypted before transmittal and not vulnerable to hackers.   Many lawyers don't realize that traditional backup systems using tape or other media such as DVDs, hard drives, etc. are at much greater risk of failure than an online solution. Storing an unencrypted copy of your legal data on portable media such as tapes or hard drives is a much greater security risk than backing up encrypted data via the web.

The ABA's Legal Technology Resource Center has written an article on the importance of backing up business documents and provides links to several resources that discuss online backup. The article can be accessed at the following web address: http://www.abanet.org/tech/ltrc/fyidocs/databackupfyi.html

E. 2D to 3D

Extracting 3D information from 2D models has great potential for enhancing visual presentations for jurors. Several innovators have been working on this type of technology. For example, computer scientists at Stanford University recently

announced that they have developed an algorithm that can produce a 3D image from a 2D or flat image such as a photograph.   The software creates a three-dimensional "fly around" model that can give viewers access to the scene's depth and a range of points of view. The Make3D website allows users to upload an image for free and "fly" in the 3D scene or watch a rendered 3D movie of the scene. For more information, visit: http://make3d.stanford.edu/

A similar technology is being developed by IBM for the health field. IBM's Anatomic and Symbolic Mapper Engine (ASME) promises to translate electronic health records into 3D images.   A black and white x-ray can be converted to a 3D diagram that includes bones, muscles, blood vessels and body organs.   The ability to provide a high definition three dimension image of the human body can greatly enhance a courtroom presentation. For more information on the IBM project, visit: http://www.spectrum.ieee.org/jan08/5854

F. MRI Lie Detectors

A few companies now have websites advertising that they offer MRI scanning with much greater success rates at detecting falsehoods than traditional polygraph machines.   For more information, see No Lie MRI (http://www.noliemri.com/) and Cephos Corp (http://www.cephoscorp.com/). Both companies advertise that they offer accurate tools to detect deception that are automated, non-human based and have the greatest changes for court admissibility. Many controversial questions surround the use of MRI lie detectors. Clearly courts and legislatures will have the final word in regulating their use.

G. Social Networking Sites

You might think that social networking is limited to facebook or myspace and is only relevant to high school or college students. However, more and more business applications are weaving social aspects into their products. Also, more market sectors are starting to establish social networking sites.   Even the U.S. intelligence community has established a social space called "A-Space" on which analysts can post and discuss their current projects.   Some uses of social networking or web 2.0 technologies in the legal community include:

1. Legalonramp - a members-only online community of corporate in-house counsels and leading law firms. The condition for law firms to register is that they must contribute substantive content on one or more legal topics in their area of expertise and introduce a client to the service. The idea is that in-house counsel would have an online source of expertise when deciding to retain outside counsel, etc. Everything about LegalOnramp is geared to information sharing, collaboration and (its main reason for being) negotiating honest value for legal work. In place of surfing from one law-firm Web site to another in search of legal updates, FAQs, forms, templates and the like, LegalOnramp offers all that and more in a single, limited-access site. About 100 firms, including Cooley Godward Kronish LLP, Littler Mendelson P.C. and Fenwick and West LLP, have lawyers participating with the site. Corporate counsels can also use the site to hold discussions, post requests for upcoming legal work and search legal bulletins that firms issue.

2. Wikipedia - By now, most people are familiar with Wikipedia, the online encyclopedia that can be edited by anyone. Because Wikipedia can be edited by anyone,

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some lawyers have cautioned others about using Wikipedia as a source. It may surprise

you to know that several courts have relied upon Wikipedia for sources of information.

Topics discussed in court cases which rely upon Wikipedia include hair drug testing,

helicopter parenting, Sherlock Holmes and pink elephants. For a complete list of court

decisions (including non-U.S. courts as well) which have cited Wikipedia, visit:

http://en.wikipedia.org/wiki/Wikipedia:Wikipedia_as_a_court_source

3. LinkedIn - LinkedIn seems to be based on the Six Degrees of Separate

premise. The gist of the service is that you can create a free account and include a

profile with relevant background facts about yourself such education and work history.

LinkedIn will provide you with matches of people similar to you. You can then explore

matches they have included in their LinkedIn profile.   The end result is a ready made

network of business contacts.   Many lawyers and other types of professionals are

already registered with LinkedIn. You might discover that the service is an efficient way

for you to locate contacts, identify referrals, develop your professional reputation or

cultivate clients.   And technically I exaggerated in the first sentence. LinkedIn is more

like three degrees of separation. It lets you connect to people you know, their

connections, and finally the connections of their connections -- and no further.

4. Twitter - Twitter is a service that allows you to answer one question: What

are you doing right now? You'd be surprised how many people might be interested in

what you are doing. Twitter allows you to send a short message (140 characters or less)

to mini-blog about yourself on the Twitter website. That message can be sent to your

friends by instant messaging or you can send an SMS message to your friends' cell

phones. Lawyers could exploit the public relations potential of Twitter. Perhaps you

want to publicize that you've added an entry to your blog or updated your website. Or

perhaps you'd like to ask friends for a referral for a nonlegal service.   Twitter is a good

mechanism for receiving and delivering quick informal messages between friends and

acquaintances.

H. Simple Websites That Can Increase Your Productivity

Yes, Buck Rogers would be interested in the above websites, but sometimes

automating simple tasks can be huge a huge time saver.   Useful websites don't have to

be all whiz bang. Sometimes the simple websites can provide you with the greatest

return on your time investment.

1. Timeanddate.com - Lawyers and support staff frequently need to calculate

dates. The timeanddate.com website can save you substantial time when you need to

calculate items such as duration between dates, what date is it in xx days, calculate when

someone was born based on their age and death date, which day of the week a date

is/was and many other calculations.

2. Thesaurus.com - Perhaps this website is already well-known to you, but I

find that I can rarely compose a document without using this valuable free online

resource. While my word-processor includes a thesaurus, I find it much quicker and

simpler to use thesaurus.com.

3. TinyURL.com - Have you ever tried to send someone a long, long web

address in an email only to have it break when sent causing the recipient to have to cut

and paste it back together? Tiny URL.com will create a short web address that will not

break and never expires.

III. Technology Trends or Predictions for the Future

Predicting the future is always a gamble, particularly when it comes to technology. If we believed all of the technology predictions that we've heard over the years, we'd be driving flying cars and would have robot maids by now. Fortunately there are a few technology trends that can be safely predicted.

A. Green Technology Boom

Many market sectors have embraced consumers' desires for greener products and technology is no exception. Technology manufacturers are all racing to ensure that their products are rated energy compliant. The ABA Legal Technology Resource Center (http://www.abanet.org/tech/ltrc/fyidocs/gogreen.html) has provided tips on its web page on how to make your law office technology greener. If you're wondering how this might help you business (other than reducing your utility bills), you may be interested to know that a 130-employee San Francisco law firm, Wendel Rosen Black & Dean, strongly focused on reducing its carbon footprint and successfully marketed itself to appeal to businesses that specialize in sustainable practices.

B. Increased Portability

Let's face it . . . if you've ever carried a laptop for a significant distance, you'll readily admit that most of them are not really that portable. In fact, your shoulder will likely be aching fairly soon. Luckily ultra-thin and highly portable laptops are becoming abundantly available and relatively affordable. The new MacBook Air caused quite a stir when it was publicly unveiled in January 2008. It weighs three pounds and is three

quarters of an inch thick when closed. Rumor has it that many more laptop

manufacturers will be revealing their ultra light models soon as well.   Gone are the days

of needing a rolling backpack to carry your technical gear. True portability for laptops

will be a reality.

C. Expanded Mobility

Ubiquitous wi-fi will eventually be available and make portable computing truly

possible, but that reality is unfortunately still a long time away. In the meantime,

technologies that allow users to take web content and work offline are closer to

becoming accessible. One example of such programming is Google Gears. Although it is

still in beta, many developers are using Google Gears to develop applications that allow

users to continue to work even though no web connection is available. Once a user

connects to the web, the Google Gears application will automatically upload content to

relevant servers. For example, if you keep a to-do list on a web server, Google Gears

would allow you to work on the list offline, but as soon as you connect to the internet,

Google Gears would automatically upload any changes that you've made to the to-do list.

D. Still Battery Powered

When predicting technology trends for the future, the topic of battery power

inevitably comes up. Unfortunately significantly longer battery life is still in the distant

future. Manufacturers have made some progress in extending the power of batteries for

portable devices such as cell phones and laptops, but the expansion of features that

portable devices offer is also growing exponentially.   Cell phones such as the iPhone can

perform myriad new tasks and consequently require much more battery power. As new features are added to portable devices, the battery must likewise produce more energy.

E. Biometric Identification

The use of biometric identification such as iris scans, voice recognition, handwriting analysis, face recognition and fingerprint readers, and others will continue to evolve as authentication mechanisms for hardware and software. E-commerce vendors are particularly interested in the promise of biometrics. Allowing users to verify their identity based upon their physical characteristics has the potential to drastically transform how business is conducted. Of course, privacy and legal issues will abound so there will be many opportunities for lawyers to be involved in biometric identification issues.

F. Touch Screen User Interfaces

Apple has long been a fan of providing access to features via touch. The iPhone has demonstrated that consumers quickly adapted to a touch interface. In fact the iPhone was Time magazine's Invention of the Year in 2007. The fact that it is touchy feely was the second reason noted in the article supporting the iPhone's nomination as Invention of the Year.   The latest rumor is that the next Windows release -- currently known as Windows 7 -- will have many more touchy feely features. At the recent Consumer Electronic Show in Las Vegas, many vendors were demonstrating touch screen technology so there is no doubt that touch screens are creating much buzz among technology vendors.

IV. Fun & Interesting Gadgets

Finally, this section lists some recently available gadgets as well as some prototypes or technology concepts that will hopefully whet your appetite or at least make you smile.

A. WildCharge (http://www.wildcharge.com/) - Place your cell phone or iPod down on a small pad on your desk and have it charge automatically --no cords or adapters needed. One of Time magazine's Best Inventions of 2007, WildCharge is a wire-free charging system for hand-held portable electronics. Just add the small adapter to your cell phone, PDA or similar device and place it on the WildCharge pad. Currently adapters are only available for Razr phones but in the next few months adapters for the Blackberry, iPhone and iPod will be available.

B. Kindle (http://www.amazon.com) - Amazon's wireless e-book reader promises to be the turning point application that will create mass acceptance of electronic books. It must be a somewhat accurate prediction since currently Kindles are all sold out and are not currently available for purchase (but you can place your name on a waiting list). It retails for $399 from Amazon.com. Kindle's main selling point is that users can download more than 90,000 titles directly from Amazon.com for approximately $10 per title. The Kindle connects directly to Amazon's website without the user having to connect it to a pc for downloading the titles.

C. Eye Fi (http://www.eye.fi/) - Anyone who has ever struggled with downloading photos from a digital camera will appreciate Eye-Fi. The Eye Fi card automatically uploads photos from your digital camera to the web and your computer via WiFi. No more cables. The card works with any camera that accepts SD and costs

approximately $100.   It is currently available at Ritz Camera stores.

D. Compadre (http://www.speechgear.com/compadre.aspx) -
Compadre, SpeechGear's instant language translation software suite can translate whatever you see, hear, say, read, write or type.   The software can translate anything you can take a photo of such as a menu, sign, etc. into over 200 languages. The software was originally developed for the military but is now being marketed toward companies that conduct international business.

E. Wi-Fi Detector t-shirt
(http://www.thinkgeek.com/tshirts/generic/991e/) - If you don't want to boot up your laptop to determine if wi-fi is available, try wearing a wi-fi detector t-shirt.   The glowing animated shirt dynamically displays the current wi-fi signal strength. The animated decal is removable for washing and runs for hours off of three AAA batteries stored in your shirt pocket.

F. Gadget Kilt
(http://www.blaklader.com/gb/products/craftsman/shorts/85661370-kilt/
black-9900/) - For the truly adventurous techie who wants to carry lots of gadgets, a Swedish industrial clothing company is now offering a gadget kilt. While you're guaranteed not to make the Best Dressed List by wearing the Gadget Kilt, you're sure to receive lots of comments.

G. Eclipse Solar Gear (http://www.eclipsesolargear.com/) - Eclipse has developed line of carrying cases such as backpacks, messenger bags and camera bags that include solar panels on their sides. The solar panels are capable of charging most portable devices such as pdas, iPods, cell phones, GPS units, and also rechargeable

double AA batteries.

H. Moldable Mouse
(http://www.red-dot.sg/concept/porfolio/06/13pw/R094MM.htm) - Lite-on
technology has developed a prototype of a moldable mouse. Essentially the mouse feels
like a lump of clay that can be molded into any shape that suits your hand shape.   The
click buttons and scroll wheel easily detach and communicate with the mouse via RFID.

I. Ecobutton (http://www.ecobuttonuk.com/) - Available in the U.K., the
Ecobutton is a usb device that allows users to put their pcs in energy saving mode
whenever their computer is going to be left idle. Most people won't take the time to
power down their pcs because of the length of time it takes to reboot. Ecobutton goes
into energy saving mode and restarts instantly so there is no wasted boot-up time. In
addition to reducing your firm's carbon footprint, Ecobutton can provide a significant
savings on your power bills.

J. Optimal Office mouse (http://www.hotforest.com/index.html) -
Another product available from the U.K. is the Optimal Office mouse. The Optimal
Office mouse has sensors on its side that monitor your stress level. When your stress
level is too high, it suggests exercises to reduce stress.

K. E-Paper Napkins
(http://www.yankodesign.com/index.php/2008/01/04/high-tech-napkins/)
- As the company's website slogan states: Great ideas often begin on a paper napkin.
The E-Paper Napkins use e-ink to communicate by radio frequency with a pen. Both the
napkin and the pen communicate with a base pc unit to capture whatever is doodled or
scribbled on the e-napkin. E-Paper Napkins are designed to help creative groups

collaborate in a comfortable, familiar environment.

L. Projection Cell Phones (http://www.yankodesign.com/index.php/2008/01/04/high-tech-napkins/) - Stefano Casanova has developed a concept for a cell phone with a projector embedded into it so that the cell phone's screen can be projected.   Many commentators view this concept as further evidence that laptops, cell phones, pdas and other mobile devices will be blended into one multi-feature device in the future.

M. Fuji Xerox Photocopier (http://www.fujixerox.co.jp/eng/) - Fuji Xerox has developed a photocopier that can scan a document written in English and then print a copy of it in Japanese or Korean.   The system also works in reverse. Japanese or Korean documents can be scanned and printed into English.

N. Portable USB Paper Shredder (http://www.kinlan.cn/main/Product_Info.asp?ProductID=303) - Advertised as the world's minimum portable shredder, Kinlan's portable USB paper shredder is convenient for road warriors who deal with sensitive information that needs to be regularly shredded. The portable paper shredder needs no extra AC power and plugs directly into your usb port.

O. Desktop Factory 3D printer (http://www.desktopfactory.com/) - 3D printing has been available at great expense for a while, but Desktop Factory has introduced a 3D printer for $4995.

P. Thunderpack (http://www.thunderman.net/) - I couldn't resist including this final item in the list of tech gadgets . . . Thunderbolt Aerosystems has developed a personal jet propulsion system that will allow individuals to remain aloft for

75 seconds. The unit retails for around $100,000.