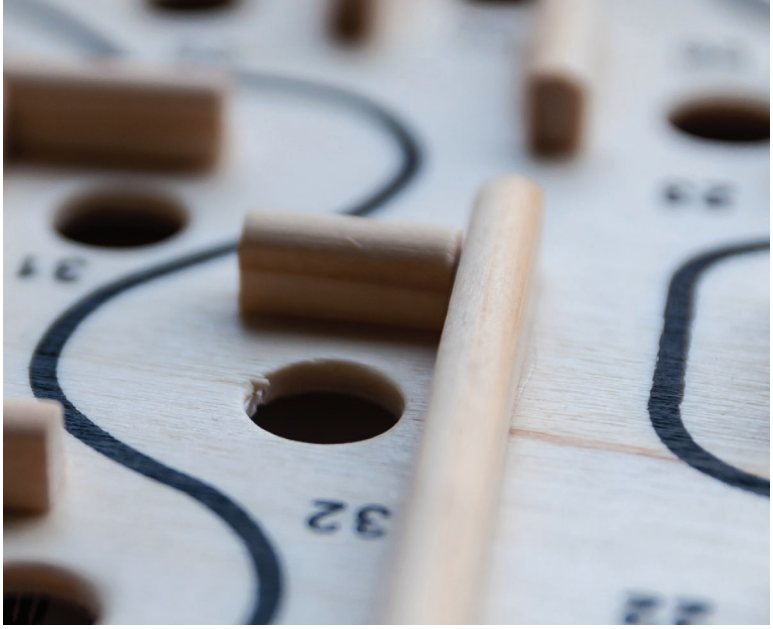
BLF
BIGGER LAW FIRM
A magazine for attorneys



FUTURE OF LAW

Criminal risk assessments and the future of sentencing

PRACTICE MANAGEMENT

The new ethics of attorney and client email communications

SECURITY

Protect sensitive data on your personal devices

CLIENT JOURNEY mapping

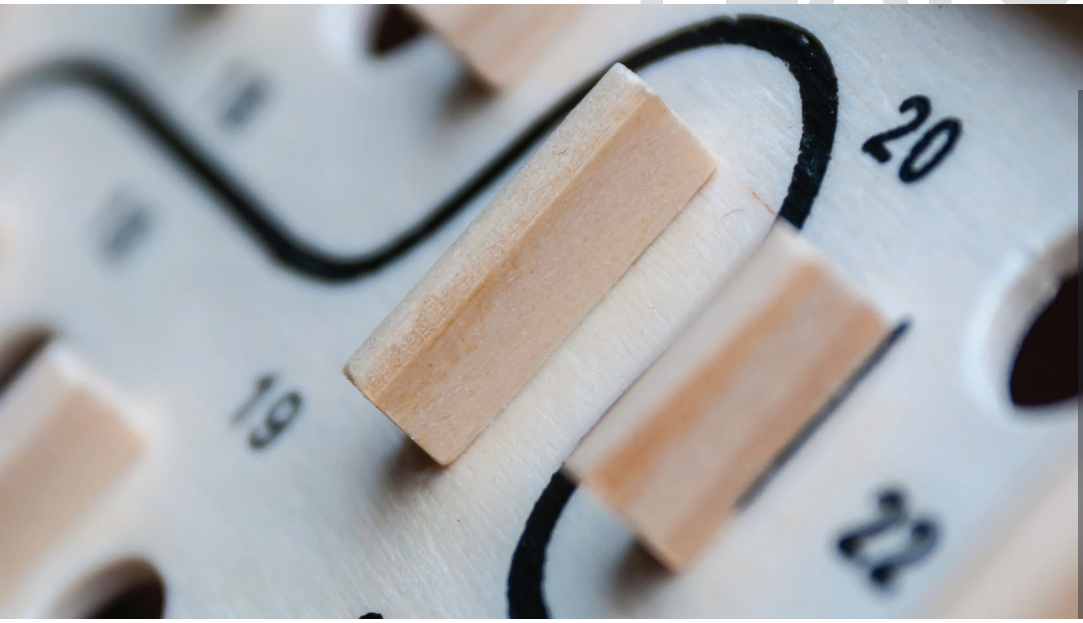
The client journey map is your key to understanding how to best reach prospects who are at different stages in the hiring process.

May/June | Vol. 46

ISSN 2163-2464
46
9 772163 246007

FEATURES

BLF
May/June 2017



Client Journey Mapping

being organized does not only mean that your marketing expenses and results are tracked in a spreadsheet. Rather, some larger organizing principle is required to conceptualize the big picture of your firm's marketing mission. One such concept is the Client Journey.

9

6

FUTURE OF LAW

Criminal risk assessments

Increasingly, criminal sentencing decisions are guided in part by sophisticated computer algorithms that aim to predict, among other things, a convict's likelihood to re-offend. Some are sounding alarms over the opacity of the so-called "risk assessments."

17

PRODUCT SPOTLIGHT

Oversee your cases with Lawcus

Lawcus, a fully immersive legal case management software, tries to relieve attorneys of tedious tasks through simplicity, automation, visually intuitive layout and all-in-one functionality.

BLF BIGGER LAW FIRM
A magazine for attorneys

Bigger Law Firm™ was founded to introduce lawyers to new marketing and firm management ideas. Advancing technology is helping law firms cover more territory, expand with less overhead and advertise with smaller budgets. So many tools exist, but if attorneys are not aware of these resources, they cannot integrate them into their practice. The *Bigger Law Firm* magazine is written by experienced legal marketing professionals who work with lawyers every day. This publication is just one more way Custom Legal Marketing™ is helping attorneys Build a Bigger Law Firm™.

To send mail to this publication, write to Adviatech Corp., *BLF* magazine, 4023 Kennett Pike Suite 57516 Wilmington, DE 19807, or email editor@biggerlawfirm.com.

Editor Danuta Mazurek
Art Director Kristen Friend

Staff Contributors Brendan Conley, Ryan Conley, Kristen Friend, Roxanne Minott, Dipal Parmar, Kerrie Spencer, Dexter Tam, Justin Torres
Subscriptions Thomas Johnson, tjohnson@biggerlawfirm.com
Founder Jason Bland

Website Offers www.biggerlawfirm.com
Single Issue $6.95

DESIGN OBITER DICTA

Wonder why your website is not converting leads the way you think it should? You might be the victim of design-based conversion killers.

Attorneys' websites are not simply online brochures. A website serves many functions for a firm, and one of the most important of these functions is lead generation. Your website should be bringing clients to your door. It follows that design must facilitate conversions. One central organizing theory that should support every website design decision you make is simple:

Do not make your users think.

People who are investing their time in research need only to worry about finding what they are looking for, not how navigation works, where you phone number is or why the page is loading so slowly. Here are five ways to prevent your design from getting in the way of your lead generation.

1. Make conversion easy with calls to action
Lawyers are famously prolific with calls to action. Few attorneys can be accused of forgetting to tell people to "call now!" On a website, calls to action must be carefully crafted to encourage conversions without overwhelming the visitor. Prioritize your calls to action. A landing page should have one clear call to action, ideally located above the scroll. Anything else you ask a visitor to do is secondary and should be obviously so.

Additionally, make sure your call to action clearly tells a visitor what is going to happen when they follow through. The text "submit" or "get started" is much less informative than a detailed phrase like "schedule a free consultation" or "start my case evaluation" and will likely not convert as well.

2. Use only actionable features
The breadth of things one can do with web design and development is exciting. Developers are constantly inventing new ways to code features from simple mouse interactions to highly-advanced animations. The temptation to use these advanced features can be great. However, what appeals to you can be irritating to a visitor. If you add animations or other advanced items, make sure each one serves to further a visitor's goal and does not get in the way of website navigation.

3. Forget rotating banners
Rotating header banners are popular with law firms because they allow each department to have its say above the scroll. However, research shows that users largely ignore banner sliders and conversions increase when sliders are replaced with static images. This could be because people see the slider as one big ad, which is easy to disregard, or because they never get to the part that is relevant to them. Either way, banner sliders prevent your website from presenting a single, unified message, are counter-effective and should be phased out.

4. Tell a story
An attorney website can not operate like a storefront, nor can it function like the website of a large retailer. Such entities rely on browsing. In this model, consumers will check out many products, perhaps without much direction, and the law of averages says they are likely to pick one or two to purchase.

Law firms, no matter their size, are not large retailers. They are selling a service or suite of services to specific types of clients. A lawyer website must be a complete sales pitch, from start to finish, with graphics and copy that tell the story of why a visitor should hire you.

On your site, use design to clearly delineate ideas and highlight actionable items. Intentionally emphasize copy that explains the benefits of working with your firm, then use colors and graphics that support such concepts. Remember you are designing a sales journey, not a sales table.

5. Test everything
One firm might find a 50 percent increase in conversions by changing a button from red to blue, while another may have luck removing certain navigation options from landing pages. These are highly individualized results that may or may not also work for your firm. They key to understanding what increases your conversions is testing: test language, colors, graphics (vs. no graphics) and content placement. You may be surprised to find that a feature you like or copy you find helpful is actually turning users off. You can only know what design features might be killing your conversions until you receive feedback from the people who matter most.

- Kristen Friend

The big problem of

SEXUAL HARASSMENT AT BIG LAW FIRMS

• • •

Sexual harassment continues to be a significant problem in the legal world, especially among big law firms. More and more female lawyers are coming forward with accounts of sexually inappropriate behavior they have experienced on the job, whether it is unwanted touching, lewd jokes or blatant sexism.

Legal website Above the Law's "The Pink Ghetto" series, which features shocking stories from harassment victims, highlights just how pervasive the issue is. Sexual harassment of young associates or even partners often happens outside the office or courtroom itself. It can take place in social settings that are part of working in the legal profession, such as after a trial, during a meeting or at a conference or retreat.

Around 90 percent of sexual harassment victims choose not to take formal action.

Last year the Equal Employment Opportunity Commission (EEOC) received nearly 13,000 sexual harassment complaints. While the number exceeded claims of racial, religious or ethnic discrimination, it is likely just the tip of the iceberg. According to EEOC Legal Counsel Peggy Mastroianni, around 90 percent of sexual harassment victims choose not to take formal action.

“Sexual harassment is about power. Lawyers in large firms thrive on power and promise of advancement. Despite legal protection from retaliation, women are too often forced into a position where they feel they either have to endure harassment or risk losing a career that has taken years to build.

There are a number of reasons victims, who are most often women, do not report sexual harassment or pursue criminal prosecution. Many fear various forms of retaliation such as losing their job, being taken off a partnership track or facing hostility from their bosses. The stakes are especially high when an attorney has spent years climbing the ladder at a big law firm.

“Sexual harassment is about power. Lawyers in large firms thrive on power and promise of advancement. Plus, men continue to dominate the top positions in large firms. Women have to work harder to get to the top,” said Betsy Havens, executive director of Strong Advocates, a Los Angeles-based employment law office. “Despite legal protection from retaliation, women are too often forced into a position where they feel they either have to endure harassment or risk losing a career that has taken years to build.”

Victims also worry about facing blame, disbelief or inaction. In addition, lawyers who end up taking their sexual harassment cases to court must be prepared to see their private lives scrutinized in public. Unfortunately, employers, judges and juries often use women’s failure to report sexual harassment to prove that her claim is invalid and that she has other motives.

High profile court battles

In April 2016, a former senior associate of Squire Patton Boggs took to social media site Reddit to announce her resignation from big law, calling the legal industry “male-dominated.” In an explosive post that garnered thousands of responses, Kristen Jarvis Johnson wrote that she “encountered blatant gender discrimination, sexual harassment, and a very clear glass ceiling” during her nine years at the firm. Her post sharing her experiences of working as a woman in a large law firm resonated deeply with Reddit users, many of whom were lawyers.

Squire Patton Boggs countered by pointing out that 12 of the most recent 29 partner promotions at the firm were women. A spokesman said, “We are committed to a firm culture that promotes full and equal participation, advancement and retention of women.”

While Johnson did not file a claim against Squire Patton Boggs, a growing number of female attorneys from big law firms have come forward with allegations of sexual harassment following the high-profile sexual assault lawsuit brought by a former Faruqi & Faruqi LLP associate. In February 2015, a jury ruled that the law firm and its senior partner Juan Monteverde were partially liable for creating a hostile work environment. However, plaintiff Alexandra Marchuk won only $140,000 in damages, merely a fraction of the $9 million she had originally sought.

Marchuk had accused Monteverde of subjecting her to unwanted requests for oral sex, making vulgar jokes in the presence of coworkers and sexually assaulting her after a drunken holiday party. While the law firm argued that Marchuk was lying in an effort to win a hefty settlement, her attorney said Faruqi & Faruqi’s partners protected Monteverde because he was among the firm’s highest earners.

In the aftermath of Marchuk’s case, a former associate of McElroy Deutsch Mulvaney & Carpenter LLP filed a sexual harassment and gender bias lawsuit against the firm in March 2015. The case was settled for an undisclosed amount.

Elina Chechelnitsky alleged she was sexually harassed as a summer associate and assigned work only because a partner wanted to set her up with his favorite male associate. The lawsuit also claimed female associates were given far more non-billable work than their male counterparts. In addition, Chechelnitsky said the firm organized all-male golf outings and forced female associates to sign a confidentiality agreement that allowed them to socialize with male attorneys post work.

She claimed she was fired in retaliation for complaining about the harassment and the lack of gender equality. While the prominent New Jersey-based law firm attributed her termination to downsizing due to lack of work, Chechelnitsky pointed out that a male attorney was hired to replace her a few weeks later.

Gender inequality at law firms
In many cases, sexual harassment goes hand in hand with gender inequality, whether it involves pay disparities, sexist comments or patronizing behavior toward female lawyers. Two big law firms were recently hit with gender discrimination lawsuits. Industry experts predict similar cases will continue to emerge as a growing number of female lawyers are empowered to go public with claims of gender bias and harassment at their firms.

An unnamed partner at the Washington, D.C., office of Proskauer Rose LLP sued the firm in federal court for "substantial gender disparities." She was allegedly paid millions of dollars less than male partners, despite her "standout performance" at the firm. The plaintiff also claimed she was "overtly objectified based on her sex," with one of the firm's partners frequently making inappropriate comments about her appearance. She is seeking at least $50 million in damages in the lawsuit, which Proskauer dismissed as "groundless."

In another high-profile case, partners from Chadbourne and Parke LLP are facing a gender bias lawsuit after they voted to eject a female partner who sued the firm for pay inequality last year in New York. Plaintiff Kerry Campbell claimed the law firm paid female partners less than their male counterparts and denied them advancement opportunities. Campbell's lawyers argued her ejection was in retaliation for her lawsuit, while the firm suggested it was due to her poor performance as a partner.

Sexual harassment prevention
During its annual meeting in August last year, the American Bar Association took a significant step to address attorney misconduct by voting to amend its rules of professional conduct to include a new anti-discrimination provision and prohibit sexual harassment. The ethics rules serve as guides for state officials to set policies and determine disciplinary action for lawyers who violate them. Around two dozen state bar associations already have similar anti-discrimination guidelines in place, but there had previously been no national rule.

Many firms use various forms of training that are meant to address sexual harassment, such as online courses, in-person classes and compliance videos. They typically cover the legal definitions of sexual harassment and the type of behavior that can get people into trouble.

However, hardly any evidence exists that suggests such programs are effective in ending sexual harassment in the workplace. While compliance courses may help employees understand the definition of sexual harassment, they may be doing little to change their behavior. In addition, firms often engage in the bare minimum of training just to generate a record of participation.

One key reason sexual harassment is still pervasive in big law firms, where employees are cognizant of the law, is due to a lack of effective policies and complaint channels. A law firm's internal policies or workplace culture may discourage victims of sexual harassment from reporting inappropriate behavior and expose them to the risk of retaliation. Sometimes the harasser is a powerful player in the firm, such as a senior partner who brings in so much money that others have considerable incentive to look the other way.

"Large law firms can prevent sexual harassment by consistently enforcing zero tolerance sexual harassment policies, monitoring work culture and promoting more women to partner," said Havens. "Large firms and other companies need to be sure that their sexual harassment policies provide a clear process for filing, investigating and resolving a complaint."

Havens suggested that promoting more women to leadership positions in law firms would contribute to solving the problem. "Women leaders serve as a countervailing force to the machismo frequently encountered in big firm culture," she said.

According to Law360's Glass Ceiling Report, only around 21 percent of partners in law firms are women.

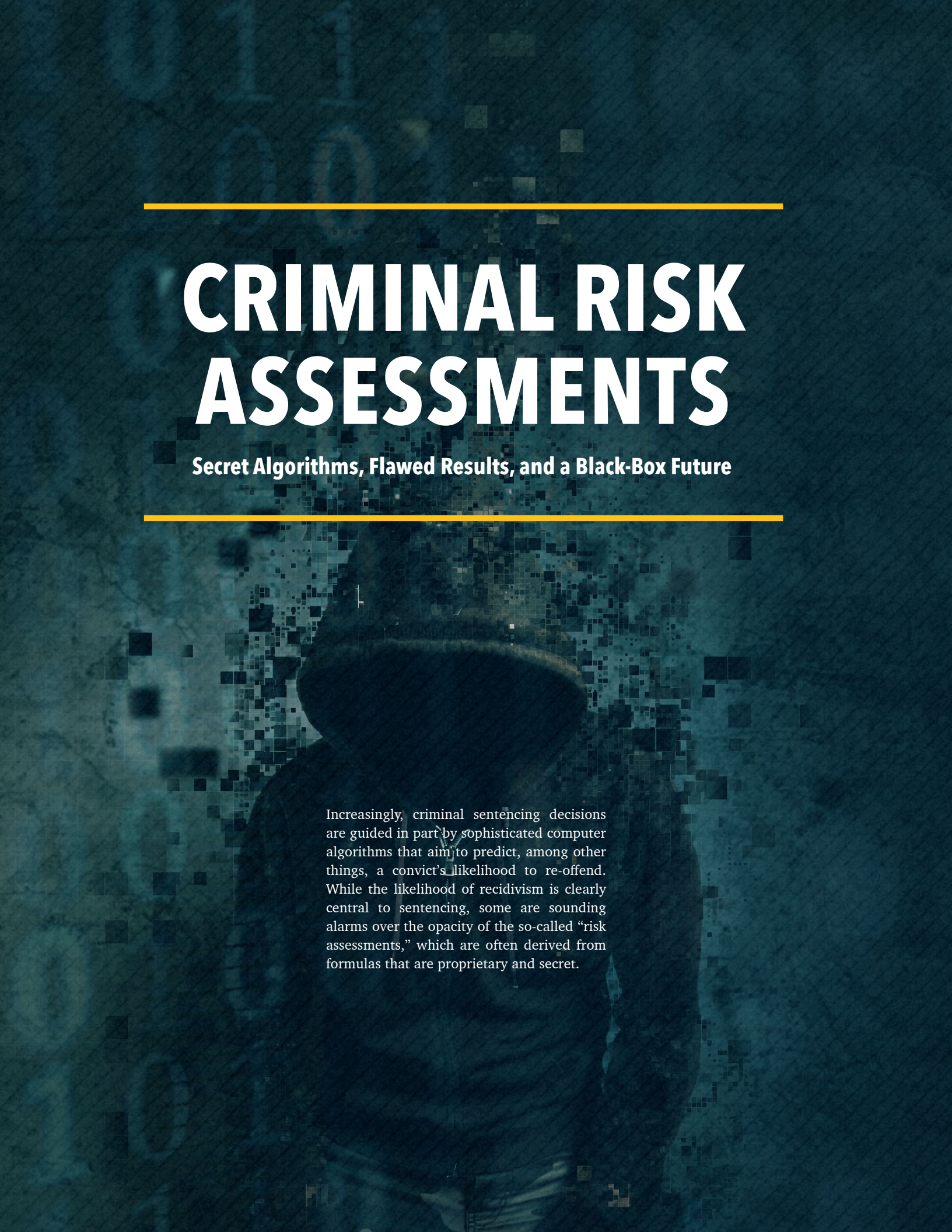
While cases such as Marchuk's have helped draw attention to sexual harassment and gender inequality in the legal profession, a lot more needs to be done. Law firms should take a closer look at how they can implement effective polices to prevent sexual harassment. In addition, they need to find ways to encourage employees to report incidents of discrimination and harassment without fear of retaliation.

- Dipal Parmar

> Individuals who are experiencing sexual harassment at work can take several steps to protect themselves. Such steps include telling the harasser to stop the inappropriate behavior, gathering evidence, writing down details of what happened and reporting the harassment to human resources or a trusted leader in the firm.

CRIMINAL RISK ASSESSMENTS

Secret Algorithms, Flawed Results, and a Black-Box Future



Increasingly, criminal sentencing decisions are guided in part by sophisticated computer algorithms that aim to predict, among other things, a convict's likelihood to re-offend. While the likelihood of recidivism is clearly central to sentencing, some are sounding alarms over the opacity of the so-called "risk assessments," which are often derived from formulas that are proprietary and secret.

Do algorithms violate due process?

Eric Loomis received a six-year prison term following a 2013 arrest for fleeing from the police in a stolen car in La Crosse, Wisconsin. The judge said that Loomis presented a "high risk" to the community and based his sentence in part on his COMPAS score. COMPAS is an algorithm developed by Northpointe, a for-profit company. The algorithm is aimed at predicting recidivism based on the answers to 137 questions in categories ranging from "criminal history" to "education" and "residence/stability." The exact way in which these answers are factored into a defendant's "risk score" is a trade secret.

Loomis argues that because he is unable to review the algorithm and challenge its scientific validity, its use in his sentencing is a violation of his right to due process. He also contends lack of due process in that COMPAS includes gender as a factor in predicting recidivism, as Northpointe admits.

The Wisconsin attorney general's office defends the use of COMPAS, characterizing it as providing an assessment of risk "individualized to each defendant." The Supreme Court of Wisconsin in 2016 upheld this argument, ruling against Loomis on the basis that the assessment provided useful information and was just one component of his sentencing decision.

Loomis has a petition pending before the U.S. Supreme Court, which has shown interest in the case. In March, the Court invited the Acting Solicitor General to submit a brief expressing the views of the United States. That brief, filed in May, recommended the Court deny review.

Although the government concedes that the risk assessments raise "novel constitutional questions," the brief argues that Loomis would have received the same sentence even without COMPAS, and points out that only the Supreme Court of Indiana has ruled on the use of algorithms in sentencing, similarly to Wisconsin.

Although race is not one of the data points used by Northpointe's algorithm, ProPublica found a startling racial bias in the scores. The formula wrongly predicted black defendants would re-offend at twice the rate it did for whites. And in cases where the algorithm failed to predict recidivism that actually occurred, it did so more often with white defendants than with blacks.

Public concerns, secret methodology

The purpose behind data-driven, algorithmic risk assessment in criminal sentencing is to keep people out of prison. Virginia, which has one of the longest-running algorithm risk assessment programs in the nation, began scoring defendants in 2002 in the midst of a budget crunch.

Faced with overcrowded prisons and no funds to build new ones, the legislature directed the sentencing commission to develop a method for identifying offenders who were unlikely to re-offend. These low-risk offenders were then diverted away from prison into alternative sanctions including probation and house arrest.

The sentencing commission developed a formula that when tested against historical data correctly predicted a convict's chance of re-offending three out of four times, and after its implementation, Virginia's prison population began to level off. But when some offenders are deemed less likely to re-offend, it follows that others are deemed more likely, and therefore more deserving of a lengthy prison sentence. It is this concern that has experts alarmed at the implications of this practice.

Today, the use of these algorithms continues to grow. Many states, like Virginia, use formulas developed by sentencing commissions or academic experts which are available for examination by the public. But other states, including Wisconsin and Florida, use algorithms which are developed by private companies and protected as trade secrets.

Although courts appear willing to uphold this protection, this does not consign these algorithms to utter secrecy. The concept of "qualified transparency" advocated by, among others, Frank Pasquale, professor of law at the University of Maryland, may provide a middle ground. Expert investigators could be permitted to examine a secret algorithm away from public view and render an opinion to the court as to its scientific soundness and constitutionality.

Questionable results

Even if we hesitate to trust computer algorithms with criminal justice, we might still give technology the benefit of the doubt. Given a sufficiently large data set, should an algorithm not be able to draw accurate correlations between a defendant's circumstances and the many similar cases that came before?

This, after all, is one of the core promises of computer decision-making: computers lack the capacity for bias, social or otherwise, and should theoretically be capable of the blindness we ascribe to Justice.

ProPublica investigation

In reality, this may be far from the truth. Journalists at ProPublica conducted an investigation into risk assessment scores created by Northpointe. They obtained the algorithm-calculated risk scores of over 7,000 people arrested in Broward County, Florida and checked to see which of those people were charged with new crimes during the following two years. This is the same benchmark used by Northpointe. If the company's algorithm works as intended, it should predict recidivism with a high degree of accuracy.

ProPublica found it did not. Of those deemed likely to re-offend, just 61 percent were arrested for any crime in the two years subsequent to their initial arrest, including misdemeanors. In other words, the algorithm was a bit more accurate at predicting one's likelihood to re-offend than a coin toss.

When it came to predicting violent crimes, the algorithm fared even worse. Just 20 percent of those deemed likely to commit violent crimes were arrested for such a crime.

Even more troubling than the algorithm's apparent inability to predict recidivism is the disparity of the risk scores assigned to offenders of different races. Although race is not one of the data points used by Northpointe's algorithm, ProPublica found a startling racial bias in the scores. The formula wrongly predicted black defendants would re-offend at twice the rate it did for whites. And in cases where the algorithm failed to predict recidivism that actually occurred, it did so more often with white defendants than with blacks. Northpointe disputes the analysis.

Troubling future

If sentencing decisions guided by secret algorithms is not bad enough, artificial intelligence, aka "AI" or "machine learning," could eventually add a whole other level of opacity to the process. Even if private risk assessment companies' algorithms remain secret, we can at least take stock in the fact that their workings are not mysterious to the company itself. The same can not be said for artificial intelligence.

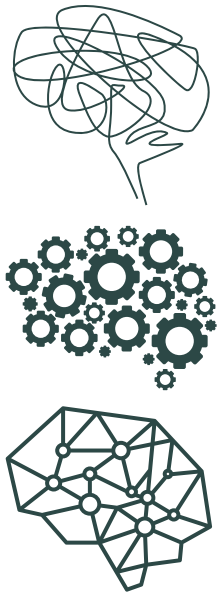
Properly understood, most computer algorithms, though they can be extremely complex and difficult for any one person to understand completely, do not constitute artificial intelligence. AI works by programming a computer to alter its own programming, which can yield results that are unpredictable and sometimes even difficult to accurately describe. Moreover, given the assumption that increased accuracy is desirable, a sentencing AI might remain free to alter itself continuously. Such a system might become impossible to fully understand, even by its creators.

And what if that system, even if only in experiments, could be clearly demonstrated to predict recidivism with very high accuracy? What happens when algorithms really can predict crime? Would the use of such a system not find strong advocates among tough-on-crime politicians and prosecutors, among the public, and perhaps even among judges?

In the short term, with Loomis' petition pending before the Supreme Court, algorithmic risk assessment and sentencing may be stymied by the more practical concern of due process.

In the not-too-distant future, however, we might be forced to decide how much authority to cede to computers with predictive powers that are as remarkable as they are mysterious.

- Ryan Conley



PREDICTIVE TROUBLES

In an investigation into Northpointe's risk assessment scores, ProPublica found that just 61% of people found likely to re-offend were arrested for any crime, including a misdemeanor, in the two years subsequent to their initial arrest, and only 20 percent of those deemed likely to commit violent crimes were arrested for such a crime.

The Client Journey Map is your key to understanding how to best reach prospects who are at different stages in the hiring process.

CLIENT JOURNEY mapping

for law firms

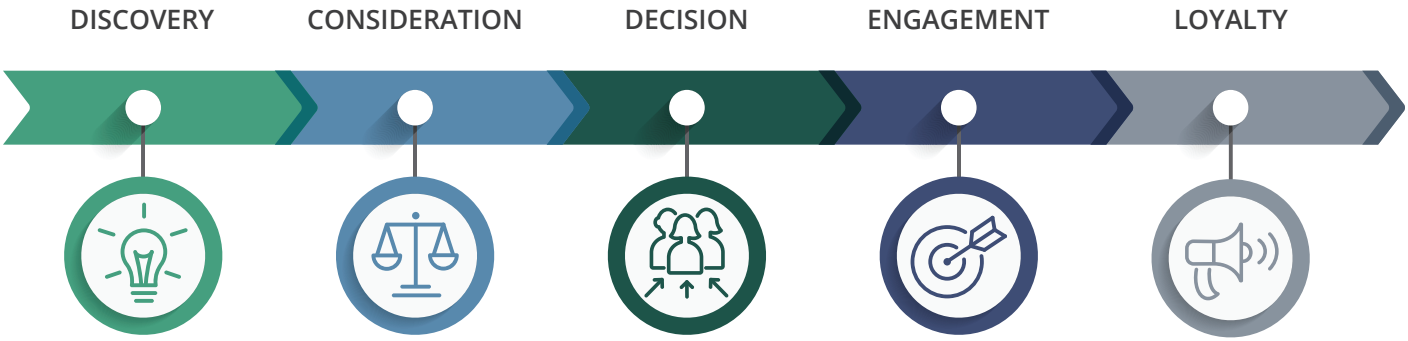
Too many law firms have a random approach to marketing: resources are applied haphazardly toward advertising or website development, and everyone hopes the phone keeps ringing. This method is obviously flawed. In order to improve, you need to know what works and what does not, and that is only possible with a systematic approach. However, being organized does not only mean that your marketing expenses and results are tracked in a spreadsheet. Rather, some larger organizing principles are required to conceptualize the big picture of your firm's marketing mission. One such concept is the Client Journey.

The Journey concept

Thinking in terms of the client journey is a simple way for a law firm's marketing team to put themselves in the client's shoes at various phases in the relationship, particularly in the crucial period when a prospective client becomes a client of the firm. This helps the marketing team analyze successes and failures, and develop strategies for each stage in the journey.

There are several ways to describe the client journey, but we will look at five stages: Discovery, Consideration, Decision, Engagement and Loyalty.

The first three stages represent the period where a potential client makes the decision to hire the firm, while the last two stages represent the satisfied client who returns for future legal needs and recommends the firms to others.



In the Discovery stage, a potential client becomes aware of the firm. This may occur long before the person needs legal services, if the marketing team has succeeded in associating the firm's brand with expertise in a certain legal field. Other potential clients will not discover the firm until they begin to look for a solution to a specific legal problem. This is where initial impressions are key to determining whether the person will move to the next stage.

First impressions matter, but they are not enough. In the Consideration phase, the client wants to learn more about how to address their issue, including which attorney or firm to call. Increasingly, customers for every type of business expect nearly all of their questions to be answered by a company's website, before they even think of picking up the phone. This is even more true when researching a legal issue. If more people find answers to their question on your firm's website, then the better positioned the firm is when the client is ready to make a decision.

If all goes well, the Decision stage completes a crucial part of the journey: a prospective client has found your firm, compared it to the competition, and decided to make the call. If the firm's attorneys and staff meet the person's expectations, the firm has a new client. This is cause for celebration, but marketing does not end when the client signs a fee agreement.

During the Engagement phase, a client's expectations need to continue to be met, and an essential factor in this is making sure that their expectations are realistic. It should go without saying that a firm that makes promises it can not keep will not maintain a positive reputation. The marketing messages that brought the client on board have to be matched by the reality of what the firm's attorneys deliver. This is the recipe for client satisfaction.

An attorney's reputation is invaluable, and word-of-mouth is still one of the most effective marketing methods. Happy clients pay future dividends, as they return for repeat business and recommend the firm to others. Success at the Loyalty stage involves not only sending satisfied clients on their way, but actively employing their positive experience as a marketing message.

When building a marketing plan around the client's journey, it is important to remember that the journey is not always linear, with discrete steps. The diversity of legal issues that arise means that some clients must jump to making a decision quickly, while others have more time to ruminate in the consideration phase. In some cases, the firm has earned such loyalty that a strong recommendation from a friend or family member is all that is needed to bring a new client on board.

In other situations, a competing firm has failed in the engagement phase, and the client is considering jumping ship to your firm, with very clear ideas of what they are looking for. Keep in mind that the journey concept is just that: an idea that can serve as an organizing principle, allowing the firm to analyze the ways that prospective clients approach the firm, so that carefully targeted marketing strategies can be crafted.

Mapping the Journey

The five-stage journey set out here is a starting framework that your firm can develop based on your marketing team's own knowledge and experience. To truly serve the firm's interests, that framework needs to be filled in with rich data specific to your region, field of law, and the firm's actual experience with clients. Gathering that data is a critical part of mapping the client journey.

At some stages, the firm is likely already gathering the information needed. For example, the question, "How did you hear about us?" should already be part of your firm's intake process, providing indispensable data about the discovery phase. If your firm does not already ask satisfied clients to write online reviews, implementing such a process allows the firm to record valuable feedback while putting client loyalty to powerful use influencing people who are just discovering the firm.

Other types of information will not be generated without effort. This is where mapping the client journey can help the firm address gaps in its knowledge about its own clients.

One type of information that is often overlooked is what happened to the prospective clients who never got past the discovery or consideration phases. The problem with the question, "How did you find us?" is that it is only addressed to the people who found you. In mapping the client's journey, you also want to learn about those who strayed from the map and wandered over to another firm.

The fact is, some of this data already exists, and more can be generated with a little effort. Regarding the people who never discovered your firm, some research can reveal what went wrong. First of all, when a potential client enters your field of law and your city into Google or another search engine, is your firm on the first page of results? If not, it needs to be. Developing your website using principles of search engine optimization will move you up in the organic results, and Google will be happy to sell you ad space as well.

However, visibility is just step one. To find out what makes people click, do some A-B testing. The blurb that appeals to you may not be the one that clients click on. Experiment, and let the data speak.

Once people are clicking-through and landing on a page on your website, are they staying to consider your firm further? To find out, check your bounce rate. If too many of your website users look at just one page and then move on, that is not a good sign. People look to search engines to find attorney websites with answers to their questions. Does your firm's website provide useful, detailed information, or vague marketing language?

Solid answers to common questions will bring in web traffic from search engines. When it is time to move to a decision, users are much more likely to call the firm that provided them with the answers they were looking for.

Another set of forgotten data can be found at the other end of the client journey. You can probably name your most enthusiastically satisfied clients, and you know they are recommending your firm to others. Likewise, dissatisfied clients stick in one's mind; hopefully they are few and their issues are addressed appropriately. What about everyone in the middle? It makes sense to only request public online reviews from the happiest clients, but the opinions of the unhappy and indifferent provide data the firm can use to create a smoother client experience.

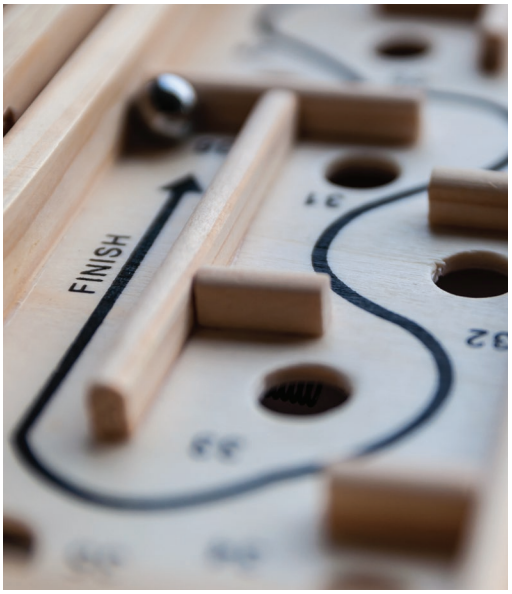
MANY POTENTIAL CLIENTS WILL SPEND A CONSIDERABLE AMOUNT OF TIME SEEKING ANSWERS ONLINE, AND YOUR FIRM'S WEBSITE SHOULD BE A HUB OF USEFUL INFORMATION. YOUR POTENTIAL CLIENTS MAY FIND YOU NOT BY GOOGLING YOUR FIELD OF LAW, BUT BY ASKING A SPECIFIC QUESTION.

Client satisfaction surveys are the way to gather this information. The results may reveal major potholes in the client's journey that would not otherwise be fixed.

Marketing for the stages of the Journey

The payoff for mapping the client journey is the ability to redesign the navigation system, funneling potential clients to your door, and ensuring that when they leave, they are happy to point others in the right direction. Organizing a marketing strategy around the client journey can help the firm's team produce content that is appropriate for each stage.

THE CLIENT JOURNEY IS NOT ALWAYS LINEAR, WITH DISCRETE STEPS. THE DIVERSITY OF LEGAL ISSUES THAT ARISE MEANS THAT SOME CLIENTS MUST JUMP TO MAKING A DECISION QUICKLY, WHILE OTHERS HAVE MORE TIME TO RUMINATE IN THE CONSIDERATION PHASE.



Isolating the discovery phase is a good way to highlight the importance of branding. If the firm has worked to associate its brand with a certain legal field, then people will be more likely to remember it. When individuals are asked, "Do you know a good lawyer in x field?" the association will rise to the surface. An elegant, user-friendly website will ensure that their initial impression is favorable and leads them toward choosing your firm.

Many potential clients will spend a considerable amount of time seeking answers and performing legal research online. Your firm's website should be a hub of useful information. Keep in mind that your potential clients may find you not by Googling your field of law, but by asking a specific question, perhaps one that no other firm has published a good answer to. Providing detailed information in response to your clients' frequently asked questions not only garners web traffic, it helps build your brand. The firm with the encyclopedic answers comes across as the one with the most knowledge and experience.

An important thing to keep in mind is that people look at different devices at different stages of the journey. It should go without saying that your firm's website needs to be mobile-friendly, not least because Google penalizes sites that are not.

However, the client's experience of using the site should also be consistent from desktop to mobile device, because many users switch devices mid-task. While mobile devices have become ubiquitous and popular for web browsing, most consumers also have desktop devices which they use for more detailed research. Your website should be accessible no matter where in the client's journey you meet them.

Of course, the engagement phase is where marketing takes a back seat to good lawyering. There is no substitute for providing exemplary legal services, but the client experience is more than that. Survey your clients to learn whether they are satisfied in all the small ways that contribute to their positive relationship with the firm. Do they feel that they are treated with courtesy and respect by all members of the staff? Do they feel that they are kept informed about the status of their matter? Are their preferences to communicate by phone or by email honored? Is there an online customer portal where they can check the status of their case or attend to other tasks? If they do not wish to use the online portal, is that preference honored? All of these factors and more can make this part of the client's journey pleasant or bumpy.

It would be a mistake to think that the marketing task is over when a happy client walks out the door. Appropriate, ethical solicitation of online reviews showcases the power of client loyalty, and conducting client surveys provides the data needed to continually improve the client journey. In fact, the last phase of the client's journey is perhaps the most powerful, because it holds the potential for compounding rewards. Loyal clients return and send their friends, doing the marketers' job for them. Paying careful attention to each stage of the journey is the way to carry clients to this destination in a sophisticated fashion.

- Brendan Conley

The new ethics of client emails

An recently updated American Bar Association rule clarifies and complicates the ethics of attorney-client email communications.

In May, the American Bar Association (ABA) updated a rule concerning the ethics of email and electronic communications between lawyers and their clients. There is some concern that the rule may not be entirely workable in the field where attorneys deal with many various cases at once. What can your firm do to remain as compliant as possible?

The ABA's Standing Committee on Ethics and Professional Responsibility recently issued its opinion, Formal Opinion 477, to address changes in the way communications are handled in the digital world. Formal Opinion 477 updates Formal Opinion 99-413 from 1999. The newest opinion also amends the ABA's Model Rules of Professional Conduct with relation to an attorney's duty of technological competence and client communications. (Model Rules 1.1 and Rule 1.6 respectively.) Avoidance of the new legal landscape when dealing with safe and secure client communications is not an option.

communicating with clients — a significant change in point-of-view from 1999 when the ABA indicated unencrypted emails were acceptable. Formerly, the ABA's reasoning held that lawyers had a reasonable expectation of privacy in all forms of email media.

The recent spate of highly-publicized hacks and security breaches worldwide has made it impossible to expect privacy in online communication.

Ever since records have gone primarily digital, the difficulty in determining how to handle them has been a contentious point in many courtrooms. This became clear in 2004 in the landmark case, *Zubulake v. UBS Warburg*. In it, Judge Shira Scheindlin issued a series of rulings that are some of the most often cited opinions regarding e-discovery issues.

Judge Scheindlin issued five distinct rulings in an attempt to clarify what

> **FORMAL OPINION 477 STATES, IN ITS SUMMARY,**
>
> "A lawyer generally may transmit information relating to the representation of a client over the internet without violating the Model Rules of Professional Conduct where the lawyer has undertaken reasonable efforts to prevent inadvertent or unauthorized access. However, a lawyer may be required to take special security precautions to protect against the inadvertent or unauthorized disclosure of client information when required by an agreement with the client or by law, or when the nature of the information requires a higher degree of security.

One notable change in the new opinion concerns encryption. The opinion goes on to state that in some cases, a lawyer must use a "particularly strong protective measure," such as encryption, when

e-evidence could be discoverable, how the cost of retrieving and converting the records should be shared, and whether or not sanctions could be ordered for not producing electronic evidence. In *Zubulake*, the opinion stated that UBS did not take all necessary steps to guarantee the preservation of relevant data. As a result, sanctions were issued. This helped set a new standard for electronic data storage obligations.

The question then became: What foundations or basis is there for deciding what electronic information is okay to use and what is not okay to use?

U.S. judges are still tweaking the law in this area as it relates to e-discovery, largely because the Federal Rules of Civil Procedure and Federal Rules of Evidence are merely guidelines. It is up to judges to make a determination whether or not digital evidence is reasonably accessible. Thus, it is not simply a matter of labelling something as e-evidence, since what qualifies as discoverable is tied in some respect to how the attorney of record for a client handles communications with that individual.

As technology grows and develops, attorneys add gadgets to their firms to make their communication more instant and files more accessible. Lawyers and judges are in the position of having to figure out whether the devices being used, and the information sent and received on them, is useable for trial.

The ABA has not set down hard rules, and its most recent opinion failed to outline when encryption of communications is required or what other security measures attorneys should take should additional action be requires. Instead, they offer guidelines that urge lawyers to use a "fact-based analysis" on a case-by-case basis to determine what they need to use to communicate safely and securely. For some cases, encryption is necessary, for others, standard security measures are sufficient.

Factors attorneys should consider
Cyber-threats, ransomware, phishing attempts, malware, mobile applications and different e-communications devices have changed the online communication landscape. It is not always reasonable to use unencrypted email.

Here are the guidelines laid out by the ABA on what to consider when sending emails dealing with possibly sensitive legal matters:

- How sensitive is the information being communicated?
- How likely is disclosure if additional safety features to communicate are not used?
- How much would it cost to put additional safety features in place?
- How difficult would it be to implement the safeguards? E.g. encryption, cloud storage
- How would the use of such safeguards impair the ability of an attorney to represent clients?

One troubling question remains in light of these recent changes in the ABA rules: What is the definition of "reasonable efforts" to ensure the security of client information? In most instances, the answer to the question would rest in the circumstances of the case. The difficulty is that not only does technology change frequently, but case circumstances may also change, necessitating a quick change in the way material is communicated to a client.

Ensuring safe, ethical and secure e-communications when needed has become increasingly complex and technical. To adequately assess security concerns, experts may be necessary to assist in determining what would work for the law firm and its clients.

- Kerrie Spencer

THE SEVEN CONSIDERATIONS

In addition to the questions the ABA laid out for attorneys, seven considerations are provided for lawyers regarding sensitive materials:

1. **The nature of the potential threat.** How sensitive is the data? Does the information deal with highly critical industries such as defense, healthcare, financial matters or trade secrets?

2. **How the information is sent and where it is stored.** The attorney handling sensitive material needs to know where data is held and all avenues that may be used to access it. Being aware of potential data breaches helps manage the risk of unauthorized disclosure of client's confidential material.

3. **Understanding of reasonable security measures.** There are a number of ways to breach data, ranging from hacking into a law firm's system to intercepting it during transmission. An attorney needs to understand the process and use appropriate security, like complex, frequently changing passwords; VPNs; strong firewalls; security patches and anti-virus applications.

4. **Pin down how e-communications relating to client material should be protected.** Determine how to securely transmit sensitive material with the client from the beginning. Highly sensitive material should likely use encryption, with password protection for documents. Alternatively, documents could be stored and exchanged through a third-party cloud-based storage system. Clients should not use work or public computers to reply to attorney emails.

5. **Appropriately label confidential client information.** Marking emails as privileged and confidential alerts those who receive an email in error. This may not change the outcome of having sent a sensitive email to the wrong person who chooses to disclose it.

6. **Train all staff and attorneys in information technology and information security.** Attorneys are mandated to supervise law firm staff to ensure ethical rules are followed.

7. **Perform due diligence when hiring IT communication professionals.** Check credentials, references, company hiring practices, security policies, use of confidentiality agreements, availability of legal relief for vendors violating agreement and the company's conflict of interest check system.

Lawcus lets attorneys visualize the progress of a range of tasks through a lean, workflow-based interface.

THERE IS A BETTER WAY

overSEE your cases with Lawcus

As a lawyer, you have many business development and managerial responsibilities to take care of, such as delegating duties to staff, checking and responding to emails, and communicating with your clients and team. These tasks are usually performed using multiple software programs or tools. Lawcus, a fully immersive legal case management software, relieves you of these tasks through simplicity, automation and all-in-one functionality.

Lawcus' overlay for legal matters takes inspiration from the kanban board, which is a workflow visualization tool. You can drag and drop tasks into different columns within a process, or task, as you move along the funnel of completion. This allows for a quick view of your progress on any number of tasks.

How Lawcus differs from other practice management software

Lawcus tries to keep its interface lean, unlike some other practice management software tools that take up the entire screen overlay with unnecessary features. This makes Lawcus easier to navigate and allows you to get to what you need to do promptly.

Lawcus also takes advantage of the psychological phenomenon that visual tools help people see and complete projects more effectively. Lawcus' kanban board approach tries to impart that human trait into real-life practice. A kanban board lets you see the full process of your tasks. Being able to visualize exactly what needs to be done throughout your entire project makes it easier to complete tasks.

With Lawcus you create workflows, which are project funnels with a start and finish, to gauge your progress on your tasks. Lawcus is one of the few practice management softwares to have workflow automation, giving you the option to schedule repetitive assignments that you would otherwise have to create a task for every day. Given that the nature of work for various practice areas is different, workflow templates can be amended and saved for each specific practice area your firm may represent.

Another feature that sets Lawcus apart from most other practice management software is its use of Zapier. Zapier is an application integration platform that connects to 750 plus apps. Instead of manually opening multiple apps to complete your task, like transferring a file from Gmail to Dropbox, Zapier will complete this action automatically. This function is known as Zap. This integration can help you automate routine tasks that otherwise waste time.

Communication with a client is vital to a case's success, which is why Lawcus has a secure client portal. The portal gives you the ability to share documents or files and send messages to your clients all within the program. This allows you to keep your client caught up. A case management software that doubles as a client relationship management (CRM) platform is why Lawcus is unique.

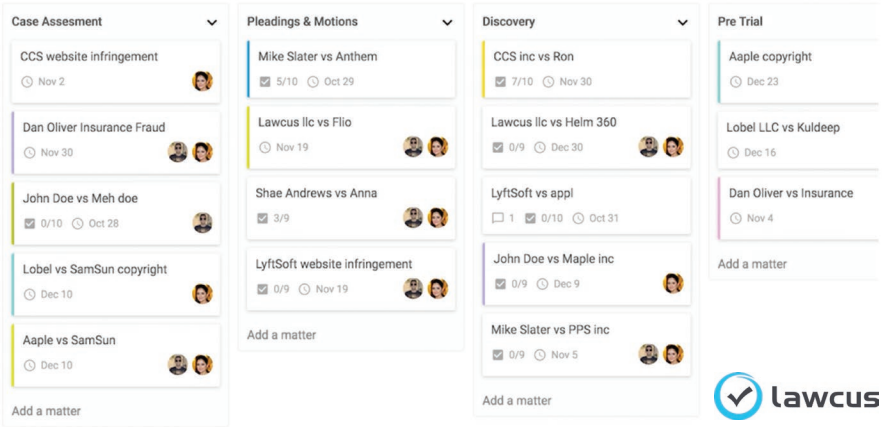
How can Lawcus help?

In any law firm time management is crucial. Therefore, you may not have time for one-on-one training on how to use practice management software. Lawcus looks to remedy that situation by offering video and step-by-step tutorials on how to use its functions. It also offers a live chat service on its website.

Lawcus is a browser-based client, meaning whether you are at a courthouse, or with your client outside your office, you can still use the program as long as there is internet access. Files are saved to the cloud so you can access them from any device. Often-used documents can be made into templates and reused for future cases.

Successful teamwork is key to a case's outcome. Lawcus attempts to promote smooth collaboration by creating separate messaging channels for different departments or cases. This is an attempt to prevent communication from getting muddled in other projects. Lawcus is integrated with many different email services, including Gmail, Outlook, Exchange and Yahoo Mail. This gives you the flexibility to not be committed to one service.

Attorneys have an ethical obligation to protect personal and sensitive information, and Lawcus is sensitive to this need. All data used in Lawcus is backed by 256 bit SSL connection. For added security, Lawcus provides two-factor authentication. Whenever you log into your account, Lawcus will send you a single use password in order to successfully access your account. This password can be retrieved through an authenticator app, like Google Authenticator.



The Lawcus Kanban-based interface categorizes tasks within your workflows.

Recently, Lawcus unveiled its mobile app. With push notifications, the ability to manage tasks, instant messaging and iOS and Android compatibility, the app will allow anyone to make quick changes on the go.

What Are people saying?

The biggest functionality reviewers want, which is not available currently, is an in-house billing and invoice system. With an Enterprise plan, you can track billable hours and expenses, but Lawcus currently does not have a built-in system for you to consolidate your hours, process an invoice and forward it to a client. The software is, however, integrated with third party invoice programs. Clients also can not pay you within the platform. Lawcus has tried to manage this issue by integrating with Paypal and fifteen other payment apps via Zapier.

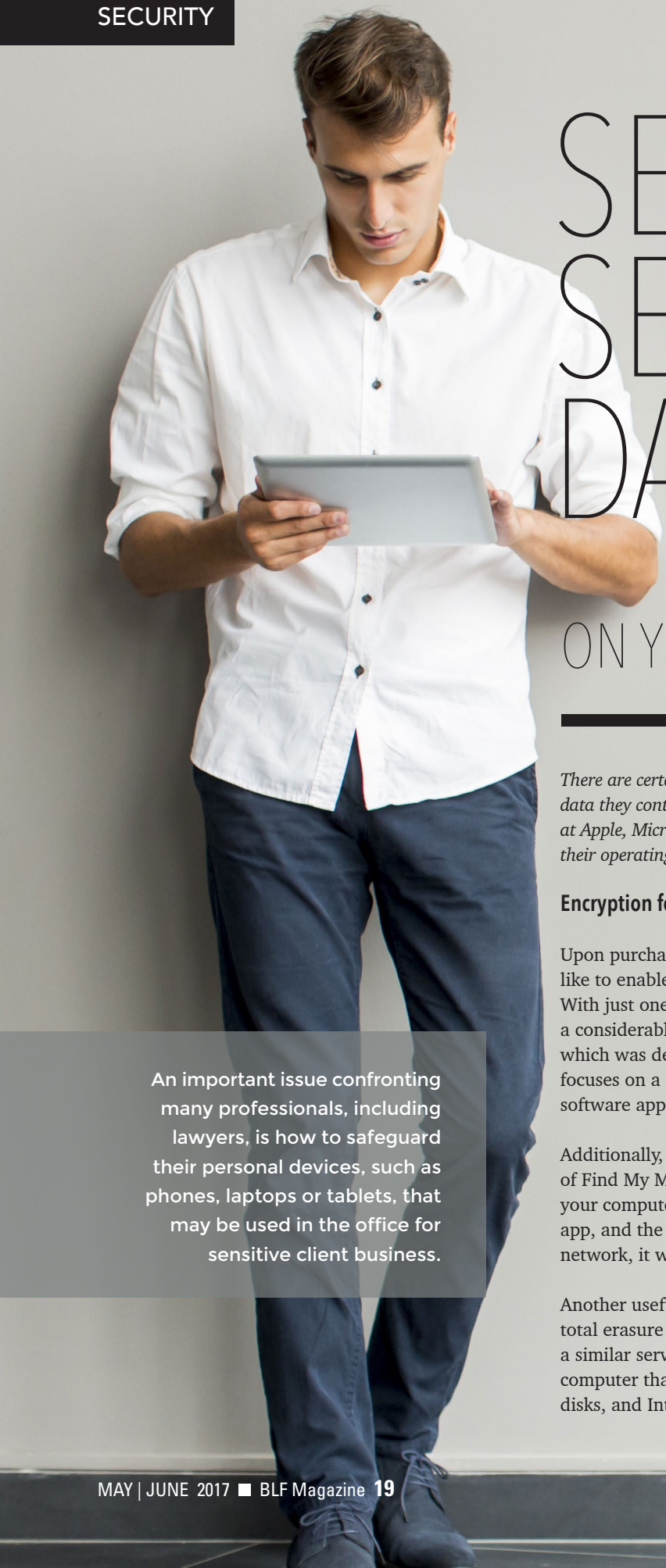
Lawcus, while a relatively new program, has a lot of potential for growth and as it incorporates more app integrations and adds more features. Lawcus was founded in 2014 and just last year the software was in beta.

There are three types of pricing options to choose from: Standard, Plus and Enterprise. Standard is $34 a month or $39 when billed monthly, Plus is $44 a month or $49 when billed monthly and Enterprise is at a quoted price, generally reserved for large firms. The standard plan has all the basic amenities needed for practice administration, such as: matter, contact and task management; workflow automation; secure client portal; document assembly; encryption at rest and internationalization.

Plus gives you everything in the Standard plan, along with custom field option, email, calendar, Zapier integration and API access. Enterprise includes all the features of Standard and Plus, as well as access to over fifty timekeepers, enabling you to get through meetings and agendas in a timely fashion and keep track of your employee's billable hours and expenses.

Lawcus has localization support for Spanish and is currently working on adding more languages.

- Dexter Tam



SECURE SENSITIVE DATA

ON YOUR PERSONAL DEVICES

An important issue confronting many professionals, including lawyers, is how to safeguard their personal devices, such as phones, laptops or tablets, that may be used in the office for sensitive client business.

There are certain steps that lawyers can take to secure their devices and the client data they contain in the event of a loss or theft. While the engineers and developers at Apple, Microsoft and some third parties, have built effective security features into their operating systems, it is up to the user of the device to activate them.

Encryption for Macintosh users

Upon purchasing an Apple computer, you may be asked whether you would like to enable FileVault. Enabling the program encrypts the hard drive. With just one click, you can achieve NIST-level security that would require a considerable amount of time and effort to decode. This level of security, which was developed by the National Institute of Standards and Technology, focuses on a number of areas, including, but not limited to, insider threats, software application security, social networking and privacy.

Additionally, enable "Find My Mac" within iCloud settings. One useful feature of Find My Mac is that you can trigger it from a remote location. In the event your computer is lost or stolen, you can trigger Find My Mac on an iPhone app, and the next time the user attempts to connect the laptop to a Wi-Fi network, it would also communicate to Apple the location of the network.

Another useful feature of Find My Mac is remote wipe, which triggers the total erasure of your hard drive, which can take a few hours. Microsoft offers a similar service called Find My Device for determining the whereabouts of a computer that is lost or stolen. It also provides BitLocker for the encryption of disks, and Intune for remote wiping.

Choose a strong password

Another crucial security step is to create a password that is impossible to guess. It is recommended that you form a string of characters consisting of upper- and lower-case letters, numbers and symbols that could be meaningful to you, but of no significance to anyone else.

Be aware of the risk of re-using passwords. If a hacker has cracked a password on one site, he or she will attempt to use it on other sites. Instead, use a password manager, which will assist you in producing good passwords and store them securely so that you do not have to recall them. Some popular password managers are LastPass, 1Password, Dashlane and KeePassX.

Multi-factor authentication

Multi-factor authentication prevents people who may have obtained your password from using it successfully. With such security, in order to establish your identity, you must furnish one or more "authentication factors." Such factors can be something you know, like a password, something you possess, like a key, or something you are, such as biometrics like your thumbprint.

Once you enable multi-factor authentication, you will start the login process in the usual manner by typing a username and password. Upon acceptance of the password, you will be asked to enter a special code, which you will receive from an app on your phone. The most widely used multi-factor authentication app is Google Authenticator. Others include Authy and Microsoft Authenticator, which are accessible on iOS and Android.

In lieu of an app, some sites will transmit an authentication code by text. There are benefits and disadvantages of this mode of transmission. Since text messages are susceptible to attack, if you are given a choice, it is best to choose app-based over text-based codes. Several popular websites provide multi-factor authentication. Email providers Google, Microsoft and Yahoo provide it, as does Office 365. Other websites that offer multi-factor authentication are Dropbox, Box, Facebook and Twitter. Some services that are especially geared toward lawyers, such as Clio, also offer this service. If it is available, always enable it.

Patching

It is imperative that you keep your software up-to-date through patching. A patch is a piece of software created to update a computer program or its supporting data. If you use a Mac, you can open the App Store app to check for updates. Your computer will regularly check for updates automatically, as will your iPhone or other iOS device. Windows also automatically checks for updates, which normally arrive on a Tuesday.

Windows no longer issues security updates for some older operating systems, so it is recommended that you not use Windows XP, or more antiquated versions of Windows. If you learn about an update, and have not yet received a prompt for its installation, you can update the system by clicking on Settings, then General, and then Software Updates.

Avoiding malware

Lawyers can take measures to avoid malware, including ransomware, which is where hackers obtain access to a firm's server, hold the firm's data hostage, and demand funds in exchange for the return of the data to the firm. Law firms function on data, including client files, memos, client information, research, etc. The majority of that data is confidential. Maintaining the safety and security of that data should be of utmost importance to your firm.

MULTI-FACTOR AUTHENTICATION OFFERS GREATER SECURITY THAN SINGLE-FACTOR, WHICH REQUIRES JUST ONE PASSWORD.

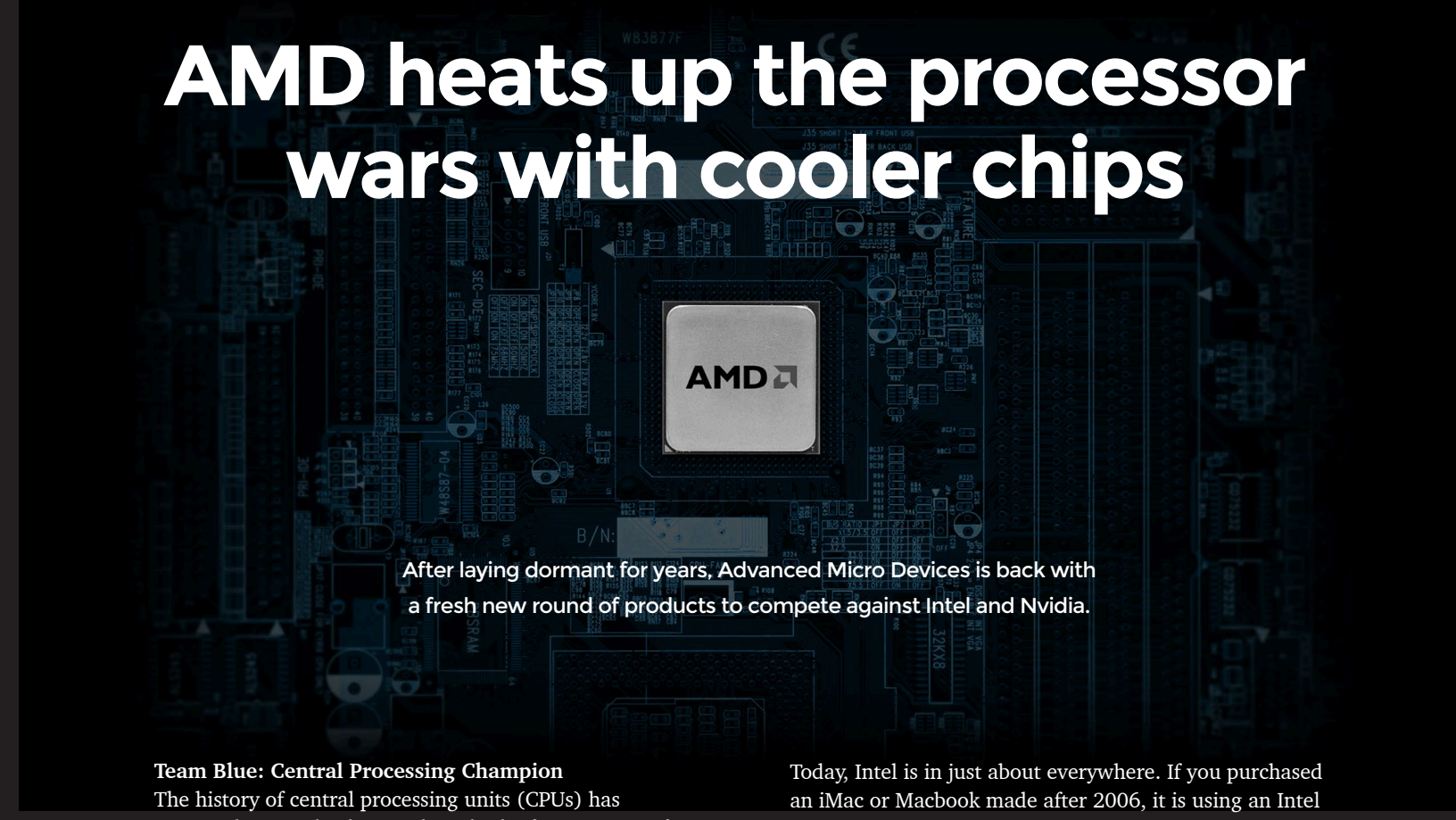
Even if a hacker obtains your password, they can not gain access to your device without your key or your thumb. Therefore, if you fall victim to a phishing site, and reveal your password, it will not be sufficient to hack into your system.

Stay away from torrent sites, which have a tendency to be corrupted by malware. Other suspicious sites can be compensated by the placement of ads from ad networks that do not sufficiently examine their inventory, and such ads can contain malware. Web ads that contain viruses are referred to as malvertising. However, if your software is patched, this is less likely to be an issue. Lastly, do not disable the firewall on your operating system, or your virus scanner.

For the safety for your computer, your clients and yourself, allocate an hour or two to check your device and password security. An even better option is to make certain that your practices are updated every six months, and that tiy take the time to enable the security features on your device.

- Roxanne Minott

AMD heats up the processor wars with cooler chips



After laying dormant for years, Advanced Micro Devices is back with a fresh new round of products to compete against Intel and Nvidia.

Team Blue: Central Processing Champion

The history of central processing units (CPUs) has more or less revolved around Intel. The front runner of microprocessors began its legacy with the 4004 in 1971. It was a 4 bit processor (a max of 640 bytes of memory) and was built for use in a calculator.

Intel's next breakthrough was the 8086, released in 1978. It sported 16 bits for 1MB of max memory, and with its release came the unveiling of the x86 instruction set. This interface enabled software developers to write forward-compatible code that did not need to be re-written each time a new CPU came out.

With the exception of mobile phones, which are primarily ARM based, every processor released by Intel and its competitors supports x86.

Intel then released a multitude of improvements and incremental upgrades under forgettable names, which did not quite catch mainstream interest. That all changed with Pentium: 32 bits with 4GB of usable memory and a moniker that is still being used two decades later.

Intel's current flagship consumer chip series — the i3, i5, and i7 — is in its seventh generation. With each iteration comes a new architecture. By the latest generation, a majority of the CPUs include integrated graphics, which do not require a dedicated video card, and a 14nm build process for power efficiency.

Today, Intel is in just about everywhere. If you purchased an iMac or Macbook made after 2006, it is using an Intel CPU. A 2015 study by the International Data Corporation claims Intel held a 99.2 percent market share in server processing chips.

Team Green: From Rendering Clouds to Running Them

Thanks to the power of the cloud, big data operations are easier than ever. These complex algorithms and deep machine learning can be bottlenecked and slowed down by the central processor which is designed for more general tasks. Nvidia has an answer that is poised to define the next era of high-performance computing.

A significant milestone for Intel was the 8800 GTX, which was released over 10 years ago. For the first time you could combine the power of two or three cards with scalable link interface (SLI), which resulted in greater performance than any one card could deliver. It also added support for DirectX 10 and OpenGL, improved software interfaces that enabled games to take full advantage of the hardware.

Additionally, the 8800 GTX introduced CUDA and the Tesla microarchitecture. These technologies simplified the work needed to write the software that runs on the graphics processing unit (GPU). Developers could easily offload their jobs from the CPU and run complex, parallel applications on a dedicated processor without slowing down the rest of the computer.

Nvidia continued to make gaming and workstation graphics cards, which specialized in speed and reliability, respectively. In a recent announcement, however, Nvidia provided a glimpse of the future of cloud computing with the Volta, with a record breaking 21 billion transistors, 16GB of high bandwidth memory and a 5x improvement handling artificial intelligence applications.

When properly utilized, a single GPU-accelerated server can deliver the performance of half a server rack of CPU only servers. Not only does it offer high density and low operating costs for the next generation of cloud computations, a significant percent of high-performance cloud computing software is already compatible with the new architecture.

On the day Nvidia introduced the Volta, it added the entire market cap of AMD plus $2 billion, to its own market cap.

AMD did not just have a response ready, it changed the conversation.

Team Red: The Fire Ryzens

The story of AMD is like the story of David and Goliath. Except with two Goliaths.

Intel invested over $12 billion in research and development last year. Most of it was likely spread among general technologies, from which they make no profit, but at least some of that was for CPUs. Nvidia spent $1.46 billion last year, which is $400 million more than AMD.

For years, AMD was given the "wait and see" approach. It was releasing processors with underwhelming performances compared to other options, which were not as efficient, so they ran hotter. Intel and Nvidia had gained headway in their respective industries and secured their first place positions for the time being.

In February 2017, AMD introduced the world to Ryzen. The new processor was a complete departure from the previous generations of chips. It featured a 14nm FinFET build process, power efficient "system on a chip" design and a completely new microarchitecture dubbed Zen.

The first Ryzen chips were targeted for mainstream and performance users. On the low end, the Ryzen 5 1400 offers 4 cores, 8 threads and 3.2GHz clock speed for $169. Power will find the Ryzen 7 1800X more appealing with its 8 cores and 16 threads for $499. The Ryzen sets itself apart with its sheer number of processor cores, allowing it to be twice as fast as its competition for almost half the price.

Where some Intel processors have locked speed multipliers, all Ryzen chips come unlocked, allowing hardware enthusiasts to upgrade to the next tier processor with little effort.

AMD is also gearing up to meet and possibly surpass Nvidia in the consumer video card market with Vega. Details are being kept under wrap, but some information indicates that the new cards will easily compete with Nvidia's top tier performance 1080 series.

Apple is jumping on the Vega train with its brand new iMac Pro. With 5K retina display, up to 128GB of DDR4 memory, and an 8GB or 16GB Vega card, this will be the most powered Apple computer for years to come.

AMD is not rushing its state of the art video card out the door. Its cards, which most consumers might be able to afford, were launched last November. The RX series was a step down from the previous model by replacing or removing several expensive components and drawing less power. The RX 480 ended up being slightly slower but retailed for one-third of the retail price of its predecessor.

The RX 480/580 cards were seen as an incredible value for their price and their popularity rose exponentially after it was learned that they mint money.

THIS IS THE FIRST TIME IN A VERY LONG TIME THAT WE ENGINEERS HAVE BEEN GIVEN THE TOTAL FREEDOM TO BUILD A PROCESSOR FROM SCRATCH

Zen team leader Suzanne Plummer

Gold Rush

"Out of Stock" is the message you are going to find across various retailers if you try to buy a new RX 480 or 580 (identical except for a 5 percent difference in performance for 5 percent more money). About 6 months after the card's release, supplies ran out almost everywhere. You might find a new or used one on eBay, but be prepared to pay double.

Why the sudden popularity? The Polaris architecture is efficient at generating cryptocurrency. Just one card is capable of mining $3 to $4 of ether per day (before electricity costs), and a determined miner could fit 5 cards in a single system. Miners bought out every online store and scored bulk quantity orders directly from the manufacturer.

Not everyone who managed to snag an RX card uses them for financial gain. The Folding@home project is a distributed computing initiative by Stanford University. While your computer is idle, it downloads and crunches various tasks for disease research. While it may be awhile before you might get your hands on a new model video card, but at least people who do have them are using them for good.

- Justin Torres

CUSTOM
LEGAL MARKETING

If your marketing company isn't exclusively working for you, they're helping your competitors. That's why Briskman Briskman & Greenberg trusts Custom Legal Marketing. They know Custom Legal Marketing won't work with any competing firms in their No Competition™ Zone.

Secure your law firm's No Competition™ Zone at customlegalmarketing.com/exclusive

No Competition™