2015 Technology Law:
Bits on Bytes

Cosponsored by the
Technology Law Section

Friday, October 9, 2015
8:45 a.m.–3:15 p.m.

3.25 General CLE credits, 1 Ethics credit, and 1 Access to Justice credit
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OREGON STATE BAR
16037 SW Upper Boones Ferry Road
P.O. Box 231935
Tigard, OR 97281-1935
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SCHEDULE

8:00  Registration

8:45  Welcome and Introduction  
Joseph Durkee, Jr., Chair, Technology Law Section

9:00  Software Archiving and Privacy  
♦  Using archiving software to analyze data  
♦  Privacy implications  
Bonnie Page, Smarth Inc., Portland

9:30  The Disruptive Impact of Technology on the Practice of Law  
♦  Outsourcing traditional legal functions  
♦  Navigating these changes  
William Glasson, Multnomah County Attorney’s Office, Portland

10:00  Break

10:15  How Technology Is Changing Litigation  
♦  Exponential growth of litigation-related data  
♦  Use of predictive coding  
♦  Changes to the Federal Rules of Civil Procedure and electronically stored data (ESI)  
Kristen Tranetzki, Angeli Ungar Law Group LLC, Portland

11:15  Social Media Ethics Issues for Lawyers  
♦  Social media and legal ethics rules  
♦  Dos and don’ts for lawyers and social media  
♦  Using social media to set yourself apart from the digital crowd  
Chris Dye, D+H, Portland

12:15  Lunch

1:15  Harnessing the Power of Neurodiversity  
♦  Background on neurodiversity  
♦  Managing neurodiverse individuals as employees and working with them as clients  
♦  Challenges of recruiting, training, and retaining neurodiverse employees  
♦  The value of a neurodiverse workforce  
Leora Coleman-Fire, Schwabe Williamson & Wyatt PC, Portland  
Brenna Legaard, Schwabe Williamson & Wyatt PC, Portland

2:15  Introduction to University IP Management, Licensing, and Startup Companies  
♦  Mission of university technology transfer  
♦  Bayh-Doyle Act  
♦  Examples of university-based IP protection/licensing and startup companies  
Arvin Paranjpe, Office of Technology Transfer & Business Development, Oregon Health & Science University, Portland

3:15  Adjourn
FACULTY


Chris Dye, D+H, Portland. Mr. Dye is Senior Compliance Counsel for D+H, a strategic technology partner to more than 5,400 financial institutions. He focuses on banking and lending law, including real estate and consumer lending issues and BSA/AML compliance. Prior to joining D+H, Mr. Dye served as general counsel for several mortgage banking companies and spent time in private practice advising clients in the areas of lending and real estate law. He is admitted to practice law in Oklahoma and Washington and is vice chair of the American Bar Association Banking Law Committee Real Estate and Commercial Lending Subcommittee. Mr. Dye is a frequent speaker on social media issues for banks and credit unions.

William Glasson, Multnomah County Attorney’s Office, Portland. Mr. Glasson is an Assistant County Attorney with Multnomah County, where his practice focuses on complex transactions, intellectual property, and privacy/data security matters. He has worked for a number of medium to large firms and closely held and public companies, filling different counsel, management, and operations roles.


Bonnie Page, Smarsh Inc., Portland. Ms. Page serves as Smarsh’s General Counsel. She has extensive experience advising software-as-a-service (SaaS) companies through various stages of growth. Prior to joining Smarsh, she was Senior Counsel at Webtrends, a service digital optimization and analytics company, and General Counsel at Inxpo, a Chicago-based SaaS virtual event and webcasting company. She is an active member of the Association of Corporate Counsel Oregon Chapter board of directors. Ms. Page has also served as an adjunct law professor to the small business clinical programs at both Lewis and Clark Law School and John Marshall Law School in Chicago.

Arvin Paranjpe, Office of Technology Transfer & Business Development, Oregon Health & Science University (OHSU), Portland. Mr. Paranjpe is a Senior Technology Development Manager at OHSU. He is responsible for evaluating, managing, protecting, and licensing software and medical device technologies. He is licensed to practice before the US Patent and Trademark Office as a registered Patent Agent. He provided software consultant services to multiple Fortune 500 companies in the electronics and high-technology sector over a four-year period.
Kristen Tranetzki, Angeli Ungar Law Group LLC, Portland. Ms. Tranetzki is a litigator with significant experience in complex criminal and civil litigation, internal investigations, securities and banking-related litigation, and regulatory compliance. She has represented individuals in criminal proceedings in state and federal courts and in regulatory investigations before the U.S. Securities Exchange Commission and various state attorneys general. She has represented corporate clients in a wide range of commercial and criminal matters. In a parallel agency practice, she has defended an array of Oregon businesses and individuals facing regulatory and licensing disputes. Ms. Tranetzki has also counseled corporate clients and individuals on regulatory compliance and electronic discovery policies. She has published on topics ranging from the Foreign Corrupt Practices Act to securities litigation and e-discovery issues. She is licensed to practice in Oregon and New York.
Archiving. Big Data. Privacy
Where We Are; Where We’re Headed

2015

THE ARCHIVING PLATFORM

• Experience in Data Driven/SaaS based technology
  • INXPO
  • WEBTRENDS
  • SMARSH

ABOUT ME

Smarsh © 2015
The Next 30 Minutes

- Objective
- Big Data
- Privacy Framework
- 2015 Trends in Privacy Laws
- Solution

“Data”

- First Party / Third Party Collection
- Personal Data / Sensitive Data
  - US vs. EU
- De-identified / Re-identified
- Aggregated
- Declared (behavioral), Observed, or Inferred
- Structured, Semi-Structured, Unstructured
• Orbitz Overcharges Mac Users.

Orbitz officials said data analysis revealed Mac users were willing to pay higher nightly rates, so the company put the most expensive rooms at the top of the search results pages they saw.

http://thedatamap.org/
How Target Figured Out A Teen Girl Was Pregnant Before Her Father Did.

- Unique Shopper Codes
- Purchased Data
- Habit / Behavioral Models
- Predictive Scoring

Chicago Police Department
Among businesses that store structured data, only 1 in 4 use more than 50% of that data for business intelligence.

- Forrester 2014
Big Data Privacy Concerns

- Indiscriminate Collection of Data
- Indefinite Retention
- Indefinite Ownership
- Unpredictable Future Uses
- Loss of Control
- Security
- Predetermination

“Big Data creates risk to both individuals and society unless effective governance is in place”
Existing Privacy Frameworks

- Fair Information Practice Principles (FIPPS)

- U.S. Privacy Frameworks:
  - Statutes: HIPAA, GLBA, FERPA, COPPA
  - Regulatory: FTC, State AG’s,
  - Common Law Torts

- E.U.
  - E-Privacy Directive

U.S.
- Notice
- Choice/Consent
- Access/Control
- Transparency
- Limited Collection
- Accuracy

E.U.
- Transparency
- Legitimate Purpose
- Proportionality
- Consent

FIPPS (1973)
FIPPS Based Frameworks are No Longer Practical

1. Notice
2. Choice
3. Access
4. Transparency
5. Limited Collection
6. Consent / Specific Consent
7. Proportionality

Regulating Backwards

- E.U.
  - Shrems
  - Data Localization
  - Data Protection Regulation
- U.S.
  - Consumer Privacy Bill of Rights based on FIPPS
- Russia and China
  - Data Localization Laws
### Consumer Privacy Bill of Rights

- Transparency
- Individual Control
- Respect for Context
- Access & Accuracy
- Accountability
- Violations = unfair or deceptive acts or practices. The FTC would be able to issue civil penalties of up to $25,000,000 (calculated on # days versus # of users effected)
- Potential Safe Harbors (FTC Codes of Conduct)
- Preserves Existing Laws

### E.U. 2017 Data Protection Regulation

- Uniformity and Extraterritorial Reach
- Consent is Harder to Obtain and Explain
- Maintain Internal Records of Data Processing Activities
- Notice Requirements Increased/More Specific to Exact Uses
- Profiling at the expense of User Experience
- Right to be Forgotten (complete deletion of information)
- Right to a Digital Copy of Information
- Fines of up to €100 million or 5% Annual Turnover
- Schrems / US Safe Harbor
In 10 years use of Big Data will be a normal way of doing business.

- Who owns the data?
- Who owns the result if aggregated from a number of sources (Target)?
- How do we tell individuals what’s going on in policies and notices when uses change over time?
- Do we need to provide notice anymore? Is it assumed?
- Is a commercial use of data all that risky? Do consumers really care?
- How do we provide access to their information if it has been repurposed or resides within various systems which are out of the control of the processor receiving the request?
- How do we delete data?
- Indefinite Retention = Unpredictable Future Uses

Do People Really Care?

A Majority of Americans Say that they Feel Strongly About Privacy, Want Control Over Personal Information in Pew Survey:

- 74% of Americans believe control over personal information is "very important"
- 9% believe they have such control

**BUT... Only 5% of users actually implement web-based privacy features**
How do We Protect Privacy?

- Consumer Bill of Rights
- Private Right of Action (versus FTC)
- “Privacy Profiles”
- Focus on “Use” and punish the Use rather than the Collection
- Comprehensive, Technology Agnostic laws
- Self-Regulation / Certification

Privacy Profiles Make Sense

Consent based on user profile types
Data tagged based on profile type
User has control over their data through selection of a type
Data can be tracked through tagging
Organizations have a standard that can easily be followed
“Anything that is in the world when you’re born is normal and ordinary and is just a natural part of the way the world works.

Anything that's invented between when you’re 15 and 35 is new and exciting and revolutionary and you can probably get a career in it.

Anything invented after you're 35 is against the natural order of things.”
Chapter 2

The Disruptive Impact of Technology on the Practice of Law

William Glasson
Multnomah County Attorney’s Office
Portland, Oregon
Our topics today are:

- The outsourcing of traditional legal functions
- Navigating these changes

We'll spend the next half-hour addressing technologies used to outsource traditional legal functions and considering the trajectory that technology advancements are taking the practice of law. We will consider specific technologies that are changing legal practice and how, by learning them, legal professionals can capitalize on the disruptions engendered by these technologies.

To plan for and benefit from technology-driven disruptions, it's important to understand how and why technology, generally, has influenced the legal industry. This background offers useful context for: understanding how discreet technologies are used to outsource traditional legal functions; apprehending the scope of functions displaced; and allowing legal professionals to foresee how future technologies will further disrupt the practice of law and preparing them for that day. Accordingly, let's begin with a brief look at the role technology has played over time in evolving the practice of law.

*****

In the beginning, the tools for getting legal work done were sharp minds, more bodies, and more billables (as in hours). Until relatively recently, new technologies did little to change that. Rather, new technologies enabled more legal professionals to do more legal work (in terms of scale and complexity).

Generally, new technologies did two things: pushed to non-attorneys many legal functions historically performed by lawyers; and fostered greater productivity by driving down the complexity and cost of services. Combined, these forces expanded the legal industry's footprint by enabling more professionals to do more work for more clients. And that's the key; until relatively recently, technologies still relied on people (lawyers, clerks, paralegals, secretaries, etc.) to perform the work -- to think, to collaborate, to toil. To provide "traditional legal services." Yet, what constituted "traditional legal services" was gradually shifting and evolving.

As characterized by Benjamin Barton, "traditional legal services" historically entailed "individualized and bespoke professional service that consisted of paying a lawyer for his time, sometimes in court, sometimes in consultation, sometimes in drafting documents or conducting research." Client demands for greater value, lower and predictable cost, and faster work product creation have been tectonic forces, constantly influencing our industry. Their demands have eroded "traditional legal services" by consolidating and commoditizing functions and services.
The pace of this shift has quickened in our lifetimes. Professor Richard Susskind characterized the evolutionary nature of this trend as a five-step journey for legal services.

As illustrated above, he argued that "there is an increasing pull by the market to the right-hand side, that is, towards becoming a commodity; and, secondly, that this move from left to right is largely (but not exclusively) being enabled by existing and emerging information technologies." To meet client expectations and maintain the income and marketability expectations held by many attorneys, firms pushed more and more "traditional" functions and services to non-lawyers -- sometimes human, sometimes electronic.

As Susskind noted, technology has played a key role throughout history in helping lawyers meet developing client expectations. The net result has been lawyers increasingly focused on what some have called the "core" legal functions -- thinking, writing, and speaking. As practicable, all other non-core work, such as clerical tasks, have been pushed right and outsourced to non-lawyers.

Examples that illustrate this evolution abound. From photocopiers replacing scriveners (think "Bartleby, the Scrivener"), to "redlining" yielding to Microsoft Word's track-changes or Workshare Compare (before track-changes technology, a redline was created by an individual reading a new draft against its predecessor, marking changes between the drafts with a ruler and a red pen), to the demise of the typing pool (first using typewriters and, later, using PCs) and human document review (now almost entirely automated, at least the first cut). Replacements all cheaper, faster, and automated as compared to their predecessors.

My first law job well illustrates this trend. I was a project assistant with an international law firm based in Cleveland. What did I do? I provided a range of quasi-legal services on the far right side of Susskind's diagram. I did basic research (that we now do ourselves using Google); I poured through documents that arrived in bankers boxes by the hundreds, often (that now can be reviewed and contextualized almost instantly using optical character recognition (OCR) and analytics software, like Zapproved and Exiger); and I read aloud to other project assistants pages typed from old documents, with the other reviewing the original document, word-for-word, as I read (also displaced due to OCR software, most notably as integrated into Adobe Acrobat). I was one of scores of such employees.
Much of the work I performed were examples of rightward displacements of clerical functions from attorneys to non-attorneys. Today, virtually all of this work is done by software. But the displacements that created tasks for me in my first law job just reflect changes in tools used and the possible scope of services, rather than changes in the kind of services offered vis a vis technology. Today’s new technologies address tools, scope, and kind.

In addition to solving clerical tasks, many technologies now increasingly serve traditional, core legal functions. As use of these technologies becomes more prevalent, we will see more and more disruption of the core roles that lawyers have traditionally performed. Already, we have seen a rightward migration of such tasks as simple document creation, signing, and filing services through platforms like LegalZoom and Rocket Lawyer. And these are just the early entrants. Continued technology-driven consolidation and commoditization of legal services will increasingly displace lawyers, as well as non-attorney professionals. More services will devolve from bespoke to commoditized; fewer professionals will be needed to staff projects; fewer billables will be accrued and paid. Just as Bartleby saw his day pass, so too will many general practice ("journeyman") attorneys.

With that background, we can now more fully consider how certain specific technologies are used to outsource traditional legal functions. Primarily software-based technologies, we will discuss a number of currently available products and services. But I want to take a moment to touch on the technologies that are enabling many of the tools changing how we practice law, and perhaps challenging our ability to make a living providing traditional legal services.

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Three innovations are powering the technologies that are commoditizing and consolidating traditional legal functions. Although I address them separately here, these technologies are complementary.

The first innovation is the cloud, which translates to greater computational power and capacity stemming from cloud-based computing and storage assets. Cloud-based services are such game-changers because they decentralize computing resources, providing broad access to nearly unlimited increased storage and computational power. This expanded access enables a rich and growing technology environment, such as service-oriented architecture and the devices populating the "Internet-of-things." Ever faster, cheaper computers and expanding, high speed and high bandwidth network access promises that cloud-based services will continue to increase in capacity, decrease in cost, and become more widespread and available.

The second is a new generation of highly sophisticated software. Made possible and necessary by advances in software architecture, algorithms, data, and computational surplus, this software capitalizes on decentralized computing and storage, and
improved network access, to apply robust heuristics to harness insights from large datasets. The net result is software that can deploy in a coordinated manner across multiple devices and processors and learn how to optimize its performance and output based on successive iterations of use -- known as "machine learning." Examples of this "intelligent" technology include autonomic computing, electronic discovery ("e-discovery") programs employing predictive coding, predictive analytics, and hardware virtualization. Each of these software technologies prefigure the kind of artificial intelligence depicted in popular culture. Other examples include expert systems and enterprise software that helps to efficiently distribute projects across teams and otherwise improve business processes and workflows.

The third innovation is harnessing data. Or, to be precise, "big data." More and better access to structured and unstructured datasets that were once essentially too big to mine, combined with new approaches for analyzing information, have allowed programmers to glean and apply useful insight from the data. A class of sophisticated software platforms harness massive computing resources available via the cloud to analyze large datasets for potentially meaningful patterns that are interpreted into data models (a.k.a., "predictive models"). As popularized in Michael Lewis' "Money Ball" and "The Big Short," these data models can prove lucrative. One data model might be used to predict the weather; another might help locate a shipwreck; a third might identify the candidate likely to win an election; a fourth might suggest the likelihood of whether a given case could be won.

Legal futurist and Chicago-Kent professor Dan Katz believes that by combining these innovations the practice of law will be radically altered. He wrote that "increasingly intelligent technology fed by bigger and bigger datasets will eat away at the human monopoly in some segments of the legal market, [legal professionals] ... who know how to harness that innovation will benefit from it. [Those] who do not will be left behind or, at best, outperformed." That may well prove true. It is relatively safe to say that these three innovations are, respectively, the 2nd floor, 1st floor, and basement of a building above which will rise discreet technologies that will reshape the practice of law.

Now, let’s look at specific technologies used to outsource traditional legal functions and ways to use these technologies to benefit your practices.

*****

Below are summarized a handful of technologies currently used to outsource traditional legal functions. Following the summaries are suggested approaches for using, or at least responding to, these technologies. The technologies listed range from those used to address more clerical functions to technologies supplementing or even replacing the traditional attorney role of thinker, writer, speaker. Use of these technologies is not mutually exclusive; rather, these innovations are often used collaboratively.
Electronic Discovery. The first technology is litigation e-discovery software and services. E-discovery has been around for more than a decade now. At its simplest, e-discovery involves the creation and exchange of discovery via certain electronic formats that allow parties to search production using special software. Left out of that description are different value-added features and services e-discovery software offers, including: scanning production for privileged and relevant *vel non* responses, preserving and searching metadata, instituting effective legal holds, and coding production for relevance to particular matters. Examples of e-discovery software include Zapproved and Exterro, to name just two Oregon providers.

A related but still nascent class of products are due diligence tools. Similar to e-discovery platforms, these software products and services also search large troves of electronic records, such as scanned documents and source code, for a set range of criteria. Often, these tools are programmed to search for specific types of information through hand inputted, structured and unstructured, datasets that are representative of the information sought. Examples of electronic due diligence software include Exiger and Lexis Diligence.

Both e-discovery and electronic due diligence tools outsource document review functions. In addition to replacing this traditional legal function, these resources are now commonly paired with expert systems and products employing sophisticated heuristics to outsource compliance and risk management services. For example, although e-discovery products are clearly litigation tools, they also perform a range of corporate governance functions by instituting effective legal holds, safeguarding privileged material, and enforcing document retention schedules. Similarly, electronic due diligence tools assist attorneys performing due diligence ahead of transactions, such as acquisitions. But they are perhaps more prevalently used as compliance and risk management tools by allowing businesses to systematically audit and monitor business operations -- to satisfy regulator scrutiny, ensure IP integrity, or avoid specific liability (e.g., Foreign Corrupt Practices Act).

Legal Process Outsourcing. The second "technology" is not so much a technology *per se* as it is a new approach for providing otherwise traditional legal services. Generally known as "outsourcers," but frequently also called "virtual legal practices," "legal process outsourcers (LPOs)," and "new law" firms, these firms and platforms offer a range of legal services -- from commodity to bespoke -- albeit from the cloud and as enabled by a suite of new productivity (software, service) tools. In theory, clients use outsourcers for the same range of matters and projects served by traditional firms. However, clients often benefit from a range of complementary services layered on new law work product while paying a fraction of the cost of a traditional firm.

What sets outsourcers apart from most traditional firms is their flexibility. Most outsourcers operate with comparatively lower overhead and are staffed by a mix of entrepreneurial attorneys, subject matter experts, and IT professionals. This allows
them to natively incorporate current productivity and workflow stacks, such as Asana for project management and slack for team communications and mixed content storage, rapidly and effectively increase and decrease contract staffing, work from a variety of locations, and combine legal counsel with business, IT, HR, and other expertise. Examples of legal outsourcers are Legal Zoom, Law Connect, Riverview Law, Axiom, Rocket Lawyer, and Obelisk.

Legal Analytics. The third and final technology we’ll cover is a class of tools trying to offer better insight into datasets. As noted above, legal analytics tools are generally cloud-based products that deploy sophisticated software platforms to analyze large datasets. Often, the "secret sauce" these tools leverage are proprietary algorithms that correlate specific types of information from proprietary datasets. Today, these tools are used primarily with structured datasets and the insights they offer tend to be narrowly focused. Legal analytics platforms sometimes also tap into other information, such as publicly available information like census data or expert systems, to improve the accuracy of their predictive models.

Legal analytics products represent the greatest technology threats and opportunities to traditional legal practice and the journeyman attorney. These products replace or supplement core traditional legal functions, namely an attorney’s judgment (such as an appraisal of the odds of winning a particular dispute). That said, these tools are still in their adolescence and are primarily used to supplement or improve attorney work product. Frequently used to handicap desired client outcomes and to predict whether a case or line of argument will prove successful, these products are platforms that supplement legal counsel, as of yet, rather than fully displace it. Examples of legal analytics platforms include Lex Machina, Ravel Law, and LexisNexis MedMal Navigator.

Administrative Tools. I feel it would be remiss to not mention a handful of additional technologies that, although not surrogates for traditional legal functions, nonetheless represent key areas of risk and opportunity for attorneys. We can roughly break these products into two classes of tools: legal data administration and legal business administration tools. (Note these class names are not generally known or used as terms of art.)

Grouped under legal data administration are a host of tools that most will find familiar. Legal data administration tools include encryption products, cloud-based storage and file sharing, content management systems (CMS), archiving and document retention systems (often, these are available as part of a CMS platform), tools for scrubbing data from files, and cybersecurity tools. Examples of these products include Smarsh, Dropbox, ProLaw, and Tripwire.

Legal business administration tools address legal operations functions, which include traditional back-office and "middle-office" functions. Practice consultant Michelle Rosen characterizes middle-office functions as "those areas that require more skill and interaction than traditional back-office functions, but are not a direct
part of practicing law." Accordingly, legal business administration tools address everything from HR, to accounting (particularly accounts payable and receivable), to finance, to compliance and risk management, to marketing and business development, to project staffing. Examples of these products include practice management services like Clio, client relationship management (CRM) systems like Salesforce, and even digital transaction management products like DocuSign to administer closings.

Legal data and legal business administration resources help attorneys operate more productively and securely and have agile, scalable practices. Down the road, these resources will enable the next generation of legal analytics solutions for firms and practitioners. For our purposes today, you should set yourself the goal of becoming fluent in how these resources are used and looking for way to incorporate these tools into your practice operations. At the very least, you should study the data security and privacy issues addressed or raised by many of these tools and the diversity of safeguards (physical, administrative, technical) that are used to protect client data.

There are two ways to navigate technology-driven practice disruptions: incorporate them or overcome them. Either way, we all must accept the need to respond to technology-driven disruptions. Attorneys should look for opportunities to incorporate these resources into their practices so the technologies confer an advantage.

The advantage may reflect the historic role that technology has played in advancing the practice of law; namely, pushing to non-attorneys many non-core legal functions (that many attorneys would prefer not to do), and fostering greater productivity by driving down the complexity and cost of services. Use of back and middle-office tools offer the potential for such advantages, as do the use of e-discovery platforms to outsource document review, and LPOs to rapidly benefit from increased staffing or gain access to domain expertise.

A second potential advantage could come from incorporating specific technologies into your practice that augment your work product. Improvements in the timeliness, cost, and responsiveness of work product all offer advantages that could justify higher prices. For example, electronic due diligence platforms can greatly reduce the time needed to process large due diligence projects and improve the effectiveness of the initial reviews. Many clients engaged in large acquisitions might be willing to pay a premium for faster, more structured information on their targets. Similarly, clients operating in heavily regulated industries might happily invest in tools and related services that automate compliance functions.

Change sometimes comes at a cost. All of the above advantages have the potential for reducing the number of hours billed, and otherwise requiring billing and business model changes. Yet, many firms and practitioners have welcomed these further changes as an opportunity to, for example, move away from hourly billing to
project or outcome-based billing. But for those more reluctant to introduce any of the above technologies into their practices, there is some consolation in this final point. In many cases, the barrier to entry for exploring each of these technologies is low. Almost all of the products discussed today are in the cloud, so few require an initial investment in additional hardware or software, and most are subscription based on month-to-month contracts. Some even offer free trial periods.

Conclusion

So these are interesting times for lawyers and other legal professionals; indeed, this is a brave new world. I think our journey from here is to figure out how to augment and/or move our knowledge base -- doctrinal or practical -- into areas where we offer a unique advantage and client value. And this is what legal professionals -- lawyers and non-lawyers, alike -- have been doing for years to remain relevant.
Chapter 3
How Technology Is Changing Litigation

KrisTEN TRANETZKI
Angeli Ungar Law Group LLC
Portland, Oregon

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How Technology is Changing Litigation

2015 Technology Law: Bits on Bytes Seminar
Oregon State Bar: October 9, 2015

Kristen Tranetzki, Principal
Angeli Ungar Law Group LLC
Kristen@AngeliLaw.com

Agenda

• Background
• Big Data
• Changes to the FCRP
• Predictive Coding & Technology Assisted Review
Background

First, a starting point: Understanding and using technology is no longer tangential to litigation, it is required to do it effectively!
Background

Big changes in TYPE and VOLUME of data

The amount and type of potentially relevant information has exponentially increased and will continue to do so.
Chapter 3—How Technology Is Changing Litigation

Agenda

• Background
• Big Data
• Changes to the FCRP
• Predictive Coding & Technology Assisted Review
Big Data

- NOT just a lot of data (though that’s part of it)
- Big Data is also data analytics
- The “V”s
  - **Volume**: amount of data
    - explosion of information
    - the availability of faster and cheaper computer memory
  - **Variety**: range of data types and sources
    - more information is digitized
    - the growth of social media
  - **Velocity**: frequency of incoming data
    - the improvement of computer processing speeds and Internet bandwidth
  - (Veracity, Variability, Visualization, Value)

Actually surpassed $25 billion in 2014
Big Data

- Impact on Litigation
  - What (and how) we preserve
  - What (and how) we collect
  - What (and how) we process
  - What (and how) we search
  - What (and how) we use

The Average Case at Microsoft

Preserved: 48,431,250 pages

Collected & Processed: 12,935,000 pages

Reviewed: 640,750 pages

Produced: 541,450 pages

Used = 142
Big Data

• Impact on Litigation
  – What (and how) we preserve
  – What (and how) we collect
  – What (and how) we process
  – What (and how) we search
  – What (and how) we use
• Partner with Vendors
  – Get estimates early!
• Confer with Opposing Counsel
  – Creative proposals!

Agenda

• Background
• Big Data
• Changes to the FCRP
• Predictive Coding & Technology Assisted Review
Changes to FRCP

- Amendment process began in 2010
- Approved by the Standing Committee in May 2014
- Approved by the Judicial Conference in September 2014
- Approved by the Supreme Court in April 2015
  - Thus rendering them effective December 1, 2015, absent any legislation to reject or modify the changes
- No Congressional action expected

**EFFECTIVE DATE: DECEMBER 1, 2015**

That’s about seven weeks away!

Changes to FRCP

- Rule 1: Amended to emphasize that courts, litigants and lawyers are obligated to pursue efficient litigation.
1 Rule 1. Scope and Purpose

These rules govern the procedure in all civil actions and proceedings in the United States district courts, except as stated in Rule 81. They should be construed, and administered, and employed by the court and the parties to secure the just, speedy, and inexpensive determination of every action and proceeding.

Changes to FRCP

• Rule 16: Amended to reduce delay at the start of litigation, to address ESI preservation in scheduling orders, and to encourage discovery conferences with the court.
(b) Scheduling.

(1) Scheduling Order. Except in categories of actions exempted by local rule, the district judge — or a magistrate judge when authorized by local rule — must issue a scheduling order:

(A) after receiving the parties’ report under Rule 26(f), or
(B) after consulting with the parties’ attorneys and any unrepresented parties at a scheduling conference by telephone, mail, or other means.

(2) Time to Issue. The judge must issue the scheduling order as soon as practicable, but in any event, unless the judge finds good cause for delay, the judge must issue it within the earlier of 42 days after any defendant has been served with the complaint or 90 days after any defendant has appeared.
Changes to FRCP

- Rule 26: Emphasizes proportionality, limits discovery to information relevant to a claim or defense, allows for early service of discovery requests to inform Rule 26 Conferences, and requires discussion of ESI preservation as part of the discovery plan.
Chapter 3—How Technology Is Changing Litigation

(b) Discovery Scope and Limits.

(1) Scope in General. Unless otherwise limited by court order, the scope of discovery is as follows:

Parties may obtain discovery regarding any nonprivileged matter that is relevant to any party’s claim or defense and proportional to the needs of the case, considering the importance of the issues at stake in the action, the amount in controversy, the parties’ relative access to relevant information, the parties’ resources, the importance of the discovery in resolving the issues, and whether the burden or expense of the proposed discovery outweighs its likely benefit. Information within this scope of discovery need not be admissible in evidence to be discoverable.

—including the existence, description, nature, custody, condition, and location of any documents or other tangible things and the identity and location of persons who know of any discoverable matter. For good cause, the court may order discovery of any matter relevant to the subject matter involved in the action. Relevant information need not be admissible at the trial if the discovery appears reasonably calculated to lead to the discovery of admissible evidence. All discovery is subject to the limitations imposed by Rule 26(b)(3)(C).

(2) Limitations on Frequency and Extent.

*****

(C) When Required. On motion or on its own, the court must limit the frequency or extent of discovery otherwise allowed by these rules or by local rule if it determines that:

*****

(III) the burden or expense of the proposed discovery is outside the scope permitted by Rule 26(b)(1) outweighs its likely benefit, considering the needs of the case, the amount in controversy, the parties’ resources, the importance of the issues at stake in the action, and the importance of the discovery in resolving the issues.
(c) Protective Orders.

(1) In General. A party or any person from whom discovery is sought may move for a protective order in the court where the action is pending — or as an alternative on matters relating to a deposition, in the court for the district where the deposition will be taken. The motion must include a certification that the movant has in good faith conferred or attempted to confer with other affected parties in an effort to resolve the dispute without court action. The court may, for good cause, issue an order to protect a party or person from annoyance, embarrassment, oppression, or undue burden or expense, including one or more of the following:

* * * * *

64 (B) specifying terms, including time and place or the allocation of expenses, for the disclosure or discovery;

65 * * * * *

(d) Timing and Sequence of Discovery.

(2) Early Rule 34 Requests.

(A) Time to Deliver. More than 21 days after the summons and complaint are served on the party, a request under Rule 34 may be delivered;

(B) to that party by any other party, and

(B) by that party to any plaintiff or to any other party that has been served.

78 (B) When Considered Served. The request is considered to have been served at the first Rule 26(f) conference.

79 * * * * *

80 (23) Sequence. Unless, on motion, the parties stipulate or the court orders otherwise for the parties' and witnesses' convenience and in the interests of justice:

(A) methods of discovery may be used in any sequence; and

81 (B) discovery by one party does not require any other party to delay its discovery.

82 * * * * *

83 (B) * * * * *

84 * * * * *

85 (B) * * * * *

86 * * * * *

87 (B) * * * * *

88 * * * * *
Chapter 3—How Technology Is Changing Litigation

### Changes to FRCP

- **Rule 34:** Objections to document requests require specificity.
Changes to FRCP

- Rule 37: Creates a uniform standard relating to the remedies available by a court when ESI is not properly preserved. Serious spoliation sanctions require bad faith.
8 (B) To Compel a Discovery Response. A party seeking discovery may move for an order compelling an answer, designation, production, or inspection. This motion may be made if:

* * * *

(iv) a party fails to produce documents or fails to respond that inspection will be permitted — or fails to permit inspection — as requested under Rule 34.

(e) Failure to Provide Electronically Stored Information. Absent exceptional circumstances, a court may not impose sanctions under these rules on a party for failing to provide electronically stored information lost as a result of the routine, good-faith operation of an electronic information system if electronically stored information that should have been preserved in the anticipation or conduct of litigation is lost because a party failed to take reasonable steps to preserve it, and it cannot be restored or replaced through additional discovery, the court:

1. upon finding prejudice to another party from loss of the information, may order measures no greater than necessary to cure the prejudice, or
2. only upon finding that the party acted with the intent to deprive another party of the information's use in the litigation may:
   (A) presume that the lost information was unfavorable to the party,
   (B) instruct the jury that it may or must presume the information was unfavorable to the party, or
   (C) dismiss the action or enter a default judgment.
Chapter 3—How Technology Is Changing Litigation

Agenda

• Background
• Big Data
• Changes to the FCRP
• Predictive Coding & Technology Assisted Review

Predictive Coding

• Keyword searching the way of the old days
  – Under inclusive
  – Over inclusive
  – Blunt weapon to reduce volume
  – Volume of data increasing exponentially
• Humans not as reliable as you think!
Predictive Coding

• How predictive coding works

<table>
<thead>
<tr>
<th>The OLD WAY</th>
<th>Predictive Coding</th>
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<tbody>
<tr>
<td>4 million electronic documents preserved</td>
<td>4 million electronic documents preserved</td>
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<tr>
<td>1 million electronic documents collected and processed</td>
<td>1 million electronic documents collected and processed</td>
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<tr>
<td>650,000 reviewed in linear fashion after keyword filter and deduplication</td>
<td>Subject matter expert reviews smalls subset (5-15k)</td>
</tr>
<tr>
<td>100,000 produced</td>
<td>120,000 are identified as likely as relevant</td>
</tr>
<tr>
<td>100 used in motions or at trial</td>
<td>Sampling to confirm accuracy</td>
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Predictive Coding

• Why is it better?
  – Much cheaper
  – Much faster to completion
  – More accurate
  – Gives the attorneys in the case the key documents much earlier in the case

• And the Courts are paying attention
  – At least three dozen decisions and no Court has held that the technology is unreliable---quite the opposite!

Predictive Coding

Also supports proportionality analysis required by the amended Federal Rules of Civil Procedure!
Predictive Coding

• Not just for large document productions
  – Of course, to respond to RFPs
  – But also to prioritize review: get to the best documents first
  – To review an opposing party’s production
  – Use for reviewing clients’ data
    • Internal investigation
    • Subpoena response
    • Prepping client for interview

Potential Limitations?

– Doesn’t work in all types of documents
  • Images, excel, hard copy documents, hand written notations
– Vendor quality varies
– Debate with opposing parties over “protocols”
– Need someone who understands the technology
Conclusion

Old methods simply won’t work in the new world of data growth and Big Data. Change is inevitable.

Any questions? Thanks!

Contact: Kristen@Angelilaw.com
MEMORANDUM

TO: Judge Jeffrey Sutton  
Chair, Standing Committee on Rules of Practice and Procedure

FROM: Judge David G. Campbell  
Chair, Advisory Committee on Federal Rules of Civil Procedure

RE: Proposed Amendments to the Federal Rules of Civil Procedure

DATE: June 14, 2014

Over the course of the last four years, the Advisory Committee on the Federal Rules of Civil Procedure has developed, published, and refined a set of proposed amendments that will implement conclusions reached at a May 2010 Conference on Civil Litigation held at Duke University Law School. The Committee has also proposed and published amendments that would abrogate Rule 84 and the forms appended to the civil rules, and make a modest change to Rule 55. Final versions of the proposals were approved unanimously by the Committee at its meeting in Portland, Oregon on April 10-11, 2014, and approved unanimously by the Standing Committee at its meeting in Washington, D.C. on May 29-30, 2014.

This report explains the proposed amendments. The text of the proposed rules and the proposed Advisory Committee Notes immediately follow this report. The Committee respectfully requests that you forward the proposed amendments for consideration by the Judicial Conference, the Supreme Court, and Congress.
Chapter 3—How Technology Is Changing Litigation

I. THE DUKE CONFERENCE.

The 2010 Duke Conference was organized by the Committee for the specific purpose of examining the state of civil litigation in federal courts and exploring better means to achieve Rule 1’s goal of the just, speedy, and inexpensive determination of every action. The Committee invited 200 participants to attend, and all but one accepted. Participants were selected to ensure diverse views and expertise, and included trial and appellate judges from federal and state courts; plaintiff, defense, and public interest lawyers; in-house counsel from governments and corporations; and many law professors. Empirical studies were conducted in advance of the conference by the Federal Judicial Center (“FJC”), bar associations, private and public interest research groups, and academics. More than seventy judges, lawyers, and academics made presentations to the conference, followed by a broad-ranging discussion among all participants. The Conference was streamed live by the FJC.

The conference planning committee and its chair, Judge John Koeltl of the Southern District of New York, spent more than one year assembling the panels and commissioning, coordinating, and reviewing the empirical studies and papers. Materials prepared for the Conference can be found at http://www.uscourts.gov, and include more than 40 papers, 80 presentations, and 25 compilations of empirical research. The Duke Law Review published some of the papers in Volume 60, Number 3 (December 2010).

The Conference concluded that federal civil litigation works reasonably well—major restructuring of the system is not needed. There was near-unanimous agreement, however, that the disposition of civil actions could be improved by advancing cooperation among parties, proportionality in the use of available procedures, and early judicial case management. A panel on e-discovery unanimously recommended that the Committee draft a rule to deal with the preservation and loss of electronically stored information (“ESI”).

Following the conference, the Committee created a Duke Subcommittee, chaired by Judge Koeltl, to consider recommendations made during the Duke Conference. The Committee also assigned the existing Discovery Subcommittee to draft a rule addressing the preservation and loss of ESI. The work of these subcommittees led to two categories of proposed amendments discussed below: the Duke proposals drafted by the Duke Subcommittee, and proposed new Rule 37(e) drafted by the Discovery Subcommittee. The proposed abrogation of Rule 84 and the proposed amendment to Rule 55 were developed independently of the Duke Conference initiatives.

This report will discuss separately the Duke proposals, proposed Rule 37(e), the abrogation of Rule 84, and the amendment to Rule 55. Additional insight can be gained by reviewing the proposed rule language and committee notes in the Appendix.

II. THE DUKE PROPOSALS.

In a report to the Chief Justice following the Duke Conference, the Committee provided this summary of key conference conclusions: “What is needed can be described in two words—cooperation and proportionality—and one phrase—sustained, active, hands-on judicial case
management.” Since the conference, the Committee and others have sought to promote cooperation, proportionality, and active judicial case management through several means.

First, the FJC has sought to develop enhanced education programs. Among other measures, in 2013 the FJC published a new Benchbook for Federal District Court Judges with a new, comprehensive chapter on judicial case management written with substantial input from members of the Committee and the Standing Committee.

Second, the Committee and the National Employment Lawyers Association (“NELA”) worked cooperatively with the Institute for Advancement of the American Legal System (“IAALS”) to develop protocols for initial disclosures in employment cases. The protocols were developed by a team of experienced plaintiff and defense lawyers and include substantial mandatory disclosures required of both sides at the beginning of employment cases. The protocols are now being used by more than 50 federal district judges. The FJC and the Committee intend to monitor this pilot program and other innovative changes made in several state and federal courts.

Third, the Committee developed proposed rule amendments through the Duke Subcommittee. The Subcommittee began with a list of proposals made at the Duke Conference and held numerous conference calls, circulated drafts of proposed rules, and sponsored a mini-conference with 25 invited judges, lawyers, and law professors to discuss possible rule amendments. The Subcommittee presented recommendations for full discussion by the Committee and the Standing Committee during meetings held in 2011, 2012, and 2013.

The proposed Duke amendments were published as a package in August 2013 along with the other proposed amendments discussed in this report. More than 2,300 written comments were received and more than 120 witnesses appeared and addressed the Committee in public hearings held in Washington, D.C., Phoenix, and Dallas. Following the public comment process, the Subcommittee withdrew some proposals, amended others, and proposed the package of amendments discussed below.

We believe that this process has resulted in fully-informed rulemaking at its best. The original Duke Conference, the lengthy and detailed deliberations of the Duke Subcommittee, the mini-conference held by the Subcommittee, repeated reviews of the proposals by the full Committee and the Standing Committee, and the vigorous public comment process have provided a sound basis for proposing changes to the civil rules.

Rather than discuss the proposed Duke amendments in numerical rule order, this report will address the discovery proposals, followed by proposals on judicial case management and cooperation.
A. Discovery Proposals.

1. Withdrawn Proposals.

The proposals published last August sought to encourage more active case management and advance the proportional use of discovery by amending the presumptive numerical limits on discovery. The intent was to promote efficiency and prompt a discussion early in each case about the amount of discovery needed to resolve the dispute. Under these proposals, Rules 30 and 31 would have been amended to reduce from 10 to 5 the presumptive number of depositions permitted for plaintiffs, defendants, and third-party defendants; Rule 30(d) would have been amended to reduce the presumptive time limit for an oral deposition from 7 hours to 6 hours; Rule 33 would have been amended to reduce from 25 to 15 the presumptive number of interrogatories a party may serve on any other party; and a presumptive limit of 25 would have been introduced for requests to admit under Rule 36, excluding requests to admit the genuineness of documents.

These proposals received some support in the public comment process, but they also encountered fierce resistance. Many expressed fear that the new presumptive limits would become hard limits in some courts and would deprive parties of the evidence needed to prove their claims or defenses. Some asserted that many types of cases, including cases that seek relatively modest monetary recoveries, require more than 5 depositions. Fears were expressed that opposing parties could not be relied upon to recognize and agree to the reasonable number needed; that agreement among the parties might require unwarranted trade-offs in other areas; and that the showing now required to justify an 11th or 12th deposition would be needed to justify a 6th or 7th deposition, reducing the overall number of depositions permitted under the rules.

After reviewing the public comments, the Subcommittee and Committee decided to withdraw these recommendations. The intent of the proposals was never to limit discovery unnecessarily, but many worried that the changes would have that effect. The Committee concluded that it could promote the goals of proportionality and effective judicial case management through other proposed rule changes, such as the renewed emphasis on proportionality and steps to promote earlier and more informed case management, without raising the concerns spawned by the new presumptive limits.


The proposed amendments to Rule 26(b)(1) include four elements: (1) the factors included in present Rule 26(b)(2)(C)(iii) are moved up to become part of the scope of discovery in Rule 26(b)(1), identifying elements to be considered in determining whether discovery is proportional to the needs of the case; (2) language regarding the discovery of sources of information is removed as unnecessary; (3) the distinction between discovery of information relevant to the parties’ claims or defenses and discovery of information relevant to the subject matter of the action, on a showing of good cause, is eliminated; (4) the sentence allowing discovery of information “reasonably calculated to lead to the discovery of admissible evidence” is rewritten. Each proposal will be discussed separately.
a. **Scope of Discovery: Proportionality.**

There was widespread agreement at the Duke Conference that discovery should be proportional to the needs of the case, but subsequent discussions at the mini-conference sponsored by the Subcommittee revealed significant discomfort with simply adding the word “proportional” to Rule 26(b)(1). Standing alone, the phrase seemed too open-ended, too dependent on the eye of the beholder. To provide clearer guidance, the Subcommittee recommended that the factors already prescribed by Rule 26(b)(2)(C)(iii), which currently are incorporated by cross-reference in Rule 26(b)(1), be relocated to Rule 26(b)(1) and included in the scope of discovery. Under this amendment, the first sentence of Rule 26(b)(1) would read as follows:

Parties may obtain discovery regarding any nonprivileged matter that is relevant to any party’s claim or defense and proportional to the needs of the case, considering the importance of the issues at stake in the action, the amount in controversy, the parties’ relative access to relevant information, the parties’ resources, the importance of the discovery in resolving the issues, and whether the burden or expense of the proposed discovery outweighs its likely benefit.¹

This proposal produced a division in the public comments. Many favored the proposal. They asserted that costs of discovery in civil litigation are too often out of proportion to the issues at stake in the litigation, resulting in cases not being filed or settlements made to avoid litigation costs regardless of the merits. They stated that disproportionate litigation costs bar many from access to federal courts and have resulted in a flight to other dispute resolution fora such as arbitration. They noted that the proportionality factors currently found in Rule 26(b)(2)(C)(iii) often are overlooked by courts and litigants, and that the proposed relocation of those factors to Rule 26(b)(1) will help achieve the just, speedy, and inexpensive determination of every action.

Many others saw proportionality as a new limit that would favor defendants. They criticized the factors from Rule 26(b)(2)(C)(iii) as subjective and so flexible as to defy uniform application. They asserted that “proportionality” will become a new blanket objection to all discovery requests. They were particularly concerned that proportionality would impose a new burden on the requesting party to justify each and every discovery request. Some argued that the proposed change is a solution in search of a problem – that discovery in civil litigation already is proportional to the needs of cases.

After considering these public comments carefully, the Committee remains convinced that transferring the Rule 26(b)(2)(C)(iii) factors to the scope of discovery, with some

¹The current version of this language in Rule 26(b)(2)(C)(iii) reads as follows: “On motion or on its own, the court must limit the frequency or extent of discovery otherwise allowed by these rules or by local rule if it determines that: . . . (iii) the burden or expense of the proposed discovery outweighs its likely benefit, considering the needs of the case, the amount in controversy, the parties’ resources, the importance of the issues at stake in the action, and the importance of the discovery in resolving the issues.”
modifications as described below, will improve the rules governing discovery. The Committee reaches this conclusion for three primary reasons.

**Findings from the Duke Conference.**

As already noted, a principal conclusion of the Duke Conference was that discovery in civil litigation would more often achieve the goals of Rule 1 through an increased emphasis on proportionality. This conclusion was expressed often by speakers and panels at the conference and was supported by a number of surveys. In its report to the Chief Justice, the Committee observed that “[o]ne area of consensus in the various surveys . . . was that district or magistrate judges must be considerably more involved in managing each case from the outset, to tailor the motions practice and shape the discovery to the reasonable needs of the case.”

The FJC prepared a closed-case survey for the Duke Conference. The survey questioned lawyers in 3,550 cases terminated in federal district courts for the last quarter of 2008. Although the survey found that a majority of lawyers thought the discovery in their case generated the “right amount” of information, and more than half reported that the costs of discovery were the “right amount” in proportion to their clients’ stakes in the case, a quarter of attorneys viewed discovery costs in their cases as too high relative to their clients’ stakes in the case. A little less than a third reported that discovery costs increased or greatly increased the likelihood of settlement, or caused the case to settle, with that number increasing to 35.5% of plaintiff attorneys and 39.9% of defendant attorneys in cases that actually settled. On the question of whether the cost of litigating in federal court, including the cost of discovery, had caused at least one client to settle a case that would not have settled but for the cost, those representing primarily defendants and those representing both plaintiffs and defendants agreed or strongly agreed 58.2% and 57.8% of the time, respectively, and those representing primarily plaintiffs agreed or strongly agreed 38.6% of the time. The FJC study revealed agreement among lawyers representing plaintiffs and defendants that the rules should be revised to enforce discovery obligations more effectively.

Other surveys prepared for the Duke Conference showed greater dissatisfaction with the costs of civil discovery. In surveys of lawyers from the American College of Trial Lawyers (“ACTL”), the ABA Section of Litigation, and NELA, more lawyers agreed than disagreed with the proposition that judges do not enforce Rule 26(b)(2)(C) to limit discovery. The ACTL Task Force on Discovery and IAALS reported on a survey of ACTL fellows, who generally tend to be more experienced trial lawyers than those in other groups. A primary conclusion from the survey was that today’s civil litigation system takes too long and costs too much, resulting in some deserving cases not being filed and others being settled to avoid the costs of litigation. Almost half of the ACTL respondents believed that discovery is abused in almost every case, with responses being essentially the same for both plaintiff and defense lawyers. The report reached this conclusion: “Proportionality should be the most important principle applied to all discovery.”

Surveys of ABA Section of Litigation and NELA attorneys found more than 80% agreement that discovery costs are disproportionately high in small cases, with more than 40% of respondents saying they are disproportionate in large cases. In the survey of the ABA Section of

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Litigation, 78% percent of plaintiffs’ attorneys, 91% of defense attorneys, and 94% of mixed-practice attorneys agreed that litigation costs are not proportional to the value of small cases, with 33% of plaintiffs’ lawyers, 44% of defense lawyers, and 41% of mixed-practice lawyers agreeing that litigation costs are not proportional in large cases. In the NELA survey, which included primarily plaintiffs’ lawyers, more than 80% said that litigation costs are not proportional to the value of small cases, with a fairly even split on whether they are proportional to the value of large cases. An IAALS survey of corporate counsel found 90% agreement with the proposition that discovery costs in federal court are not generally proportional to the needs of the case, and 80% disagreement with the suggestion that outcomes are driven more by the merits than by costs. In its report summarizing the results of some of the Duke empirical research, IAALS noted that between 61% and 76% of the respondents in the ABA, ACTL, and NELA surveys agreed that judges do not enforce the rules’ existing proportionality limitations on their own.

**The History of Proportionality in Rule 26.**

The proportionality factors to be moved to Rule 26(b)(1) are not new. Most of them were added to Rule 26 in 1983 and originally resided in Rule 26(b)(1). The Committee’s original intent was to promote more proportional discovery, as made clear in the 1983 Committee Note which explained that the change was intended “to guard against redundant or disproportionate discovery by giving the court authority to reduce the amount of discovery that may be directed to matters that are otherwise proper subjects of inquiry,” and “to encourage judges to be more aggressive in identifying and discouraging discovery overuse.” The 1983 amendments also added Rule 26(g), which now provides that a lawyer’s signature on a discovery request, objection, or response constitutes a certification that it is “neither unreasonable nor unduly burdensome or expensive, considering the needs of the case, prior discovery in the case, the amount in controversy, and the importance of the issues at stake in the action.” The 1983 amendments thus made proportionality a consideration for courts in limiting discovery and for lawyers in issuing and responding to discovery requests.

The proportionality factors were moved to Rule 26(b)(2)(C) in 1993 when section (b)(1) was divided, but their constraining influence on discovery remained important in the eyes of the Committee. The 1993 amendments added two new factors: whether “the burden or expense of the proposed discovery outweighs its likely benefit,” and “the importance of the proposed discovery in resolving the issues.” The 1993 Committee Note stated that “[t]he revisions in Rule 26(b)(2) are intended to provide the court with broader discretion to impose additional restrictions on the scope and extent of discovery[.]”

The proportionality factors were again addressed by the Committee in 2000. Rule 26(b)(1) was amended to state that “[a]ll discovery is subject to the limitations imposed by Rule 26(b)(2)(i), (ii), and (iii) [now Rule 26(b)(2)(C)].” The 2000 Committee Note explained that courts were not using the proportionality limitations as originally intended, and that “[t]his otherwise redundant cross-reference has been added to emphasize the need for active judicial use of subdivision (b)(2) to control excessive discovery.”
As this summary illustrates, three previous Civil Rules Committees in three different decades have reached the same conclusion as the current Committee – that proportionality is an important and necessary feature of civil litigation in federal courts. And yet one of the primary conclusions of comments and surveys at the 2010 Duke Conference was that proportionality is still lacking in too many cases. The previous amendments have not had their desired effect. The Committee’s purpose in returning the proportionality factors to Rule 26(b)(1) is to make them an explicit component of the scope of discovery, requiring parties and courts alike to consider them when pursuing discovery and resolving discovery disputes.

Adjustments to the 26(b)(1) Proposal.

The Committee considered carefully the concerns expressed in public comments: that the move will shift the burden of proving proportionality to the party seeking discovery, that it will provide a new basis for refusing to provide discovery, and that it will increase litigation costs. None of these predicted outcomes is intended, and the proposed Committee Note has been revised to address them. The Note now explains that the change does not place a burden of proving proportionality on the party seeking discovery and explains how courts should apply the proportionality factors. The Note also states that the change does not authorize boilerplate refusals to provide discovery on the ground that it is not proportional, but should instead prompt a dialogue among the parties and, if necessary, the court, concerning the amount of discovery reasonably needed to resolve the case. The Committee remains convinced that the proportionality considerations will not increase the costs of litigation. To the contrary, the Committee believes that more proportional discovery will decrease the cost of resolving disputes without sacrificing fairness.

In response to public comments, the Committee also reversed the order of the initial proportionality factors to refer first to “the importance of the issues at stake” and second to “the amount in controversy.” This rearrangement adds prominence to the importance of the issues and avoids any implication that the amount in controversy is the most important concern. The Committee Note was also expanded to emphasize that courts should consider the private and public values at issue in the litigation – values that cannot be addressed by a monetary award. The Note discussion draws heavily on the Committee Note from 1983 to show that, from the beginning, the rule has been framed to recognize the importance of nonmonetary remedies and to ensure that parties seeking such remedies have sufficient discovery to prove their cases.

Also in response to public comments, the Committee added a new factor: “the parties’ relative access to relevant information.” This factor addresses the reality that some cases involve an asymmetric distribution of information. Courts should recognize that proportionality in asymmetric cases will often mean that one party must bear greater burdens in responding to discovery than the other party bears.

With these adjustments, the Committee believes that moving the factors from Rule 26(b)(2)(C) to Rule 26(b)(1) will satisfy the need for proportionality in more civil cases, as identified in the Duke Conference, while avoiding the concerns expressed in some public comments.
b. Discovery of Information in Aid of Discovery.

Rule 26(b)(1) now provides that discoverable matters include “the existence, description, nature, custody, condition, and location of any documents or other tangible things and the identity and location of persons who know of any discoverable matter.” The Committee believes that these words are no longer necessary. The discoverability of such information is well established. Because Rule 26 is more than twice as long as the next longest civil rule, the Committee believes that removing excess language is a positive step.

Some public comments expressed doubt that discovery of these matters is so well entrenched that the language is no longer needed. They urged the Committee to make clear in the Committee Note that this kind of discovery remains available. The Note has been revised to make this point.

c. Subject-Matter Discovery.

Before 2000, Rule 26(b)(1) provided for discovery of information “relevant to the subject matter involved in the pending action, whether it relates to the claim or defense of the party seeking discovery or to the claim or defense of any other party.” Responding to repeated suggestions that discovery should be confined to the parties’ claims or defenses, the Committee amended Rule 26(b)(1) in 2000 to narrow the scope of discovery to matters “relevant to any party’s claim or defense,” but preserved subject-matter discovery upon a showing of good cause. The 2000 Committee Note explained that the change was “designed to involve the court more actively in regulating the breadth of sweeping or contentious discovery.”

The Committee proposes that the reference to broader subject matter discovery, available upon a showing of good cause, be deleted. In the Committee's experience, the subject matter provision is virtually never used, and the proper focus of discovery is on the claims and defenses in the litigation.

Only a small portion of the public comments addressed this proposal, with a majority favoring it. The Committee Note includes three examples from the 2000 Note of information that would remain discoverable as relevant to a claim or defense: other incidents similar to those at issue in the litigation, information about organizational arrangements or filing systems, and information that could be used to impeach a likely witness. The Committee Note also recognizes that if discovery relevant to the pleaded claims or defenses reveals information that would support new claims or defenses, the information can be used to support amended pleadings.

d. “Reasonably calculated to lead.”

The final proposed change in Rule 26(b)(1) deletes the sentence which reads: “Relevant information need not be admissible at the trial if the discovery appears reasonably calculated to lead to the discovery of admissible evidence.” The proposed amendment would replace this sentence with the following language: “Information within this scope of discovery need not be admissible in evidence to be discoverable.”
This change is intended to curtail reliance on the “reasonably calculated” phrase to define the scope of discovery. The phrase was never intended to have that purpose. The “reasonably calculated” language was added to the rules in 1946 because parties in depositions were objecting to relevant questions on the ground that the answers would not be admissible at trial. Inadmissibility was used to bar relevant discovery. The 1946 amendment sought to stop this practice with this language: “It is not ground for objection that the testimony will be inadmissible at the trial if the testimony sought appears reasonably calculated to lead to the discovery of admissible evidence.”

Recognizing that the sentence had this original intent and was never designed to define the scope of discovery, the Committee amended the sentence in 2000 to add the words “relevant information” at the beginning: “Relevant information need not be admissible at the trial if the discovery appears reasonably calculated to lead to the discovery of admissible evidence.” The Committee Note explained that “relevant means within the scope of discovery as defined in this subdivision [(b)(1)].” Thus, the “reasonably calculated” phrase applies only to information that is otherwise within the scope of discovery set forth in Rule 26(b)(1); it does not broaden the scope of discovery. As the 2000 Committee Note explained, any broader reading of “reasonably calculated” “might swallow any other limitation on the scope of discovery.”

Despite the original intent of the sentence and the 2000 clarification, lawyers and courts continue to cite the “reasonably calculated” language as defining the scope of discovery. Some even disregard the reference to admissibility, suggesting that any inquiry “reasonably calculated” to lead to something helpful in the litigation is fair game in discovery. The proposed amendment will eliminate this incorrect reading of Rule 26(b)(1) while preserving the rule that inadmissibility is not a basis for opposing discovery of relevant information.

Most of the comments opposing this change complained that it would eliminate a “bedrock” definition of the scope of discovery, reflecting the very misunderstanding the amendment is designed to correct.

3. **Rule 26(b)(2)(C)(iii).**

Rule 26(b)(2)(C)(iii) would be amended to reflect the move of the proportionality factors to Rule 26(b)(1).

4. **Rule 26(c)(1): Allocation of Expenses.**

Rule 26(c)(1)(B) would be amended to include “the allocation of expenses” among the terms that may be included in a protective order. Rule 26(c)(1) already authorizes an order to protect against “undue burden or expense,” and this includes authority to allow discovery only on condition that the requesting party bear part or all of the costs of responding. The Supreme Court has acknowledged that courts have that authority now, *Oppeheimer Fund, Inc. v. Sanders*, 437 U.S. 340, 358 (1978), and it is useful to make the authority explicit on the face of the rule to ensure that courts and the parties will consider this choice as an alternative to either denying requested discovery or ordering it despite the risk of imposing undue burdens and expense on the party who responds to the request.
The Committee Note explains that this clarification does not mean that cost-shifting should become a common practice. The assumption remains that the responding party ordinarily bears the costs of responding.

5. **Rules 34 and 37(a): Specific Objections, Production, Withholding.**

The Committee proposes three amendments to Rule 34. (A fourth, dealing with requests served before the Rule 26(f) conference, is described later.) The first requires that objections to requests to produce be stated “with specificity.” The second permits a responding party to state that it will produce copies of documents or ESI instead of permitting inspection, and should specify a reasonable time for the production. A corresponding change to Rule 37(a)(3)(B)(iv) adds authority to move for an order to compel production if “a party fails to produce documents” as requested. The third amendment to Rule 34 requires that an objection state whether any responsive materials are being withheld on the basis of the objection.

These amendments should eliminate three relatively frequent problems in the production of documents and ESI: the use of broad, boilerplate objections that provide little information about the true reason a party is objecting; responses that state various objections, produce some information, and do not indicate whether anything else has been withheld from discovery on the basis of the objections; and responses which state that responsive documents will be produced in due course, without providing any indication of when production will occur and which often are followed by long delays in production. All three practices lead to discovery disputes and are contrary to Rule 1’s goals of speedy and inexpensive litigation.

6. **Early Discovery Requests: Rule 26(d)(2).**

The Committee proposes to add Rule 26(d)(2) to allow a party to deliver a Rule 34 document production request before the Rule 26(f) meeting between the parties. For purposes of determining the date to respond, the request would be treated as having been served at the first Rule 26(f) meeting. Rule 34(b)(2)(A) would be amended by adding a parallel provision for the time to respond. The purpose of this change is to facilitate discussion between the parties at the Rule 26(f) meeting and with the court at the initial case management conference by providing concrete discovery proposals.

Public comments on this proposal were mixed. Some doubt that parties will seize this new opportunity. Others expressed concern that requests formed before the case management conference will be inappropriately broad. Lawyers who represent plaintiffs appeared more likely to use this opportunity to provide advance notice of what should be discussed at the Rule 26(f) meeting. The Committee continues to view this amendment as a worthwhile effort to focus early case management discussions.

B. **Early Judicial Case Management.**

The Committee recommends several changes to Rules 16 and 4 designed to promote earlier and more active judicial case management.
Chapter 3—How Technology Is Changing Litigation

1. Rule 16.

Four sets of changes are proposed for Rule 16.

First, participants at the Duke Conference agreed that cases are resolved faster, fairer, and with less expense when judges manage them early and actively. An important part of this management is an initial case management conference where judges confer with parties about the needs of the case and an appropriate schedule for the litigation. To encourage case management conferences where direct exchanges occur, the Committee proposes that the words allowing a conference to be held “by telephone, mail, or other means” be deleted from Rule 16(b)(1)(B). The Committee Note explains that such a conference can be held by any means of direct simultaneous communication, including telephone. Rule 16(b)(1)(A) continues to allow the court to base a scheduling order on the parties’ Rule 26(f) report without holding a conference, but the change in the text and the Committee Note hopefully will encourage judges to engage in direct exchanges with the parties when warranted.

Second, the time for holding the scheduling conference is set at the earlier of 90 days after any defendant has been served (reduced from 120 days in the present rule) or 60 days after any defendant has appeared (reduced from 90 days in the present rule). The intent is to encourage early management of cases by judges. Recognizing that these time limits may not be appropriate in some cases, the proposal also allows the judge to set a later time on finding good cause. In response to concerns expressed by the Department of Justice, the Committee Note states that “[l]itigation involving complex issues, multiple parties, and large organizations, public or private, may be more likely to need extra time to establish meaningful collaboration between counsel and the people who can supply the information needed to participate in a useful way.”

Third, the proposed amendments add two subjects to the list of issues that may be addressed in a case management order: the preservation of ESI and agreements reached under Federal Rule of Evidence 502. ESI is a growing issue in civil litigation, and the Committee believes that parties and courts should be encouraged to address it early. Similarly, Rule 502 was designed in part to reduce the expense of producing ESI or other voluminous documents, and the parties and judges should consider its potential application early in the litigation. Parallel provisions are added to the subjects for the parties’ Rule 26(f) meeting.

Fourth, the proposed amendments identify another topic for discussion at the initial case management conference – whether the parties should be required to request a conference with the court before filing discovery motions. Many federal judges require such pre-motion conferences, and experience has shown them to be very effective in resolving discovery disputes quickly and inexpensively. The amendment seeks to encourage this practice by including it in the Rule 16 topics.

2. Rule 4(m): Time to Serve.

Rule 4(m) now sets 120 days as the time limit for serving the summons and complaint. The Committee initially sought to reduce this period to 60 days, but the public comments...
persuaded the Committee to recommend a limit of 90 days. The intent, as with the similar Rule 16 change, is to get cases moving more quickly and shorten the overall length of litigation. The experience of the Committee is that most cases require far less than 120 days for service, and that some lawyers take more time than necessary simply because it is permitted under the rules.

Public comments noted that a 60-day service period could be problematic in cases with many defendants, defendants who are difficult to locate or serve, or defendants who must be served by the Marshals Service. Others suggested that a 60-day period would undercut the opportunity to request a waiver of service because little time would be left to effect service after a defendant refuses to waive service. After considering these and other comments, the Committee concluded that the time should be set at 90 days. Language has been added to the Committee Note recognizing that additional time will be needed in some cases.

C. Cooperation.

Rule 1 now provides that the civil rules “should be construed and administered to secure the just, speedy, and inexpensive determination of every action and proceeding.” The proposed amendment would provide that the rules “be construed, administered, and employed by the court and the parties to secure the just, speedy, and inexpensive determination of every action and proceeding.”

As already noted, cooperation among parties was a theme heavily emphasized at the Duke Conference. Cooperation has been vigorously urged by many other voices, and principles of cooperation have been embraced by concerned organizations and adopted by courts and bar associations. The Committee proposes that Rule 1 be amended to make clear that parties as well as courts have a responsibility to achieve the just, speedy, and inexpensive resolution of every action. The proposed Committee Note explains that “discussions of ways to improve the administration of civil justice regularly include pleas to discourage over-use, misuse, and abuse of procedural tools that increase cost and result in delay. Effective advocacy is consistent with – and indeed depends upon – cooperative and proportional use of procedure.”

The public comments expressed little opposition to the concept of cooperation, but some expressed concerns about the proposed amendment. One concern was that Rule 1 is iconic and should not be altered. Another was that this change may invite ill-founded attempts to seek sanctions for violating a duty to cooperate. To avoid any suggestion that the amendment authorizes such sanctions or somehow diminishes procedural rights provided elsewhere in the rules, the Committee Note provides: “This amendment does not create a new or independent source of sanctions. Neither does it abridge the scope of any other of these rules.”

The Committee recognizes that a rule amendment alone will not produce reasonable and cooperative behavior among litigants, but believes that the proposed amendment will provide a meaningful step in that direction. This change should be combined with continuing efforts to educate litigants and courts on the importance of cooperation in reducing unnecessary costs in civil litigation.
D. Summary: The Duke Proposals as a Whole.

The Committee views the Duke proposals as a package. While each proposed amendment must be judged on its own merits, the proposals are designed to work together. Case management will begin earlier, judges will be encouraged to communicate directly with the parties, relevant topics are emphasized for the initial case management conference, early Rule 34 requests will facilitate a more informed discussion of necessary discovery, proportionality will be considered by all participants, unnecessary discovery motions will be discouraged, and obstructive Rule 34 responses will be eliminated. At the same time, the change to Rule 1 will encourage parties to cooperate in achieving the just, speedy, and inexpensive resolution of every action. Combined with the continuing work of the FJC on judicial education and the continuing exploration of discovery protocols and other pilot projects, the Committee believes that these changes will promote worthwhile objectives identified at the Duke Conference and improve the federal civil litigation process.

III. RULE 37(e): FAILURE TO PRESERVE ESI.

Present Rule 37(e) was adopted in 2006 and provides: “Absent exceptional circumstances, a court may not impose sanctions under these rules on a party for failing to provide electronically stored information lost as a result of the routine, good-faith operation of an electronic information system.” The Committee recognized in 2006 that the continuing expansion of ESI might provide reasons to adopt a more detailed rule. A panel at the Duke Conference unanimously recommended that the time has come for such a rule.

The Committee agrees. The explosion of ESI in recent years has affected all aspects of civil litigation. Preservation of ESI is a major issue confronting parties and courts, and loss of ESI has produced a significant split in the circuits. Some circuits hold that adverse inference jury instructions (viewed by most as a serious sanction) can be imposed for the negligent loss of ESI. Others require a showing of bad faith.

The Committee has been credibly informed that persons and entities over-preserve ESI out of fear that some ESI might be lost, their actions might with hindsight be viewed as negligent, and they might be sued in a circuit that permits adverse inference instructions or other serious sanctions on the basis of negligence. Many entities described spending millions of dollars preserving ESI for litigation that may never be filed. Resolving the circuit split with a more uniform approach to lost ESI, and thereby reducing a primary incentive for over-preservation, has been recognized by the Committee as a worthwhile goal.

During the two years following the Duke Conference, the Discovery Subcommittee, now chaired by Judge Paul Grimm of the District of Maryland, considered several different approaches to drafting a new rule, including drafts that undertook to establish detailed preservation guidelines. These drafts started with an outline proposed by the Duke Conference panel which called for specific provisions on when the duty to preserve arises, its scope and duration in advance of litigation, and the sanctions or other measures a court can take when information is lost. The Subcommittee conducted research into existing spoliation law, canvassed statutes and regulations that impose preservation obligations, received comments and
suggestions from numerous sources (including proposed draft rules from some sources), and held a mini-conference in Dallas with 25 invited judges, lawyers, and academics to discuss possible approaches to an ESI-preservation rule.

The Subcommittee ultimately concluded that a detailed rule specifying the trigger, scope, and duration of a preservation obligation is not feasible. A rule that attempts to address these issues in detail simply cannot be applied to the wide variety of cases in federal court, and a rule that provides only general guidance on these issues would be of little value to anyone. The Subcommittee chose instead to craft a rule that addresses actions courts may take when ESI that should have been preserved is lost.

Thus, the proposed Rule 37(e) does not purport to create a duty to preserve. The new rule takes the duty as it is established by case law, which uniformly holds that a duty to preserve information arises when litigation is reasonably anticipated. Although some urged the Committee to eliminate any duty to preserve information before an action is actually filed in court, the Committee believes such a rule would result in the loss or destruction of much information needed for litigation. The Committee Note, responding to concerns expressed in public comments, also makes clear that this rule does not affect any common-law tort remedy for spoliation that may be established by state law.

Proposed Rule 37(e) applies when “electronically stored information that should have been preserved in the anticipation or conduct of litigation is lost because a party failed to take reasonable steps to preserve it, and it cannot be restored or replaced through additional discovery.” Subdivisions (e)(1) and (e)(2) then address actions a court may take when this situation arises.

A. Limiting the Rule to ESI.

Like current Rule 37(e), the proposed rule is limited to ESI. Although the Committee considered proposing a rule that would apply to all forms of information, it ultimately concluded that an ESI-only rule was appropriate for several reasons.

First, as already noted, the explosion of ESI in recent years has presented new and unprecedented challenges in civil litigation. This is the primary fact motivating an amendment of Rule 37(e).

Second, the remarkable growth of ESI will continue and even accelerate. One industry expert reported to the Committee that there will be some 26 billion devices on the Internet in six years – more than three for every person on earth. Significant amounts of ESI will be created and stored not only by sophisticated entities with large IT departments, but also by unsophisticated persons whose lives are recorded on their phones, tablets, cars, social media pages, and tools not even presently foreseen. Most of this information will be stored somewhere on remote servers, often referred to as the “cloud,” complicating the preservation task. Thus, the litigation challenges created by ESI and its loss will increase, not decrease, and will affect unsophisticated as well as sophisticated litigants.
Third, the law of spoliation for evidence other than ESI is well developed and longstanding, and should not be supplanted without good reason. There has been little complaint to the Committee about this body of law as applied to information other than ESI, and the Committee concludes that this law should be left undisturbed by a new rule designed to address the unprecedented challenges presented by ESI.

The Advisory Committee recognizes that its decision to confine Rule 37(e) to ESI could be debated. Some contend that there is no principled basis for distinguishing ESI from other forms of evidence, but repeated efforts made clear that it is very difficult to craft a rule that deals with failure to preserve tangible things. In addition, there are some clear practical distinctions between ESI and other kinds of evidence. ESI is created in volumes previously unheard of and often is duplicated in many places. The potential consequences of its loss in one location often will be less severe than the consequences of the loss of tangible evidence. ESI also is deleted or modified on a regular basis, frequently with no conscious action on the part of the person or entity that created it. These practical distinctions, the difficulty of writing a rule that covers all forms of evidence, as well as an appropriate respect for the spoliation law that has developed over centuries to deal with the loss of tangible evidence, all persuaded the Advisory Committee that the new Rule 37(e) should be limited to ESI.

B. Reasonable Steps to Preserve.

The proposed rule applies if ESI “that should have been preserved in the anticipation or conduct of litigation is lost because a party failed to take reasonable steps to preserve it.” The rule calls for reasonable steps, not perfection. As explained in the Committee Note, determining the reasonableness of the steps taken includes consideration of party resources and the proportionality of the efforts to preserve. The Note also recognizes that a party’s level of sophistication may bear on whether it should have realized that information should have been preserved.

C. Restoration or Replacement of Lost ESI.

If reasonable steps were not taken and information was lost as a result, the rule directs that the next focus should be on whether the lost information can be restored or replaced through additional discovery. As the Committee Note explains, nothing in this rule limits a court’s powers under Rules 16 and 26 to order discovery to achieve this purpose. At the same time, however, the quest for lost information should take account of whether the information likely was only marginally relevant or duplicative of other information that remains available.

D. Subdivision (e)(1).

Proposed Rule 37(e)(1) provides that the court, “upon finding prejudice to another party from loss of the information, may order measures no greater than necessary to cure the prejudice.” This proposal preserves broad trial court discretion to cure prejudice caused by the loss of ESI that cannot be remedied by restoration or replacement of the lost information. It further provides that the measures be no greater than necessary to cure the prejudice.
Proposed subdivision (e)(1) does not say which party bears the burden of proving prejudice. Many public comments raised concerns about assigning such burdens, noting that it often is difficult for an opposing party to prove it was prejudiced by the loss of information it never has seen. Under the proposed rule, each party is responsible for providing such information and argument as it can; the court may draw on its experience in addressing this or similar issues, and may ask one or another party, or all parties, for further information.

The proposed rule does not attempt to draw fine distinctions as to the measures a trial court may use to cure prejudice under (e)(1), but instead limits those measures in three general ways: there must be a finding of prejudice, the measures must be no greater than necessary to cure the prejudice, and the court may not impose the severe measures listed in subdivision (e)(2).

E. Subdivision (e)(2).

Proposed (e)(2) provides that the court:

only upon finding that the party acted with the intent to deprive another party of the information’s use in the litigation, may:

(A) presume that the lost information was unfavorable to the party;

(B) instruct the jury that it may or must presume the information was unfavorable to the party; or

(C) dismiss the action or enter a default judgment.

A primary purpose of this provision is to eliminate the circuit split on when a court may give an adverse inference jury instruction for the loss of ESI. As already noted, some circuits permit such instructions upon a showing of negligence, while others require bad faith. Subdivision (e)(2) permits adverse inference instructions only on a finding that the party “acted with the intent to deprive another party of the information’s use in the litigation.” This intent requirement is akin to bad faith, but is defined even more precisely. The Committee views this definition as consistent with the historical rationale for adverse inference instructions.

The Discovery Subcommittee analyzed the existing cases on the use of adverse inference instructions. Such instructions historically have been based on a logical conclusion: when a party destroys evidence for the purpose of preventing another party from using it in litigation, one reasonably can infer that the evidence was unfavorable to the destroying party. Some courts hold to this traditional rationale and limit adverse inference instructions to instances of bad faith loss of the information. See, e.g., Aramburu v. Boeing Co., 112 F.3d 1398, 1407 (10th Cir. 1997) (“The adverse inference must be predicated on the bad faith of the party destroying the records. Mere negligence in losing or destroying records is not enough because it does not support an inference of consciousness of a weak case.”) (citations omitted).

Circuits that permit adverse inference instructions on a showing of negligence adopt a different rationale: the adverse inference restores the evidentiary balance, and the party that lost
the information should bear the risk that it was unfavorable. See, e.g., Residential Funding Corp. v. DeGeorge Finan. Corp., 306 F.3d 99 (2d Cir. 2002). Although this approach has some equitable appeal, the Committee has several concerns when it is applied to ESI. First, negligently lost information may have been favorable or unfavorable to the party that lost it — negligence does not necessarily reveal the nature of the lost information. Consequently, an adverse inference may do far more than restore the evidentiary balance; it may tip the balance in ways the lost evidence never would have. Second, in a world where ESI is more easily lost than tangible evidence, particularly by unsophisticated parties, the sanction of an adverse inference instruction imposes a heavy penalty for losses that are likely to become increasingly frequent as ESI multiplies. Third, permitting an adverse inference for negligence creates powerful incentives to over-preserve, often at great cost. Fourth, the ubiquitous nature of ESI and the fact that it often may be found in many locations presents less risk of severe prejudice from negligent loss than may be present due to the loss of tangible things or hard-copy documents.

These reasons have caused the Committee to conclude that the circuit split should be resolved in favor of the traditional reasons for an adverse inference. ESI-related adverse inferences drawn by courts when ruling on pretrial motions or ruling in bench trials, and adverse inference jury instructions, should be limited to cases where the party who lost the ESI did so with an intent to deprive the opposing party of its use in the litigation. Subdivision (e)(2) extends the logic of the mandatory adverse-inference instruction to the even more severe measures of dismissal or default. The Committee thought it incongruous to allow dismissal or default in circumstances that do not justify the instruction.

Subdivision (e)(2) covers any instruction that directs or permits the jury to infer from the loss of information that the information was in fact unfavorable to the party that lost it. The subdivision does not apply to jury instructions that do not involve such an inference. For example, subdivision (e)(2) would not prohibit a court from allowing the parties to present evidence to the jury concerning the loss and likely relevance of information and instructing the jury that it may consider that evidence, along with all the other evidence in the case, in making its decision. These measures, which would not involve instructing a jury that it may draw an adverse inference from loss of information, would be available under subdivision (e)(1) if no greater than necessary to cure prejudice. In addition, subdivision (e)(2) does not limit the discretion of courts to give traditional missing evidence instructions based on a party’s failure to present evidence it has in its possession at the time of trial.

Subdivision (e)(2) does not include a requirement that the court find prejudice to the party deprived of the information. This is because the finding of intent required by the subdivision can support not only an inference that the lost information was unfavorable to the party that intentionally destroyed it, but also an inference that the opposing party was prejudiced by the loss of that favorable information.

The Committee Note states that courts should exercise caution in using the measures specified in (e)(2). Finding an intent to deprive another party of the lost information’s use in the litigation does not require a court to adopt the measures listed in subdivision (e)(2). The remedy should fit the wrong, and the severe measures authorized by this subdivision should not be used
when the information lost was relatively unimportant or lesser measures such as those specified in subdivision (e)(1) would be sufficient to redress the loss.

IV. ABROGATION OF RULE 84.

The Federal Rules of Civil Procedure are followed by an Appendix of Forms. The Appendix includes 36 separate forms illustrating things such as the proper captions for pleadings, proper signature blocks, and forms for summonses, requests for waivers of service, complaints, answers, judgments, and other litigation documents. Rule 84 provides that the forms “suffice under these rules and illustrate the simplicity and brevity that these rules contemplate.”

Many of the forms are out of date. The sample complaints, for example, embrace far fewer causes of action than now exist in federal court and illustrate a simplicity of pleading that has not been used in many years. The increased use of Rule 12(b)(6) motions to dismiss, the enhanced pleading requirements of Rule 9 and some federal statutes, the proliferation of statutory and other causes of action, and the increased complexity of most modern cases have resulted in a detailed level of pleading that is far beyond that illustrated in the forms.

Amendment of the civil forms is cumbersome. It requires the same process as amendment of the civil rules themselves – amendments proposed by the Committee must be approved by the Standing Committee, the Judicial Conference, the Supreme Court, and Congress. Public notice and comment are also required. The process ordinarily takes at least three years.

In addition to being out of date and difficult to amend, the Committee’s perception was that the forms are rarely used. The Committee established a Rule 84 Subcommittee, chaired by Judge Gene Pratter of the Eastern District of Pennsylvania, to consider the current forms and the process of their revision, and to recommend possible changes. Members of the Subcommittee canvassed judges, law firms, public interest law offices, and individual lawyers, and found that virtually none of them use the forms.

Many alternative sources of civil forms are available. These include forms created by private publishing companies and a set of non-pleading forms created and maintained by a Forms Working Group at the Administrative Office of the United States Courts (“AO”). The Working Group consists of six federal judges and six clerks of court, and the forms they create in consultation with the various rules committees can be downloaded from the AO website at http://www.uscourts.gov/FormsAndFees/Forms/CourtFormsByCategory.aspx. A May 2012 survey of the websites maintained by the 94 federal district courts around the country found that 88 of the 94 either link electronically to the AO forms or post some of the AO forms on their websites. Only six of the 94 mention the Rule 84 forms on their websites or in their local rules, confirming that the rules forms are rarely used.

The Subcommittee ultimately recommended that the Committee get out of the forms business. The Committee agreed, and published a proposal in August 2013 to abrogate Rule 84 and eliminate the forms appended to the rules. The two exceptions to this recommendation are

Rules Appendix B-19
forms 5 and 6, which are referenced in Rule 4 and would, under the proposal, be appended to that specific rule.

Very few of the public comments addressed the abrogation of Rule 84. Among the objections, most asserted that the elimination of the forms would be viewed as an indirect endorsement of the *Twombly* and *Iqbal* pleading standards. A few argued that the forms assist pro se litigants and new lawyers, but of these, only one stated that the writer had ever actually used the forms. The general lack of response to the Rule 84 proposal reinforced the Committee’s view that the forms are seldom used.

After considering the public comments, the Committee continues to believe that the forms and Rule 84 should be eliminated. The forms are not used; revising them is a difficult and time-consuming process; other forms are readily available; and the Committee can better use its time addressing more relevant issues in the rules. The Committee continues to review the effects of *Twombly* and *Iqbal*. If it decides action is needed in this area, the more direct approach will be to amend the rules, not the forms.

V. **RULE 55.**

The Committee proposes that Rule 55(c) be amended to clarify that a court must apply Rule 60(b) only when asked to set aside a final judgment. The reason for the change is explained in the proposed Committee Note.
PROPOSED AMENDMENTS TO THE FEDERAL RULES OF CIVIL PROCEDURE*

1 Rule 1. Scope and Purpose

These rules govern the procedure in all civil actions and proceedings in the United States district courts, except as stated in Rule 81. They should be construed, and administered, and employed by the court and the parties to secure the just, speedy, and inexpensive determination of every action and proceeding.

Committee Note

Rule 1 is amended to emphasize that just as the court should construe and administer these rules to secure the just, speedy, and inexpensive determination of every action, so the parties share the responsibility to employ the rules in the same way. Most lawyers and parties cooperate to achieve these ends. But discussions of ways to improve the administration of civil justice regularly include pleas to discourage over-use, misuse, and abuse of procedural tools that increase cost and result in delay. Effective advocacy is

* New material is underlined; matter to be omitted is lined through.
consistent with — and indeed depends upon — cooperative and proportional use of procedure.

This amendment does not create a new or independent source of sanctions. Neither does it abridge the scope of any other of these rules.
FEDERAL RULES OF CIVIL PROCEDURE

Rule 4. Summons

* * * * *

(m) Time Limit for Service. If a defendant is not served within 90 days after the complaint is filed, the court — on motion or on its own after notice to the plaintiff — must dismiss the action without prejudice against that defendant or order that service be made within a specified time. But if the plaintiff shows good cause for the failure, the court must extend the time for service for an appropriate period. This subdivision (m) does not apply to service in a foreign country under Rule 4(f) or 4(j)(1) or to service of a notice under Rule 71.1(d)(3)(A).

* * * * *

Committee Note

Subdivision (m). The presumptive time for serving a defendant is reduced from 120 days to 90 days. This
change, together with the shortened times for issuing a scheduling order set by amended Rule 16(b)(2), will reduce delay at the beginning of litigation.

Shortening the presumptive time for service will increase the frequency of occasions to extend the time for good cause. More time may be needed, for example, when a request to waive service fails, a defendant is difficult to serve, or a marshal is to make service in an in forma pauperis action.

The final sentence is amended to make it clear that the reference to Rule 4 in Rule 71.1(d)(3)(A) does not include Rule 4(m). Dismissal under Rule 4(m) for failure to make timely service would be inconsistent with the limits on dismissal established by Rule 71.1(i)(1)(C).

Shortening the time to serve under Rule 4(m) means that the time of the notice required by Rule 15(c)(1)(C) for relation back is also shortened.
Rule 16. Pretrial Conferences; Scheduling; Management

(b) Scheduling.

(1) Scheduling Order. Except in categories of actions exempted by local rule, the district judge — or a magistrate judge when authorized by local rule — must issue a scheduling order:

(A) after receiving the parties’ report under Rule 26(f); or

(B) after consulting with the parties’ attorneys and any unrepresented parties at a scheduling conference by telephone, mail, or other means.

(2) Time to Issue. The judge must issue the scheduling order as soon as practicable, but in any event unless the judge finds good cause for
delay, the judge must issue it within the earlier of 120 days after any defendant has been served 19 with the complaint or 90 days after any defendant has appeared.

(3) Contents of the Order.

(B) Permitted Contents. The scheduling order may:

(iii) provide for disclosure or discovery of electronically stored information;

(iv) include any agreements the parties reach for asserting claims of privilege or of protection as trial-preparation material after
information is produced, including
agreements reached under Federal
Rule of Evidence 502;

**direct that before moving for an**

**order relating to discovery, the**

**movant must request a conference**

**with the court;**

**set dates for pretrial conferences and**

**for trial; and**

**include other appropriate matters.**

* * * * *

**Committee Note**

The provision for consulting at a scheduling conference by “telephone, mail, or other means” is deleted. A scheduling conference is more effective if the court and parties engage in direct simultaneous communication. The conference may be held in person, by telephone, or by more sophisticated electronic means.
The time to issue the scheduling order is reduced to the earlier of 90 days (not 120 days) after any defendant has been served, or 60 days (not 90 days) after any defendant has appeared. This change, together with the shortened time for making service under Rule 4(m), will reduce delay at the beginning of litigation. At the same time, a new provision recognizes that the court may find good cause to extend the time to issue the scheduling order. In some cases it may be that the parties cannot prepare adequately for a meaningful Rule 26(f) conference and then a scheduling conference in the time allowed. Litigation involving complex issues, multiple parties, and large organizations, public or private, may be more likely to need extra time to establish meaningful collaboration between counsel and the people who can supply the information needed to participate in a useful way. Because the time for the Rule 26(f) conference is geared to the time for the scheduling conference or order, an order extending the time for the scheduling conference will also extend the time for the Rule 26(f) conference. But in most cases it will be desirable to hold at least a first scheduling conference in the time set by the rule.

Three items are added to the list of permitted contents in Rule 16(b)(3)(B).

The order may provide for preservation of electronically stored information, a topic also added to the provisions of a discovery plan under Rule 26(f)(3)(C). Parallel amendments of Rule 37(e) recognize that a duty to preserve discoverable information may arise before an action is filed.
The order also may include agreements incorporated in a court order under Evidence Rule 502 controlling the effects of disclosure of information covered by attorney-client privilege or work-product protection, a topic also added to the provisions of a discovery plan under Rule 26(f)(3)(D).

Finally, the order may direct that before filing a motion for an order relating to discovery the movant must request a conference with the court. Many judges who hold such conferences find them an efficient way to resolve most discovery disputes without the delay and burdens attending a formal motion, but the decision whether to require such conferences is left to the discretion of the judge in each case.
Rule 26. Duty to Disclose; General Provisions; Governing Discovery

* * * * *

(b) Discovery Scope and Limits.

(1) Scope in General. Unless otherwise limited by court order, the scope of discovery is as follows: Parties may obtain discovery regarding any nonprivileged matter that is relevant to any party’s claim or defense and proportional to the needs of the case, considering the importance of the issues at stake in the action, the amount in controversy, the parties’ relative access to relevant information, the parties’ resources, the importance of the discovery in resolving the issues, and whether the burden or expense of the proposed discovery outweighs its likely benefit. Information within this scope of discovery need
not be admissible in evidence to be discoverable.

—including the existence, description, nature, custody, condition, and location of any documents or other tangible things and the identity and location of persons who know of any discoverable matter. For good cause, the court may order discovery of any matter relevant to the subject matter involved in the action. Relevant information need not be admissible at the trial if the discovery appears reasonably calculated to lead to the discovery of admissible evidence. All discovery is subject to the limitations imposed by Rule 26(b)(2)(C).

(2) Limitations on Frequency and Extent.

* * * * *
(C) When Required. On motion or on its own, the court must limit the frequency or extent of discovery otherwise allowed by these rules or by local rule if it determines that:

* * * * *

(iii) the burden or expense of the proposed discovery is outside the scope permitted by Rule 26(b)(1) outweighs its likely benefit, considering the needs of the case, the amount in controversy, the parties' resources, the importance of the issues at stake in the action, and the importance of the discovery in resolving the issues.

* * * * *
(c) Protective Orders.

(1) In General. A party or any person from whom discovery is sought may move for a protective order in the court where the action is pending — or as an alternative on matters relating to a deposition, in the court for the district where the deposition will be taken. The motion must include a certification that the movant has in good faith conferred or attempted to confer with other affected parties in an effort to resolve the dispute without court action. The court may, for good cause, issue an order to protect a party or person from annoyance, embarrassment, oppression, or undue burden or expense, including one or more of the following:

* * * * *
specifying terms, including time and place or the allocation of expenses, for the disclosure or discovery;

* * * * *

(d) Timing and Sequence of Discovery.

* * * * *

(2) Early Rule 34 Requests.

(A) Time to Deliver. More than 21 days after the summons and complaint are served on a party, a request under Rule 34 may be delivered:

(i) to that party by any other party, and

(ii) by that party to any plaintiff or to any other party that has been served.
(B) When Considered Served. The request is considered to have been served at the first Rule 26(f) conference.

(23) Sequence. Unless, on motion, the parties stipulate or the court orders otherwise for the parties’ and witnesses’ convenience and in the interests of justice:

(A) methods of discovery may be used in any sequence; and

(B) discovery by one party does not require any other party to delay its discovery.

* * * * *

(f) Conference of the Parties; Planning for Discovery.

* * * * *

(3) Discovery Plan. A discovery plan must state the parties’ views and proposals on:
(C) any issues about disclosure, or discovery, or preservation of electronically stored information, including the form or forms in which it should be produced;

(D) any issues about claims of privilege or of protection as trial-preparation materials, including — if the parties agree on a procedure to assert these claims after production — whether to ask the court to include their agreement in an order under Federal Rule of Evidence 502;

Committee Note

Rule 26(b)(1) is changed in several ways.
Information is discoverable under revised Rule 26(b)(1) if it is relevant to any party’s claim or defense and is proportional to the needs of the case. The considerations that bear on proportionality are moved from present Rule 26(b)(2)(C)(iii), slightly rearranged and with one addition.

Most of what now appears in Rule 26(b)(2)(C)(iii) was first adopted in 1983. The 1983 provision was explicitly adopted as part of the scope of discovery defined by Rule 26(b)(1). Rule 26(b)(1) directed the court to limit the frequency or extent of use of discovery if it determined that “the discovery is unduly burdensome or expensive, taking into account the needs of the case, the amount in controversy, limitations on the parties’ resources, and the importance of the issues at stake in the litigation.” At the same time, Rule 26(g) was added. Rule 26(g) provided that signing a discovery request, response, or objection certified that the request, response, or objection was “not unreasonable or unduly burdensome or expensive, given the needs of the case, the discovery already had in the case, the amount in controversy, and the importance of the issues at stake in the litigation.” The parties thus shared the responsibility to honor these limits on the scope of discovery.

The 1983 Committee Note stated that the new provisions were added “to deal with the problem of over-discovery. The objective is to guard against redundant or disproportionate discovery by giving the court authority to reduce the amount of discovery that may be directed to matters that are otherwise proper subjects of inquiry. The
new sentence is intended to encourage judges to be more aggressive in identifying and discouraging discovery overuse. The grounds mentioned in the amended rule for limiting discovery reflect the existing practice of many courts in issuing protective orders under Rule 26(c). . . . On the whole, however, district judges have been reluctant to limit the use of the discovery devices.”

The clear focus of the 1983 provisions may have been softened, although inadvertently, by the amendments made in 1993. The 1993 Committee Note explained: “[F]ormer paragraph (b)(1) [was] subdivided into two paragraphs for ease of reference and to avoid renumbering of paragraphs (3) and (4).” Subdividing the paragraphs, however, was done in a way that could be read to separate the proportionality provisions as “limitations,” no longer an integral part of the (b)(1) scope provisions. That appearance was immediately offset by the next statement in the Note: “Textual changes are then made in new paragraph (2) to enable the court to keep tighter rein on the extent of discovery.”

The 1993 amendments added two factors to the considerations that bear on limiting discovery: whether “the burden or expense of the proposed discovery outweighs its likely benefit,” and “the importance of the proposed discovery in resolving the issues.” Addressing these and other limitations added by the 1993 discovery amendments, the Committee Note stated that “[t]he revisions in Rule 26(b)(2) are intended to provide the court with broader discretion to impose additional restrictions on the scope and extent of discovery . . . .”
The relationship between Rule 26(b)(1) and (2) was further addressed by an amendment made in 2000 that added a new sentence at the end of (b)(1): “All discovery is subject to the limitations imposed by Rule 26(b)(2)(i), (ii), and (iii) [now Rule 26(b)(2)(C)].” The Committee Note recognized that “[t]hese limitations apply to discovery that is otherwise within the scope of subdivision (b)(1).” It explained that the Committee had been told repeatedly that courts were not using these limitations as originally intended. “This otherwise redundant cross-reference has been added to emphasize the need for active judicial use of subdivision (b)(2) to control excessive discovery.”

The present amendment restores the proportionality factors to their original place in defining the scope of discovery. This change reinforces the Rule 26(g) obligation of the parties to consider these factors in making discovery requests, responses, or objections.

Restoring the proportionality calculation to Rule 26(b)(1) does not change the existing responsibilities of the court and the parties to consider proportionality, and the change does not place on the party seeking discovery the burden of addressing all proportionality considerations.

Nor is the change intended to permit the opposing party to refuse discovery simply by making a boilerplate objection that it is not proportional. The parties and the court have a collective responsibility to consider the proportionality of all discovery and consider it in resolving discovery disputes.
The parties may begin discovery without a full appreciation of the factors that bear on proportionality. A party requesting discovery, for example, may have little information about the burden or expense of responding. A party requested to provide discovery may have little information about the importance of the discovery in resolving the issues as understood by the requesting party. Many of these uncertainties should be addressed and reduced in the parties’ Rule 26(f) conference and in scheduling and pretrial conferences with the court. But if the parties continue to disagree, the discovery dispute could be brought before the court and the parties’ responsibilities would remain as they have been since 1983. A party claiming undue burden or expense ordinarily has far better information — perhaps the only information — with respect to that part of the determination. A party claiming that a request is important to resolve the issues should be able to explain the ways in which the underlying information bears on the issues as that party understands them. The court’s responsibility, using all the information provided by the parties, is to consider these and all the other factors in reaching a case-specific determination of the appropriate scope of discovery.

The direction to consider the parties’ relative access to relevant information adds new text to provide explicit focus on considerations already implicit in present Rule 26(b)(2)(C)(iii). Some cases involve what often is called “information asymmetry.” One party — often an individual plaintiff — may have very little discoverable information. The other party may have vast amounts of information, including information that can be readily
retrieved and information that is more difficult to retrieve. In practice these circumstances often mean that the burden of responding to discovery lies heavier on the party who has more information, and properly so.

Restoring proportionality as an express component of the scope of discovery warrants repetition of parts of the 1983 and 1993 Committee Notes that must not be lost from sight. The 1983 Committee Note explained that “[t]he rule contemplates greater judicial involvement in the discovery process and thus acknowledges the reality that it cannot always operate on a self-regulating basis.” The 1993 Committee Note further observed that “[t]he information explosion of recent decades has greatly increased both the potential cost of wide-ranging discovery and the potential for discovery to be used as an instrument for delay or oppression.” What seemed an explosion in 1993 has been exacerbated by the advent of e-discovery. The present amendment again reflects the need for continuing and close judicial involvement in the cases that do not yield readily to the ideal of effective party management. It is expected that discovery will be effectively managed by the parties in many cases. But there will be important occasions for judicial management, both when the parties are legitimately unable to resolve important differences and when the parties fall short of effective, cooperative management on their own.

It also is important to repeat the caution that the monetary stakes are only one factor, to be balanced against other factors. The 1983 Committee Note recognized “the significance of the substantive issues, as measured in
philosophic, social, or institutional terms. Thus the rule recognizes that many cases in public policy spheres, such as employment practices, free speech, and other matters, may have importance far beyond the monetary amount involved.” Many other substantive areas also may involve litigation that seeks relatively small amounts of money, or no money at all, but that seeks to vindicate vitally important personal or public values.

So too, consideration of the parties’ resources does not foreclose discovery requests addressed to an impecunious party, nor justify unlimited discovery requests addressed to a wealthy party. The 1983 Committee Note cautioned that “[t]he court must apply the standards in an even-handed manner that will prevent use of discovery to wage a war of attrition or as a device to coerce a party, whether financially weak or affluent.”

The burden or expense of proposed discovery should be determined in a realistic way. This includes the burden or expense of producing electronically stored information. Computer-based methods of searching such information continue to develop, particularly for cases involving large volumes of electronically stored information. Courts and parties should be willing to consider the opportunities for reducing the burden or expense of discovery as reliable means of searching electronically stored information become available.

A portion of present Rule 26(b)(1) is omitted from the proposed revision. After allowing discovery of any matter relevant to any party’s claim or defense, the present rule
adds: “including the existence, description, nature, custody, condition, and location of any documents or other tangible things and the identity and location of persons who know of any discoverable matter.” Discovery of such matters is so deeply entrenched in practice that it is no longer necessary to clutter the long text of Rule 26 with these examples. The discovery identified in these examples should still be permitted under the revised rule when relevant and proportional to the needs of the case. Framing intelligent requests for electronically stored information, for example, may require detailed information about another party’s information systems and other information resources.

The amendment deletes the former provision authorizing the court, for good cause, to order discovery of any matter relevant to the subject matter involved in the action. The Committee has been informed that this language is rarely invoked. Proportional discovery relevant to any party’s claim or defense suffices, given a proper understanding of what is relevant to a claim or defense. The distinction between matter relevant to a claim or defense and matter relevant to the subject matter was introduced in 2000. The 2000 Note offered three examples of information that, suitably focused, would be relevant to the parties’ claims or defenses. The examples were “other incidents of the same type, or involving the same product”; “information about organizational arrangements or filing systems”; and “information that could be used to impeach a likely witness.” Such discovery is not foreclosed by the amendments. Discovery that is relevant to the parties’ claims or defenses may also support amendment of the
pleadings to add a new claim or defense that affects the scope of discovery.

The former provision for discovery of relevant but inadmissible information that appears “reasonably calculated to lead to the discovery of admissible evidence” is also deleted. The phrase has been used by some, incorrectly, to define the scope of discovery. As the Committee Note to the 2000 amendments observed, use of the “reasonably calculated” phrase to define the scope of discovery “might swallow any other limitation on the scope of discovery.” The 2000 amendments sought to prevent such misuse by adding the word “Relevant” at the beginning of the sentence, making clear that “‘relevant’ means within the scope of discovery as defined in this subdivision . . . .” The “reasonably calculated” phrase has continued to create problems, however, and is removed by these amendments. It is replaced by the direct statement that “Information within this scope of discovery need not be admissible in evidence to be discoverable.” Discovery of nonprivileged information not admissible in evidence remains available so long as it is otherwise within the scope of discovery.

Rule 26(b)(2)(C)(iii) is amended to reflect the transfer of the considerations that bear on proportionality to Rule 26(b)(1). The court still must limit the frequency or extent of proposed discovery, on motion or on its own, if it is outside the scope permitted by Rule 26(b)(1).

Rule 26(c)(1)(B) is amended to include an express recognition of protective orders that allocate expenses for
disclosure or discovery. Authority to enter such orders is included in the present rule, and courts already exercise this authority. Explicit recognition will forestall the temptation some parties may feel to contest this authority. Recognizing the authority does not imply that cost-shifting should become a common practice. Courts and parties should continue to assume that a responding party ordinarily bears the costs of responding.

Rule 26(d)(2) is added to allow a party to deliver Rule 34 requests to another party more than 21 days after that party has been served even though the parties have not yet had a required Rule 26(f) conference. Delivery may be made by any party to the party that has been served, and by that party to any plaintiff and any other party that has been served. Delivery does not count as service; the requests are considered to be served at the first Rule 26(f) conference. Under Rule 34(b)(2)(A) the time to respond runs from service. This relaxation of the discovery moratorium is designed to facilitate focused discussion during the Rule 26(f) conference. Discussion at the conference may produce changes in the requests. The opportunity for advance scrutiny of requests delivered before the Rule 26(f) conference should not affect a decision whether to allow additional time to respond.

Rule 26(d)(3) is renumbered and amended to recognize that the parties may stipulate to case-specific sequences of discovery.

Rule 26(f)(3) is amended in parallel with Rule 16(b)(3) to add two items to the discovery plan —
issues about preserving electronically stored information and court orders under Evidence Rule 502.
Chapter 3—How Technology Is Changing Litigation

FEDERAL RULES OF CIVIL PROCEDURE

Rule 30. Depositions by Oral Examination

(a) When a Deposition May Be Taken.

(2) With Leave. A party must obtain leave of court, and the court must grant leave to the extent consistent with Rule 26(b)(1) and (2):

(d) Duration; Sanction; Motion to Terminate or Limit.

(1) Duration. Unless otherwise stipulated or ordered by the court, a deposition is limited to one day of 7 hours. The court must allow additional time consistent with Rule 26(b)(1) and (2) if needed to fairly examine the deponent or if the deponent, another person, or any other circumstance impedes or delays the examination.
Committee Note

Rule 30 is amended in parallel with Rules 31 and 33 to reflect the recognition of proportionality in Rule 26(b)(1).
**Rule 31. Depositions by Written Questions**

(a) *When a Deposition May Be Taken.*

(2) *With Leave.* A party must obtain leave of court, and the court must grant leave to the extent consistent with Rule 26(b)(1) and (2):

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**Committee Note**

Rule 31 is amended in parallel with Rules 30 and 33 to reflect the recognition of proportionality in Rule 26(b)(1).
Rule 33. Interrogatories to Parties

(a) In General.

(1) Number. Unless otherwise stipulated or ordered by the court, a party may serve on any other party no more than 25 written interrogatories, including all discrete subparts. Leave to serve additional interrogatories may be granted to the extent consistent with Rule 26(b)(1) and (2).

* * * * *

Committee Note

Rule 33 is amended in parallel with Rules 30 and 31 to reflect the recognition of proportionality in Rule 26(b)(1).
Rule 34. Producing Documents, Electronically Stored Information, and Tangible Things, or Entering onto Land, for Inspection and Other Purposes

(b) Procedure.

(2) Responses and Objections.

(A) Time to Respond. The party to whom the request is directed must respond in writing within 30 days after being served or — if the request was delivered under Rule 26(d)(2) — within 30 days after the parties’ first Rule 26(f) conference. A shorter or longer time may be stipulated to under Rule 29 or be ordered by the court.

(B) Responding to Each Item. For each item or category, the response must either state that
inspection and related activities will be permitted as requested or state an objection with specificity the grounds for objecting to the request, including the reasons. The responding party may state that it will produce copies of documents or of electronically stored information instead of permitting inspection. The production must then be completed no later than the time for inspection specified in the request or another reasonable time specified in the response.

(C) Objections. An objection must state whether any responsive materials are being withheld on the basis of that objection. An
objection to part of a request must specify
the part and permit inspection of the rest.

* * * *

Committee Note

Several amendments are made in Rule 34, aimed at
reducing the potential to impose unreasonable burdens by
objections to requests to produce.

Rule 34(b)(2)(A) is amended to fit with new
Rule 26(d)(2). The time to respond to a Rule 34 request
delivered before the parties’ Rule 26(f) conference is 30
days after the first Rule 26(f) conference.

Rule 34(b)(2)(B) is amended to require that objections
to Rule 34 requests be stated with specificity. This
provision adopts the language of Rule 33(b)(4), eliminating
any doubt that less specific objections might be suitable
under Rule 34. The specificity of the objection ties to the
new provision in Rule 34(b)(2)(C) directing that an
objection must state whether any responsive materials are
being withheld on the basis of that objection. An objection
may state that a request is overbroad, but if the objection
recognizes that some part of the request is appropriate the
objection should state the scope that is not overbroad.
Examples would be a statement that the responding party
will limit the search to documents or electronically stored
information created within a given period of time prior to
the events in suit, or to specified sources. When there is such an objection, the statement of what has been withheld can properly identify as matters “withheld” anything beyond the scope of the search specified in the objection.

Rule 34(b)(2)(B) is further amended to reflect the common practice of producing copies of documents or electronically stored information rather than simply permitting inspection. The response to the request must state that copies will be produced. The production must be completed either by the time for inspection specified in the request or by another reasonable time specifically identified in the response. When it is necessary to make the production in stages the response should specify the beginning and end dates of the production.

Rule 34(b)(2)(C) is amended to provide that an objection to a Rule 34 request must state whether anything is being withheld on the basis of the objection. This amendment should end the confusion that frequently arises when a producing party states several objections and still produces information, leaving the requesting party uncertain whether any relevant and responsive information has been withheld on the basis of the objections. The producing party does not need to provide a detailed description or log of all documents withheld, but does need to alert other parties to the fact that documents have been withheld and thereby facilitate an informed discussion of the objection. An objection that states the limits that have controlled the search for responsive and relevant materials qualifies as a statement that the materials have been “withheld.”
FEDERAL RULES OF CIVIL PROCEDURE

Rule 37. Failure to Make Disclosures or to Cooperate in Discovery; Sanctions

(a) Motion for an Order Compelling Disclosure or Discovery.

* * * * *

(3) Specific Motions.

* * * * *

(B) To Compel a Discovery Response. A party seeking discovery may move for an order compelling an answer, designation, production, or inspection. This motion may be made if:

* * * * *

(iv) a party fails to produce documents or fails to respond that inspection will be permitted — or fails to permit
inspection — as requested under Rule 34.

* * * * *

(e) Failure to Preserve Electronically Stored Information. Absent exceptional circumstances, a court may not impose sanctions under these rules on a party for failing to provide electronically stored information lost as a result of the routine, good-faith operation of an electronic information system. If electronically stored information that should have been preserved in the anticipation or conduct of litigation is lost because a party failed to take reasonable steps to preserve it, and it cannot be restored or replaced through additional discovery, the court:
upon finding prejudice to another party from loss of the information, may order measures no greater than necessary to cure the prejudice; or

(2) only upon finding that the party acted with the intent to deprive another party of the information’s use in the litigation may:

(A) presume that the lost information was unfavorable to the party;

(B) instruct the jury that it may or must presume the information was unfavorable to the party; or

(C) dismiss the action or enter a default judgment.

* * * * *
Committee Note

Subdivision (a). Rule 37(a)(3)(B)(iv) is amended to reflect the common practice of producing copies of documents or electronically stored information rather than simply permitting inspection. This change brings item (iv) into line with paragraph (B), which provides a motion for an order compelling "production, or inspection."

Subdivision (e). Present Rule 37(e), adopted in 2006, provides: “Absent exceptional circumstances, a court may not impose sanctions under these rules on a party for failing to provide electronically stored information lost as a result of the routine, good-faith operation of an electronic information system.” This limited rule has not adequately addressed the serious problems resulting from the continued exponential growth in the volume of such information. Federal circuits have established significantly different standards for imposing sanctions or curative measures on parties who fail to preserve electronically stored information. These developments have caused litigants to expend excessive effort and money on preservation in order to avoid the risk of severe sanctions if a court finds they did not do enough.

New Rule 37(e) replaces the 2006 rule. It authorizes and specifies measures a court may employ if information that should have been preserved is lost, and specifies the findings necessary to justify these measures. It therefore forecloses reliance on inherent authority or state law to determine when certain measures should be used. The rule does not affect the validity of an independent tort claim for
spoliation if state law applies in a case and authorizes the claim.

The new rule applies only to electronically stored information, also the focus of the 2006 rule. It applies only when such information is lost. Because electronically stored information often exists in multiple locations, loss from one source may often be harmless when substitute information can be found elsewhere.

The new rule applies only if the lost information should have been preserved in the anticipation or conduct of litigation and the party failed to take reasonable steps to preserve it. Many court decisions hold that potential litigants have a duty to preserve relevant information when litigation is reasonably foreseeable. Rule 37(e) is based on this common-law duty; it does not attempt to create a new duty to preserve. The rule does not apply when information is lost before a duty to preserve arises.

In applying the rule, a court may need to decide whether and when a duty to preserve arose. Courts should consider the extent to which a party was on notice that litigation was likely and that the information would be relevant. A variety of events may alert a party to the prospect of litigation. Often these events provide only limited information about that prospective litigation, however, so that the scope of information that should be preserved may remain uncertain. It is important not to be blinded to this reality by hindsight arising from familiarity with an action as it is actually filed.
Although the rule focuses on the common-law obligation to preserve in the anticipation or conduct of litigation, courts may sometimes consider whether there was an independent requirement that the lost information be preserved. Such requirements arise from many sources — statutes, administrative regulations, an order in another case, or a party’s own information-retention protocols. The court should be sensitive, however, to the fact that such independent preservation requirements may be addressed to a wide variety of concerns unrelated to the current litigation. The fact that a party had an independent obligation to preserve information does not necessarily mean that it had such a duty with respect to the litigation, and the fact that the party failed to observe some other preservation obligation does not itself prove that its efforts to preserve were not reasonable with respect to a particular case.

The duty to preserve may in some instances be triggered or clarified by a court order in the case. Preservation orders may become more common, in part because Rules 16(b)(3)(B)(iii) and 26(f)(3)(C) are amended to encourage discovery plans and orders that address preservation. Once litigation has commenced, if the parties cannot reach agreement about preservation issues, promptly seeking judicial guidance about the extent of reasonable preservation may be important.

The rule applies only if the information was lost because the party failed to take reasonable steps to preserve the information. Due to the ever-increasing volume of electronically stored information and the multitude of
devices that generate such information, perfection in preserving all relevant electronically stored information is often impossible. As under the current rule, the routine, good-faith operation of an electronic information system would be a relevant factor for the court to consider in evaluating whether a party failed to take reasonable steps to preserve lost information, although the prospect of litigation may call for reasonable steps to preserve information by intervening in that routine operation. This rule recognizes that “reasonable steps” to preserve suffice; it does not call for perfection. The court should be sensitive to the party’s sophistication with regard to litigation in evaluating preservation efforts; some litigants, particularly individual litigants, may be less familiar with preservation obligations than others who have considerable experience in litigation.

Because the rule calls only for reasonable steps to preserve, it is inapplicable when the loss of information occurs despite the party’s reasonable steps to preserve. For example, the information may not be in the party’s control. Or information the party has preserved may be destroyed by events outside the party’s control — the computer room may be flooded, a “cloud” service may fail, a malign software attack may disrupt a storage system, and so on. Courts may, however, need to assess the extent to which a party knew of and protected against such risks.

Another factor in evaluating the reasonableness of preservation efforts is proportionality. The court should be sensitive to party resources; aggressive preservation efforts can be extremely costly, and parties (including
governmental parties) may have limited staff and resources to devote to those efforts. A party may act reasonably by choosing a less costly form of information preservation, if it is substantially as effective as more costly forms. It is important that counsel become familiar with their clients’ information systems and digital data — including social media — to address these issues. A party urging that preservation requests are disproportionate may need to provide specifics about these matters in order to enable meaningful discussion of the appropriate preservation regime.

When a party fails to take reasonable steps to preserve electronically stored information that should have been preserved in the anticipation or conduct of litigation, and the information is lost as a result, Rule 37(e) directs that the initial focus should be on whether the lost information can be restored or replaced through additional discovery. Nothing in the rule limits the court’s powers under Rules 16 and 26 to authorize additional discovery. Orders under Rule 26(b)(2)(B) regarding discovery from sources that would ordinarily be considered inaccessible or under Rule 26(c)(1)(B) on allocation of expenses may be pertinent to solving such problems. If the information is restored or replaced, no further measures should be taken. At the same time, it is important to emphasize that efforts to restore or replace lost information through discovery should be proportional to the apparent importance of the lost information to claims or defenses in the litigation. For example, substantial measures should not be employed to restore or replace information that is marginally relevant or duplicative.
Subdivision (e)(1). This subdivision applies only if information should have been preserved in the anticipation or conduct of litigation, a party failed to take reasonable steps to preserve the information, information was lost as a result, and the information could not be restored or replaced by additional discovery. In addition, a court may resort to (e)(1) measures only “upon finding prejudice to another party from loss of the information.” An evaluation of prejudice from the loss of information necessarily includes an evaluation of the information’s importance in the litigation.

The rule does not place a burden of proving or disproving prejudice on one party or the other. Determining the content of lost information may be a difficult task in some cases, and placing the burden of proving prejudice on the party that did not lose the information may be unfair. In other situations, however, the content of the lost information may be fairly evident, the information may appear to be unimportant, or the abundance of preserved information may appear sufficient to meet the needs of all parties. Requiring the party seeking curative measures to prove prejudice may be reasonable in such situations. The rule leaves judges with discretion to determine how best to assess prejudice in particular cases.

Once a finding of prejudice is made, the court is authorized to employ measures “no greater than necessary to cure the prejudice.” The range of such measures is quite broad if they are necessary for this purpose. There is no all-purpose hierarchy of the severity of various measures;
the severity of given measures must be calibrated in terms of their effect on the particular case. But authority to order measures no greater than necessary to cure prejudice does not require the court to adopt measures to cure every possible prejudicial effect. Much is entrusted to the court’s discretion.

In an appropriate case, it may be that serious measures are necessary to cure prejudice found by the court, such as forbidding the party that failed to preserve information from putting on certain evidence, permitting the parties to present evidence and argument to the jury regarding the loss of information, or giving the jury instructions to assist in its evaluation of such evidence or argument, other than instructions to which subdivision (e)(2) applies. Care must be taken, however, to ensure that curative measures under subdivision (e)(1) do not have the effect of measures that are permitted under subdivision (e)(2) only on a finding of intent to deprive another party of the lost information’s use in the litigation. An example of an inappropriate (e)(1) measure might be an order striking pleadings related to, or precluding a party from offering any evidence in support of, the central or only claim or defense in the case. On the other hand, it may be appropriate to exclude a specific item of evidence to offset prejudice caused by failure to preserve other evidence that might contradict the excluded item of evidence.

**Subdivision (e)(2).** This subdivision authorizes courts to use specified and very severe measures to address or deter failures to preserve electronically stored information, but only on finding that the party that lost the
information acted with the intent to deprive another party of the information’s use in the litigation. It is designed to provide a uniform standard in federal court for use of these serious measures when addressing failure to preserve electronically stored information. It rejects cases such as Residential Funding Corp. v. DeGeorge Financial Corp., 306 F.3d 99 (2d Cir. 2002), that authorize the giving of adverse-inference instructions on a finding of negligence or gross negligence.

Adverse-inference instructions were developed on the premise that a party’s intentional loss or destruction of evidence to prevent its use in litigation gives rise to a reasonable inference that the evidence was unfavorable to the party responsible for loss or destruction of the evidence. Negligent or even grossly negligent behavior does not logically support that inference. Information lost through negligence may have been favorable to either party, including the party that lost it, and inferring that it was unfavorable to that party may tip the balance at trial in ways the lost information never would have. The better rule for the negligent or grossly negligent loss of electronically stored information is to preserve a broad range of measures to cure prejudice caused by its loss, but to limit the most severe measures to instances of intentional loss or destruction.

Similar reasons apply to limiting the court’s authority to presume or infer that the lost information was unfavorable to the party who lost it when ruling on a pretrial motion or presiding at a bench trial. Subdivision (e)(2) limits the ability of courts to draw
adverse inferences based on the loss of information in these circumstances, permitting them only when a court finds that the information was lost with the intent to prevent its use in litigation.

Subdivision (e)(2) applies to jury instructions that permit or require the jury to presume or infer that lost information was unfavorable to the party that lost it. Thus, it covers any instruction that directs or permits the jury to infer from the loss of information that it was in fact unfavorable to the party that lost it. The subdivision does not apply to jury instructions that do not involve such an inference. For example, subdivision (e)(2) would not prohibit a court from allowing the parties to present evidence to the jury concerning the loss and likely relevance of information and instructing the jury that it may consider that evidence, along with all the other evidence in the case, in making its decision. These measures, which would not involve instructing a jury it may draw an adverse inference from loss of information, would be available under subdivision (e)(1) if no greater than necessary to cure prejudice. In addition, subdivision (e)(2) does not limit the discretion of courts to give traditional missing evidence instructions based on a party’s failure to present evidence it has in its possession at the time of trial.

Subdivision (e)(2) requires a finding that the party acted with the intent to deprive another party of the information’s use in the litigation. This finding may be made by the court when ruling on a pretrial motion, when presiding at a bench trial, or when deciding whether to give an adverse inference instruction at trial. If a court were to
conclude that the intent finding should be made by a jury, the court’s instruction should make clear that the jury may infer from the loss of the information that it was unfavorable to the party that lost it only if the jury first finds that the party acted with the intent to deprive another party of the information’s use in the litigation. If the jury does not make this finding, it may not infer from the loss that the information was unfavorable to the party that lost it.

Subdivision (e)(2) does not include a requirement that the court find prejudice to the party deprived of the information. This is because the finding of intent required by the subdivision can support not only an inference that the lost information was unfavorable to the party that intentionally destroyed it, but also an inference that the opposing party was prejudiced by the loss of information that would have favored its position. Subdivision (e)(2) does not require any further finding of prejudice.

Courts should exercise caution, however, in using the measures specified in (e)(2). Finding an intent to deprive another party of the lost information’s use in the litigation does not require a court to adopt any of the measures listed in subdivision (e)(2). The remedy should fit the wrong, and the severe measures authorized by this subdivision should not be used when the information lost was relatively unimportant or lesser measures such as those specified in subdivision (e)(1) would be sufficient to redress the loss.
48 FEDERAL RULES OF CIVIL PROCEDURE

1 Rule 55. Default; Default Judgment

2 * * * * *

3 (c) Setting Aside a Default or a Default Judgment.

4 The court may set aside an entry of default for good cause, and it may set aside a final default judgment under Rule 60(b).

5 * * * * *

Committee Note

Rule 55(c) is amended to make plain the interplay between Rules 54(b), 55(c), and 60(b). A default judgment that does not dispose of all of the claims among all parties is not a final judgment unless the court directs entry of final judgment under Rule 54(b). Until final judgment is entered, Rule 54(b) allows revision of the default judgment at any time. The demanding standards set by Rule 60(b) apply only in seeking relief from a final judgment.
FEDERAL RULES OF CIVIL PROCEDURE

1 Rule 84. Forms

2 [Abrogated (Apr. __, 2015, eff. Dec. 1, 2015).]

3 The forms in the Appendix suffice under these rules and illustrate the simplicity and brevity that these rules contemplate.

Committee Note

Rule 84 was adopted when the Civil Rules were established in 1938 “to indicate, subject to the provisions of these rules, the simplicity and brevity of statement which the rules contemplate.” The purpose of providing illustrations for the rules, although useful when the rules were adopted, has been fulfilled. Accordingly, recognizing that there are many excellent alternative sources for forms, including the Administrative Office of the United States Courts, Rule 84 and the Appendix of Forms are no longer necessary and have been abrogated.
APPENDIX OF FORMS

[Abrogated (Apr. __, 2015, eff. Dec. 1, 2015).]
Rule 4. Summons

(d) Waiving Service.

(1) Requesting a Waiver. An individual, corporation, or association that is subject to service under Rule 4(e), (f), or (h) has a duty to avoid unnecessary expenses of serving the summons. The plaintiff may notify such a defendant that an action has been commenced and request that the defendant waive service of a summons. The notice and request must:

(C) be accompanied by a copy of the complaint, 2 copies of the waiver form appended to this Rule 4, and a prepaid means for returning the form;
inform the defendant, using text prescribed

in Form 5, the form appended to this Rule 4,

of the consequences of waiving and not

waiving service;

* * * *

Rule 4 Notice of a Lawsuit and Request to Waive
Service of Summons.

(Caption)

To (name the defendant or — if the defendant is a
corporation, partnership, or association — name an officer
or agent authorized to receive service):

Why are you getting this?

A lawsuit has been filed against you, or the entity you
represent, in this court under the number shown above. A
copy of the complaint is attached.

This is not a summons, or an official notice from the
court. It is a request that, to avoid expenses, you waive
formal service of a summons by signing and returning the
enclosed waiver. To avoid these expenses, you must return
the signed waiver within (give at least 30 days or at least
60 days if the defendant is outside any judicial district of
the United States) from the date shown below, which is the
date this notice was sent. Two copies of the waiver form
are enclosed, along with a stamped, self-addressed
envelope or other prepaid means for returning one copy.
You may keep the other copy.

**What happens next?**

If you return the signed waiver, I will file it with the
court. The action will then proceed as if you had been
served on the date the waiver is filed, but no summons will
be served on you and you will have 60 days from the date
this notice is sent (see the date below) to answer the
complaint (or 90 days if this notice is sent to you outside
any judicial district of the United States).

If you do not return the signed waiver within the time
indicated, I will arrange to have the summons and
complaint served on you. And I will ask the court to
require you, or the entity you represent, to pay the expenses
of making service.

Please read the enclosed statement about the duty to
avoid unnecessary expenses.

I certify that this request is being sent to you on the
date below.

**Date:**

___________________________
(Signature of the attorney
or unrepresented party)
Rule 4 Waiver of the Service of Summons.

To (name the plaintiff's attorney or the unrepresented plaintiff):

I have received your request to waive service of a summons in this action along with a copy of the complaint, two copies of this waiver form, and a prepaid means of returning one signed copy of the form to you.

I, or the entity I represent, agree to save the expense of serving a summons and complaint in this case.

I understand that I, or the entity I represent, will keep all defenses or objections to the lawsuit, the court’s jurisdiction, and the venue of the action, but that I waive any objections to the absence of a summons or of service.
I also understand that I, or the entity I represent, must file and serve an answer or a motion under Rule 12 within 60 days from ______________, the date when this request was sent (or 90 days if it was sent outside the United States). If I fail to do so, a default judgment will be entered against me or the entity I represent.

Date: ______________

(Signature of the attorney or unrepresented party)

(Printed name)

(Address)

(E-mail address)

(Telephone number)

(Attach the following)
Duty to Avoid Unnecessary Expenses of Serving a Summons

Rule 4 of the Federal Rules of Civil Procedure requires certain defendants to cooperate in saving unnecessary expenses of serving a summons and complaint. A defendant who is located in the United States and who fails to return a signed waiver of service requested by a plaintiff located in the United States will be required to pay the expenses of service, unless the defendant shows good cause for the failure.

“Good cause” does not include a belief that the lawsuit is groundless, or that it has been brought in an improper venue, or that the court has no jurisdiction over this matter or over the defendant or the defendant’s property.

If the waiver is signed and returned, you can still make these and all other defenses and objections, but you cannot object to the absence of a summons or of service.

If you waive service, then you must, within the time specified on the waiver form, serve an answer or a motion under Rule 12 on the plaintiff and file a copy with the court. By signing and returning the waiver form, you are allowed more time to respond than if a summons had been served.
Committee Note

Subdivision (d). Abrogation of Rule 84 and the other official forms requires that former Forms 5 and 6 be directly incorporated into Rule 4.
Chapter 4

Social Media and Attorney Ethics—Presentation Slides

Chris Dye
D+H
Portland, Oregon
The Typical Disclaimer

• I am only licensed in Washington and Oklahoma…
• The views expressed here are mine and not my employers…
• In no way do I consider myself an expert of any sort with regards to social media…
  • I don’t even have a Twitter account
  • I rarely check Facebook and never post anything
  • I have a LinkedIn profile for use only if I find myself without a job
  • I’ve never even seen the UI for Vine, Snapchat, Pinterest or whatever else is out there
  • I do however know how to Google things
Agenda

• Who Is Using Social Media and How?
• Competency – The Technology Conundrum
• Communications v. Advertisements – the Disclaimer Conundrum
• Responding To Poor Reviews – the Confidentiality Conundrum
• Clean Up Your (Social Media) Room! – the Spoliation Conundrum

But First – A Cautionary Tale...

• In the Matter of Cynthia E. Collie, Supreme Court of South Carolina, Appellate Case No. 2012-213164

• In 2011, the Supreme Court of South Carolina amended Rule 410(g) to require South Carolina attorneys to verify and keep current their contact information including “a mailing address, an e-mail address and a telephone number”.

• Ms. Collie notified the court that her office does not have access to the internet so she was unable to provide a working and valid email address.

• The Court ordered her to comply with the Rule and create a working email address.

• Six motions and 7 months later, the respondent stated via correspondence (probably not electronically…) – “I don’t have an email to use… So no, there’s no email… I don’t have an active email”.

• Ms. Collie refused to create an email account and was sanctioned.

• Moral of the Story – You thought you were afraid of technology
Who Is Using Social Media and How?

Some Data...

- In 1995, there were approximately 35 million internet users worldwide.
  - By 2014 that number hit 2.8 billion users (10% in the U.S.)
  - This represents almost a 39% increase in population penetration over that period
- In 2015, the average adult user spends 5.6 hours per day on the internet (computer, mobile and other)


- 47% of adults surveyed said they use a social networking site (SNS).
- In 2008, only 18% of internet users over the age of 35 used a SNS. In 2011 that number increased to 48%.
- Average age of adult SNS users went from 33 in 2008 to 38 in 2011.
- 31% of Facebook users users check Facebook “several times a day”, 21% check Facebook at least once a day.
- Over half of SNS users are accessing Facebook via mobile devices.
How People Shop

Figure 1: Consumers Trust Self-Selected Content More Than Push Communications

- Brand or product recommendations from friends and family: 61%
- Professionally written online reviews (e.g., CHET, consumer reports): 35%
- Consumer-written online reviews (e.g., Amazon): 38%
- Natural search results (e.g., Google, Bing): 43%
- Information on websites of companies or brands: 42%
- Sponsored search results (e.g., Google, Bing): 27%
- Emails from companies or brands: 19%
- Posts by companies or brands on social networking sites (e.g., Facebook, Twitter): 19%
- Information on mobile applications from companies or brands: 12%
- Ads on websites (e.g., banner): 10%
- Text messages from companies or brands: 8%

Base: 17,499 U.S. online adults ages 18+.
Base: 16,654 EU-7 online adults ages 16+.

Social Media Specifically

Age Distribution At The Top Social Networks

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</tbody>
</table>

Source: comScore
But Really, How Tech savvy Do You Need To Be?

- Rule 1.1 Competence – Revised in August 2012 (ABA 20/20 commission on ethics)

A lawyer shall provide competent representation to a client. Competent representation requires the legal knowledge, skill, thoroughness and preparation necessary for the representation.

Comment – Maintaining Competence

[6] To maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology, engage in continuing study and education and comply with all continuing legal education requirements to which the lawyer is subject.

- OR adopted the change effective January 1, 2014 and WA is currently studying the change.

- The most logical extension of this change gets to – “How secure is your client’s data?”
  - How do you store data?
  - Are you using a 3rd party to protect data? (See NY State Ethics Opinion 842)
Pennsylvania

  - Rule 1.1 similar to ABA Model Rule
  - Basic Guidance – in order to provide competent representation in accordance with rule 1.1, a lawyer should (1) have a basic knowledge of how social media websites work, and (2) advise clients about the issues that may arise as a result of their use of these websites.
    - Lawyers must be aware of how social media websites operate and the issues that they raise
    - Lawyers should also understand the manner in which postings are either public or private
    - Lawyers should advise clients about the content of their social media accounts, including:
      - Privacy issues
      - Clients obligations to preserve information that may be relevant to their legal disputes

New York

- NYSBA Social Media Ethics Guidelines of the Commercial and Federal Litigation Section of they NY State Bar Association - updated June 9, 2015
  - Rule 1.1 similar to ABA Model Rule
  - Guidance:
    - Lawyers need to be conversant with, at a minimum, the basics of each social media network that a lawyer or his or her client may use.
      - “This is a serious challenge that lawyers need to appreciate and cannot take lightly”.
    - Competence may require understanding the often lengthy and unclear terms of service and whether the platform raises ethical issues.
    - It also may require reviewing other materials, such as articles, comments, and blogs posted about how such social media platform actually functions.
What Does This Mean For Your Practice?

• Which sites should you become familiar with?
• Over 200 Social Networking sites worldwide
  • Most used as of Sept. 2014 (PEW Research Center)
    • 71% of online adults use Facebook
    • 23% use Twitter
    • 26% use Instagram
    • 28% use Pinterest
    • 28% use LinkedIn
• 8 sites in the U.S. alone with over 100 million active users

What Does This Mean For Your Practice?

• Will blanket, site-agnostic advice work?
• Can you make this a part of the normal client on-boarding process?
• Will some types of representation present unique challenges that need to be addressed?
• Are you reading through client’s social media sites before a discovery request is issued? Or before responding?
• If you are fulfilling a discovery request, without looking at the account yourself, can you be certain of accurate compliance with the discovery request?
• How deep into the social media world is deep enough?
Communications v. Advertisements – the Disclaimer Conundrum

Communication v. Advertisement

• Communications governed under Model Rule 7.1
  • Prohibits false or misleading communications generally
• Advertisements governed under Model Rule 7.2
  • Generally follows same prohibitions as contained in 7.1 but various states tack on disclosure/disclaimer obligations
  • i.e… other information that needs to accompany the advertisement that isn’t otherwise required for non-advertisement communications
• What’s the difference?
Communication v. Advertisement

• First, we know that there are non-advertisement communications
  • Comment from 7.1 – This Rule governs all communications about a lawyer’s services including advertising permitted by rule 7.2
  • BUT… This seems to suggest that there are actually communications about the lawyer’s services that may not technically be considered advertisements.
  • ???
• Where’s the line (gray or otherwise)
  • Comment to Rule 7.2 – “Advertising involves an active quest for clientele”
  • Oh OK, so a communication that includes an active quest for clientele is also an advertisement and subject to both 7.1 and 7.2

California

• CA is a little different in that it follows the RPC model and adds in the CA Business and Professions Code as an additional layer of authority.

• CA RPC uses “communications” in lieu of “advertisements” if the communication is a message “concerning the availability for professional employment” (CA RPC 1-400)

• Bus. & Prof. Code defines advertisement as:
  • “Any communication, disseminated by television or radio, by any print medium… that solicits employment of legal services provided by a member, and is directed to the general public…”
### California

- Specific types of messages covered by the rule:
  - Any use of firm name, trade name, fictitious name, or other professional designation of such member or law firm; or
  - Any stationery, letterhead, business card, sign, brochure, or other comparable written material describing such member, law firm or lawyers; or
  - Any advertisement (regardless of medium) of such member or law firm directed to the general public or any substantial portion thereof; or
  - Any unsolicited correspondence from a member or law firm directed to any person or entity

### Language, Language…

- California:
  - availability for professional employment (CA Bus. and Prof Code)
  - Solicits employment of legal services (CA RPC)

- ABA Model Rule:
  - an active quest for clientele

- Are these similar concepts such that CA’s determinations are helpful?
Back to California (State Bar of CA Formal Opinion No. 2012-186)

- CA draws the line between:
  - General legal information, such as recommendations of good articles v.
  - Information about your legal practice such as complaints filed and victories in court

- Examples:
  - Another great victory in court! My client is delighted. Who wants to be Next? – Comm./Adv.
  - Won another personal injury case. Call me for a free consultation – Comm./Adv.
  - Won a million dollar verdict, tell your friends to check out my website – Comm./Adv.
  - Case finally over. Unanimous verdict! Celebrating tonight. – not Comm./Adv.
  - Just published an article on wage and hour breaks. Let me know if you would like a copy. – not Comm./Adv.

Why Am I Fixated On This?

- Do you maintain a blog outside of your law firm’s website?
- Do you guest post blog entries on other websites?
- Do you have an individual twitter account?
- Is your Facebook account public and does that matter?
- Do you maintain a LinkedIn account and what’s on that page?
More CA authority (kind of…)

- CA Formal Opinion Interim No. 12-0006 – appears to still be proposed at this point (comments were due March 2015)

- Examples:
  - Describes the attorney’s services and makes representations as to those services – may be an advertisement
  - Professional websites maintained by attorneys and firms – advertising
  - Multiple blog posts w/out an advertisement statement but one post that says “any questions about your divorce, you can contact me” – may be an advertisement
  - A non-professional site giving legal information only and hyperlinking to the site – unclear unless the two blogs contents are similar in nature

New York Authority

- New York County Lawyers Association Professional Ethics Committee – Formal Opinion 748 (March 10, 2015)

- TOPIC: The ethical implications of attorney profiles on LinkedIn

- NY RPC 7.1 define advertising as “communications made in any form about the lawyer… the primary purpose of which is retention of the lawyer or law firm for pecuniary gain as a result of the communication”

- Takeaways:
  - “A LinkedIn profile that contains only one’s education and current and past employment does not constitute Attorney Advertising.”
  - “If an attorney includes additional information in his or her profile, such as a description of areas of practice or certain skills or endorsements, the profile may be considered Attorney Advertising and should contain the disclaimers set forth in Rule 7.1”
Language, Language… (revisited)

- California:
  - availability for professional employment (CA Bus. and Prof Code)
  - Solicits employment of legal services (CA RPC)
- ABA Model Rule:
  - an active quest for clientele
- New York:
  - purpose of which is retention of the lawyer or law firm for pecuniary gain (NY RPC)
- Are all of these concepts similar? How much weight do the results carry jurisdiction to jurisdiction?

Responding To Poor Reviews – the Confidentiality Conundrum
The Vulgar...

2/27/2012

They promise to return your phone call the same day and they did not! I'm not sure why I did, but I called back after the weekend with the hope of getting someone on the line. Once I finally spoke to one of the lawyers, something Lee, he was very successful at making me feel ignorant and like was wasting his time with my silly questions. He was rude and very insensitive to the fact that not everyone knows everything there is to know about criminal law. I'm sorry that I have never been through the Los Angeles legal system before, and have no clue how to handle it all...Geez...When I mentioned to F@#tard Lee that I had called Friday and no one returned my call, his response: "Well, I don't work on Fridays, goodbye!"

So if you want to feel worse than you already do because of any legal issues you may have, then by all means give these "former" cops and prosecutors a call. Otherwise I recommend speaking to someone who is really wanting to help and spends more time doing so, than making little videos to advertise his sorry ass practice!

The Rambler...

5/23/2015

1 check-in

Please RUN RUN RUN from this thief!
My mother filed bankruptcy with this man. Not only does he treat his clients (that are obviously counting every penny they have to pay him) as cash cows so he can take his "Cuban wife to expensive trips because she takes all his money" (he literally told us this in our initial meeting). My mother was completely misled with this cost. He never explained all the added fees. Even myself NOT being the one filing for bankruptcy was affected!

My mother consigned on my Lexus 2 years ago due to insurance purposes, when she filed Lexus Financial sent me to a bankruptcy team and now that is where my account is handled! I was furious. He clearly told my mother and I that I would NOT be affected. THIEF that is what this guy is!!!!

He charged me $150 for my car and $100 for my cash where my mother consigned for insurance purpose for a reaffirmation agreement!!!!!! And guess what...2 months later...Nothing!!! Still in same place.
I call the office and of course Justin the rude guy in front desk that doesn't know how to do anything but provide you email addresses for Kingkuda who is probably on vacation with the Cuban wife that steals his money. Never mind I am Cuban myself. The guy loves to mention his Cuban wife steal his money, while he steals the money of his clients! Classic! Today I am going to see cars and can't get a pay off because everyone is on vacation!
ABA Model Rule – 1.6 Confidentiality of Information

• A lawyer shall not reveal information relating to the representation of a client unless the client gives informed consent, the disclosure is impliedly authorized in order to carry out the representation or the disclosure is permitted under certain exceptions.

• Relevant Exception in 1.6(b)(5):
  1. to establish a claim or defense on behalf of the lawyer in a controversy between the lawyer and the client
  2. to establish a defense to a criminal charge or civil claim against the lawyer based upon conduct in which the client was involved
  3. or to respond to allegations in any proceeding concerning the lawyer’s representation of the client”

• Oregon has a similar exception contained in Rule 1.6(b)(4)

• It’s fairly clear that 2 & 3 don’t apply to an online review but what about 1?

ABA Model Rule – 1.6 Confidentiality of Information

• American Bar Association Standing Committee on Ethics and Professional Responsibility: Formal Opinion 10-456 (July 14, 2010)
  • “Whether a criminal defense lawyer whose former client claims that the lawyer provided constitutionally ineffective assistance of counsel may… disclose confidential information to government lawyers prior to any proceeding on the defendant’s claim in order to help the prosecution establish that the lawyer’s representation was constitutional.”
  • “Ordinarily, if a lawyer is called as a witness in a deposition, a hearing, or other formal judicial proceeding, the lawyer may disclose information protected by Rule 1.6(a) only if the court requires the lawyer to do so after adjudicating any claims of privilege or other objections raised by the client or former client.”
  • Outside judicial proceedings, the confidentiality duty is even more stringent.
  • “[a] lawyer may act in self-defense under [the exception] only to defend against charges that imminently threaten the lawyer or the lawyer’s associate or agent with serious consequences ....”
New York

- New York State Bar Association Committee on Professional Ethics: Opinion 1032 (10/30/2014):
  - Basic Finding - a lawyer may not disclose confidential client information solely to respond to a former client’s criticism of the lawyer posted on a lawyer-rating website
  - Opinion looks to the definition of “accusation,” generally defined as “[a] formal charge against a person, to the effect that he is guilty of a punishable offense.”
  - Comment 10 to Rule 1.6 offers additional support, stating “[w]here a claim or charge alleges misconduct of the lawyer related to the representation of a current or former client, the lawyer may respond to the extent the lawyer reasonably believes necessary to establish a defense.”
  - Opinion looks to use of the terms the words “claim” and “charge” as typically suggesting the beginning of a lawsuit, criminal inquiry, disciplinary complaint, or other procedure that can result in a sanction
  - However, the opinion does leave the door open to the possibility that formal commencement of a proceeding might not be absolutely required, with the possibility that there may be circumstances in which the material threat of a proceeding would allow the attorney to disclose confidential information.

Contrary Authority

  - Text of the “self-defense” exception: “A lawyer may reveal such information relating to the representation of a client to the extent the lawyer reasonably believes necessary . . . to establish a claim or defense on behalf of the lawyer in a controversy between the lawyer and the client, to establish a defense to a criminal charge or civil claim against the lawyer based upon conduct in which the client was involved, or to respond to allegations in any proceeding concerning the lawyer's representation of the client.”
  - The Opinion stated that the more restrictive interpretation requiring a formal proceeding, followed in other jurisdictions, interpretation would render the language “to establish a claim or defense on behalf of the lawyer in a controversy between the lawyer and the client” largely superfluous.
Contrary Authority

• Arizona – State Bar of Arizona Ethics Opinion 93-02 (1993)
  • “[A]n attorney may disclose confidential information pursuant to ER 1.6(d) when the client’s allegations against him or her are of such a nature that they constitute a genuine controversy between the attorney and the client which could reasonably be expected to give rise to legal or disciplinary proceedings.”
  • The Opinion also emphasizes that this does not imply that an attorney may not simply open the file in response to derogatory allegations. Rather, the exception permits disclosure only to the extent that it is reasonably necessary

Contrary Authority

• See also Hunter v. Virginia State Bar, holding that “[t]o the extent that the information is aired in a public forum, privacy considerations must yield to First Amendment protections. In that respect, a lawyer is no more prohibited than any other citizen from reporting what transpired in the courtroom.” Hunter v. Virginia State Bar ex rel. Third Dist. Comm., 285 Va. 485, 503, 744 S.E.2d 611, 620 cert. denied sub nom. Hunter v. Virginia State Bar, 133 S. Ct. 2871, 186 L. Ed. 2d 913 (2013)
  • Attorney’s blog posts involved cases that had concluded and only disclosed information publically available on the trial transcript.
Respond Or Not?

• First, you should know what people are saying about you.
• Most of the attorney reviews I’ve seen specifically on Yelp are overwhelming positive and surprisingly rational.
• Remember the society’s attention span and ability to absorb information in this day and age.
• You don’t need a lengthy, detailed response that divulges confidential information.
• Responding to a bad review isn’t a legal analysis exercise.

Clean Up Your (Social Media) Room! – the Spoliation Conundrum
Lester v. Allied Concrete Co., Nos. CL08-150 and CL09-223 (VA 2011)

- Plaintiff won a massive verdict for wrongful death of his wife and personal injuries to him.
- That verdict was reduced and the plaintiff’s attorney was sanctioned.
- Plaintiff received a discovery request for the contents of his Facebook account.
- That account showed plaintiff wearing an “I [heart] hot moms” t-shirt and drinking beer.
- Before responding, Plaintiffs attorney became aware of the content and told plaintiff via his paralegal to have plaintiff “clean up” the account because “we don’t want blowups of this stuff at trial”.
- Plaintiff deactivated account and responded that he had no such account.
- Defense attorneys filed motion to compel and Plaintiff reactivated the account
- Sanctions and fines ensue

Advising Clients To “Clean Up” Their Social Media Sites

- It’s fairly common for opposing parties to search social media sites.
- Social Media Ethics Guidelines, the Commercial and Federal Litigation Section of the New York State Bar Association, March 18, 2014
  - “A lawyer may advise a client as to what content may be maintained or made private… as well as to what content may be “taken down” or removed… as long as there is no violation of common law or any statute, rule, or regulation relating to the preservation of information”.
  - “Unless an appropriate record of the social media information or data is preserved, a party or non-party may not delete the information from a social media profile that is subject to a duty to preserve.”
- North Carolina and Florida follow this almost word for word and Pennsylvania changes “may” to “should”. 
Your Client’s Social Media

• The way you handle this goes back to our Rule 1.1 discussion.
• Where and how do you have these conversations and how do you document that?
• Are you reviewing your client’s social media content?
• If so, to what extent (public versus private)?
Chapter 5
Harnessing the Power of Neurodiversity

Leora Coleman-Fire
Schwabe Williamson & Wyatt PC
Portland, Oregon

Brenna Legaard
Schwabe Williamson & Wyatt PC
Portland, Oregon

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<td>“Building the Enterprise: Designs for a Neurodiverse World”</td>
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<td>Further Reading</td>
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Unleashing the Power of Neurodiversity

Brenna Legaard
Leora Coleman-Fire

What is Neurodiversity?

• Individuals with different cognitive profiles
  – In particular, how people learn and process information
    • Introverts/extroverts...
    • right-brain/left-brain...
    • Autism, dyslexia, dyspraxia, dyscalculia, ADD, ADHD....
Neurotypicals

- Neurotypical syndrome is a neurobiological disorder characterized by preoccupation with social concerns, delusions of superiority, and obsession with conformity.

http://isnt.autistics.org/

My own path

Lawyers, husband, kids
Why Nurture Neurodiversity?

• Diverse cognitive profiles = diverse skills = innovative teams
• Neurodiverse people have skills that can be hard to find in the neurotypical population

Thinking Different

• Scientists, engineers, software developers, inventors, patent lawyers...
• Artists, musicians, designers...
How to recruit and retain neurodiversity?

• Think outside the box

• Know the law
  – Americans with Disabilities Act (“ADA”); and
  – Oregon’s counterpart, ORS 659A.103-.145

What’s the law?

• The ADA applies to all phases of employment

• Prohibits discrimination against qualified individuals with disabilities

• Employers must ensure that job advertising, interviewing, and pre-employment testing practices do not violate the ADA
Recruit

• Focus on specific skills and abilities (not disabilities)
• Use (well-written) job descriptions
• Consider using pre-employment tests
  – Must be job-related for the position in question and consistent with business necessity.

Retain

• What if a “disability” is revealed?
  – Interactive process is triggered = process to determine the appropriate reasonable accommodation that will enable an employee with a disability to perform the essential functions of the position.
Retain

• But why wait for disability or problems to be revealed?
  – Anticipate reasonable accommodations
  – Support an efficient, positive environment for all
  – Avoid (some) legal complexities

Fundamental fairness

• We all want to bring our most authentic selves to work
  – We’re more productive
  – We’re happier
Chapter 5—Harnessing the Power of Neurodiversity

Serving Neurodiverse Clients

• There’s more than one way to communicate
  – Phone calls
  – In-person meetings
  – Writing

Serving Neurodiverse Clients

• There’s more than one way to build a relationship
  – Christmas parties and Blazers games
  – Quiet cups of coffee
  – Thoughtful written exchanges
  – Space, time, and respect
Further Reading

- **Quiet: The Power of Introverts in a World that Can’t Stop Talking** by Susan Cain
- **NeuroTribes: The Legacy of Autism and the Future of Neurodiversity** by Steve Silberman
- **The Reason I Jump** by Naoki Higashida
- **Temple Grandin**
  - Thinking in Pictures
  - The Autistic Brain: Thinking Across the Spectrum
- **Temple Grandin’s mom: A Thorn in My Pocket** by Eustacia Cutler
“Building the Enterprise: Designs for a Neurodiverse World”¹

We need all hands on deck to right the ship of humanity.
—Zosia Zaks

What is autism?

Eight decades after Gottfried’s grandmother brought him to the door of Asperger’s clinic seeking to understand his behavior, many aspects of this question are still open. But there are a few points on which clinicians, parents, and neurodiversity advocates agree.

Most researchers now believe that autism is not a single unified entity but a cluster of underlying conditions. These conditions produce a distinctive constellation of behavior and needs that manifests in different ways at various stages of an individual’s development. Adequately addressing these needs requires a lifetime of support from parents, educators, and the community, as Asperger predicted back in 1938. He was equally prescient in insisting that the traits of autism are “not at all rare.” In fact, given current estimates of prevalence, autistic people constitute one of the largest minorities in the world. There are roughly as many people on the spectrum in America as there are Jews.

A thorough review of history also vindicates Asperger’s notion that autistic people have always been part of the human community, though they have often been relegated to the margins of society. For most of the twentieth century, they were hidden behind a welter of competing labels—Sukhareva’s “schizoid personality disorder,” Despert and Bender’s “childhood schizophrenia,” Robinson and Vitale’s “children with circumscribed interests,” Grandin’s initial diagnosis of “minimal brain damage,” and many other labels not mentioned in this book, such as “multiplex personality disorder,” which have fallen out of use. In the wake of the vaccine controversy, however, society continues to insist on framing autism as a contemporary aberration—the unique disorder of our uniquely disordered times—caused by some tragic convergence of genetic predisposition and risk factors hidden somewhere in the toxic modern world, such as air pollution, an overdose of video games, and highly processed foods.

Our DNA tells a different story. In recent years, researchers have determined that most cases of autism are not rooted in rare de novo mutations but in very old genes that are shared widely in the general population while being concentrated more in certain families than others. Whatever autism is, it is not a unique product of modern civilization. It is a strange gift from our deep past, passed down through millions of years of evolution.

Neurodiversity advocates propose that instead of viewing this gift as an error of nature—a puzzle to be solved and eliminated with techniques like prenatal testing and selective abortion—society should regard it as a valuable part of humanity’s genetic legacy while ameliorating the aspects of autism that can be profoundly disabling without adequate forms of support. They suggest that, instead of investing millions of dollars a year to uncover the causes

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of autism in the future, we should be helping autistic people and their families live happier, healthier, more productive, and more secure lives in the present.

This process has barely begun. Imagine if society had put off the issue of civil rights until the genetics of race were sorted out, or denied wheelchair users access to public buildings while insisting that someday, with the help of science, everyone will be able to walk. Viewed as a form of disability that is relatively common rather than as a baffling enigma, autism is not so baffling after all. Designing appropriate forms of support and accommodation is not beyond our capabilities as a society, as the history of the disability rights movement proves. But first we have to learn to think more intelligently about people who think differently.

One way to understand neurodiversity is to think in terms of human operating systems instead of diagnostic labels like dyslexia and ADHD. The brain is, above all, a marvelously adaptive organism, adept at maximizing its chances of success even in the face of daunting limitations.

Just because a computer is not running Windows doesn’t mean that it’s broken. Not all the features of atypical human operating systems are bugs. By autistic standards, the “normal” brain is easily distractible, is obsessively social, and suffers from a deficit of attention to detail and routine. Thus people on the spectrum experience the neurotypical world as relentlessly unpredictable and chaotic, perpetually turned up too loud, and full of people who have little respect for personal space.

The main reason why the Internet was able to transform the world in a single generation is that it was specifically built to be “platform agnostic.” The Internet doesn’t care if your home computer or mobile device is running Windows, Linux, or the latest version of Apple’s iOS. Its protocols and standards were designed to work with them all to maximize the potential for innovation at the edges.

In recent years, a growing alliance of autistic self-advocates, parents, and educators who have embraced the concept of neurodiversity have suggested a number of innovations that could provide the foundation for an open world designed to work with a broad range of human operating systems.

The physical layout of such a world would offer a variety of sensory-friendly environments based on principles developed in autistic spaces like Autreat. An inclusive school, for example, would feature designated quiet areas where a student who felt temporarily overwhelmed could avoid a meltdown. In classrooms, distracting sensory input—such as the buzzing of fluorescent lights—would be kept to a minimum. Students would also be allowed to customize their personal sensory space by wearing noise-reducing headphones, sunglasses to avoid glare, and other easily affordable and minimally disruptive accommodations.

In 2011, a nonprofit corporation called the Theatre Development Fund in New York City launched an initiative to encourage Broadway producers to offer “autism-friendly” performances of hit shows like *Mary Poppins* and *The Lion King*. At these events, the use of strobe lights and pyrotechnics onstage was limited, quiet areas were set aside in the theater lobby, and social stories were made available to parents beforehand so that their children could know what to expect. These events were so successful that major cinema chains like AMC have begun offering sensory-friendly showings of movies like Disney’s *Frozen* in theaters all over the country. This is
not only a humane idea, it’s smart marketing too, because the families of autistic children are often hesitant to bring them to movies and restaurants for fear of disrupting the experience of the other patrons. These special showings are invariably in high demand.

The advent of digital technology has opened up new horizons in education for adapting teaching materials to suit learners with a diverse range of learning styles. Some students learn best by reading, while others benefit most from oral instruction; with tablet devices and customizable software, the same core curriculum can support both. The leader in this area has been the National Center on Universal Design for Learning, which offers free guidelines and resources to help teachers adapt their curricula for students with learning differences.

Educators like Thomas Armstrong, author of *Neurodiversity in the Classroom*, suggest that more emphasis should be placed on early childhood education, when a child’s individual learning style first comes to light, because a child’s experiences in school can set him or her up for success or failure in later life. Armstrong points out that, too often, the process of negotiating an Individualized Education Program focuses exclusively on addressing a child’s deficits at the expense of focusing on strengths that teachers could employ to engage the child’s interests and help build confidence.

Many autistic people benefit from hands-on learning. The rise of the Maker movement—which hosts events called Maker Faires, where garage inventors of all ages are encouraged to show off their latest projects—has been a boon to young people on the spectrum. At the White House Science Fair in 2012, President Obama was featured shooting off an “Extreme Marshmallow Cannon,” which a fourteen-year-old autistic boy named Joey Hudy had designed and built himself.

Neurodiversity is also being embraced in the workplace by companies like Specialisterne, founded in Denmark, which employs people on the spectrum to put their autistic intelligence to work in the technology industry. Specialisterne has been so successful that it has opened satellite offices in the United Kingdom and the United States and recently forged a strategic alliance with the German software company SAP to serve the needs of the rapidly growing technology industry in India. Instead of putting potential candidates through grueling face-to-face interviews, Specialisterne lets them cut loose with a table full of Lego Mindstorm Robots, little machines that can be programmed to perform simple tasks. Thus, candidates can just show off their skills rather than have to explain them.

Neurodiversity activists have also pushed for more autistic representation in policy making, using the slogan “Nothing about us, without us.” Fund-raising organizations like Autism Speaks have been resistant to the input of autistic adults, who are arguably in the best position to decide what kinds of research would benefit autistic people and their families most.

“Nothing about us, without us” also extends to the process of doing science itself. In recent years, a psychiatrist at the University of Montréal, Laurent Mottron, has produced a series of groundbreaking studies on autism with the help of his principal collaborator, an autistic researcher named Michelle Dawson. She fulfills a number of essential functions in the lab, including keeping Mottron up-to-date with the state of the research in the field (“She reads everything and forgets nothing,” he says), vetting experimental designs for errors and subtle
forms of bias, and advocating for higher scientific standards in the field overall. “Many autistics, I believe, are suited for academic science,” Mottron wrote in Nature in 2011. “I believe that they contribute to science because of their autism, not in spite of it.”

A group called the Academic Autistic Spectrum Partnership in Research and Education (AASPIRE) is collaborating with self-advocates to set their agenda for research. In 2014, AASPIRE released a comprehensive toolkit designed to inform patients and providers of the unique needs of autistic people in the health care system. ASAN’s leadership training program has demonstrated the potential of peer mentoring for young people on the spectrum. Zoe Gross has recently completed a term of service as a disability policy staffer for the Senate Health, Education, Labor and Pensions Committee, and is now working in the HHS Administration on Community Living. Like Lydia Brown, she was named a White House Champion for Change in 2013. ASAN has also launched an internship program with the Federal Home Loan Mortgage Corporation.

The process of building a world suited to the needs and special abilities of all kinds of minds is just starting, but unlike long-range projects like teasing out the genetics and environmental factors that contribute to complex conditions like autism, the returns for autistic people and their families are practical and immediate. These innovations are also often much less expensive than projects requiring millions of dollars in federal funding.

With the generation of autistic people diagnosed in the 1990s now coming of age, society can no longer afford to pretend that autism suddenly loomed up out of nowhere, like the black monolith in 2001: A Space Odyssey. There is much work to be done.
Understanding the Challenges Faced by Neurodiverse Software Engineering Employees: Towards a More Inclusive and Productive Technical Workforce

Meredith Ringel Morris, Andrew Begel
Microsoft Research
Redmond, WA, USA
{merrie, abegel}@microsoft.com

Ben Wiedermann
Harvey Mudd College
Claremont, CA, USA
benw@cs.hmc.edu

ABSTRACT
Technology workers are often stereotyped as being socially awkward or having difficulty communicating, often with humorous intent; however, for many technology workers with atypical cognitive profiles, such issues are no laughing matter. In this paper, we explore the hidden lives of neurodiverse technology workers, e.g., those with autism spectrum disorder (ASD), attention deficit hyperactivity disorder (ADHD), and/or other learning disabilities, such as dyslexia. We present findings from interviews with 10 neurodiverse technology workers, identifying the challenges that impede these employees from fully realizing their potential in the workplace. Based on the interview findings, we developed a survey that was taken by 846 engineers at a large software company. In this paper, we reflect on the differences between the neurotypical (N = 781) and neurodiverse (N = 59) respondents. Technology companies struggle to attract, develop, and retain talented software developers; our findings offer insight into how employers can better support the needs of this important worker constituency.

Author Keywords
Software development; neurodiversity; autism spectrum disorder; attention deficit hyperactivity disorder.

INTRODUCTION
Autism Spectrum Disorders (ASDs) are an increasingly prevalent societal issue. Recent reports from the U.S. CDC indicate that as many as 1 in 68 children aged 8 and under are on the autism spectrum [9]. The autism spectrum covers a broad variety of symptoms and abilities; some people may be non-verbal and entirely reliant upon their caretakers even in adulthood, while others face milder (though still substantial) challenges, such as difficulty in forming social bonds with others, difficulty interpreting or conveying emotions, difficulty making eye contact, and/or difficulties maintaining mental focus on certain tasks, among others [1].

For adults with milder forms of ASD (such as Asperger’s Syndrome), finding appropriate employment may be a challenge; many people with ASD are unemployed or underemployed [5], or face discrimination within their workplace [4]. Matching people with autism to jobs appropriate for their skills, interests, and personalities is an increasingly important societal issue; a good match can result in benefit not only for the autistic individual and his family, but also for employers who may value some individuals’ unique skills, such as attention to small details [10].

Many people with autism have an interest in and affinity for technology [23]. Famed autism advocate Temple Grandin (who is herself autistic) specifically suggests that parents of children with autism consider preparing them for careers in computer programming [12]. Popular culture suggests that many members of the technology industry already may be “closeted” or undiagnosed autistics [31], though no numbers exist to confirm or deny such rumors. Recently, several companies, such as SAP and Microsoft, have publicly announced intentions to hire computer professionals with ASD, both as a matter of social justice and to take advantage of affinities between the profile of some individuals with ASD and the job requirements of the technology industry [13, 30, 33]. Advocacy groups such as AccessComputing provide bridge programs, advice, and other resources to make computing careers more accessible for people with disabilities, including people with ASD [7, 8].

In this paper, we present the first study of neurodiverse software developers, via interview and survey data. Understanding the perspectives and experiences of technology workers with ASD and other cognitive differences is important – if, as popular cultural suggests, the ranks of Silicon Valley contain many people with undisclosed cases of Asperger’s Syndrome, or if more companies wish to follow the lead of SAP and Microsoft and actively recruit people known to have ASD into their workforce, it is important to understand whether such employees face unique challenges in achieving success in computing careers. After describing the methodology and findings of our interviews and surveys, we reflect on how
these findings might translate into changes in software development workplace and workflow practices that can better support the success of technologists with ASD and more effectively leverage the unique skills and perspectives that they may bring to their jobs.

**RELATED WORK**

Much autism research focuses on children (such as developing technologies for children with ASD, their parents, or their caregivers, e.g., [15, 18, 26]). This emphasis on youth is understandable in light of the evidence that appropriate interventions at a young age are particularly valuable in the treatment of ASD [24]. In this paper, however, we focus on adults with autism, and particularly on the experiences of those adults in the technology workforce. Two relatively recent reviews of the literature on adults and ASD begin by describing how little research there is on the topic, compared to the amount of research on children with ASD [2, 16]. Hendricks’ meta-analysis estimates the unemployment rate among adults with ASD as 50-70% [16].

Given the comparatively little published work there is on adults with ASD and the high rate of unemployment among this population, little attention has been paid to the workplace experiences of adults with ASD. Even less attention has been given to adults on the “high-functioning” end of the spectrum [2, 28], and less still to those who work in technical fields. In fact, the only study we know of that describes the experiences of a number of tech workers with ASD is Rebholz’s dissertation, *Life in the Uncanny Valley: Workplace Issues for Knowledge Workers on the Autism Spectrum* [27]. In it, Rebholz describes and analyzes interviews with nine employees, seven of whom hold “computer-related jobs.”

The goals of Rebholz’s study were different than ours. Rebholz sought to describe the “issues encountered by high-functioning people on the autism spectrum who are in the top quartile of American wage earners” [27, p.1]; that study’s inclusion of tech workers was not an explicit goal, but a virtue of the fact that it pulled its participants from the Seattle area. By contrast, our study focuses explicitly on tech workers. As a result, the two studies are complementary: Rebholz’s covers a more general range of work experience than ours and asks questions about employment law and family background; ours covers a more general range of cognitive function.

Our findings echo and bolster many of the experiences of Rebholz’s participants, including the benefits of employing someone with high-functioning autism, the ability to visualize problems, the importance of explicit communication from co-workers and managers, receiving a diagnosis as an adult, the personal nature of disclosing a diagnosis and the reluctance to do so, the negative effects of corporate restructuring, distracting and open work environments, and experience with accommodations. Furthermore, our participants place many of issues in the context of technical work, specifically of writing and testing code or managing people who do. Our study also compares the experience of neurodiverse tech workers with those of neurotypical tech workers, an area that Rebholz identified as important future work.

Much of the other literature about adults on the spectrum concentrate on pre-vocational interventions [3, 21] or environmental factors [20] that influenced the employment experiences or quality of life for adults on the spectrum. Many studies (e.g., [14]) report on adults’ continued struggle to maintain full-time employment.

Two studies are tangentially related: a study by Parr, et al. on leadership and ASD [25] and a study by Hurlburt and Chalmers on Asperger’s and employment [19]. The Parr et al. study investigates how a particular leadership theory affects employees with ASD [25]. In particular, how does adherence to a particular leadership style affect an employee’s anxiety, and how does the employee’s anxiety affect their commitment to their organization and their perception of their job performance? The researchers interviewed 52 employees (27 women; 25 men) with ASD, employed as “human service workers, research support staff, or cleaning and support staff.” Employees rated their anxiety, commitment to their organization, and perception of their own performance, according to standard scales. The results showed that some leadership theories increase anxiety and negatively affect employees with ASD, even though studies have found the opposite effects in neurotypical employees.

Hurlburt and Chalmers interviewed six adults with Asperger Syndrome and asked them questions about employment [19]. The goal of the study was to illuminate issues related to Asperger’s and employment, in general, rather than the issues of people with Asperger’s in a particular field. Participants were recruited at an autism conference or via social networks. Most participants had not worked in the areas in which they obtained their degrees and none were software engineers (although one participant was trained and worked as a library/information scientist). The researchers interviewed participants and asked many questions that were similar to ours, including how their diagnosis has affected them and their jobs, whether the participant had disclosed their diagnosis, and what accommodations, if any, they had received. The researchers coded the results and uncovered general employment themes that we also saw in our study: a reluctance to disclose diagnosis and the difficulties presented by social skills, environmental, and sensory factors.

**INTERVIEWS: METHODOLOGY**

We advertised our study via email to a distribution list within Microsoft comprised of employees who have autism themselves or who have family members with autism who have decided on their own to join that email discussion community (the names of members of the email list, and even the total number of members, were not available to us, as part of Microsoft’s effort to preserve employee privacy). Although the list targets employees who are concerned about those on the autism spectrum, sometimes people with other
diagnoses join the list. For example, one of the participants who responded to our call had ADHD, but did not identify as having ASD. While the majority of Microsoft’s employees are based in the USA, a substantial number are also located in other countries (3 of our study participants were based in the U.K.).

Our email advertisement described our research team’s interest in understanding the perspectives of neurodiverse software developers in order to help make software careers more inclusive. We offered a payment of $50 (or a donation of $50 to an autism-related charity such as Autism Speaks) for a one hour interview. Our call made it clear that all interviews would be confidential (no data would be reported to the participant’s manager or anyone else in their organization), held outside the employee’s regular workspace, and contained a calendar appointment whose title only let on that it was a meeting about software engineering. We also informed the participants that any data appearing in reports such as this would be anonymized.

Our email also indicated that recipients were welcome to share the study information with colleagues employed in the software industry at other companies; at least one reader apparently did this. We were contacted by a few software professionals who either worked for other companies or were otherwise employed, and included them in our sample (3 of our participants, P8, P9, and P10, did not currently work for Microsoft).

Interviews lasted between 45 minutes and 1 hour, and were conducted in-person for the six participants working near the researchers and via Skype for the four remote participants. We employed a semi-structured interview approach, starting with a set of core questions, but sometimes adding or removing questions based on a particular interviewee’s background, interests, and responses. Interviewees were also welcome to decline to answer any questions they found uncomfortable. All interviews were audio recorded with participants’ permission and the interviewers also took detailed notes. Table 1 summarizes key details about the ten interviewees.

<table>
<thead>
<tr>
<th>ID</th>
<th>Age</th>
<th>Approximate Age at Diagnosis</th>
<th>Gender</th>
<th>Country</th>
<th>Most Recent Job Role</th>
<th>Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>43</td>
<td>Late thirties</td>
<td>Male</td>
<td>USA</td>
<td>Software developer</td>
<td>ASD</td>
</tr>
<tr>
<td>P2</td>
<td>51</td>
<td>Early forties</td>
<td>Male</td>
<td>U.K.</td>
<td>Technology consultant</td>
<td>Asperger’s*</td>
</tr>
<tr>
<td>P3</td>
<td>23</td>
<td>21</td>
<td>Male</td>
<td>USA</td>
<td>Software developer</td>
<td>ASD</td>
</tr>
<tr>
<td>P4</td>
<td>45</td>
<td>Early forties</td>
<td>Male</td>
<td>USA</td>
<td>Website architect</td>
<td>PDD-NOS</td>
</tr>
<tr>
<td>P5</td>
<td>30</td>
<td>30</td>
<td>Male</td>
<td>USA</td>
<td>Software tester</td>
<td>ASD</td>
</tr>
<tr>
<td>P6</td>
<td>46</td>
<td>Early thirties</td>
<td>Male</td>
<td>U.K.</td>
<td>Technology consultant</td>
<td>Asperger’s*</td>
</tr>
<tr>
<td>P7</td>
<td>46</td>
<td>Thirties or early forties</td>
<td>Male</td>
<td>U.K.</td>
<td>Technology consultant</td>
<td>Asperger’s*</td>
</tr>
<tr>
<td>P8</td>
<td>49</td>
<td>Thirties or early forties</td>
<td>Female</td>
<td>USA</td>
<td>Software developer</td>
<td>Asperger’s*</td>
</tr>
<tr>
<td>P9</td>
<td>34</td>
<td>3</td>
<td>Male</td>
<td>USA</td>
<td>Software tester</td>
<td>ASD</td>
</tr>
<tr>
<td>P10</td>
<td>52</td>
<td>49</td>
<td>Male</td>
<td>USA</td>
<td>Database administrator</td>
<td>ASD</td>
</tr>
</tbody>
</table>

Table 1. Demographic details of interview participants. A * in the “Diagnosis” column indicates a self-diagnosis rather than a professional diagnosis. Participants P8, P9, and P10 worked in the software industry, but were not current employees of Microsoft.

INTERVIEWS: FINDINGS

After the ten interviews were complete, three researchers used open coding techniques to iteratively identify common themes that emerged across the interviews. We discuss those themes in the following sub-sections.

Diagnosis

A preponderance of articles on autism focus on diagnosis rates in children [2] and emphasize the importance of early diagnosis and early intervention [24]; consequently, we were surprised that with only one exception (P9), our participants did not learn that they were not neurotypical until adulthood.

Seven participants received formal diagnoses from medical professionals, while three (P2, P7, P8) diagnosed themselves. It may be the case that participants who self-diagnosed, rather than receiving a professional evaluation, may be incorrect in their labeling of their condition; however, we believe our role as researchers is to convey the experiences and perceptions of our participants, not to pass judgment on whether their diagnosis is “official” – our self-diagnosed participants had extensive knowledge of ASD (typically with other family members having formal diagnoses), and described experiences and issues highly similar to those of the participants with formal diagnoses.

Having one’s children receive a formal diagnosis of ASD was a common prompt for adulthood diagnosis (or self-diagnosis), as parents recognized in themselves many of their children’s traits. P2, P4, P7, and P8 noted that an autism diagnosis in one or more of their children prompted the realization that they were also on the spectrum. P9, our only participant who had himself been diagnosed in childhood (and received specialized education and therapies), also mentioned having children who were diagnosed as autistic.

Receiving a poor performance review at work was another prompt for diagnosis, i.e., if serious conflicts with a manager or other co-workers resulted in a need to consult with a mental health professional. P5, who differed from the other interviewees in having a diagnosis of ADHD rather than ASD, learned of his diagnosis by seeking professional help after receiving a bad performance review from his manager.
Interviewees found diagnosis beneficial, as it provided them with the basis for creating a plan of behavioral and sometimes medical strategies for addressing issues that interfered with their workplace success. P8 noted that having a diagnosis was a relief because, “it explains so much that I didn't understand.”

There are many possible reasons for the prevalence of adulthood diagnoses in this group, including that adults from earlier generations grew up in a time when autism awareness and diagnosis was less common, that some interviewees were born overseas in countries or cultures where autism awareness and diagnosis are less common, or that many milder cases of these conditions may be less noticeable or confused with other issues.

**Disclosure**

We asked participants whether they had disclosed their diagnosis to either their manager or a human resources representative in their workplace. Half of the participants (P1, P4, P6, P7, P8) had chosen not to disclose (we do not know if the participants’ managers suspect that their employees have ASD or ADHD). The primary motivators for non-disclosure were concerns about being judged negatively by colleagues and of possible workplace discrimination. For example, P6 said that he was “wary of outing myself,” and noted that being neurodiverse is “where race, sex, and sexuality were [a few decades ago, as a civil rights issue]... autistic spectrum conditions are maybe similar, I think to that... years ago, gay people didn’t feel comfortable coming out... people on the autistic spectrum are not yet comfortable about coming out.” P7 explained his choice of non-disclosure by saying, “I don’t think our business [computing] is mature enough around its understanding of autistic spectrum conditions at the moment.” P8 noted, “I think I have a lot of skills, and I would like to be judged on my skills and not have to worry about a diagnosis.” Such concerns seem well-founded; P2, who decided to disclose to his manager, revealed that his manager told him that perhaps he should consider leaving his current role, and noted that, “people could and often [do] jump to conclusions.”

For the participants who did choose to disclose their diagnosis to management, a personal connection was often the prompt. For example, P3 decided to disclose his condition after hearing his manager describe how his own children had been diagnosed with ASD. P9 felt a close social/friendship relationship existed with his manager, and disclosed his own diagnosis to him as part of a larger discussion of his children’s medical situation.

**Software Development Challenges**

Participants described a variety of challenges they faced as neurodiverse people working in the field of software development.

P1 and P6 reflected that they were often quite rigid in their interpretation of rules or in their desire for structure, i.e., becoming upset if colleagues’ code didn’t adhere strictly to style guidelines or if an Agile development meeting didn’t follow all of the official rules described by the Agile programming movement (P1 noted, “Structure is good. That’s why I like [Agile method]...”).

P3, P4, and P7 discussed how they had difficulty committing to or focusing on tasks that they perceived as mundane, though they felt they excelled and displayed unusual levels of focus for tasks they found particularly compelling. P10 specifically found the task of testing code (to make sure it is bug free) problematic, as the idea that end users would use the code in the “wrong way” and that he would need to anticipate this was extremely frustrating to him. P7 noted, “one of the things I hate is being bored... if I get bored I can disengage really quickly.”

P2, P8, and P10 identified that they sometimes expressed inappropriate emotions at work (and that they often were not aware of having done so unless a coworker informed them). P7 noted that code reviews, in which co-workers examine his code before committing it to the shared code repository, “can be quite confrontational,” though he did not identify this reaction as being inappropriate, per se. P2 mentioned that he would “blow up” at people who critiqued his code, and didn’t realize that this reaction was considered unprofessional until a colleague explained it to him.

**Interpersonal and Workplace Challenges**

Half of the interviewees (P1, P6, P7, P8, P10) volunteered that they knew they had poor interpersonal communication skills. This led to many workplace challenges, including difficulty interpreting nuance in the meaning of coworkers’ statements, difficulty interpreting coworkers’ emotions, difficulty dealing with office politics, and difficulty handling conflicts with co-workers. Team meetings were cited as being a particular cause of stress, as was the process of interviewing to get a job; for instance, P10 reflected that he had done poorly on several job interviews because he did not make eye contact with the interviewers, which he concluded resulted in their viewing him as untrustworthy. P8 suspected that she was fired from a position because of her challenges with the social aspects of her job, “I think I can block it out [the social stuff] and focus on the stuff that needs to get done... that might be part of why I was let go... I don’t know... I think I didn’t have the social skills for people to want me to be on.” She went on to note, “It would be nice to be with a company where the social structure wasn’t so complicated.”

Participants also described challenges with various types of communications, including face-to-face conversations, phone calls, and even e-mail (particularly interpreting emotion or nuance in e-mail). P8 said, “sometimes in an IM they [colleagues] would say, it would look like they were in agreement, but then I’d find out later that they were not, which was very confusing... I preferred to ask people what they could do for me in person, because there were more clues as to what they really meant.” P10, in contrast,
preferred electronic correspondence such as email because he “can do it more slowly, [and he] can think about what [he’s] saying.” Selecting which medium would be most appropriate for communicating with colleagues was also a source of confusion for participants.

Some participants had opportunities to try a management role at some point in their career, and management of other people often proved challenging — P1, P4, P7, and P8 reflected on these difficulties. P8 described that she felt she had been a good manager to other employees, and expressed confusion that the employees who reported to her didn’t seem to feel the same way, noting, “two of the people that I had working under me won’t talk to me anymore, I don’t understand why they won’t talk to me anymore… they both dumped me on Facebook… I don’t understand.” P1 noted that people with strong technical skills who were not well-suited to management had difficulty advancing within Microsoft, where promotions were often tied to moving into a managerial role. Note, however, that some interviewees had more positive experiences in management roles, and P6 mentioned aspiring to try out management in the future.

Environmental distractions, such as noisy work spaces or software-based distractions (e.g., notifications of incoming messages from email or other programs), were particularly problematic for participants. P1, P2, P3, P8, and P10 raised this as an issue. P1 noted that open plan offices, which are quite popular in technology companies [17], were a particularly distracting environment. P3 mentioned that he wore headphones and listened to music while working to help mitigate environmental distractions. Time management and task prioritization were difficult for P1, P5, and P10.

Frequent changes in organizational structure within Microsoft were called out as problematic by P1 and P7, who found having to adapt to new sets of managers and teammates particularly stressful and anxiety-inducing.

**Accommodations**

We asked interviewees to describe any accommodations they had requested in the workplace (if they had chosen to disclose their status), or what accommodations they might want to ask for if they were to feel comfortable disclosing or asking.

P2 and P6 both identified business travel as an area in which employees with ASD might require accommodations. Although Microsoft’s policy mandated hotel-room sharing among team members travelling to conferences to defray costs, P2 requested a private hotel room. He justified his request, explaining that after a long day of having to interact with other people at the conference, he felt that he couldn’t handle the need for additional social interactions at the hotel. He needed time to “chill out and just be on my own… and get my social battery filled up.” He also often requests to skip work-related social functions (such as team dinners), explaining that “it’s either fun or work, I can’t do both at the same time.” P6, who had not disclosed his diagnosis to management, wanted to request dispensation against Microsoft’s policy that employees fly in economy class during business trips, because the stress of having so many people so close to him during travel was amplified by his ASD.

P5, who had disclosed his ADHD, made several accommodations requests at the suggestion of his therapist. He requested that his manager allow him to audio record team meetings to help him remember work items assigned to him. He found that taking notes while paying attention to verbal conversations at the same time was quite difficult. He also requested that key expectations and instructions be sent to him in written form so that he could re-read the information multiple times if needed. P7 also mentioned that he would find it helpful if he could request that key expectations from his manager be conveyed in written form, though he did not disclose his diagnosis and therefore did not make this request.

P5 requested an additional private weekly meeting with his manager in order to correct any potential misunderstandings in what he was working on and make sure his work stayed on track. He also requested that his manager be more attentive to providing more detail in any conversations and emails with him, as he found any ambiguities to be very difficult to interpret and resolve.

P3, who achieved “hyperfocus” on projects of interest to him but had difficulty working on projects he found mundane, was able to reach an agreement with his manager to have greater autonomy in selecting what aspects of the system he would code. P3 was also considering requesting a treadmill desk, as he felt that exercise might alleviate anxiety that he felt during the workday.

P8 and P10 both desired the flexibility to work from home and attend fewer meetings so that they could spend their time focusing on their strengths (writing code) and have less time (and stress) devoted to interpersonal interactions. P1 and P8 noted that a private office, perhaps even soundproofed, would help mitigate the distracting and stressful effects of working in open plan offices for people with ASD.

Greater awareness and sensitivity from colleagues to the needs of neurodiverse co-workers was something all participants hoped for, though this was difficult for people to balance with the perceived risks of disclosure. P8, who had not disclosed her ASD status to colleagues, noted that one potential benefit of disclosure may simply be greater empathy from colleagues, “if people didn’t get whatever social stuff they need from me, maybe they would be more understanding and explain what they need [more clearly].”

Finally, P10, who was among the half of our interviewees whose children also had ASD, observed that better health insurance coverage for caring for children with ASD would likely be valued by many employees on the spectrum, since their children were more likely than the children of neurotypical employees to have ASD.
Chapter 5—Harnessing the Power of Neurodiversity

Strengths
Despite the many challenges associated with ASD, ADHD, and related conditions, nearly all participants felt that being neurodiverse also provided them with advantages in their chosen careers relating to software development. P6 specifically emphasized that he preferred the term “Autistic Spectrum Condition” to “Autistic Spectrum Disorder,” because he felt that the disorder terminology implied that there were no positive aspects involved in being neurodiverse, an assertion with which he disagreed.

Six participants (P2, P3, P6, P7, P8, P10) perceived that they were particularly gifted in noticing patterns in information and mentally visualizing information. P6 mentioned an ability to “execute the code in my head” in order to anticipate bugs. P2 described an ability to spot bugs in code by recognizing patterns in the formatting (indentation of lines, etc.). P8 said that “finding the patterns” was her favorite aspect of programming, noting, “I can’t help myself, I look for patterns, that’s clearly an obsession of mine, patterns, and programming is really just a huge pattern.”

Several interviewees (P2, P3, P6, P7, P8, P9) noted that they were skilled at achieving a very high state of focus on authoring a piece of code or completing a specific project. P6 noted, “Aspies are very good at things like software testing… they’re very good at thinking things through and excluding other thoughts from their work.” P7 said, “I tend to be quite focused… I’ll find something of interest to me, I’ll be incredibly focused on that for a period of time, until I reach a point where I feel I personally understand it… and then I can very quickly lose interest in it.” P8 explained that her ability for intense focus was “such a benefit” for her job in programming: “I love it when I can just work and not have anything else, just being focused… is very satisfying.” P3 described enjoying experiencing a state of “hyperfocus” when working on certain programming projects.

P2, P6, and P9 noted that the code they authored was particularly clean and orderly, exemplifying strict adherence to rules of coding style, when compared to that of their colleagues. For example, P6 noted that colleagues who wrote “untidy code” irritated him, and attributed bugs to “nonautistic people developing the code and not thinking about boundary conditions… tidy code doesn’t have those sort of problems.” P2 noted that even before the advent of software development environments that would automatically indent code and support other aspects of coding style, “I would write my code in such a way that it would have that [nice formatting].”

P5 and P7 described strengths in tangential thinking – developing out-of-the-box solutions or making intuitive leaps that were valuable in their line of work. For instance, P7 noted, “I can be very insightful… I can make leaps that… quite often other people don’t.”

SURVEY: METHODOLOGY
To explore whether the themes that emerged from the interviews were distinct to software developers with cognitive differences or were also issues that resonated with neurotypical employees, we designed a survey to reach a larger audience.

We created an online survey using the SurveyGizmo service. The survey contained 32 questions, though some of these questions were shown only conditionally depending on prior answers (e.g., if respondents indicated they were neurotypical, they were not shown the subset of questions relating to their experiences as a neurodiverse software developer). In consideration of the sensitive nature of the survey topic, all questions were optional so that respondents uncomfortable with a particular question were free to leave it unanswered. Time-tracking software embedded in the survey indicates that participants spent a median of 6.4 minutes to complete the survey.

We sent the survey to 2,600 U.S.-based employees of Microsoft whose title indicated they were a software developer or software tester; specific employees meeting these criteria were chosen at random from the employee database to receive an email invitation to the online survey. The survey was administered during the last two weeks of October 2014. Survey participation was optional and anonymous; participants were told we would contribute $1 to the Autism Speaks charitable organization for each completed survey we received (our team donated $846 on November 3, 2014, an amount that was also matched by Microsoft’s matching charitable gifts policy).

The email invitation told participants that our survey was about “Software Developer Perspectives,” and explained, “Our goal is to broaden participation in software careers by people with varied cognitive profiles, including, but not limited to ASD (autism spectrum disorder), ADHD (attention deficit hyperactivity disorder), and dyslexia. Your response is important to us, even if you do not identify with any of these cognitive profiles.” We decided to broaden the survey call to include ADHD and other cognitive differences since our initial interviews indicated that some people with ADHD (like P5) identified informally with employees on the autism spectrum because they felt many of their challenges were similar, and because a large proportion of our other interviewees had co-occurring challenges such as ADHD.

SURVEY: FINDINGS
Demographics
846 people completed our survey (a 32.5% response rate). 718 (84.9%) of respondents identified as male, 107 (12.6%) as female, and the remaining 2.5% chose not to specify a gender. This preponderance of male respondents is roughly in line with the demographics at software companies (for instance, Microsoft and Google each recently reported that 17% of their technical employees are female [11, 22]). 91.8% of respondents reported their age; these respondents’ ages...
ranged from 21 to 71 years old, with a median age of 32. Although respondents all worked in the U.S., they came from diverse backgrounds, with the majority having been born abroad. 34.8% were born in the U.S., 21.2% in India, and 10.2% in China. The remainder hailed from a variety of countries, particularly locations in Europe and Asia.

50.2% reported having a Bachelor’s degree in computer science, and 25.7% reported having a bachelor’s degree in another field related to computing (math, electrical engineering, information science, etc.). 3.5% reported having a graduate degree (Master’s or Ph.D.) in computer science, and 11.2% reported having a graduate degree in a field related to computing. 6.5% of respondents indicated that they did not hold any undergraduate or graduate degrees in a computing-related field.

Respondents reported having worked in the field of software development for a median of 9 years (min 1 year, max 40 years), and having worked at Microsoft for a median of 5 years (min 1 year, max 25 years). 73.4% reported having a software engineering role, 23.4% reported having a software testing role, with the others reporting related roles such as “Data Architect,” “Electrical Engineering,” “Data Center Management,” etc. Respondents reported being in their current role for a median of 3 years. 9.5% reported that they currently directly managed one or more employees (including interns and/or contractors), and 42.9% reported having directly managed one or more employees at some point in the past (either at Microsoft or at a prior job).

**Neurodiversity**

11 respondents (1.3%) identified as having an autism spectrum disorder (including Asperger Syndrome or PDD-NOS). 38 (4.5%) identified as having attention deficit disorder (including ADD, ADHD, and ADHD-PI). 16 (1.9%) identified as having dyslexia or another learning disability. Note that 7 of these respondents identified as having more than one of these conditions (e.g., ADD and ADHD); in total, 59 of the respondents (7.0%) identified as having at least one of the aforementioned conditions, while 91.6% of respondents indicated that they did not identify as having any of the conditions (additionally, 6 respondents chose not to answer the question about their cognitive profile). The 59 respondents who identified with one or more of the cognitive differences were asked to respond to a set of survey questions specific to their experiences with that condition; the following sub-sections describe these participants’ responses.

**Diagnosis**

42.4% of the 59 neurodiverse respondents reported being self-diagnosed, while 66.1% reported receiving a formal diagnosis of their condition by a professional (one person chose not to answer the question about diagnosis type). The age of diagnosis ranged from 4 to 50 years old, with a median of 23 (mean 22.5).

Responding to a multiple choice question asking whether any of several situations prompted the respondents’ diagnosis, 15.3% indicated that they were diagnosed after one of their biological children had been diagnosed with a similar condition, 20.3% were diagnosed after one or more family members (other than their children) were diagnosed with a similar condition, 15.3% were diagnosed after a challenging situation at work (e.g., conflict with another employee, poor performance review), and 6.8% were diagnosed at the suggestion of a co-worker.

When asked whether they had changed aspects of their work after receiving their diagnosis, few respondents indicated they had, with two reporting having changed companies, two having changed roles, one having changed projects, and two having changed other aspects of their work situation such as their “day to day work style.”

**Disclosure**

We asked what categories of people respondents had disclosed their condition to. Relatively few had disclosed their condition to co-workers: 20.3% had disclosed to their manager, 3.4% (2 respondents) had disclosed to a skip-level or higher manager, 1.7% (1 respondent) had disclosed to direct reports, 22.0% to co-workers on their team (peers in the company hierarchy), and none had disclosed to HR. In contrast, 32.2% reported having disclosed their condition to friends at Microsoft who were not members of their work team, and 76.3% reported having disclosed their condition to friends or family outside of Microsoft. 16.9% had not disclosed their condition to any of these groups of people.

**Discrimination**

We also asked these 59 respondents whether they had ever experienced workplace discrimination related to their condition, either at Microsoft or previous employers. 58 chose to answer this question, and the majority (52, 89.7%) reported that they had not experienced discrimination. The 6 who answered affirmatively were asked to briefly describe the discriminatory incidents; not all chose to provide descriptions. One, having attention deficit disorder, noted, “There is often intolerance and sometimes outright antagonism by smart people at [Microsoft] towards people that approach tasks and work situations differently compared to their natural viewpoint.” Another, also having attention deficit disorder, said, “I often receive feedback that I’m ‘odd,’ and that it’s limiting my career advancement.” Another, with dyslexia, wrote, “It takes me longer to read things, so I get left behind and have to catch up.”

**Accommodations**

Of the 17 employees who had disclosed their condition to management or HR, we asked whether they had requested or received any workplace accommodations; 94.1% said they had not. The one employee who had requested accommodations, a developer with attention deficit disorder, had requested a “good seat in [the] team room.”
We also asked all 59 neurodiverse respondents whether there were any workplace accommodations they were not currently receiving that they thought might be beneficial, such as changes to policies or practices, to equipment or software, or to their working environment. 58 chose to answer this question; 15.5% indicated they would find some accommodations helpful. Suggestions included changes to the performance evaluation process (“Despite excellent technical performance, I'm often given average reviews for reasons directly related to my ADD symptoms.”) and hiring processes (“The interview process here is not geared toward people with disabilities. I also have Tourettes [sic] so I can get nervous and lock up. I will pass 40% of interviews and fail 60%.”). The most common suggestion was to change workplace arrangements: “I work in a cube environment where bright lighting and noise is common. I would much rather work in an office for parts of the day where I need to be focused.” (from an employee with ASD); “A more quiet environment” (from an employee with attention deficit disorder); “Private office space.” (from an employee with attention deficit disorder); “Not being forced into a [sic] open floor-plan ‘shared space’” (from an employee with ASD).

On-the-job Experiences

We asked all 846 respondents to describe their level of skill at various activities related to their jobs. In the following analyses, we exclude the 6 participants who did not respond to the question about their cognitive profile, since it is unclear whether they would fall into the neurotypical or neurodiverse group.

Respondents used a five-point scale (1 = significantly below average, 5 = significantly above average) to rate their level of skill at a list of several software development activities (Figure 1). Participants whose jobs did not require these activities could choose N/A or leave an item blank. We compared responses from neurotypical employees to those identifying as having ASD, ADHD, or dyslexia using Mann-Whitney U tests, and found no significant difference in self-rated skill for “finding bugs” ($p = .30$) or “visualizing the solution to a problem” ($p = .10$). There was a marginally significant difference in perceived skill at “employing good coding style” (neurotypical = 4.0, others = 4.1, $p = .06$). Neurodiverse employees rated themselves as significantly more skilled at “detecting patterns in code” (neurotypical = 3.9, others = 4.2, $p < .01$), while they rated themselves as significantly less skilled at “focusing on a particular task” (neurotypical = 3.8, others = 3.2, $p < .001$), “writing test cases” (neurotypical = 3.6, others = 3.3, $p = .04$), “requesting code reviews for your own code” (neurotypical = 3.8, others = 3.2, $p < .001$), and “reviewing other peoples’ code” (neurotypical = 3.5, others = 3.1, $p < .01$).

Respondents also used a five-point scale (1 = very uncomfortable, 5 = very comfortable) to indicate their level of comfort at communicating with colleagues using several types of media (Figure 2). There was no significant difference in comfort level for e-mail ($p = .17$), with social media (e.g., Yammer) ($p = .36$), with instant messaging ($p = .10$), or with the use of communications mechanisms within software development tools such as source control systems ($p = .45$). Neurodiverse employees rated themselves as significantly less comfortable communicating with co-workers via face-to-face conversations (neurotypical = 4.3, other = 3.8, $p < .01$), phone calls (neurotypical = 3.4, other = 2.9, $p < .01$), and video calls (e.g., Skype) (neurotypical = 3.1, other = 2.6, $p < .01$). Neurodiverse employees rated themselves at significantly more comfortable communicating via SMS/text messaging (neurotypical = 3.2, other = 3.5, $p = .03$).

Next, respondents were asked to use a five-point scale to rate how challenging they find each of several work-related situations (1 = very easy to handle, 5 = very challenging).
Respondents used a five point scale (1 = strongly disagree, 5 = strongly agree) to rate their level of agreement with statements about their working style. There was no difference in responses to the statements “I enjoy working on projects as part of a team” (p = .48) or “I prefer to work from my own home” (p = .42). However, there was a difference in level of agreement with the statement “I enjoy working on solo projects,” with neurodiverse employees preferring this type of work more strongly than neurotypicals (neurotypical = 3.8, other = 4.1, p = .02).

Respondents used a five point scale (1 = strongly disagree, 5 = strongly agree) to rate their level of agreement with statements about their relationships with their co-workers. The only significant difference was in reactions to the statement “I enjoy(ed) having a management role” (which was only shown to those who indicated having ever been a manager in an earlier survey question), with neurotypicals more likely to agree (neurotypical = 3.7, other = 3.1, p = .02). There were, however, no significant differences in response to other statements related to management, “My personality and/or skills are well-suited for a management role” (p = .95) and “I am (was) successful in my management role(s)” (p = .83).

DISCUSSION
Our survey findings lend confidence that most of the challenges reported by our interviewees are indeed more salient issues for neurodiverse employees than for neurotypical ones. As with our ten interviewees, the fifty-nine neurodiverse respondents tended to be diagnosed in adulthood, and the majority did not disclose this diagnosis to management or their human resources (HR) department. Our survey findings also reinforce the suggestion of our interviewees that neurodiverse software developers perceive themselves as more skillful at focusing intensely on tasks and noticing patterns in code than neurotypicals. Our survey also reinforces the interviewees’ opinions that working in shared or open plan offices and dealing with the
people skills aspects of software development were more problematic for neurodiverse employees.

In addition to validating trends from our interviews, the survey also highlighted some additional differences between neurotypical and neurodiverse software development employees, such as the finding that neurodiverse employees reported significantly less comfort with synchronous forms of communication than their neurotypical peers; we hypothesize this may be because asynchronous tools allow them more time to review and reflect on messages and prepare considered responses; further study to investigate this issue is warranted.

**Implications for Employers**

Our findings suggest that a not-insubstantial minority of software development employees at Microsoft have neurodiverse cognitive profiles. Companies like Microsoft may underestimate the pervasiveness of these issues because most impacted individuals are unlikely to disclose their status to HR or management for fear of judgment or discrimination. Further, many affected employees may not even realize the nature of their condition until many years after joining a company, as adulthood diagnosis was quite common.

Creating an environment that educates all employees about conditions such as ASD and ADHD may be beneficial, both for helping affected-yet-undiagnosed individuals achieve insight into their mental state that may enable them to receive needed assistance and in creating a climate of understanding and empathy within the workplace that may increase workers’ comfort in revealing their neurodiverse status. As P8 noted, “I wouldn’t feel comfortable telling managers or HR… but that might have helped [me].”

Open plan offices have become particularly prevalent at tech companies [17], but our findings indicate this working arrangement may negatively impact this sub-group of employees; the most commonly requested accommodation from our respondents was to rethink this trend, or make alternative work arrangements available for employees who need it.

**Limitations**

Both our interviews and survey rely on self-report data, whose drawbacks include the possibility of participants intentionally or unintentionally misrepresenting their experiences. Surveys may be problematic for neurodiverse participants to complete accurately, since it is not possible to request clarification of a question’s intent [25]. Additionally, there may be sampling biases — for example, the people who chose to respond to our requests for interviews may have chosen to do so because they have experiences that are much more positive or much more negative than is typical. We attempted to mitigate this by randomly sampling from Microsoft’s employee list for our survey invitations, but there may be self-selection in who ultimately completed the survey as well. We combined interviews with surveys as one way to mitigate the limitations of each individual technique.

Our interviews and survey include neurodiverse respondents with a range of diagnoses, covering varying points on the autism spectrum, as well as conditions such as attention-deficit disorder and learning challenges; some participants had multiple of these diagnoses, which may not be surprising given that characteristics of ASD and ADHD co-occur in a significant portion of the affected population [29]. Our sample size did not allow us the statistical power to tease apart nuances in the differential challenges that people with different diagnoses may experience — in addition to sample size, the co-occurrence of diagnoses within a single participant and/or the variability in the specifics or severity of a diagnosis across participants makes such analyses quite challenging, though they certainly have import and merit, and are a recommended avenue for further work.

All of the survey participants and all but three interview participants were employees of Microsoft; it may be that their experiences are not generalizable to the tech industry more broadly, but may be specific artifacts of the culture at Microsoft. However, we found that the experiences of the three employees who worked at other companies were quite similar to the others’, suggesting that some amount of generalization is probable.

We also acknowledge that, while our findings indicate that there is hidden neurodiversity within the technology industry, the range of neurodiversity present in our study does not represent the range of neurodiversity in society. We recognize that a substantial number of people with ASD and other conditions may not be able to live independently in adulthood and that they and their caregivers may be concerned with a very different set of employment-related issues than the issues impacting the participants in this study.

**Future Work**

While this research is the first to shed light on issues related to neurodiversity among technology employees, it should not be the final word on the matter. Our survey results begin to give a sense of the extent to which software developers may represent various cognitive profiles, but more systematic sampling extending beyond a single company may be important for allowing the technology industry to better understand the need to take steps to support neurodiverse employees by providing data on the pervasiveness of these issues within and beyond Microsoft; such data may also help reduce the stigma associated with being neurodiverse by illustrating the extent to which it is a common phenomenon, as well as providing initial metrics against which further progress in diverse recruiting, hiring, and retention practices can be measured.

Interviews with managers and/or co-workers of neurodiverse employees would also add valuable information and perspective to this work. In this particular case, interviewing managers and co-workers was not possible, due to the
confidential nature of the interviews and the fact that most of the employees had not officially disclosed their neurodiversity. However, the growth of formal hiring initiatives for employees with ASD at companies such as Microsoft may make manager and peer interviews possible in the future for employees whose status has already been disclosed through such programs.

The knowledge that many technology employees may have profiles such as ASD also merits related research on improving software development tools and practices to better support and leverage these employees. From a software engineering research or HCI perspective, pertinent research questions may include whether there are benefits to pairing up neurotypical and neurodiverse employees for pair programming tasks, or having them review each other’s code, since each may notice different types of bugs. Perhaps there are changes that should be made to scrub or other types of software development processes to better support participation by neurodiverse employees. It also seems important to investigate whether communications tools such as email or IM can be adapted to better support neurodiverse employees by providing assistance at interpreting affect or nuance within messages or by encouraging neurotypical authoring messages to clarify points identified as potentially problematic. We look forward to addressing these topics in future work.

CONCLUSION

Although the media often speculates that the technology industry includes many people with autism spectrum disorders [31], and although some autism experts suggest that individuals on the spectrum consider technology as a career choice [12], and although some technology companies have announced goals of recruiting neurodiverse employees [33], there is almost no research that explores the experiences of neurodiverse tech workers and no research that we know of that compares their experiences to those of neurotypical tech workers. In this paper, we presented the findings of interviews with ten neurodiverse individuals in careers related to software development, as well as survey results describing the experiences and opinions of 846 software developers and testers, 59 of whom identified as being neurodiverse.

Our findings revealed that many technology workers receive their diagnosis in adulthood, often as a result of life events such as a child’s diagnosis or poor job performance. Most do not disclose their diagnosis to HR or management, despite the fact that a variety of accommodations, such as changes in workplace layout or modes of communication, may be desired and beneficial. Neurodiverse employees also reported different cognitive styles, such as sensitivity to details and patterns, which may be an asset to their career if nurtured and recognized by employers. We hope that these findings help inspire employers and employees to effect workplace changes that help all employees better reach their potential.

ACKNOWLEDGEMENTS

We would like to thank all of our survey and interview participants; we appreciate that neurodiversity is a sensitive issue, and are grateful that participants felt comfortable disclosing their experiences to our research team.

REFERENCES

Chapter 5—Harnessing the Power of Neurodiversity


22. Lowensohn, J. “Microsoft says 29 percent of its employees are female.” The Verge, October 3, 2014.


“Shifting the Perception of People’s Abilities: A Conversation About Autism at Work” by Thorkil Sonne

In May 2013, SAP announced a partnership with Specialisterne, a social business based in Denmark focused on helping people with autism find employment. The news led to an outpouring of interest from the media, public and most of all, families of people with autism. SAP has rolled out pilots of our Autism at Work initiative in India and Ireland, hiring an initial group of people on the autism spectrum, with plans to expand to other countries. Thorkil Sonne, the founder of Specialisterne, explains here why SAP has such an important role to play in shifting attitudes and inspiring change.

“Neurodiversity: Employers Need to Help People ‘Come Out’” by Neil Milliken

What Is Neurodiversity?

“Neurodiversity is an umbrella term referring to a group of neurological development disorders which share common features, in particular differences in how people learn and process information. Definitions vary, but here we use the term to refer to dyslexia, dyspraxia, dyscalculia, Attention Deficit Disorders (ADD/ADHD) and Autistic Spectrum (Autism / Asperger’s syndrome). Under the law these conditions are collectively known as ‘hidden disabilities’.”

Disclosure, I am an “out” dyslexic so I have a vested interest in moving the neurodiversity agenda forward. Projections vary but anything between 1 in 20 and 1 in 5 of your members of staff may be on the neurodiverse spectra.

Why Appropriate The Term “Coming Out”?

Coming out may seem like a strange way to describe the process of telling your employer and colleagues about your hidden disability as the phrase is normally associated with people’s sexuality.
What is tech transfer?

…the process of transferring innovations to others so they may translate them into products that improve lives and/or healthcare.
**University Technology Commercialization**

**U.S. Federal Funding of R & D**

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Source of Raw Data: AAAS R&D report series, based on OMB and agency R&D budget data.
Trend in U.S. Federal Funding of R & D

Source of Raw Data: AAAS R&D report series, based on OMB and agency R&D budget data.

University Environment

• Principal Investigators are responsible for obtaining research funds
  – Grant Applications
  – Publish or Perish
  • Timely intellectual property protection can be difficult!
Chapter 6—University IP Management and Commercialization—Presentation Slides

University Technology Commercialization

University IP Disclosure Form Survey

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## University IP Disclosure Form Survey (p. 2)

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<th>U Illinois UC</th>
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<td>&quot;Features believed to be new&quot;</td>
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<td>Use all potential licenses</td>
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<td>If so, identified &amp; approved by whom, if you know this?</td>
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<td>Is it related to previously disclosed IP?</td>
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<tr>
<td>Is research conducted in this at our institution?</td>
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<td>Is the invention expected to commercialize?</td>
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## University IP Disclosure Form Survey (p. 3)

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<th>UC San Diego</th>
<th>Stanford</th>
<th>MIT</th>
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<tbody>
<tr>
<td>What further development may be needed to commercialize it?</td>
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<td>Write meaningful abstract</td>
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<td>How should the technology be commercialized?</td>
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<td>Describe key route</td>
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<td>How far has the invention progressed?</td>
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<td>What was the initial idea?</td>
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<td>What was the first prototype or state of it working?</td>
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<td>Sources of funding</td>
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2015 Technology Law: Bits on Bytes
University IP Disclosure Form Survey (p. 4)

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</table>

OHSU IP Disclosure Review Process

Discuss Completed IP Form with Scientists

- Commercialization Assessment
  - Product
  - Market segmentation
  - Market validation
  - Competitive landscape
  - Strategy

- Intellectual Property Assessment
  - Patent, Copyright
  - Institutional rights
  - Novelty
  - Usefulness
  - Non-Obviousness
  - Enablement

Go No-Go Patent Decision

No-Go

Go No-Go Copyright Decision

Go Copyright

In most cases, these techs are licensed for free.

Tier 1

Develop strategy to patent and commercialize the technology.

Tier 2

Develop copyright licensing strategy to commercialize the technology.

Tier 3
IP Disclosure – Patentability Review

- One way to hone in on patentable elements:

<table>
<thead>
<tr>
<th>List Key Features</th>
<th>Novel?</th>
<th>Benefits</th>
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<tr>
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<td></td>
<td>Yes / No</td>
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</tbody>
</table>

OHSU UH OMAG OCT - Tier 1 Software Example (Optical Coherence Tomography)

- Conception
- Invention Disclosure
- First Public Presentation (Proof of Concept)
- Provisional Patent Application
- Journal Publication
- PCT patent Application
- NDAs With 3 Companies
- National Stage Patent Applications
- Provisions
- Marketing of Invention

- * Licensee Reimburses Past & Future Patent Expenses
- 30 months
- 12 months
- 18 months
- 02/10
- 02/11
- 08/12
- 01/10
- 02/09
- 07/12
- 07/12
- 09/12
- $ $ $ $ $
University Technology Commercialization

OHSU Tech Transfer Office

Industry & Academic Collaborations
Material Transfer, Sponsored Research, Non-Disclosure and Collaboration Agreements

Business Development
Relationship development with strategic business partners, startup company formation

Administrative Services
Financial, Marketing and Administrative Support, Government Invention Reporting

Technology Development & Licensing
Technology evaluation and development, marketing and licensing

Patent
Evaluate patentability of technologies, file/prosecute/manage patents and patent applications
Chapter 6—University IP Management and Commercialization—Presentation Slides

OHSU IP Licensing

- License & Option Agreements
- Licensing Income (in $100,000s)

OHSU IP Disclosures & Patent Filings

- New IP Disclosures
- Total US Patent Apps
## OHSU Startups

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015*</th>
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<tbody>
<tr>
<td>Startup Companies Launched</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>5</td>
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<tr>
<td>Cumulative Number of Startup Companies Formed since 1998</td>
<td>38</td>
<td>41</td>
<td>42</td>
<td>44</td>
<td>48</td>
<td>53</td>
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</table>

*According to the AUTM definition of an operational company, there were 34 operational OHSU startups as of June 2015.

## Bayh-Dole Act

35 USC §§ 200 – 212 Patent Rights in Inventions Made Under Federal Funding Agreements

- granting title to inventions to the private party / non-profit
- extends to all "funding agreements" for research and development.
  - "Funding agreements" include contracts, grants, and cooperative agreements.
- "Invention" is defined as "any invention or discovery which is or may be patentable or otherwise protectable under this title."
  - Patents, patent applications, trade secrets
Bayh-Dole Act continued

- "Subject invention" is "any invention of the contractor conceived or first actually reduced to practice in the performance of work under a funding agreement."
- Notification
  - Each contractor [nonprofit organization or small business firm] may elect to retain title to any subject invention within a reasonable time after disclosure to the Government.
  - Theoretically the Government may receive title to any subject invention if not disclosed within a reasonable time and Government requests title in writing and Contractor fails to comply within 60 days.

Bayh-Dole Act - Economic Considerations

- 1996 – 2010*
  - $388 B economic effect on U.S. GDP
- Since 1980**
  - More than 4,000 startup companies (800 in FY 2013)
  - 3 million jobs created because of university and nonprofit licensing

* AUTM U.S. Licensing Activity Survey Highlights FY2013.
Bayh-Dole Act – Economic Considerations

• December 2002, *The Economist* gushed:

“Possibly the most inspired piece of legislation to be enacted in America over the past half-century was the Bayh-Dole act of 1980. Together with amendments…[it] unlocked all the inventions and discoveries that had been made in laboratories throughout the United States with the help of taxpayers’ money. More than anything, this single policy measure helped to reverse America’s precipitous slide into industrial irrelevance.”
- Great for technology commercialization and for the economy

• Footnote: *The Economist*’s view of the Civil Rights Act of 1964 is uninspiring!

University Ownership Considerations

• Patent ownership starts with the inventors.
• Assignments typically signed at:
  – Employment
    • ownership of any patentable inventions should be prospectively assigned to the university as a condition of employment, permission to use university facilities, etc.
  – IP disclosure form assignment clause
  – Patent assignment (along with or after filing a patent application)
University Ownership Considerations

- In 2011, the U.S. Supreme Court held in Stanford v. Roche that the Bayh-Dole Act does not automatically vest title to federally funded inventions in federal contractors [universities] or authorize contractors [universities] to unilaterally take title to such inventions.

Thank you!