NEW COURSE – NOT IN CATALOG
15.S22 – SPRING 2019
DIGITAL TECHNOLOGY AND THE LAW:
AI, BIG DATA, CYBERSECURITY, AND OTHER HOT SPOTS
PRELIMINARY SYLLABUS AND READING LIST
[As of 1/25/19]
Instructors: John Akula and Louis Rodriques, Senior Lecturers in Law
Meets full semester; Mondays 7-8:30pm; E25-211 (note new room)
6 units; P/D/F only
No prerequisites
Graduate students, undergraduates and researchers from ALL MIT departments welcome

Note: An audiovisual recording will be made of each of the sessions in this course. These recordings will be made available to class participants unable to attend a regularly-scheduled class. The recordings may also be used to develop digital learning materials to be used in this course in future years. The recordings will focus on the teachers, and not on other participants in the class. However, students asking questions will normally be captured, and there may be some incidental capture of student images. If this is a concern for you, please inform the TA, and seating arrangements will be made to minimize the likelihood of any capture of your image.

Overview
Advances in digital technologies – including software, hardware, analytics, and platforms – are having a profound impact on how we live, work, and do business. These innovations are raising pointed issues relating to regulatory compliance, competition, accountability and business models across the economy; and shifting the legal frameworks relating to government powers, individual rights, and civic discourse. As to some of these technology-driven changes, there has already been a robust legal response. As to others, the law is playing catch-up. This course will look closely at law-sensitive current developments relating to:

- Artificial intelligence (AI) in decision support and robotics;
- Big Data and analytics;
- The Internet, Internet of Things, and social media;
- Blockchain and fintech;
- Privacy and cybersecurity;
- Intellectual property rights as applied to software and other digital technologies;
- The digital workplace and the sharing economy; and
• New business models and competitive strategies.

When considering these topics, we will be especially attentive to the perspectives of –

• Innovators planning careers at the cutting-edge of these developments;
• Entrepreneurs (both commercial and social) bringing technology-based innovations from ideas to impact; and
• Managers adapting their workplaces, business models and business strategies.

Students from all departments at MIT are welcome. Students from outside Sloan who do not participate in the Sloan bidding process can show up for the first class and, space permitting, will be admitted.

Both instructors have practiced law, and the course will focus on practical issues and realistic approaches to risks and opportunities. Guest lecturers who are currently top lawyers still in practice will be invited to some classes to share their expertise.

Class-by-class topical outline

<table>
<thead>
<tr>
<th>Class – Date</th>
<th>Introduction: Overview of course goals and expectations of students.</th>
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<tbody>
<tr>
<td>1 Mon 2/11</td>
<td><strong>Artificial Intelligence (AI) in Decision Support and Robotics:</strong> A first look at legal issues posed by artificial intelligence as used in decision support and robotics/autonomous devices. Special attention to regulatory and liability issues in health care and driverless vehicles. Evaluating AI through the lenses of human-framed legal expectations. Avoiding impermissible inferences. “Black Box” decision making.</td>
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*Note: No class Monday 2/18 -- Presidents Day holiday. But Monday classes meet Tuesday 2/19.*

<p>| 2 Tues 2/19 | <strong>Big Data, Privacy and Cybersecurity:</strong> A first look at legal issues posed by Big Data and the US rules on privacy, with special attention to the commercial context. Legal obligations and tools relating to cybersecurity. The appropriate response to data breaches. The European Union approach to privacy and the EU General Data Protection Regulation. <strong>Guests:</strong> Brenda Sharton, partner, Goodwin; and David Kantrowitz, Of Counsel, Goodwin. |
| 3 Mon 2/25  | <strong>Blockchain and FinTech:</strong> Introduction to the technology of blockchain. Blockchain applications in the financial services sector. “Smart contracts” and contract law. The regulation of cryptocurrencies. The regulation of robo-advisors in investment management. <strong>Guest:</strong> Amber Dolman, partner, Goodwin. |
| 4 Mon 3/4   | <strong>Overview of the US Legal System:</strong> Understanding US legal system with special attention to how it adapts to new technologies. <strong>Overview of the Law of Information Rights, Communication, Privacy, and Surveillance (I):</strong> Freedom of speech and the regulation of harmful speech. The constitutional and statutory framework of the powers of government to surveil and police, and its application to digital technologies and communications. The common law “right to privacy.” Sectoral privacy regulation such as the regulation of health care data. Confidential communications and relationships. Content ownership and control in digital platforms. |</p>
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<tr>
<th>Week</th>
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<td>Note: No class Monday 3/18 – Sloan Innovation Period. And no class Monday 3/25 – Spring Break.</td>
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<td>6</td>
<td>Mon 4/1</td>
<td>Employment, the Digital Workplace, and the Sharing Economy (I):</td>
<td>The impact of discrimination and privacy law on the rapidly increasing use by employers of AI and social media in law-sensitive employment decisions such as hiring. New surveillance techniques being used by employers and the adequacy of existing privacy laws. The legal implications of increased employee use of digital communication devices and social media. The sharing economy and disintermediation and regulation and the shape of jobs in the “gig” economy. When innovators change jobs: Non-disclosure, invention assignment, and non-competition legal obligations and agreements.</td>
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<td>Note: No class Monday 4/15 – Patriots Day holiday.</td>
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<td>8</td>
<td>Mon 4/22</td>
<td>Social Media; Internet of Things</td>
<td>The special legal rules for accountability of ISPs (Internet service providers). The current policy debate over whether, how, and to what extent to regulate platforms such as Facebook in light of events such as alleged Russian interference in the 2016 presidential election in the US, and Facebook's role in the crisis involving the Rohingya in Myanmar. The impact of the First Amendment on any such regulatory efforts. The Internet and Internet of Things: Domain names and trademarks. Online contracts. Critical legal issues for the Internet of Things (IoT), including privacy and security.</td>
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<td>9</td>
<td>Mon 4/29</td>
<td>Rights in Innovation (I) Software and Patents:</td>
<td>An introduction to patent law. Recent shifts in the US Supreme Court framework for evaluating software-related patents. The application and adaptation of this framework to cutting-edge AI and machine learning innovations. Who owns patent rights in typical research and commercial contexts? The impact on individual innovators and business ventures. Guest: Regina Sam Penti, partner, Ropes Gray</td>
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<td>Rights in Innovation (II) Software and Copyright:</td>
<td>An introduction to copyright law. Special copyright issues relating to software. Utilitarian and expressive elements. Licensing rather than selling. The proprietary model contrasted to the “free” and “open source” software models. Who owns copyrights in typical research and commercial contexts? The impact on individual innovators and business ventures.</td>
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<td>10</td>
<td>Mon 5/6</td>
<td>Competition in the Wired World:</td>
<td>An introduction to competition policy in the US. The role of competition policy in restraining dominant firms in the “wired world.” Standard-setting by industry to assure interoperability. Comparisons to Europe.</td>
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<td>11</td>
<td>Mon 5/13</td>
<td>Wrapping it All Up.</td>
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Prerequisites and prior experience

There are no prerequisites required or recommended. You are not expected to have any prior understanding of law or of any particular business topics. Whatever background you need will be provided in class. Students from departments outside of Sloan are welcome.
The law has its own terminology, and this may be a concern for students for whom English is a second language. However, a special effort has been made in designing the readings and deliverables to minimize this problem – this course is “English-second-language-friendly.”

**Expectations of students**

There is no final exam or any other course obligation after the last meeting of the class.

Students must take this course for credit. The general rule is that Listener status is not allowed. All students will be graded P/D/F.

Any student requiring an academic accommodation should contact one of the instructors.

It is generally assumed in Sloan courses that students are familiar with the guidelines for course-related conduct provided by “Sloan Values in Practice.” However, since this course may draw students from outside of Sloan, those guidelines have been posted on Canvas under the “General” materials tab, and any students who are not familiar with those guidelines should read through them and plan to conduct themselves accordingly. The guidelines can also be found at: [https://mysloan.mit.edu/offices/deans/values/Pages/CoreValues.aspx](https://mysloan.mit.edu/offices/deans/values/Pages/CoreValues.aspx)

**Class attendance:** Much of the most important material in this course is presented in class, so students should commit to attending ALL of the classes. If you miss a class and feel that you have a good reason (such as illness or a family obligation), please email the TA before or shortly after the class (with a “cc” to the instructors), to explain your absence. (You do not need to include in the e-mail any personal details -- just a general statement of the reasons, e.g., illness, or family obligation.) If a student misses a class for good reason, we expect to be able to make available for a short time a video of that class. If the student views the video and submits notes on the video to the TA, that will count as attending that class.

*Be advised that poor attendance will result in an unsatisfactory grade for the course.*

The general rule is that a failure to attend or make up for more than one class will be considered poor attendance.

*You may not register for this class and any other class with a meeting time which conflicts with this class. (We are aware that such scheduling conflicts are sometimes allowed at MIT, but there is a Sloan rule against such conflicts, and that rule applies to all students in this course.)*

*Under no circumstances should students sign in on the attendance sheet for anybody but themselves.*

*Please do not use laptops or cell phones during class.*

**Written exercises:** There will be several short written exercises. Detail will be provided no later than the first meeting of the class.

**Readings:** There is no textbook. All required or optional readings will be posted on Canvas or handed out in class.

**The Canvas course site:** Sloan uses Canvas for on-line course sites. Students from outside of Sloan should be sure that they are registered on the Canvas site for this course.
Grading

Grading will be Pass/D/Fail only. Students are expected to attend all classes, so you should not enroll if you think consistent attendance will not be possible for you. (See discussion of “Class attendance” under “Expectations of students” above.)

Contact Information

Instructors:

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Course Teaching Assistant:

Consuelo Ostale
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Faculty Administrative Support for both John Akula and Louis Rodrigues:

Patty Charest
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617-253-5701

Preliminary Reading List

<table>
<thead>
<tr>
<th>Class Date</th>
<th>READINGS</th>
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<tbody>
<tr>
<td>1 Mon 2/11</td>
<td>Course Introduction</td>
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<td>Artificial Intelligence (AI) in Decision Support and Robotics</td>
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Required reading:


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<th>Tues 2/19</th>
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<tr>
<td><strong>Big Data, Privacy and Cybersecurity</strong></td>
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<tr>
<td><strong>Required reading:</strong></td>
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<tr>
<td>- U.S. Federal Trade Commission, &quot;Privacy and Data Security Update 2017,&quot; but only pp. 1-13 required. (Summary of recent privacy-related enforcement actions and other initiatives brought by the FTC, the US federal agency with primary responsibility for regulatory protection of privacy in the commercial context.)</td>
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<tr>
<td>- Microsoft, &quot;An Overview of the General Data Protection Regulation (GDPR). (An introduction to the European Union’s most recent restatement of the EU basic regulation on privacy.)</td>
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<td><strong>Blockchain and FinTech</strong></td>
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<td><strong>Required reading:</strong></td>
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<td><strong>Overview of the US Legal System</strong></td>
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<tr>
<td><strong>Required reading:</strong></td>
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<tr>
<td>- John Akula, “The US Legal System in a Peanut” (Note: You may put off reading this item until preparing for Class 5, for which the readings are otherwise light.)</td>
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<td>Document on Canvas.</td>
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**Overview of the law of Information rights, Communication, Privacy, and Surveillance (I)**

**Required reading:**
- **Riley v. California** (2014 US Supreme Court decision on whether the police may, without a warrant, search digital information on a cellphone which has been seized incident to an arrest), but only pp. 1-11 (Opinion of court by Chief Justice Roberts only; Concurring opinion by Alito not required).  
  Document on Canvas and (with different pagination) at: [https://www.supremecourt.gov/opinions/13pdf/13-132_8l9c.pdf](https://www.supremecourt.gov/opinions/13pdf/13-132_8l9c.pdf)

- **Carpenter v. US** (2018 US Supreme Court decision on whether the government has conducted a “search” under the 4th Amendment to the Constitution when it accesses cell phone company records providing a comprehensive log of the phone user’s movements), but only pp. 1-10 required (Opinion of the court by Chief Justice Roberts only; dissenting opinions by Kennedy, Thomas, Alito, and Gorsuch not required)  
  Document on Canvas and (with different pagination) at: [https://www.supremecourt.gov/opinions/17pdf/16-402_h315.pdf](https://www.supremecourt.gov/opinions/17pdf/16-402_h315.pdf)

### 5  
**Mon 3/11**  
**Overview of the Law of Information Rights, Communication, Privacy, and Surveillance (II)**

**Required reading:**
- **Packingham v. North Carolina** (2017 US Supreme Court opinion on whether a North Carolina statute prohibiting a registered sex offender from accessing social media websites imposes an unconstitutional limit on freedom of speech).  
  Document on Canvas and (with different pagination) at: [https://www.supremecourt.gov/opinions/16pdf/15-1194_08l1.pdf](https://www.supremecourt.gov/opinions/16pdf/15-1194_08l1.pdf)

**Note:** No class Monday 3/18 – Sloan Innovation Period. And no class Monday 3/25 – Spring Break.

### 6  
**Mon 4/1**  
**Employment, the Digital Workplace, and the Sharing Economy (I)**

**Required reading:**
- **“Amazon’s Gender-Based Algorithm Is Not Alone,”** Bloomberg Opinion, October 16, 2018; Byline Cathy O’Neil.  

- **“If Workers Slack Off, the Wristband Will Know.(And Amazon Has a Patent for It.”** New York Times Feb 1, 2018; Byline Ceylon Yeginsu.  


### 7  
**Mon 4/8**  
**Employment, the Digital Workplace, and the Sharing Economy (II)**

**Required reading:**
- **Scott v. Beth Israel Medical Center** (2007 New York court decision on whether an employee involved in a legal dispute with employer waived the attorney-client privilege by using the employer’s email system to communicate with his attorney).
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<thead>
<tr>
<th>Class Date</th>
<th>Topic</th>
<th>Required Reading</th>
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| Mon 4/22 | Social Media | **Required reading:**  
| Mon 4/29 | Rights in Innovation (I) Software and Patents | **Required reading:**  
| Mon 5/6 | Rights in Innovation (II) Software and Copyright | **Required reading:**  
15.S22 – Sp19 – Digital Tech & the Law


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<th>11 Mon 5/13</th>
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### The Internet and Internet of Things

#### Competition in the Wired World

**Required reading:**

- John Akula, “Antitrust in a Peanut.”
  Document on Canvas.


  Document on Canvas (edited for length), and full version at: [https://www.justice.gov/opa/speech/file/1044316/download](https://www.justice.gov/opa/speech/file/1044316/download)

  Document on Canvas and at: [https://search.proquest.com/docview/2072228026/C9DC152EC365435CPQ/1?accountid=12492](https://search.proquest.com/docview/2072228026/C9DC152EC365435CPQ/1?accountid=12492)

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