

Patent Practice 3.0

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A New Era of Patent Practice

“[W]e are embarking on the era of IP Practice 3.0, which [promises to] increase efficiency, simplify tasks and offer greater value to clients.”

- Gwilym Roberts, Chairman, Kilburn & Strode LLP

IP Practice 1.0

- Paper-based files and filings
- Word processing
- Facsimile

IP Practice 2.0

- Digitization of patent files and prior art
- Electronic filing and searching
- Machine translation

IP Practice 3.0

- AI applications
- Workflow and document automation
- Big data insights

That's great, but
what does it mean for me?

Ergo, this session:

“Will a Machine Replace Me? The
Impact of AI and New and Emerging
Technologies on IP Practice”



start here

What are these so-called
“AI and New and Emerging
Technologies”?

“PatentTech” Landscape 2020

- A mere sampling of a vibrant and growing ecosystem

Invention intake	 BRIGHT MARBLES	 Legit	 Wellspring	 MindMatters Solutions	 AppColl
Prior art searching	 NL Patent Quantifying Innovation	 DOROTHY AI	 amplified	 ambercite	 RESOLUTE patents
Application drafting	 Specifio	 Draft Builders	 HOLLAND & HART	 HARRITY WE PATENTED QUALITY®	 [TurboPatent]
Patent proofreading	 Patent Bots	 BluePencil BETA	 ClaimMaster Patent Quality Assurance	 LexisNexis PatentOptimizer®	
Docketing/reporting	 Black Hills IP	 helios	 CLEARACCESS IP	 PATTSY	 leap^{ip}
IDS prep & mgmt	 syncIDS	 MAXVAL	 smartIDS On time, in budget IDS. Always.	 IPDAS	 Temburi  ktMINE
Prosecution	 bigopatentdata	 techson INTELLIGENT PROPERTY	 Triangle IP	 [SmartShell]	 IPDataLab
Strategic counseling	 CLEARSTONEIP	 ANTICIPAT	 JURISTAT	 PERCEPTION PARTNERS	 Patentprufer

* Several companies have offerings spanning multiple categories.

Beyond new tech...

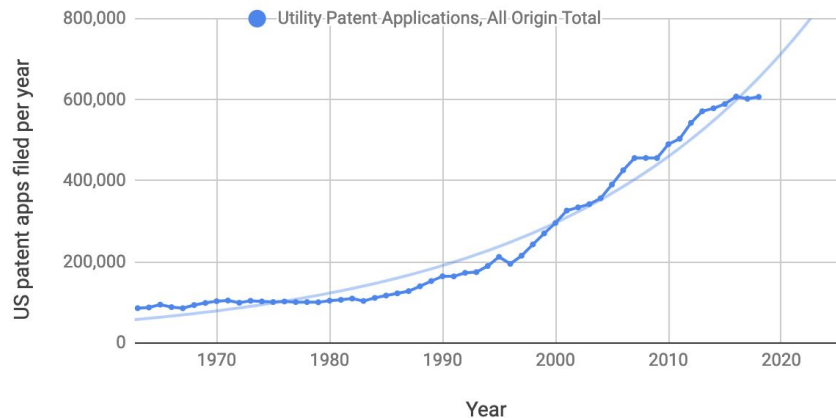
Are there other trends driving the
transition to Patent Practice 3.0?

Growing Demand for Patent Services

- Over the last decade:
 - **31% increase** → total patent applications filed per year (2008-2018)
 - **40% increase** → total substantive official actions mailed per year (2007-2017)

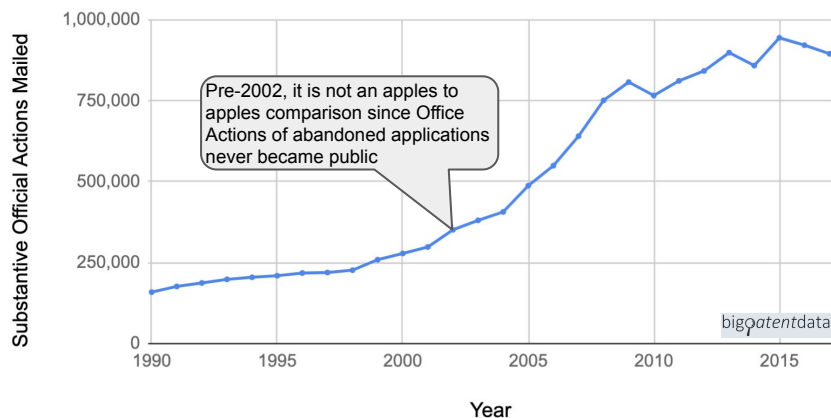
US patent filings versus Moore's Law

Annual patent filings leveling off or set to increase drastically?



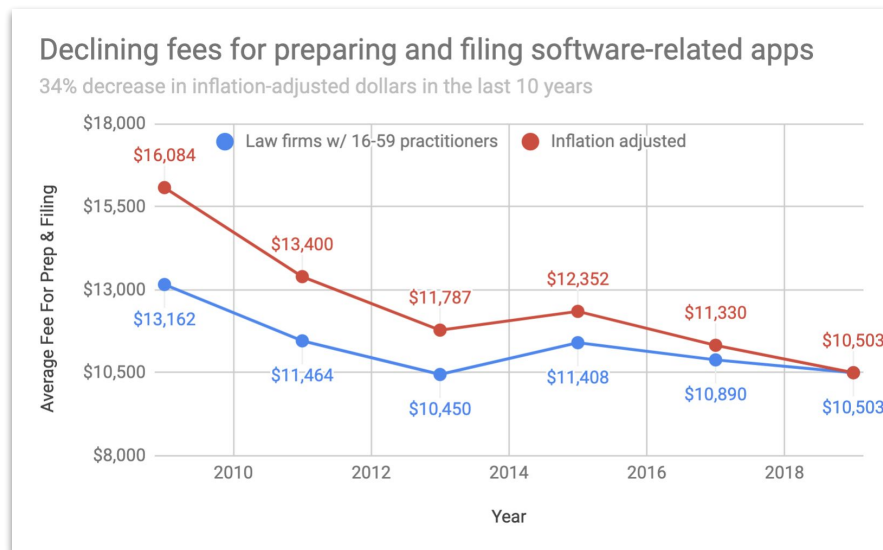
Substantive Official Actions Mailed per Year

Practitioner demand at all-time highs



Challenging Economics for Prep & Pros

- Decade-long decline in market-rate fees for patent services
 - 34% decrease → inflation-adjusted average fees to prep and file a software app
 - Is this a trend that will continue?



Changing Demographics Within the Patent Bar

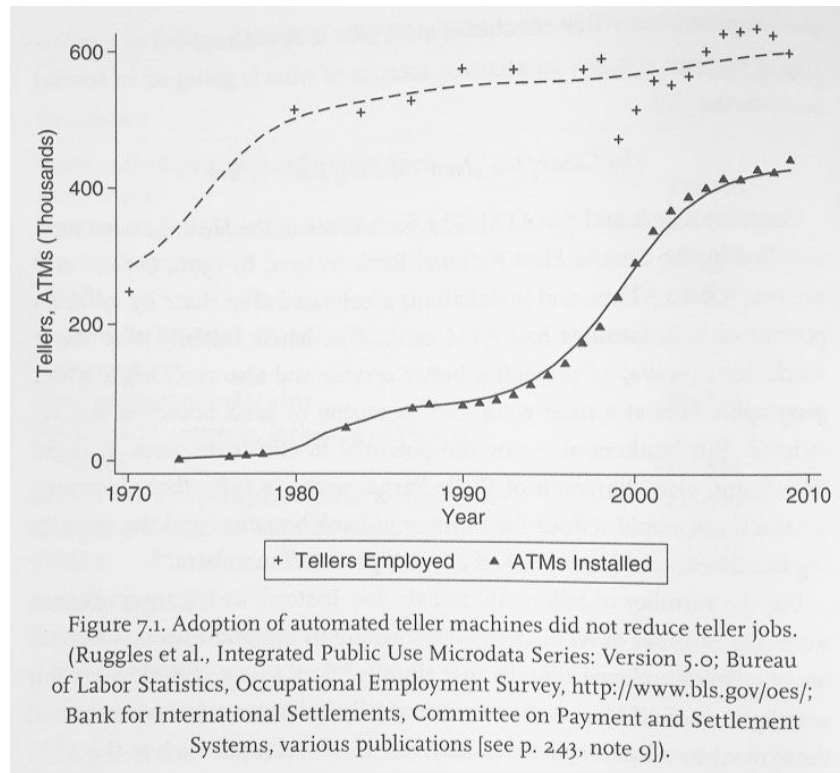
- The associate model has largely collapsed over the last decade



How will patent work change as technology takes an increasing role?

Lessons From History

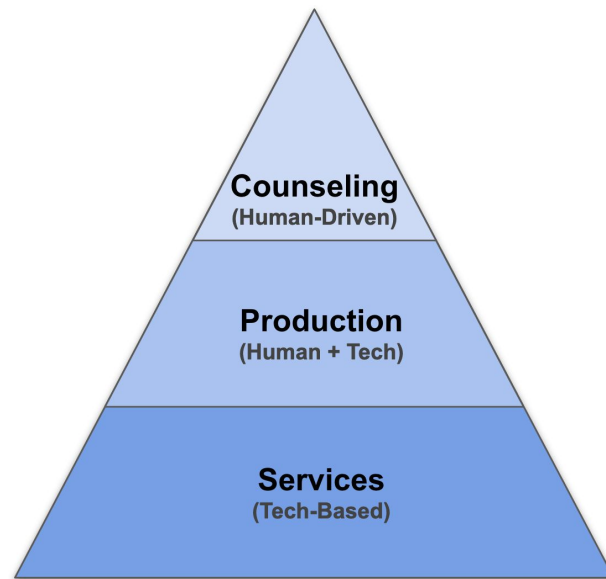
- In many industries, automation has led to more professionals instead of less:
 - Electronic spreadsheets & accountants
 - CAD & architects
 - Machine translation & human translators
 - ATMs & bank tellers



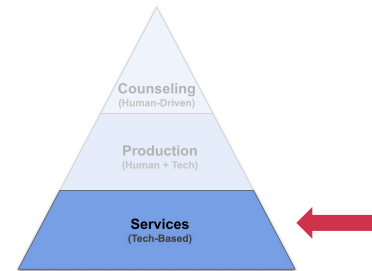
New practice era,
new practice structure?

A New Paradigm for Patent Practice 3.0

- A proposed framework for contemplating and organizing:
 - **Focus on business functions**, at a granular level, rather than seniority or traditional law firm titles
 - A Services Layer, Production Layer, and Counseling Layer form **separate but interdependent business units**
 - Grouped as such because the different underlying activities of each layer are **conductive to very different approaches for optimization**

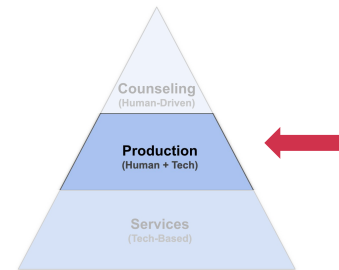


Services Layer for Patent Practice 3.0



- **Everything that can be automated should be automated:**
 - I.e., all activities traditionally performed by humans which are mechanical and repeatable and do not involve significant creativity or judgment
- Insights from data analytics should be leveraged for strategic decisions
- Group automatable activities based on who traditionally performed them:
 - **Tech automates traditional non-practitioner activities:** meeting scheduling, preparing filing forms, filing documents with the Patent Office, client reporting, docketing, invoicing, information disclosure statement (IDS) management, shell generation, proofreading, and more
 - **Tech augments traditional practitioner activities:** legal analysis, preparation of substantive patent documents, etc.

Production Layer for Patent Practice 3.0

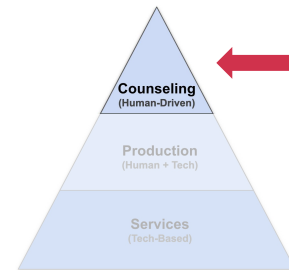


- **Generates high-volume substantive patent documents**
 - Under the direction and oversight of the Counseling Layer
- Segregating the production function allows practices to fully realize the benefits of lean production principles
 - Processes should be viewed as a series of separate but interlinked subprocesses
 - Each subprocess is delegated to the most efficient resource

EXAMPLE: Patent application preparation

- **Skilled practitioner input** - drafts background section, the problem/solution statement, a primary claim set, and descriptions of drawings illustrating example invention embodiments
- **Natural language generation (NLG)** - creates content for substantial portions of patent app
- **Document assembly** - partially mechanized but guided by a non-practitioner
- **Pre-filing review** - patent drafting “rules” automatically checked; content checked by responsible practitioner

Counseling Layer for Patent Practice 3.0



- **Functions include most traditional practitioner activities** (except for generating high-volume substantive patent documents)
 - **Activities requiring direct client interactions** as the “face” of the practice - client relations, counseling sessions, invention disclosure meetings, conveying advice and work product, etc.
 - **High-end legal services** - portfolio strategy and management, patentability and infringement analyses and opinions, IP due diligence, and so on
 - **Directing and overseeing work product generation** by the Production Layer
 - Providing document instructions to the Production Layer
 - Performing pre-filing review and finalization of documents produced

Conclusions → Patent Practice 3.0 is the New Reality

- New era, new practice structure
- The ways in which many patent professionals currently work will certainly change
- While roles will be displaced by tech, practitioners and other patent professionals will remain in high demand

