

# Convergence

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# Disclaimer

- The views and opinions expressed are my own and not those of my employer, nor are they legal advice

# ”Big Data” is not necessarily new data

- Big Data is about access and instrumentation
- Much of this data already exists but was not accessible in a functionally useful way
- Advancements in information technology have enabled access to an enormous corpus of data
  - GPS: ground and air traffic/navigation; weather/climate; surveying; shipping
  - IOT/RFID: smart home; power grids; smart cities (e.g. traffic, see GPS); wearables
  - Smartphones: demographics; habits (marketing, privacy)
  - Global connectivity via diverse range of networks: internet, cellular
- As technology advances, so will the type, volume, content of available data

# Many diverse fields benefits from big data and AI

- Life sciences: health informatics, including machine learning (clinical decision-support systems, analyzing medical device signals; drug repurposing); medical imaging analytics and solutions; Watson Health/Medtronic partnership transforming diabetes care
- Smarter Cities: resource planning and management; infrastructure; people (health, education)
- Oil & Gas: “We teach Watson to think like an engineer, Watson teaches us to think like 1000 engineers from a thousand sources.”
  - Woodside Energy, Watson IOT customer
- “Every company is a big data company”

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- Innovation at IBM is at the intersection of IT and many other fields
- Challenge to collaborate in fields using historically different business models: IT networked/collaborative; LS vertical and exclusive
- New business models and integrated approaches to IP capture and commercialization are emerging
- Collaborators must and can agree on terms

# Convergence – IP Policy

- A critical feature of the US patent system is technology neutrality (“unitary patent system”)
- Important for creating a fertile and fair platform for development of new fields of technology, including the areas reflecting convergence of big data/AI invention and the knowledge and insights of the fields in which it is applied
- Current patent environment is divisive and if left unchecked will be a barrier to collaborative innovation (CBM, 101)
- Subject matter eligibility

# Convergence – IP Policy

- Examples of ineligible inventions at the convergence of IT and another field under *Alice*:
  - *Ex Parte Hiroyuki Itagaki* – MRI machine
  - *Electric Power Group v Alstom* – real-time performance monitoring of electric power grid
  - *Fair Warning IP v Latric Systems* – detecting fraudulent access to patient records
  - *Synopsis v Mentor Graphics* – converting functional description of a logic circuit into a hardware design