AI and IP – the trade secrets arena
The IT continuum

Internet of Things
- Hardware: Equipment, wearable’s, sensors, industrial internet, etc.
- Communication platforms and services
- Services aligned to users of things (medical, retail, emergency, etc.)

Artificial Intelligence
- Neural networks learning services
- Decisions made and sent to performing things
- Inventive decisions?

Big Data
- Data storage and management
- Analysis
- Curation
- Search
- Etc.

THINGS?
SERVICES?
SYSTEMS?
DATA?
MACHINE CREATIONS?
Stakeholders in the IT continuum

Internet of Things
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DATA OWNERS
MANUFACTURERS
R&D INSTITUTIONS AND DEVELOPERS
INVESTORS
DATA SOURCES (PERSONS)
DATA USERS
DATA OWNERS?
IT continuum challenges vs. Relationship and property risks

Capture
Storage
Analysis
Curation
Search
Sharing
Transfer
Visualization
Querying
Updating
Data Privacy
Transparency

Crowdsourcing
Machine behavior liabilities
Machine behavior property results
Data analysis results ownership
Data ownership
Data licensing
Data privacy of source persons
Machine managed and formed contracts

Proprietary

Open Sourced

Data
AI systems and results
Things acting based on big data
Services provided based on big data
Crowd-sourced data
Things acting based on data
AI systems and results

CROWDS OF USERS, OWNERS AND TERRITORIES
Blockchain – Smart Contracts
AI and IP

Human Creation

IP – human rights
- Are machines entitled to human rights and/or be recognized as inventors?
- Are other human rights above the rights of “creative machines” owners (i.e. health, access to culture, privacy).

Creator
- Whose data is used by AI?
- How many “creators”?
- Is AI a derivative work? Of which creators and creations (program, artwork, data, etc.)?

Protection & Innovation
- AI needs to be used to learn
- Learning information/algorithms are often confidential
- Increasing complexity needs investment to be protected.

Machine Creation

IP as a human right
- Identification of creator
- Impact of protection in innovation.
- Impact of regulation in innovation

Regulation & Innovation
- "Transparency" imposes atypical burdens to the innovator (i.e. Data exclusivity in pharma)
- Risks to public will need management
- Regulatory burdens need be accompanied by certainty to investment.
<table>
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<th>IP – human rights</th>
<th>Creator</th>
<th>Protection &amp; Innovation</th>
<th>Regulation &amp; Innovation</th>
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| • Trade secrets are based on information possession and not creation.  
• TS typically co-exist with other IP rights | • Machines can generate TS information and the title is to the possesor.  
• Identification of the creator is not necessary. | • TS are currently extensively used to protect technology in the IT continuum  
• Learning information/algorithms are often confidential | • "Transparency" regulation may put at risk trade secret management.  
• One size will not fit all a balance of public and secret information must be found. |

**Trade Secrets are the least standardized IP related right worldwide**
Big Data, IoT and AI increasingly complex property and relationships management, also need Big Data, IoT and AI solutions

THANK YOU!

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