

Knobbe Practice Webinar Series:  
Strategic Considerations for  
Capturing and Protecting Subject  
Matter

Part I

May 2, 2022

Paul Stellman

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# Types of Intellectual Property

# Types of Intellectual Property

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- ❖ **Patents** - Right to exclude others from making, using, selling, importing a new and useful process, machine, manufacture, or composition of matter ([www.uspto.gov](http://www.uspto.gov))



- ❖ **Trademarks** - Right to prevent use of marks that are likely to confuse consumers; can greatly enhance marketing strategies ([www.uspto.gov](http://www.uspto.gov))



- ❖ **Copyrights** - Right to prevent unauthorized copying, distribution, etc. of original works of authorship ([www.copyright.gov](http://www.copyright.gov))



- ❖ **Trade Secrets** - Protect internal methods, materials; right to prevent unauthorized use (can protect against use of proprietary information)

# Types of Intellectual Property

IDEAS

PATENTS

TRADE SECRET

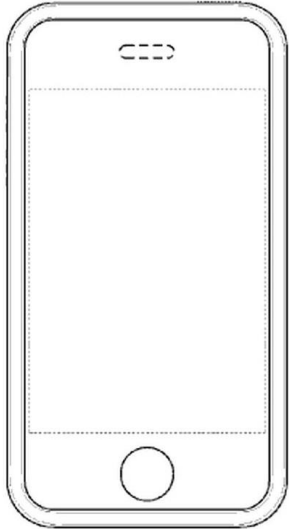
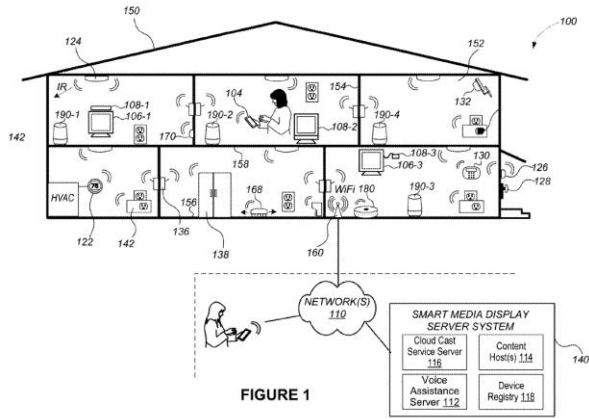
EXPRESSION

DESIGN PATENT

COPYRIGHT

BRAND NAME

TRADEMARK



```

instruction 1;
instruction 2;
{other instructions.}
instruction n;

if policy_not_loaded
  report_error;
  return_default_value;
if policy_doesn't_match_DP_specification
  report_error;
  return_default_value;
if_context_unavailable
  report_error;
  return_default_value;
{other errors handled by the wrapper.}

EVALUATE_DECISION_POINT_USING_A_DCM

if valid_output
  return_policy_decision;
else
  report_error;
  return_default_value

switch(output_value)
  value_1: instruction_A;
  value_2: instruction_B;
  {other output values.}
  value_n: instruction_N;
  
```



# Traditional Offensive and Defenses Strategies for Developing Intellectual Property

## Offensive Uses – Product/Service Sales

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- IP strategy - Supporting product and service sales
- ROI measurements:
  - Brand awareness
  - Company market growth or market maintenance
  - Barriers to business – competitors
- IP subject matter will prioritize how technology will be implemented by Company
- Note: IP filings do not grant right to implement vis-à-vis third party IP

## Offensive Uses – Licensing

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- IP strategy - Supporting revenue-generating IP licensing
  - Mostly independent of product/service sales
- ROI measurements:
  - Overall market growth or maintenance
  - Direct financial/offsets received by Company
- IP subject matter will prioritize how technology may be implemented by companies in the value chain
  - Additional or alternative embodiments disclosed in patents
  - Additional claims targeting different aspects of the value chain

## Offensive Uses – Litigation

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- IP strategy – Supporting revenue-generating IP licensing or exploitation of exclusionary IP rights
- ROI measurements:
  - Company market growth or market maintenance – Exclusionary Rights
  - Barriers to business – competitors – Exclusionary Rights
  - Direct financial/offsets received by Company – Settlements and Licensing
- IP subject matter will prioritize how technology may be implemented by companies in the value chain
  - Additional or alternative embodiments disclosed in patents
  - Additional claims targeting different aspects of the value chain



## Defensive Uses – Capturing and Protecting Innovation

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- IP strategy - Supporting innovation development related to products and services
  - Acknowledging and rewarding Company inventors
  - Promoting continued innovation with incentive(s)
- “Protection” of IP from subsequent development/filings
  - Patent prior art
  - Trademark registrations
- ROI measurements
  - Number of received disclosures

## Defensive Uses – Portfolio Development

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- IP strategy - Creating assets vis-à-vis third party IP assets
  - Cross license negotiations with competitors or IP licensing agencies
  - Asset valuations for investment or sale
  - Licensing/litigation avoidance – Exclusionary Rights
    - Typically limited to competitors – not likely beneficial against non-practicing entities
- ROI measurements
  - Portfolio development metrics (e.g., number of assets development)
  - Direct financial/offsets received by Company – Settlements and Licensing
  - Funding metrics

# Timing Considerations

# Timing Considerations

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- Patents
  - Domestic Filings
    - Deadline: No more than one year from possible disclosure or use of inventive concept
    - Best Practices: Filing prior to any possible disclosure or use of inventive concept
    - First to File: First to file with US Patent Office will “win” between concurrently-developed innovations
  - International Filings
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    - Note: Rights to pursue international filings can be preserved through filing of US applications and additional IP treaties (PCT)
- Trademarks
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# Timing Considerations

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- Copyrights
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    - Best Practice: Registered copyright required for copyright litigation – would have to be registered prior to filing lawsuit
    - Best Practice: Registration of copyright within 4 months of first publication entitles Company to potential statutory damages for infringement
  - International Filings
    - No common international filings for copyrights by treaty
- Trade Secret
  - Domestic Filings (Not Applicable)
    - Deadline: There is no active trade secret registration. Establishment and preservation of trade secrets will be based on Company procedures and policies
    - Enforcement of trade secret infringement can be based on Federal Trade Secret Act or individual state versions
  - International Filings
    - No common international trade secret laws

# Knobbe Martens

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May 5, 2022

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# Intellectual Property Review Processes



# Types Of Protectable Subject Matter

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- Identifying patentable subject matter
  - What makes invention better, cheaper, faster, more attractive to ultimate consumer?
  - What distinguishes the product or service from competitors?
  - How will the product/service be used in the marketplace(s)?
- Systems
- Product
  - Circuit
  - Transmitter/Receiver
  - Server
  - User terminal
  - System/device/apparatus
- Method or Process to perform function/obtain result
  - Making
  - Using/operating
- Non-transitory computer readable medium

# Artificial Intelligence/Machine Learning

# Machine Learning/Artificial Intelligence

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- Minimal Requirements for an Algorithm to be ML
  - Representation – Classifiers or basic language that a computer can understand
  - Evaluation – Inputting data and generating output (score)
  - Optimization – Developing a strategy to get from inputs to outputs

## Learning Models

**1** Supervised Learning

**2** Unsupervised Learning

**3** Semi-Supervised Learning

**4** Reinforcement Learning

# Protecting ML Technologies

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## Data Set Generation and Inputs

- Contract/Copyright
  - Securing data rights from users or third-parties
- Data Privacy
  - Providing necessary information
  - Maintaining data appropriately
- Potential Patentable Subject Matter
  - Collecting or Forming Data Set
  - Supplementing Data Set

## ML Processing

- Contract/Copyright
  - Third-party ML processing services
- Data Privacy
  - Providing data to third-party services
  - Maintaining data appropriately
- Potential Patentable Subject Matter
  - Modifications/Improvements to AI algorithms

## ML Results and Post Processing

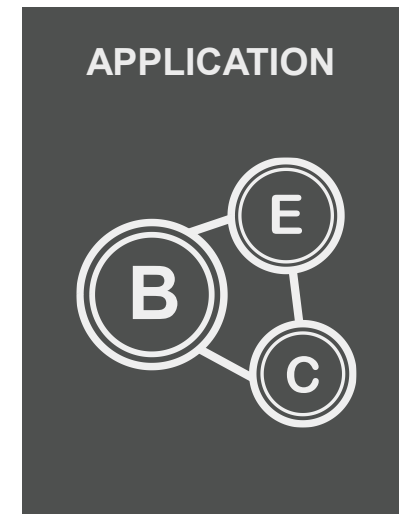
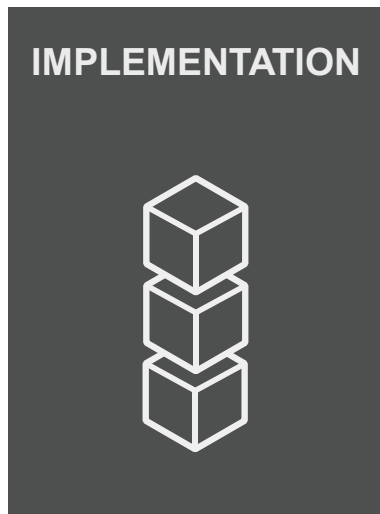
- Contract/Copyright
  - Limitations/restrictions of the generated result
- Data Privacy
  - Maintaining processed data appropriately
- Potential Patentable Subject Matter
  - Post-processing feedback
  - Use of ML processed data

# Distributed Ledger Technology

# Public Block Chain (DLT)

## General Principles

- Public Blockchain corresponds to a subset of DLT-based systems for receiving, maintaining, and providing transaction data defined in the utilization of a sequence of “blocks” as the technical mechanism for maintaining transaction data.
- An individual block is configured to be of a sufficient size to maintain a set of transaction data and associated metadata describing the transaction (e.g., thousands of individual pieces of transaction data).
- Although not required, a Public Blockchain system is often defined in that transaction data within any individual block can be unrelated and may be associated from different entities.



# DLT Layers – Protectable Subject Matter

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## **Mining Layer**

- Algorithms/techniques for addressing immutability

## **Propagation Layer**

- Algorithms/techniques for receipt and distribution of transaction data between nodes

## **Semantic Layer**

- Algorithms/techniques for implementing consensus between “nodes” for distribution of transaction data or generating results

## **Application Layer**

- Deploying applications or systems that utilized the DLT transaction data (e.g., smart contracts, digital currencies, exchanges, etc.)

# Best Practices for Computer-Implemented Inventions – Areas of Innovation

<b>Individual IoT Devices/Components</b>	<b>Multiple IoT Devices/System</b>	<b>Services/Additional Devices</b>
<ul style="list-style-type: none"><li>• Generating communications or transmitting data in unique manner</li><li>• Individual software/controls for managing the operation of IoT functionality on devices</li><li>• Potential functionality of the device if operating in a unique and different manner</li></ul>	<ul style="list-style-type: none"><li>• Intermediary processing of individual IoT devices (if individual IoT devices have limited functionality)</li><li>• Multiple IoT device interaction or functionality</li><li>• Client devices applications/apps or control interfaces</li><li>• Facility security/access control</li></ul>	<ul style="list-style-type: none"><li>• Data processing or manipulation (e.g., AI, encryption, compression, etc.)</li><li>• Data storage and manipulation</li><li>• Testing and diagnostics (including service scheduling and performance modeling)</li><li>• Additional or other enhanced services</li></ul>





# Formation of Intellectual Property Review Committee

# Intellectual Property Review Committee

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- Formation
  - Decision making authority regarding execution of IP strategy
  - Representation:
    - Sales
    - Marketing
    - Engineering/Product Development
    - Management
    - Legal
- Meeting Frequency
  - Aligned with Company development cycle
  - Best Practice: Proactive decisions based on timing considerations for IP

# Intellectual Property Review Committee

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- Meeting Cadence
  - Idea Collection
    - Open-ended idea submission process
    - Product review and mining
  - Submission Filtering
    - Out of business scope
    - Time barred issues
  - Submission Processing
    - Grading/scorecards
    - Ranking and prioritization
  - IP Filing Authorizations
- Outputs
  - Managed list of IP submissions
  - Submission feedback/strategy
  - Training opportunities

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# Cost Deferral Strategies

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- Patents
  - Domestic
    - Utility patent filings
      - Limited to claiming one invention per claim set
      - Strict formal structure
      - Full claim set required
      - Selective searching prior to proceeding
    - Provisional patent filings – 1 yr. priority placeholder
      - Can combine ideas
      - Does not require full claim set (less legal fees)
      - Less formal structure
  - International
    - PCT application – 18-month deferral of national phase filings
    - Preserves rights to seek patents in other jurisdictions
  - Trade Secret
    - Keeping idea(s) propriety – no active registration



# Cost Deferral Strategies

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- Copyrights
  - Domestic
    - Selective registration
    - Reliance on automatic rights and no time bar
- Trademark
  - Domestic
    - Selective filings
      - Well scoped description of goods and services
      - Class limitations
      - Searching/clearance prior to filing
    - Reliance of secondary meaning and common law rights