Best Ways to Address Section 101 Patent Eligibility

2016 NAPABA Convention
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Overview

- Very brief overview of latest Section 101 decisions

- Current USPTO examination guidelines (responsive to Alice)

- Prosecution case studies and tips
Introduction – *Poll*

- How many software-related applications have you prosecuted during the past year?
  - A. None
  - B. 1 to 10
  - C. 11 to 20
  - D. More than 20
Introduction – *Poll*

- How many computer-related applications have you prosecuted during the past year?
  - A. None
  - B. 1 to 10
  - C. 11 to 20
  - D. More than 20
Introduction – *Poll*

- How many genetic and diagnostics-related applications have you prosecuted during the past year?
  - A. None
  - B. 1 to 10
  - C. 11 to 20
  - D. More than 20
Introduction - *Poll*

- How many cases have you litigated involving software or computer or diagnostics during the past two years?
  
  A. None  
  B. 1 to 2  
  C. 3 to 5  
  D. More than 6
Section 101 – Patent Eligibility

- **35 U.S.C. 101 – Inventions are patentable**
  - Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

- **Three historical judicial exceptions to patentability**
  - Laws of nature
  - Physical phenomena
  - Abstract ideas
## Very Brief Overview of Software Decision Sentiments

<table>
<thead>
<tr>
<th>Year</th>
<th>Case</th>
<th>Software Friendly</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td><em>Gottschalk v. Benson</em> (U.S. Sup. Ct.)</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Mathematical formulas or mental steps ineligible if used with general-purpose computer (no special purpose machinery to transform substance)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1981</td>
<td><em>Diamond v. Diehr</em> (U.S. Sup. Ct.)</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Machine or process that applies mathematical formula may be eligible</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td><em>State Street v. Signature Finance</em> (Fed. Cir.)</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Eligible if involves practical application and produces useful, concrete and tangible result</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td><em>Bilski v. Kappos</em> (U.S. Sup. Ct.)</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Machine-or-transformation test useful but not sole test</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td><em>Alice v. CLS Bank</em> (U.S. Sup. Ct.)</td>
<td>???</td>
<td>???</td>
</tr>
<tr>
<td></td>
<td>Abstract idea implementation on generic computer insufficient for patentability</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Effect of *Alice*

- How *software friendly* do you find *Alice* to be?
  A. Not at all (1 or 2)
  B. Slightly (3, 4 or 5)
  C. Somewhat (6, 7, or 8)
  D. Very much so (9 or 10)
Effect of Alice

• How *computer friendly* do you find Alice to be?
  A. Not at all (1 or 2)
  B. Slightly (3, 4 or 5)
  C. Somewhat (6, 7, or 8)
  D. Very much so (9 or 10)
Effect of Alice

• How *software friendly* do you find the district courts to be?
  A. Not at all (1 or 2)
  B. Slightly (3, 4 or 5)
  C. Somewhat (6, 7, or 8)
  D. Very much so (9 or 10)
USPTO Struggling to Establish Workable Framework for Alice

- *Alice* happened – June 19, 2014
- June 25, 2014 – USPTO attempts to produce a quick and rapid response by issuing Preliminary Guidelines
- December 16, 2014 – USPTO releases Interim Eligibility Guidelines
- July 30, 2015 – Additional Abstract Idea Examples
- May 2016 – Subject Matter Eligibility Update, with additional eligibility examples (especially in life sciences)
- Late May 2016 Update based on Federal Circuit decision *Enfish LLC v. Microsoft Corp*
Information below is mostly from Examiner’s training workshop on July 2015 Update to Interim Eligibility Guidance

To be eligible, claim must be:

1. Of a statutory category (process, machine, manufacture or composition of matter)

   and

2. Either not directed to an abstract idea or significantly more than an abstract idea
USPTO Struggling to Establish Workable Framework for *Alice*

**Step 1** – Claim must be of statutory category (process, machine, manufacture or composition of matter)

- Not signal per se, intangible data collection (e.g., “device profile”), business model (e.g., “paradigm”)

- Assessment is to be performed:
  - By using the Broadest Reasonable Interpretation of the claim; and
  - Considering the claim as a whole
Step 2A – Is the claim directed to (recites) an abstract idea? Abstract idea can be identified by relying on:

- Knowledge available to those in the art
- Evidence
- Applicant’s disclosure
- Detecting a concept similar to one identified as being abstract by the courts
  - Fundamental Economical Practice
  - An Idea “of Itself”
  - Certain Methods of Organizing Human Activity
  - Mathematical Relationships/Formulas
An Idea “of Itself”

- Comparing information regarding a sample or test subject to a control or target data
- **Collecting and comparing known information**
- Comparing data to determine a risk level
- Diagnosing an abnormal condition by performing clinical tests and thinking about the results
- Obtaining and comparing intangible data
- **Comparing new and stored information and using rules to identify options**
- Using categories to organize, store and transmit information
- Data recognition and storage
- Organizing information through mathematical correlations
Certain Methods of Organizing Human Activity

- Creating a contractual relationship
- Hedging
- Mitigating settlement risk
- **Processing** loan information
- Managing an insurance policy
- Allowing players to purchase additional objects during a game
- Generating rule-based tasks for processing an insurance claim
- Tax-free investing
- Using advertising as an exchange or currency
- Structuring a sales force or marketing company
- **Using an algorithm for determining the optimal** number of visits by a business representative to a client
- A mental process that a neurologist should follow when testing a patient for nervous system malfunctions
Mathematical Relationships/Formulas

- Algorithm for converting binary coded decimal to pure binary
- Formula for computing an alarm limit
- Formula describing certain electromagnetic standing wave phenomena
- The Arrhenius equation
- Mathematical formula for hedging
- Managing a stable value protected life insurance policy by performing calculations and manipulating the results
- **Reducing the amount of calculations in known and established computations**
- Algorithm for determining the optimal number of visits by a business representative to a client
- **Algorithm for calculating parameters indicating an abnormal condition**
- Computing a price for the sale of a fixed income asset and generating a financial analysis output
How many software claims are “directed to” (do not “set forth or describe”) a concept similar to one identified as being abstract by the courts?

- Collecting and comparing known information
- Comparing new and stored information and using rules to identify options
- Using categories to organize, store and transmit information
- Data recognition and storage
- Processing loan information
- Using an algorithm for determining the optimal number of visits by a business representative to a client
- Reducing the amount of calculations in known and established computations
- Algorithm for calculating parameters indicating an abnormal condition
- Reducing the amount of calculations in known and established computations
- Algorithm for calculating parameters indicating an abnormal condition
USPTO Struggling to Establish Workable Framework for *Alice*

- How many software claims are “directed to” (do not “set forth or describe”) a concept similar to one identified as being abstract by the courts?
  - A. A few (< 25%)
  - B. Some (25-49%)
  - C. The majority (50-94%)
  - D. Nearly all or all (> 95%)
Step 2B – Does the claim as a whole amount to **significantly more** than the abstract idea?

- Any additional elements beyond abstract idea?
- If so, evaluate significance of additional elements (individually and in combination). Do additional elements, considered individually or in combination, provide “inventive concept”?
  - Generic computers performing generic computer functions insufficient
Limitations that may be enough to qualify as “significantly more” include

- **Improvements to another technology or technical field**
- **Improvements to the functioning of the computer itself**
- **Applying** the judicial exception with, or by use of, a particular machine
- Effecting a **transformation** or reduction of a particular article to a **different state** or thing
- Adding a specific limitation other than what is well-understood, routine and conventional in the field, or adding **unconventional** steps that confine the claim to a particular useful application
- Other meaningful limitations beyond generally **linking** the use of the judicial exception **to a particular technological environment**
PTO recent examples of diagnostic methods that are patent **eligible**:  

- Method of diagnosing autoimmune disease by detecting whether the patient’s body has a protein indicative of the disease using methods **that were not routinely or conventionally used to detect proteins**
- Method of diagnosing same disease through same detection as above but treating with antibody known already for treating the disease  
  - The combination of steps **amounts to more than** merely diagnosing the patient and instructing a doctor to generically “treat it”
  - The combinations of steps, **which is not routine and conventional**, ensures that patients will be accurately diagnosed and treated as opposed to misdiagnosed as having a different disease as was previously commonplace.
Alice and the USPTO Guidelines Have Had a Profound Effect on Prosecution

- We requested data pertaining to each PTO action issued since 10/1/2013 from LexisNexis® PatentAdvisor℠.
- We then binned data by date range.
- For each bin, we identified the fraction of actions that were allowances.
Alice and the USPTO Guidelines Have Had a Profound Effect on Prosecution

In some areas:

- We requested data pertaining to each PTO action issued since 10/1/2013 from LexisNexis® PatentAdvisor℠.
- We then binned data by date range and TC (sub-dividing TC 3600 into business-method AUs and other AUs).
- For each bin, we identified the fraction of actions that were allowances.

* 90% of OAs issued against business-method applications have a patent-eligibility rejection (as compared to about 10-25% in other computer-related areas).
Alice and the USPTO Guidelines Have Had a Profound Effect on Prosecution

- We requested data identifying the number of filings assigned to each of the identified classes since 1/1/2014 from the USPTO
- We then binned data by date range and generated filing counts
Alice and the USPTO Guidelines Have Had a Profound Effect on Prosecution

Comparison of 14 months before Alice to the 14 months following:

<table>
<thead>
<tr>
<th></th>
<th>101 Rejection?</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
<td>NOA</td>
</tr>
<tr>
<td><strong>Ecommerce Art Units</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before Alice</td>
<td>46.92%</td>
<td>34.18%</td>
<td>18.90%</td>
</tr>
<tr>
<td>After Alice</td>
<td>7.06%</td>
<td>88.06%</td>
<td>4.88%</td>
</tr>
<tr>
<td><strong>Other Art Units</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before Alice</td>
<td>61.74%</td>
<td>7.45%</td>
<td>30.81%</td>
</tr>
<tr>
<td>After Alice</td>
<td>57.13%</td>
<td>8.42%</td>
<td>34.44%</td>
</tr>
</tbody>
</table>

Alice and the USPTO Guidelines Have Had a Profound Effect on Prosecution

Section 101 Rejections and Allowance Rates by Art Unit:

<table>
<thead>
<tr>
<th>Class Title</th>
<th>Percent §101 Rejections</th>
<th>Percent Allowances</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ecommerce</td>
<td>All Others</td>
</tr>
<tr>
<td>BUSINESS METHODS</td>
<td>85%</td>
<td>53%</td>
</tr>
<tr>
<td>IMAGE ANALYSIS</td>
<td>52%</td>
<td>14%</td>
</tr>
<tr>
<td>VEHICLE NAVIGATION</td>
<td>40%</td>
<td>13%</td>
</tr>
<tr>
<td>INFORMATION SECURITY</td>
<td>56%</td>
<td>20%</td>
</tr>
<tr>
<td>DATA PROCESSING</td>
<td>55%</td>
<td>14%</td>
</tr>
<tr>
<td>SOFTWARE DEVELOPMENT</td>
<td>58%</td>
<td>16%</td>
</tr>
<tr>
<td>USER INTERFACES</td>
<td>74%</td>
<td>16%</td>
</tr>
<tr>
<td>DATABASES</td>
<td>76%</td>
<td>17%</td>
</tr>
<tr>
<td>REGISTERS</td>
<td>50%</td>
<td>3%</td>
</tr>
<tr>
<td>ARTIFICIAL INTELLIGENCE</td>
<td>100%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Alice Have Had a Profound Effect in Litigation

- Roughly through June 2016:
  - Federal Circuit: 38 out of 40 decision found software/computer-related claims as patent INELIGIBLE
  - District Court:
    - 66% (163 out of 247) of decisions found software/computer-related claims INELIGIBLE
    - 67% (106 out of 157) of motions to dismiss or judgment on the pleadings regarding software/computer-related claims are GRANTED
  - PTAB: 84% of covered business method petitions are instituted
    - if covered business methods petitions instituted, 100% cancelled

Alice and the USPTO Guidelines Have Had a Profound Effect on Prosecution

• Intermediate Takeaway
  • *Alice* has made it hard, if not impossible, to patent pure business methods
  • Patent prospects of other computer-based inventions have been virtually unchanged
  • Recommendation #1: Do not attempt to patent pure business methods
**Recommendation #1:** Do not attempt to patent pure business methods. Instead:

- Tie software innovation into hardware
- Explain why an invention is causing an underlying computer network or system architecture to change
  - Is storage space being allocated differently?
  - Are tasks being prioritized/queued differently?
  - Are/should security measures being changed?
  - Are new communication channels, with new devices, being established?
- Talk with the hardware people at the company
Let’s consider

1. A method for predicting a probability of an outcome of a workflow comprising:

   receiving at a computing device, data representing a workflow, a workflow comprising two or more work stages and one or more covariables in a time sequence signature, and each work stage having a historical probability of completion as a function of time to complete and having one or more stage states, said stage states including state outcomes of a workflow at completion;

   predicting, using a completion probability distribution (CPD) function, a probability of a completion of a workflow at a future time based on past and current work stages of the workflow;

   predicting, using a conditional success probability (CSP) function, a probability of a workflow success at a time of completion conditional on the time to completion, and the past and current work stages and related covariables; and

   producing a predicted probabilities of success at a sequence of future times by multiplying said predicted CPD with said predicted CSP,

   wherein one or more programmed processor units is configured to implement a model for said probabilities of success predicting.
Alice and the USPTO Guidelines Have Had a Profound Effect on Prosecution

• Do you think that an Examiner would find this claim to be patent eligible post-Alice?
  A. No way
  B. Some shot
  C. Most likely
  D. Definitely
Alice and the USPTO Guidelines Have Had a Profound Effect on Prosecution

ANSWERS:

• Examination of application was entirely post-Alice
• OA included 101 Rejection
• Examiner contended was an idea per se and claims did not amount to significantly more
What about the claim, as then amended:

1. A method for predicting a probability of an outcome of a workflow comprising:

   receiving at a computing device, data representing a workflow, a workflow comprising an evolution of two or more work stages and one or more covariables in a time sequence, and each work stage having a historical probability of completion as a function of time to complete and having one or more stage states, said stage states including state outcomes of a workflow at completion;

   receiving, at the computing device, an input data representing a target time in the future to completion, an age representing a time elapsed since a start of the workflow, a history of workflow stages and history values of related categorical or numerical covariables up to the age;

   applying, using the computer device, a geometric model to said received input data as a function of said future target time to predict a probability of a completion of a workflow at a future time based on past and current work stages of the workflow;

   applying, using the computer device, a linear logistic regression model to said received data to predict a probability that the workflow is a success at the future target time of completion given said probability of a completion of a workflow at the future target time, and conditional on the time to completion, and the past and current work stages and related covariables; and

   generating, via a user interface of said computer device, an output indicating probabilities of a successful outcome of said workflow at a sequence of future times by multiplying said predicted probability of a completion of a workflow at a future target time and said predicted probability that the completed workflow is a success at the future target time.
Alice and the USPTO Guidelines Have Had a Profound Effect on Prosecution

- Do you think that an Examiner would find this claim to be patent eligible post-Alice?
  A. No way
  B. Some shot
  C. Most likely
  D. Definitely
ANSWERS:

- Applicants had argued that:
  - Claims were significantly more than a mere predicting, in that the specific steps and model uses provides a forecast of whether a decision to complete a workflow will result in a successful outcome; and
  - A tangible and concrete result is produced (an output interface indication of a probability of a successful outcome)
- Examiner unconvinced
Now let’s consider another application:

1. A method for monitoring performance of equipment located in an automation environment, comprising:

   identifying a sequence of tasks performed by the equipment, wherein each task in the sequence is defined by a series of signals;

   for each task in the sequence:

   (a) collecting, using one or more processors, data pertaining to the series of signals;

   (b) determining a completion time based on the collected data using the one or more processors; and

   (c) determining, using the one or more processors, a difference between the determined completion time and a predetermined reference value indicative of an expected completion time;

repeating (a)- (c) for a plurality of repetitions of the sequence;

summing, over the plurality of repetitions of the sequence and using the one or more processors, at least some of the determined differences to calculate an accumulated variance value for each given task; and

selectively generating a predictive failure indication based on the accumulated variance values.
Alice and the USPTO Guidelines Have Had a Profound Effect on Prosecution

- Do you think that an Examiner would find this claim to be patent eligible post-Alice?
  A. No way
  B. Some shot
  C. Most likely
  D. Definitely
Alice and the USPTO Guidelines Have Had a Profound Effect on Prosecution

ANSWERS:

- Examination of application was entirely post-Alice
- Never had a 101 rejection
- Issued as a patent after one office action
Alice and the USPTO Guidelines Have Had a Profound Effect on Prosecution

1. A method for monitoring performance of equipment located in an automation environment, comprising:
   identifying a sequence of tasks performed by the equipment, wherein each task in the sequence is defined by a series of signals;
   for each task in the sequence:
   (a) collecting, using one or more processors, data pertaining to the series of signals;
   (b) determining a completion time based on the collected data using the one or more processors;
   (c) determining, using the one or more processors, a difference between the determined completion time and a predetermined reference value indicative of an expected completion time;
   repeating (a)-(c) for a plurality of repetitions of the sequence;
   summing, over the plurality of repetitions of the sequence and using the one or more processors, at least some of the determined differences to calculate an accumulated variance value for each given task;
   and
   selectively generating a predictive failure indication based on the accumulated variance values.

1. A method for predicting a probability of an outcome of a workflow comprising:
   receiving at a computing device, data representing a workflow, a workflow comprising an evolution of two or more work stages and one or more covariables in a time sequence, and each work stage having a historical probability of completion as a function of time to complete and having one or more stage states, said stage states including state outcomes of a workflow at completion;
   receiving, at the computing device, an input data representing a target time in the future to completion, an age representing a time elapsed since a start of the workflow, a history of workflow stages and history values of related categorical or numerical covariables up to the age;
   applying, using the computer device, a geometric model to said received input data as a function of said future target time to predict a probability of a completion of a workflow at a future time based on past and current work stages of the workflow;
   applying, using the computer device, a linear logistic regression model to said received data to predict a probability that the workflow is a success at the future target time of completion given said probability of a completion of a workflow at the future target time, and conditional on the time to completion, and the past and current work stages and related covariables; and
   generating, via a user interface of said computer device, an output indicating probabilities of a successful outcome of said workflow at a sequence of future times by multiplying said predicted probability of a completion of a workflow at a future target time and said predicted probability that the completed workflow is a success at the future target time.
Alice and the USPTO Guidelines Have Had a Profound Effect on Prosecution

* Data from LexisNexis® PatentAdvisor℠ and pertain to applications having had a significant action within last year
Which brings us to Recommendation #2:

- Differences of USPTO examiners’ examination approaches have become more evident after Alice
- **Recommendation #2: All examiners are not equal. Get to know your examiner (statistically).**
1. An exercise assisting system comprising:
   a display device including a display screen for displaying an image to a user;
   a comparison image storage unit configured to store a comparison image defined as an image of an exerciser performing a predetermined exercise;
   a comparison image display unit configured to display the comparison image stored in said comparison image storage unit on said display screen;
   a mirror image displaying means configured to display a mirror image of the user such that the mirror image is superimposed onto the comparison image;
   a characteristic amount extraction unit configured to detect a position of predetermined one or more sampling points of a body of the user and calculate a characteristic amount representing a posture of the user based on the position of the one or more sampling points;
   a posture estimation unit configured to compare the characteristic amount calculated by said characteristic amount extraction unit with a criterion amount representing a posture of the exerciser and perform estimation of a deviation between the posture of the user and the posture of the exerciser; and
   a presentation unit configured to give a result of the estimation performed by said posture estimation unit.
Case Study No. 3

• Do you think that an Examiner would find this claim to be patent eligible post-\textit{Alice}?
  
  A. No way
  B. Some shot
  C. Most likely
  D. Definitely
Case Study No. 3

• Do you think that an Examiner would find this claim to be patent eligible post-*Alice*?
  A. No way
  B. Some shot
  C. Most likely
  D. Definitely

• Examiner Statistics (based on data from applications having had significant event within past year):
  • 18% Allowance Rate
  • 45% of Non-Final OAs included 101 rejection

* Data from LexisNexis® PatentAdvisor℠
• Do you think that an Examiner would find this claim to be patent eligible post-*Alice*?
  A. No way
  B. Some shot
  C. Most likely
  D. Definitely

**ANSWER: 101 Rejection Issued**
1. An exercise assisting system comprising:

   a display device including a display screen for displaying an image to a user;

   a control device, implemented on a computer, that includes a comparison image storage unit configured to store a comparison image defined as an image of an exerciser performing a predetermined exercise[;], and a comparison image display unit configured to display the comparison image stored in said comparison image storage unit on said display screen;

   a mirror image displaying means configured to display a mirror image of the user such that the mirror image is superimposed onto the comparison image;

   said control device further including:

   an acquisition unit configured to acquire, from a distance image sensor for generating a distance image relating to the user, the distance image;

   a characteristic amount extraction unit configured to detect a position of predetermined one or more sampling points of a body of the user and calculate a characteristic amount representing a posture of the user based on the position of the one or more sampling points;

   a posture estimation unit configured to compare the characteristic amount calculated by said characteristic amount extraction unit with a criterion amount representing a posture of the exerciser and perform estimation of a deviation between the posture of the user and the posture of the exerciser; and

   a presentation unit configured to give a result of the estimation performed by said posture estimation unit, the characteristic amount representing a range of motion of a certain portion of the body of the use.
Case Study No. 3 – Part II

- Do you think that an Examiner would find this claim to be patent eligible post-*Alice*?
  
  A. No way  
  B. Some shot  
  C. Most likely  
  D. Definitely
Case Study No. 3 – Part II

• Do you think that an Examiner would find this claim to be patent eligible post-\textit{Alice}?
  A. No way
  B. Some shot
  C. Most likely
  D. Definitely

\textbf{ANSWER:} 101 Rejection Maintained
1. A method to count people, comprising:

determining an orientation of a head detected in a first frame, the first frame corresponding to a first time, the first time occurring after a second time corresponding to a second frame;

selecting a body region based on the orientation of the detected head;

obtaining first image data of the first frame at a location in the first frame corresponding to the selected body region;

comparing the first image data of the first frame to second image data of the second frame corresponding to the location via an image data comparison operation; and

incrementing a first count of persons when the first image data corresponds to the second image data.
Case Study No. 4

• Do you think that an Examiner would find this claim to be patent eligible post- *Alice*?
  A. No way
  B. Some shot
  C. Most likely
  D. Definitely
Case Study No. 4

• Do you think that an Examiner would find this claim to be patent eligible post-Alice?
  A. No way
  B. Some shot
  C. Most likely
  D. Definitely

• Examiner Statistics (based on data from applications having had significant event within past year):
  • 91% Allowance Rate
  • 39% of Non-Final OAs included 101 rejection

* Data from LexisNexis® PatentAdvisor℠
Case Study No. 4

- Do you think that an Examiner would find this claim to be patent eligible post-\textit{Alice}?
  
  A. No way  
  B. Some shot  
  C. Most likely  
  D. Definitely

\textbf{ANSWER: 101 Rejection Issued}
1. A method to count people, comprising:

determining, by executing an instruction with a processor, an orientation of a head detected in a first frame, the first frame corresponding to a first time, the first time occurring after a second time corresponding to a second frame;

selecting, by executing an instruction with the processor, a body region based on the orientation of the detected head;

obtaining, with the processor, first image data of the first frame at a location in the first frame corresponding to the selected body region;

comparing, with the processor, the first image data of the first frame to second image data of the second frame corresponding to the location via an image data comparison operation; and

incrementing, with the processor, a first count of persons when the first image data corresponds to the second image data.
Case Study No. 4 – Part II

• Do you think that an Examiner would find this claim to be patent eligible post-*Alice*?
  A. No way  
  B. Some shot  
  C. Most likely  
  D. Definitely
Do you think that an Examiner would find this claim to be patent eligible post-*Alice*?

A. No way
B. Some shot
C. Most likely
D. Definitely

**ANSWER:**

- 101 Rejection Withdrawn
- Application Allowed
1. A method, performed by a computer system, for displaying customized content on a display in a retail outlet, the method comprising:

detecting with a computer system that a customer is within a specified proximity of a display located in a retail outlet;

identifying with the computer system content to be displayed on the display;

identifying with the computer system one or more attributes of the customer;

customizing with the computer system the content to be displayed using the one or more attributes, wherein customizing the content to be displayed comprises including an avatar customized for the customer with the content; and

displaying the customized content from the computer system on the display while the customer is within the specified proximity of the display.
Case Study No. 5

- Do you think that an Examiner would find this claim to be patent eligible post-*Alice*?
  A. No way
  B. Some shot
  C. Most likely
  D. Definitely
Case Study No. 5

- Do you think that an Examiner would find this claim to be patent eligible post-\textit{Alice}?
  - A. No way
  - B. Some shot
  - C. Most likely
  - D. Definitely

- Examiner Statistics (based on data from applications having had significant event within past year):
  - 0\% Allowance Rate
  - 95\% of Non-Final OAs included 101 rejection

* Data from LexisNexis® PatentAdvisor℠
Case Study No. 5

• Do you think that an Examiner would find this claim to be patent eligible post-Alice?
  
  A. No way
  B. Some shot
  C. Most likely
  D. Definitely

ANSWER: 101 Rejection Issued
1. A method, performed by a computer system, for displaying customized content on a display in a retail outlet, the method comprising:

   utilizing a proximity sensor to detect a customer identification device to determine detecting with a computer system that a customer is within a specified proximity of a display located in a retail outlet, wherein the customer identification device is selected from a list consisting of: a cell phone, a mobile computing device, a user ID, a loyalty card, and a card magnetically encoded with data, and wherein the proximity sensor interacts with the customer identification device utilizing one method selected from a list consisting of: near field communication, Wi-Fi, GPS, Bluetooth, Infrared sensors, and a card magnetically encoded with data;

   transmitting customer location data from the proximity sensor to a computer system;

   identifying with the computer system content resident on a server in a non-transitory medium to be displayed on the display;

   identifying with the computer system one or more attributes of the customer;

   customizing with the computer system the content resident on the server to be displayed using the one or more attributes associated with the customer, wherein customizing the content to be displayed comprises including an avatar customized for the customer with the content comprising the steps of:; and
displaying the customized content from the computer system on the display while the customer is within the specified proximity of the display;

displaying content and depiction of an interactive avatar on a video display proximate a position near the customer in a retail environment;

receiving customer response data at the video display proximate to the customer to the content and the avatar, wherein response data is selected from a list consisting of: the customer interacts with the avatar, the customer fails to interact with the avatar, the customer follows a recommendation to purchase a product, the customer stops to view advertisement, the customer moves toward a display, the customer moves away from a display, the customer’s purchase history, preferences of the customer, identity of the customer, and the customer’s interactions with the avatar;

storing customer response data on a server in a non-transitory electronic storage medium;

utilizing the computer system to access and analyze the customer response data;

utilizing the computer system to optimize physical characteristics of the avatar over time based on the customer’s response to the avatar; and

storing the customer’s response data and optimized avatar on the server in a non-transitory electronic storage medium;
utilizing the computer system to access the customer’s response data and data related to the optimized avatar to facilitate the avatar acting as a guide for the customer through the retail outlet comprising:

accessing and utilizing data stored in the server in the non-transitory electronic storage medium with the computer system, wherein the data comprises: a floor plan of the retail outlet that identifies the location of physical barriers within the retail outlet, pathways through retail outlet, product location in the retail outlet, and customer location within the retail outlet;

utilizing the computer system and the customer response data to display the avatar traveling between sequential displays through the physical pathway to guide the customer to a desired location within the retail outlet consisting the steps of:

utilizing the computer system to facilitate the travel of the avatar between sequential displays by processing data selected from a list consisting of: data corresponding to the floor plan of the retail outlet, which identifies the location of the physical barriers within the retail outlet and a set of pathways that provide passage for the customer, through the retail outlet between each of the displays in the series of displays;

depicting the avatar movement between the sequential displays to guide the customer along aisles and other physical pathways through the retail outlet; and

utilizing the computer system to constrain the movement of the avatar to pathways available to the customer, prohibiting the avatar from jumping from aisle to aisle and passing through other physical barriers for the customer:
displaying the avatar providing verbal direction to customer as the avatar appears and then disappears on the sequential displays along the pathways;

utilizing the computer system to provide transitional content providing a realistic visual transition of the avatar from the first display to the second display comprising depicting the avatar passing behind an end of a wall on the first display in the direction of the second display, and subsequently depicting the avatar on the second display reemerging from an opposite end of the wall;

utilizing the computer system to process a request from the customer to the avatar at the first location to be guided to the second product in the retail outlet;

determining the shortest part from first location to second location in the retail outlet;

utilizing the avatar to guide the customer along a predetermined pathway to the product requested by the customer comprising:

utilizing the avatar to guide the customer on a shortest path from a first location in the retail outlet to a second location in the retail outlet; and

utilizing the avatar to provide the customer with audible directions along the pathway as the avatar appears and then disappears on the sequential displays along the pathway;

display avatar as moving between adjacent displays with kinetically consistent motion, wherein utilizing the computer system to calculate a speed of the avatar between the first display and the second display utilizing data comprising: current speed of the customer, average speed of the customer, and speed at which the avatar moved across the first display.
• Do you think that an Examiner would find this claim to be patent eligible post-\textit{Alice}?
  
  A. No way
  B. Some shot
  C. Most likely
  D. Definitely
Case Study No. 5 – Part II

• Do you think that an Examiner would find this claim to be patent eligible post-*Alice*?
  
  A. No way
  
  B. Some shot
  
  C. Most likely
  
  D. Definitely

ANSWER: 101 Rejection Maintained
Conclusions – Our Practice Tips

• Alice has changed prosecution
• Don’t shoot for the moon
  • Don’t claim pure business methods
  • Do tie inventions to hardware, networks, communication channels (client/competitor systems)
  • Do draft claims of a reasonable scope – the broader claims are, the more abstract they tend to be
• Get to know your examiner
  • Via statistics or interview
  • Amend/argue/abandon accordingly so as not to waste money, time or claim scope