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EXAMINER
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NGUYEN, TRAN N

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* MARK L. MORSCH, MICHAEL A. LANDIS,  
and BLAIR C. JENNINGS

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Appeal 2016-003171<sup>1</sup>  
Application 12/185,754  
Technology Center 3600

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Before: MURRIEL E. CRAWFORD, MICHAEL W. KIM, and  
PHILIP J. HOFFMANN, *Administrative Patent Judges*.

KIM, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal from the final rejection of claims 2–7, 21, 22, 24,  
and 25.<sup>2</sup> We have jurisdiction to review the case under 35 U.S.C. §§ 134  
and 6.

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<sup>1</sup> The Appellants assert the following: “The real party in interest is A-Life  
Medical, LLC, the assignee of record, which is a subsidiary of  
OptumInsight, which is a subsidiary of UnitedHealth Group.” Appeal Br. 4.

<sup>2</sup> Claims 1, 9, 11–18, 20, and 23 are withdrawn, and claims 8, 10, and 10 are  
cancelled. App. Br. 6.

The invention relates generally to “visualizing documentation and medical coding of a medical procedure.” Spec. ¶ 25.

Claim 2 is illustrative:

2. A computer implemented method comprising:
  - providing an anatomical diagram associated with a medical procedure, wherein the anatomical diagram includes a plurality of user selectable areas;
  - receiving a user selection indicative of two or more user selectable areas of the plurality of user selectable areas on the anatomical diagram at a computer processor;
  - if the two or more user selectable areas include a first user selectable area:
    - using a natural language processing computer program to generate a first free text description of the received user selection;
  - if the two or more user selectable areas do not include the first user selectable area:
    - using the natural language processing computer program to generate a second free text description of the received user selection;
  - using the first or second free text description to generate a procedural route for the medical procedure using the computer processor, the procedural route representing an anatomical path within a body of a patient; and
  - displaying on an electronic display the procedural route representing the anatomical path within the body of the patient on the anatomical diagram.

The Examiner rejected claims 2–7, 21, 22, 24, and 25 under 35 U.S.C. § 101 as being directed to ineligible subject matter in the form of an abstract idea.

We REVERSE.

## ANALYSIS

We are persuaded by the Appellants' argument that the Examiner erred in asserting that the claims do not recite patent-eligible subject matter, because the Examiner has not shown adequately that "generation of free text descriptions using natural language processing, which are used to generate an anatomical path for display on a graphical user interface" is not "significantly more" in the context of the claimed invention. Appeal Br. 16–17.

Independent claim 2 is directed to receiving user selection of a spatial area from an image of anatomy, using computerized natural language processing to generate a text description of the selected anatomy area(s), and using the generated text to identify an anatomical path for a medical procedure in the anatomy.

Setting aside the use of computerized tools, we agree with the Examiner that the method is directed to an abstract idea, which the Examiner articulates as "a method of processing a user's selection on an anatomical image," which is a "method of organizing human activities." Final Act. 3. A physician commonly views an x-ray, or other medical image of anatomy, and plots a course for an invasive procedure, such as the introduction of a catheter to the vascular system of a person, using the imagery and mental thought, guided by extensive education and experience, to select the path to be used for the procedure. To the extent that the path guides the medical procedure, it is a method to organize human activities related to the procedure.

We disagree with the Examiner's conclusion on the second step of the *Alice* analysis, however, which requires that we assess whether the

additional elements transform the nature of the claim into a patent-eligible application of the abstract idea. *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S.Ct. 2347, 2355 (2014). This is a search for an “inventive concept”—an element or combination of elements sufficient to ensure that the claim amounts to “significantly more” than the abstract idea itself. *Id.*

Independent claim 2 recites “using a natural language processing computer program to generate a first free text description of the received user selection.” The Examiner finds the method is “deployed on generic hardware” (Final Act. 3) and “the computer appears to perform only generic functionality that is well known in the art, e.g. processing data” (Answer 6).

The Specification, however, refers to “natural language processing (NLP) engine 120,” and that “the NLP engine 120 can be substantially as described in US Patent 6,915,254 entitled ‘Automatically Assigning Medical Codes Using Natural Language Processing’ [hereinafter “the ’254 patent”], the entire contents of which are incorporated by reference.” Spec. ¶ 26. Portions of the ’254 patent describe that a “natural language processor” is used “to code diagnoses, procedures, and evaluation and management (EM) level” from physician notes. ’254 patent, 3:34–37. The Specification further describes the following:

The NLP engine 120 assigns medical codes from a narrative text document (medical documentations or patient record) associated with a surgical procedure. The NLP engine 120 is designed to recognize, extract, and codify surgical procedures (e.g., catheterization procedures, including the specific catheter route) by accessing the database of vascular anatomy data 142.

Spec. ¶ 28.

Given the above disclosures, the Examiner has not shown adequately, either through evidence or analysis, that the reliance on natural language processing capability, to generate text from a selection of an area in an image, as claimed, involves a general purpose computer performing well-known generic functionality, rather than being a “particular machine” that is the result of implementing specific, non-generic computer functions. *See Bilski v. Kappos*, 561 U.S. 593, 601 (2010).

In addition, although a physician may view medical imagery and determine a “procedural route representing the anatomical path within the body of the patient,” as claimed, the Examiner does not establish sufficiently that this method of organizing the human activity of the procedure involves first converting a selected area of anatomy image to text, and then converting text to a path, as claimed. For these reasons, the Examiner has not shown adequately that the invocation of a natural language processing computer program to use a selected image area to create text, that is then used to determine a spatial path within the body of a patient, does not represent “significantly more” than the abstract idea the Examiner determined the claim is directed to.

For this reason, we do not sustain the rejection of claim 2 as abstract under 35 U.S.C. § 101, nor of dependent claims 3–7, 21, 22, 24, and 25 that depend from claim 2.

#### DECISION

We REVERSE the rejection of claims 2–7, 21, 22, 24, and 25 under 35 U.S.C. § 101.

REVERSED