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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 14/990,540 | 01/07/2016 | Nikhil Bojja | MZI-028 | 6882 |
| 142528 | 7590 | 01/23/2020 | EXAMINER | |
| GOODWIN PROCTER LLP PATENT ADMINISTRATOR 100 Northern Avenue BOSTON, MA 02210 | | | SERROU, ABDELALI | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2659 | |
| | | | NOTIFICATION DATE | DELIVERY MODE |
| | | | 01/23/2020 | ELECTRONIC |

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte NIKHIL BOJJA, SHIVASANKARI KANNAN
and PIDONG WANG

Appeal 2018-006244
Application 14/990,540
Technology Center 2600

Before JEAN R. HOMERE, ERIC B. CHEN, and
JAMES B. ARPIN, *Administrative Patent Judges*.

HOMERE, *Administrative Patent Judge*.

DECISION ON APPEAL

I. STATEMENT OF THE CASE¹

Pursuant to 35 U.S.C. § 134(a), Appellant appeals from the Examiner's decision to reject claims 1–30.² Appeal Br. 5. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

¹ We refer to the Specification, filed January 7, 2016 (“Spec.”); the Final Office Action, mailed August 17, 2017 (“Final Act.”); the Appeal Brief, filed December 18, 2017 (“Appeal Br.”); and the Examiner’s Answer, mailed March 27, 2018 (“Ans.”).

² We use the word “Appellant” to refer to “Applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies Machine Zone, Inc. as the real party-in-interest. Appeal Br. 2.

II. CLAIMED SUBJECT MATTER

According to Appellant, the claimed subject matter relates to a method and server system (122) for automatically translating between different languages online chat messages transmitted by a plurality of users (102) during a gaming session over a computer network (113). Spec. 1:1–4, 4:1–15, Fig. 1. In particular, upon receiving a chat message in a first language from user (102) via chat host (134), server system (122) utilizes trained statistical classifier (136) to identify a named entity in each received word string by substituting a respective token for each letter thereof. *Id.* at 1:22–2: 3, 8:1–14. Subsequently, server system (122) utilizes translation manager (135) to translate the received word strings from a first language to a second language while preserving the identified name of entities in the first language. *Id.* at 5:10–17.

Of the rejected claims, claims 1, 12, and 23 are independent. Claim 1, reproduced below with disputed limitation emphasized in *italics*, is illustrative of the claimed subject matter:

1. A method comprising:
 - performing by one or more computers:
 - training a statistical classifier to identify named entities using training data comprising a plurality of features, wherein one of the features is a word shape feature that comprises *substituting a respective token for each letter of a respective word, the respective token indicating that each letter of the respective word is one of an upper case letter, a lower case letter, and a digit*;
 - receiving a plurality of word strings in a first language, each received word string comprising a plurality of words;
 - identifying at least one named entity in each received word string using the trained statistical classifier; and

translating the received word strings from the first language to a second language, wherein translating comprises preserving the identified at least one named entity in the first language.

Appeal Br. 11 (Claims Appendix).

Figure 1, discussed above and reproduced below, is useful for understanding the claimed invention:

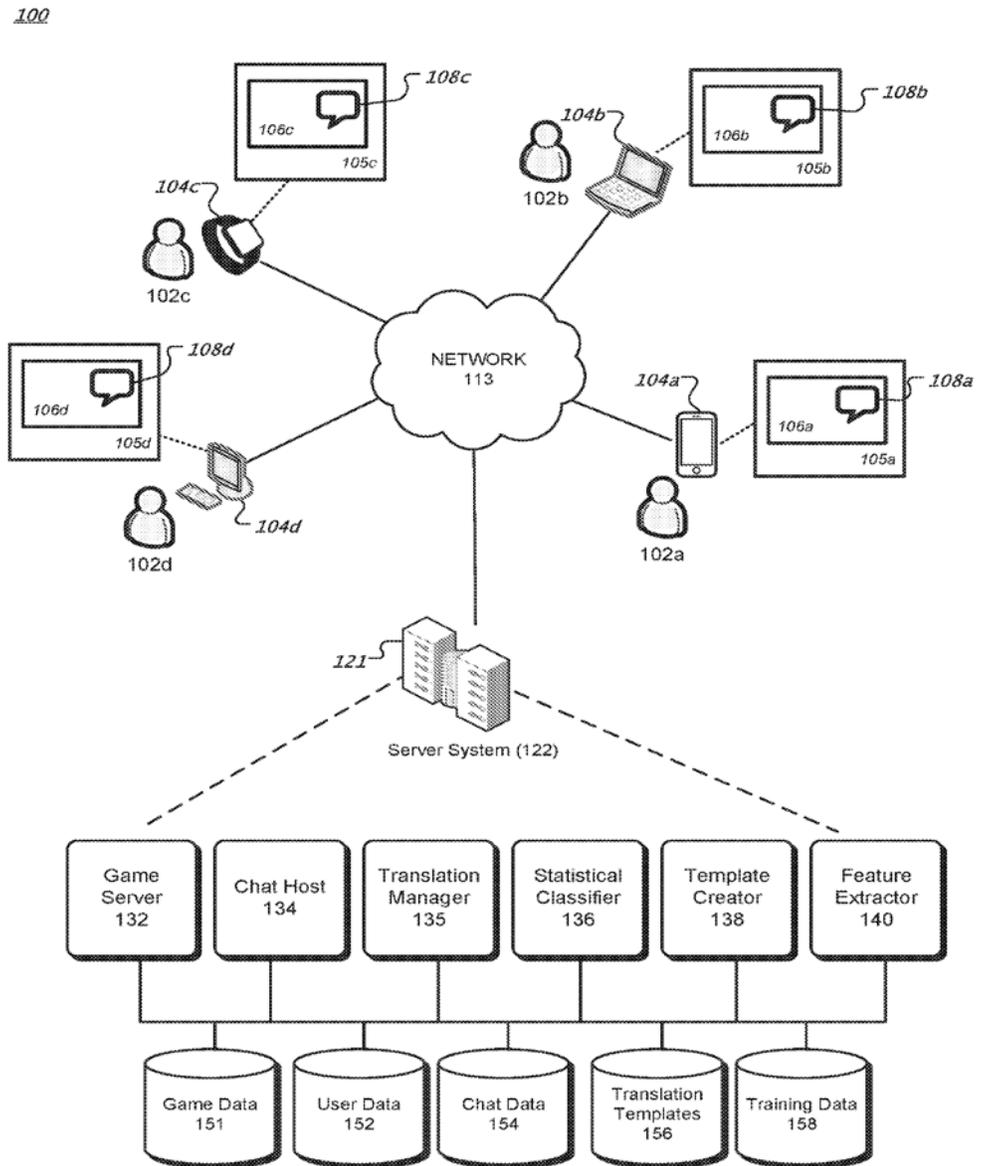


Figure 1 illustrates an example system for online games. *Id.* at 3:17.

III. REFERENCES

The Examiner relies upon the following references.³

| Name | Number | Filed | Publ'd/Issued |
|-------------|--------------------|--------------|---------------|
| Ait-Mokhtar | US 2012/0290288 A1 | May 9, 2011 | Nov. 15, 2012 |
| Nikoulina | US 2014/0163951 A1 | Dec. 7, 2012 | June 12, 2014 |
| Wang | US 8,886,518 B1 | Aug. 7, 2006 | Nov. 11, 2014 |

IV. REJECTIONS

The Examiner rejects the claims as follows:

1. Claims 1–10, 12–21, and 23–30 are rejected under 35 U.S.C. 103 as unpatentable over the combined teachings of Nikoulina and Ait-Mokhtar. Final Act. 4–8.
2. Claims 11 and 22 are rejected under 35 U.S.C. 103 as unpatentable over the combined teachings of Nikoulina, Ait-Mokhtar and Wang. *Id.* at 8.

V. ANALYSIS

Appellant argues that the Examiner erred in finding that the combined teachings of Nikoulina and Ait-Mokhtar teach or suggest “substituting a respective token for each letter of a respective word, the respective token indicating that each letter of the respective word is one of an upper case letter, a lower case letter, and a digit,” as recited in independent claim 1. Appeal Br. 5. In particular, Appellant argues that Ait-Mokhtar’s disclosure of a parser segmenting an input document into a list of items including margin, upper/lower case letter, punctuation, a token (e.g., a letter, number, hyphen) does not cure the admitted deficiencies of the Nikoulina. *Id.* at 6–7

³ All reference citations are to the first named inventor only.

(citing Ait-Mokhtar ¶¶ 17, 22, 25, 45). According to Appellant, “Ait-Mokhtar describes tokens for ‘list item labels’ and ‘sub-list item labels’ rather than tokens as surrogates or replacements for a word shape features of named entities.” *Id.* at 8 (citing Ait-Mokhtar ¶ 77). In other words, Appellant argues that Ait-Mokhtar discloses using a token for grouping item labels in a list as opposed to substituting a token for each letter of a respective word associated with a corresponding entity. *Id.*

Appellant’s argument is persuasive of reversible Examiner error. As a preliminary matter, we note it is undisputed that Nikoulina teaches translating an input text message from one language to another while preserving an identified name entity in the first language. Ans. 2; Appeal Br. 5 (citing Nikoulina ¶ 15). We further note, the Examiner admits that Nikoulina does not teach substituting a token for each letter of a word to identify a received word as a named entity, and, therefore, relies upon Ait-Mokhtar for the disputed limitation as follows:

The examiner notes that the prior art Ait-Mokhtar teaches an information extraction system that identifies named entities within a received text and recognizes their relations with other parts of the text ([0003], [0032]). The information extraction system assigns to every tokens ([0022], defines a token as a letter) of the text typographical case labels (upper case or lower case) and digit label ([0025], [0045]), and uses the text typographical case labels (upper case or lower case) and digit label to identify named entities ([0087]). Therefore, it would have been obvious at the time the application was filed to use Ait-Mokhtar's feature of assigning typographical case labels (upper case or lower case) and digit label to every tokens, and use it with the training system of Nikoulina to train the claimed statistical classifier to recognize named entities using the claimed word feature that comprises a respective token for each letter of a respective word, the respective token indicating that each letter of the respective word is one of an upper case letter, a lower case letter, and a digit.

Ans. 3–4.

Although Ait-Mokhtar discloses a token including an upper/lower case letter, a number, or a hyphen, we agree with Appellant that the Examiner has not established a sufficient reasoning with some rational underpinning to justify the proposed combination of the teachings of the applied references. Appeal Br. 4–5. As correctly argued by Appellant, the cited portions of Ait-Mokhtar are concerned with using tokens as potential starters or labels for list items. *Id.* at 8. That is, Ait Mokhtar’s tokens identify *whether* the first character in a list of items is an upper/lower case letter, a verb, a punctuation, a hyphen, etc. Ait-Mokhtar ¶¶ 22–25. The record before us, however, is devoid of any suggestion to substitute Ait-Mokhtar’s token for each letter in a received word to identify the word as a named entity. Accordingly, we agree with Appellant that the proposed combination falls short of teaching or suggesting the disputed limitation.

Because Appellant has shown at least one reversible error in the rejection of claim 1, we need not reach Appellant’s remaining arguments. Accordingly, we do not sustain the Examiner’s obviousness rejection of independent claims 1, 12, and 23. Likewise, we do not sustain the rejections of claims 2–11, 13–22, and 24–30, which recite the disputed limitation.

VI. CONCLUSION

We reverse the Examiner's obviousness rejections of claims 1–30 under 35 U.S.C. § 103.

DECISION SUMMARY

In summary:

| Claims Rejected | 35 U.S.C. § | References | Affirmed | Reversed |
|------------------------|--------------------|------------------------------|-----------------|--------------------|
| 1–10, 12–21, 23–30 | 103 | Nikoulina, Ait-Mokhtar | | 1–10, 12–21, 23–30 |
| 11, 22 | 103 | Nikoulina, Ait-Mokhtar, Wang | | 11, 22 |
| Overall Outcome | | | | 1–30 |

REVERSED